INTERNATIONALIZATION MOTIVES AND RISK ATTITUDES: A COMPARATIVE STUDY OF CHINESE MINING SOEs AND NSOEs

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Dedication

I wish to dedicate this thesis to my mother, Mrs Liu Xiang, for all her support over the years, for my education and life. I also wish to dedicate this thesis to my son, Jade, who has inspired me to be a mum of whom he is proud.

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Abstract

China has experienced consistent economic growth since the instigation of its 'open-door' policies in 1978, which aimed to reform the domestic industrial and economic structure and bring China more in line with advanced economies that typically consume large quantities of minerals and energy. The outcome of these policies is that China is now both the largest user and one of the most important suppliers of foreign direct investment (FDI). However, despite considerable research into the foreign direct investment undertaken by Chinese multinational enterprises, our understanding of how ownership influences the internationalization strategies of Chinese firms is limited.

This research focused on State-Owned Enterprises (SOEs) and Non-State-Owned Enterprises (NSOEs) from China's mining sector, a significant contributor to China's outward foreign direct investment (OFDI). Five key issues were explored, (i) why do Chinese mining SOEs and NSOEs engage in OFDI - to acquire assets or exploit assets, (ii) what are Chinese mining SOEs and NSOEs' motivations to conduct OFDI overseas, (iii) how the type of ownership influences its attitude towards risk, (vi) why the type of ownership influences its attitude towards risk, and, (v) How do the CEO/ top executive influence Chinese mining SOEs and NSOEs' internationalization strategies?

The exploratory, multiple-case study methodology adopted examined three SOEs and three NSOEs all selected from the sub-mining industries within China's mining sector. Personal interviews with CEOs and senior managers utilized open-ended questions focusing on each firm's motivations and attitudes towards risk in regard to their internationalization.

The findings reveal that a mining firm's ownership type affects its internationalization strategies and results in 'domestic comparative ownership advantages/disadvantages' (DCOA/DCOD). Chinese mining SOEs internationalize to further exploit DCOA, while mining NSOEs internationalize to both redress their DCOD and exploit their limited DCOA. The cross-case analysis indicated that SOEs and NSOEs have different attitudes towards the risks of OFDI. SOEs are more likely to engage in paradoxically risky behaviour, while NSOEs are more likely to adopt a more conservative risk attitude. These attitudes are influenced by the characteristics of each firm's CEO.

The thesis extends the internationalization literature by identifying potential qualifications and consistencies with existing paradigms. It highlights the importance of incorporating firm ownership types when evaluating Chinese firm internationalization. Finally, it provides theoretical and practical guidelines about the strategies and negotiation skills required to deal with Chinese mining SOEs and NSOEs.

Statement

This thesis is substantially my own work and has not been submitted for a higher degree to any other university or institution. I affirm that, to the best of my knowledge, the thesis contains no material previously published or written by another person, except the references in the thesis utilised. This research is approved by the Ethics Committee of Macquarie University, Australia in April 2010 (Reference: 5201000588D).This approval of project is guiding by the National Statement on Ethical Conduct in Human Research (2007).

Signed: _____

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At this point of reflection upon my four years of work, it's very clear that this PhD has been an inspiring journey and an exciting starting point in my academic life. I regard this hard work as a mirror in which to recognize myself. I see myself as a life-time learner, but this particular learning experience will remain the gem for me forever.

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Abbreviations and Acronyms

ASEAN	Association of Southeast Asian Nations
CADF	China Africa Development Fund (*zhong fei ji jin*, 中非基金)
CBRC	China Banking Regulatory Commission (zhong guo yin jian hui, 中国银监会)
CSRC	China Securities Regulatory Commission (zhong guo zheng jian hui, 中国证监会)
CIRC	China Insurance Regulatory Commission (zhong guo bao jian hui, 中国保监会)
CIC	China Investment Corporation
CIS	Commonwealth of Independent States
CMEX-TJ	China Mining Exchange (Tianjing)
CMIA	Chinese Mining Industries Associations (various associations)
CNOOC	China National Offshore Oil Corporation
EIBC	Export-Import Bank of China
FDI	Foreign direct investment
FIE	Foreign-invested enterprise
JVC	Joint venture corporations
OFDI	Outward foreign direct investment
PBC	People's Bank of China (*zhong guo ren min yin hang*, 中国人民银行)
PCD	Provincial Commerce Departments (*di fang shang wu bu*, 地方商务部)
IFDI	Inward foreign direct investment
LSASAC	Local State-owned Assets Supervision and Administration Commission (*di fang guo zi wei*, 中国国有资产监督地方委员会 (地方国资委)
LSAMA	Local State-owned Assets Management Authorities
MOF	Ministry of Finance (*cai zheng bu*, 财政部)
MOFCOM	Chinese Ministry of Commerce (shang wu bu, 商务部)
MFA	Ministry for Foreign Affairs (wai jiao bu, 外交部)
M&A	Merger and acquisition
NBS	National Bureau of Statistics of China (zhong guo guo jia tong ji ju, 中国国家统计局)

NDRC	National Development and Reform Commission (*guo jia fa gai wei*, 国家发改委)
SAFE	State Administration of Foreign Exchange (guo jia wai hui guan li ju, 国家外汇管理局)
SASAC	State-owned Assets Supervision and Administration Commission (*guo zi wei*, 中国国有资产监督委员会 (国资委))
SAIC	State Administration for Industry & Commerce of China
SPC	State Planning Commission (*guo jia ji wei*, 国家计委)
MOFT	Ministry of Foreign Trade (*dui wai jing yi mao yi bu*, 对外经济贸易部)
MOFTEC	Ministry of Foreign Trade and Economic Cooperation (*dui wai jing yi mao yi he zuo bu*, 对外经济贸易合作部)
MIIT	Ministry of Industry and Information Technology (*gong ye he xin xi hua bu*, 工业和信息化部)
MLR	Ministry of Land and Resources (*guo tu zi yuan bu*, 国土资源部)
GAC	General Administration of Customs (*hai guan zong shu*, 海关总署)
GACI	General Administration of Commerce, Industry (gong shang zong ju, 工商总局)
GAQI	General Administration of quality inspection (zhi jian zong ju, 质检总局)

Key Operational Definitions

China: China indicates mainland China only in this research. Hong Kong, Macau, and Taiwan are excluded.

OFDI: OFDI is outward foreign direct investment. Investments in shares or other financial instruments are not counted as OFDI in this research.

EMNEs: Emerging multinational enterprises from emerging countries such as China, India, and Brazil.

Extractive industries: Extractive industries include oil, gas, coal and minerals. This research concentrates on minerals, but the general principles apply across the sector.

Mining industries/sector: Mining industries/sector include(s) mineral exploration, mining, refining, smelting, processing, producing, sales in different sub-mining industries (e.g., iron and steel, gold, non-ferrous, coal as major sub-mining industries).

Non-ferrous metals: The most commonly used non-ferrous metals are aluminum, copper, lead, zinc, nickel, titanium, cobalt, chromium and precious metals such as gold and silver (World Energy Council, 2008).

Chinese SOEs: Chinese State-owned enterprises. The state-owned equity is over 50% of the ownership is taken as SOEs in this research.

Chinese NSOEs: Chinese non-state-owned enterprises, interchange with the concept of 'non-public sectors' in this research. Many studies treated it equivalent to 'private-owned enterprises' (POEs). In this study, it refers to all enterprises excluding the previous defined SOEs.

***Yi ba shou*:** The most powerful actor in a Chinese firm. In this study, *'yi ba shou'* is used as substitute as 'CEO', ignoring its actual title of this top executive.

Chapter 1: Introduction

1.1. Research background

Since the early 1980s, China has shown stunning economic growth as it changed from an 'open door' to a 'go global' policy. Since China adopted its 'go global' policy in 2001, the Chinese outward foreign direct investment[1] (OFDI) flows have grown rapidly, reaching US$84 billion in 2012 (Sauvant, 2013). By 2012, China was both the largest user and one of the most important suppliers of foreign direct investment (Qiang, 2013). The country's economic reforms of the past 30 years have brought China more into line with Western countries, and their basic common feature: consuming large quantities of minerals and energy. Internationalization is one of the most important strategies for firms seeking to achieve sustainable growth (Zeng et al., 2012).

Recent international business (IB) studies have highlighted how new players among the emerging multinational enterprises (EMNEs) like China are undertaking OFDI. These new players have undertaken some of the world's largest OFDI deals in recent years (KPMG & SCSC, 2012). As China has a unique history and culture, both scholars and practitioners have been interested in how firms approach the international stage. It is of interest to examine the emerging trends, motivations, and sources of strength or ownership advantages to these EMNEs, in terms of the theory of internationalization of firms (Kumar & Chadha, 2009). Much of the research into EMNEs has centred on the internationalization of China's manufacturing sector, but a limited number of studies have assessed the motives and characteristics of OFDI from its mining sector. The mining sector contributes significantly to China's total OFDI; between 2004 and 2011, mining industries accounted for 27.35% of China's OFDI flow and 23.77% of its OFDI stock (MOFCOM et al., 2006, 2007, 2008, 2009, 2010, 2011, 2012). In particular, the Chinese mining industry is an important sector that warrants study for several reasons. First, Chinese OFDI is likely to continue to increase, since China's huge foreign exchange reserves are an increasing source of mobile capital and are a key part of

1 Outward foreign direct investment (OFDI) means that investment in, controlling and managing value-added activities in other countries (Peng, 2013).

China's official government policy (Salidjanova, 2011). This is therefore an ongoing and evolving area of research. Second, the epicentre of the mining industry has shifted to China, led by a fast-growing GDP, 'world factory production' and huge domestic consumption. Third, Chinese mining firms have attracted prominent acquisitions in recent years involving EMNEs, such as the unsuccessful acquisition of Rio Tinto by Chalco and the successful acquisition of Felix Resources by Yanzhou Coal Mines, among others. Examining the Chinese mining firms' internationalization strategies can highlight possible theoretical improvements and identify managerial implications likely to result from the growth and development of Chinese OFDI.

Most previous IB researchers have focused on the Chinese state-owned-enterprises (SOEs), due to their dominant proportion of the country's OFDI. OFDI from Chinese non-state-owned-enterprises (NSOEs) is a relatively new phenomenon. This situation also reflects the continuing support of home institutions and is not just a result of policy liberalization. Lack of academic research into the development induced by the recent Chinese firms' internationalization[2] developments meant that a comparative study would be more meaningful and produce more comprehensive findings than an investigation of SOEs alone. The numbers of NSOEs and the scale of SOEs from China, both in general and from mining industries, continue to expand.

1.2. Research objectives

China's OFDI investments provide remarkable stories. This research was motived by three key issues. First, China's recent OFDI has been heavily concentrated in the mining sector. Mineral resources are important for both China's national strategic planning and the country's long-term sustainable development. Second, the existing IB literature is

2 One view of internationalization considers it to be a pattern of investment in foreign markets explained by rational economic analysis of internalization, ownership, and location advantages (Dunning 1988). A second view is that internationalizations an ongoing process of evolution (Melin 1992) whereby the firm increases its international involvement as a function of increased knowledge and market commitment (Johanson & Vahlne 1977). **Please note that in this thesis, OFDI and 'internationalization' will be used interchangeable.**

primarily derived from western firms' experience, so this research aimed for greater understanding of whether the IB literature can sufficiently explain how Chinese mining firms internationalize. Third, the internationalization of Chinese NSOEs is a recent development. This research also aimed to investigate whether this new business surge was different from the internationalization undertaken by Chinese SOEs.

Several previous studies have concentrated on Chinese NSOEs or private owned enterprises (POEs) when investigating how internationalization actually works for Chinese firms (Liang et al., 2012; Lu et al., 2011; Ning & Sutherland, 2012; Ramasamy et al., 2012; Wei, 2011). Other research has focused solely on SOEs (Buckley, 2008; Buckley et al., 2008a; Buckley et al., 2007; Buckley et al., 2008b; Frost, 2004; Gao et al., 2010b; Hu & Leung, 2012; Hu et al., 2013; Ip, 2003; Jing et al., 2008; Lin & Germain, 2003; Nolan & Zhang, 2002; Voss et al., 2008; Wang, 2002). The broad purpose of this research is to investigate whether any differences in the internationalization strategies of Chinese mining SOEs and NSOEs are a result of different types of ownership. More specifically, the research objective is to direct a more integrated focus on the motivations and risk attitudes of Chinese SOE and NSOE mining firms.

Opinion is divided into two groups. Some researchers assert that the motives and characteristics of Chinese OFDI fall within established theories (Athreye & Kapur, 2009; Bellabona & Spigarelli, 2007; Deng, 2003, 2004; Kang & Jiang, 2012; Lu et al., 2011; Luo & Tung, 2007; Mathews, 2002, 2006; Wang, 2002; Witt & Lewin, 2007; Wu & Chen, 2001). In particular, Verbeke and Kano (2012) have presented a paper titled that 'No new theory is needed to study MNEs from emerging economies'. Others who have challenged the relevance of established theories, highlighting that OFDI from China is distinctive and stems from firms not using their ownership advantages to exploit assets abroad, but to redress ownership disadvantages by augmenting assets overseas (Buckley, 2008; Child & Rodrigues, 2005; Deng, 2004; Wang, 2002). Specifically, the idea that FDI enables firms to exploit their existing firm-specific assets (FSAs) or ownership advantage as an explanation for OFDI has limited foundation when analyzing the internationalization activities of firms from emerging countries like China, since these firms may have only limited ownership advantages to exploit (Child

& Rodrigues, 2005; Luo & Tung, 2007; Mathews, 2002, 2006). Despite previous studies identifying various ownership advantages, there is a paucity of research into how internationalization produces 'ownership advantages' to firms with different types of ownership.

1.3. Thesis structure

This chapter has described the research background, objectives of the research, and the thesis structure. Figure 1 illustrates the structure of this thesis which consists of seven chapters.

Figure 1 Structure and organization of the thesis

Chapter 1	Introduction
Chapter 2	Chinese OFDI and mining SOEs and NSOEs
Chapter 3	EMNEs' OFDI and Chinese firms' internationalization
Chapter 4	Research methodology and data collection
Chapter 5	Individual case study firms
Chapter 6	Discussion and key findings
Chapter 7	Concluding remarks

Chapter 2 examines the Chinese OFDI and key players – state-owned enterprises (SOEs) and non-state-owned enterprises (NSOEs) – in the mining sector. This chapter also reviews the significance of the mining industry in China's OFDI. An overview of Chinese firms' OFDI is introduced from both SOE and NSOE perspectives, and the chapter then discusses the Chinese mining industry's development, trend and internationalization status. Finally, it reviews the Chinese administrative bodies in general and in more detail for SOE and NSOE mining firms.

Chapter 3 reviews the literature relevant to the conceptual framework – the 'strategic tripod model' of firms, emphasizing three dimensions: the resource-based view, the industry-based view and the institution-based view. It highlights the firm-level internationalization theories, and recent studies of the Chinese OFDI. It focuses on the relevance of these theories not just to the Chinese experience, but more specifically to

the Chinese mining industry. The final part of the chapter details and explains the main research question, and the five subsidiary research questions. These questions were based on the literature and were developed to guide the primary data collection.

Chapter 4 describes the research methodology and data collection. This research used a qualitative multiple case study approach, which emphasizes the 'how' and 'why' dimensions of the research question. Two sets of semi-structured questionnaire were used to conduct the face-to-face interviews with CEO-level senior managers and functional level management. Two Chinese mining firms were interviewed as a pilot study, and a further three Chinese mining SOEs and three NSOEs participated in the main data collection. The chapter provides a detailed explanation of how the interviewees were selected and the interviews were conducted across multiple international locations.

Chapter 5 provides, for each interview case study, the firm overview, international development, motivations, institutional factors, risk attitudes, market entry mode choice, and a brief discussion. The cases are presented in pairs of one SOE and one NSOE from the three pre-defined sub-mining industries.

Chapter 6 discusses and cross analyses the cases between the Chinese mining SOEs and NSOEs, and highlights the findings from these comparisons. The results show that the motivations, attitudes towards risk and entry mode choice are different for the SOEs and NSOE, due to the combined influences of the resource-based view, industry-based view and the institution-based view.

The final chapter, Chapter 7, presents the contribution to the literature, managerial implications, limitations of current research and future research directions.

Chapter 2: Chinese OFDI and mining SOEs & NSOEs

2.1. Introduction

This chapter highlights the importance of outward foreign direct investment (OFDI) in China's economic development in the context of the two major types of firms in China's mining sector: SOEs and NSOEs. Section 2.2 provides an overview of China's outward foreign direct investment (OFDI) development since its 'open door' policy was initiated. It highlights the outstanding volume of OFDI from China in the past decade and the significance of the mining industry's contribution. It then discusses the historical development of the Chinese mining firms.

Section 2.3 focuses on the Chinese mining sector and mining firms' OFDI. It gives a historical perspective of the Chinese mining sector in the global era, and examines recent trends in this industry. It discusses the characteristics and OFDI trends of Chinese SOE and NSOE mining firms, and provides a brief overview of the key sub-mining industries. Finally, it describes the administrative system for Chinese mining OFDI and the hierarchical levels in the firms' internationalization process. The chapter ends with a brief summary in Section 2.4.

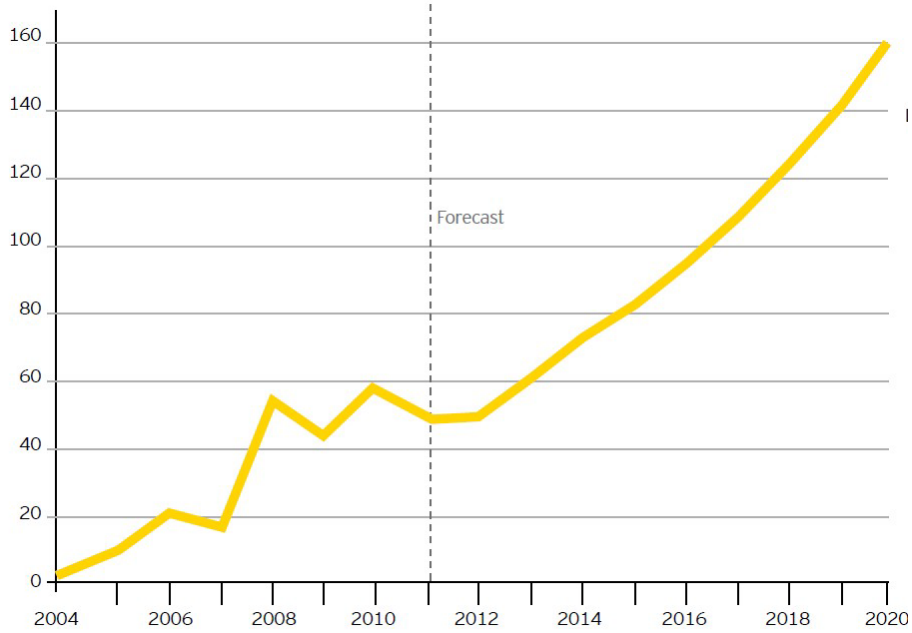
2.2. China's OFDI and Chinese mining industry

2.2.1. China's OFDI trend

China has experienced consistent economic growth since the instigation of the 'open-door' policies in 1978, which aimed to reform the domestic industrial and economic structure. These reforms have brought China's economy, its industries and its firms more into line with the global economy, particularly since the 1990s. In 2011, China's economy, with a nominal GDP of US$7.2 trillion, surpassed that of Japan, making China the world's second-largest economy after the US (UNCTAD, 2012). The Economist Intelligence Unit predicts that the Chinese economy will become the biggest in the world in 2018; the country has not held this position since around the 1870s (Ernst&Young, 2012). China was the third-largest investor in 2012, after the United

States and Japan (UNCTAD, 2013b). Also in 2011, Chinese OFDI net flows were US$74.65 billion, with an expected target of US$ 150 billion by 2015 (MOFCOM et al., 2012; Reuters, 2012). Figure 2 shows how the OFDI by Chinese firms is expected to sharply increase until 2020 (Ernst&Young, 2012).

Figure 2 Expected increase in Chinese firms' OFDI



Source: (Ernst&Young, 2012)

Shown: OFDI, US$3billion

The above figures highlight the history of OFDI from China is short but spectacular (Liu et al., 2005; Rosen & Hanemann, 2009; Rui & Yip, 2008; Voss et al., 2008). Despite its late start, China has evolved from a position of marginal relevance for OFDI to being the largest investor among emerging countries (Voss et al., 2008; Yang et al., 2009). In terms of OFDI flows, China was the second-largest source country in 2012 (UNCTAD, 2013b). Figure 3 displays the top 20 outward FDI economies between 2011 and 2012, globally.

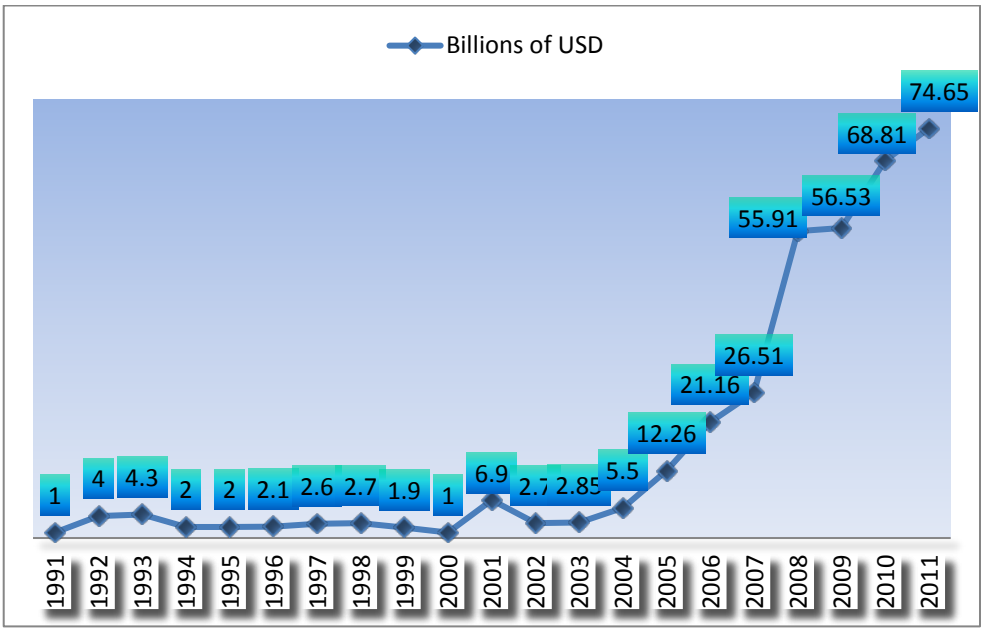
Figure 3 Global OFDI rankings for 2011–2012 (billions of US$)

Data source: World Investment Report 2013 (UNCTAD, 2013b)

With such a strong increase, China's OFDI has begun to challenge international investment norms and affect international relations (Rosen & Hanemann, 2009). This rise in OFDI has been fuelled by high economic growth, rapid accumulation of foreign currency reserves as a result of trade surpluses, supportive government policies and, more fundamentally, an increasing degree of competitiveness between firms based in China (UNCTAD, 2009). Moreover, exchange-rate fluctuations and falling share prices abroad have created opportunities for Chinese firms to purchase 'bargain' assets (UNCTAD, 2009, 2011).

Figure 4 displays this dramatic surge.

Figure 4 China's OFDI Flow, 1991–2011 (billions of US$)



Data source: 1991–2001 Statistics from UNCTAD;
2002–2011 Statistics from Ministry of Commerce and China Statistics Bureau

2.2.2. Historical development of Chinese firm internationalization

The internationalization of Chinese firms occurred in three phases: the Initiation (1979–1991); the Acceleration (1992–2000); and the Take-off (2001–present) (Gao, 2011).

Prior to 1979, Chinese firms' internationalization was closely tied to 'development aid' (Lu, 2003). Such aid usually referred to foreign governments preferentially granting at least 25% – sometimes the full amount – of loans to developing countries, either through international aid agencies or directly through the developing countries' governments (Lu, 2003). Development aid has been an important international political and diplomatic process since the 1950s (Duan, 1995).

However, these international activities did not involve internationalization of firms, since firms were not going abroad for profits, and all funds and risks were carried by the Chinese Government (Lu, 2003).

The Initiation phase started in 1979, when the Chinese Government started to introduce policies to promote internationalization. On 13 August 1979, the State Council promulgated 15 reform clauses, with Clause 13 stating that firms can operate their business overseas The first joint venture (JV) business was set up in Tokyo in November 1979, by Shougang Group, the first practical sign of Chinese firms' internationalization in real economic terms (Liu, 2008; Mei, 2008).

State-owned enterprises (SOEs) were the only type of firm that could internationalize from 1979 to 1985, and they were strictly monitored and controlled by the state. With some liberalization during 1986–1991, collective ownership firms, as well as the SOEs, could then invest abroad if they had adequate funding, technical skills and potential overseas partners (Lu, 2003). According to Kang and Ke (2008), firms that developed their international markets during this phase tended to have the following characteristics: (1) firms' businesses were developed and grown under the highly centralized economy condition; (2) these firms' development matched the macro-environment, which was shifting from a closed to an open economy; (3) the implementation of the national open economic policy was the main motive for these cross-border business activities; (4) firms with multinational operations had the international experiences and competitive advantages over other enterprises.

During the Acceleration phase, 1992–2000, non-state-owned enterprises (NSOEs), such as small and medium-sized enterprises and township and private enterprises, began to engage in foreign direct investment (Li et al., 2010), and some Chinese firms became known worldwide (Zhang, 2011a). The internationalization of Chinese firms increased gradually after 1992 (Kang & Ke, 2008), with Chinese overseas firms concentrated mainly in the Asian region, including Hong Kong and Macao, ASEAN countries and South Asia. The number of firms investing in the United States, Canada and Europe was small compared with the total number of enterprises in Latin America, Africa and Oceania (Li et al., 2010). The state government issued more foreign direct investment promotion policies to incorporate the firms' internationalization developments, such as setting up regulations and procedures, improving the administrative system and providing stronger legal assistance to the Chinese firms (Li et al., 2010; Zhang, 2011a).

The third phase, the Take-off, from 2001 to the present, has seen the most rapid development for Chinese firms' FDI (Zhang, 2011a). The Chinese Government has supported the OFDI development by continuous regulatory reforms and support. The national 'go global' policy has encouraged growth from both SOEs and the private sector. OFDI has grown dramatically since 2000, in both diversity across sectors and volume (Kang & Ke, 2008). This phenomenon has been evident in various ways:

1. The Chinese central SOEs have taken a significant amount of foreign investment.
2. With the steady increase in IFDI, a major force for Chinese FDI growth has been the OFDI (Reuters, 2012; Zhang, 2011a). Although such outflows have not yet reached the level of inflows, the gap is narrowing (Ernst&Young, 2012).
3. The government tried to position SOEs as the single option for investors. The SASAC[3] is responsible for overseeing the assets and returns, and has been the authorized government body to approve any SOEs' OFDI projects since then (Voss et al., 2008).
4. The Chinese NSOEs have become an increasingly important part of the economy, representing more than 44% of its OFDI flow in mainland China until the end of 2011 (CIEOPI, 2013). Many of these NSOEs are ready to 'go global' with growing firm sizes, revenues, innovations and improved governance levels (ACFIC, 2008).

2.2.3. The significance of the mining sector in China's OFDI

One of the key contributors to this surge in OFDI is Chinese firms' appetite for natural resources, especially energy and raw materials (Guo, 2009). Such growth in OFDI from the Chinese mining sector has been driven by the rising demand for minerals to support China's rapid economic growth, industrialization and urbanization, as well as by the need for both governments and firms to guarantee a long-term, stable supply of natural resources against a background of rising commodity prices, further reinforced by a national energy security strategy for the state-owned mining firms (UNCTAD, 2011).

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3 SASAC is China's State-owned Assets Supervision and Administration Commission (国务院国有资产监督管理委员会).

China is a natural world leader in terms of both reserves and the production of several metals and minerals. However, its per capita reserves are far lower than the global average (Pu, 2000). Since China's domestic supply of minerals is unlikely to increase dramatically in the future, a large proportion of the incremental demand will then have to be met by imports (Zhang & Zheng, 2008), with the result that Chinese mining firms are actively buying up mining assets overseas (M2PressWire, 2009). In reality, the mining sector has been one of the key sectors contributing to China's strong FDI outflow. Mining industries have accounted for 27.35% of China's OFDI flow and 23.77% of its OFDI stock between 2004 and 2011 (MOFCOM et al., 2006, 2007, 2008, 2009, 2010, 2011, 2012). Tables 1 and 2 summarize the distribution and percentage of Chinese OFDI flow and OFDI stock between 2004 and 2011, from the mining sector and for the nation overall.

Table 1 Distribution and percentage of OFDI flows from mining sector and China overall, 2004–2011 (millions of US$)

Year	Total OFDI ($)	Mining ($)	Mining as % of total OFDI
2004	543799	1800.21	32.74
2005	12261.17	1675.22	13.66
2006	21163.96	8539.51	40.35
2007	26506.09	4062.77	15.33
2008	55907.17	5823.51	10.42
2009	56528.99	13343.09	23.60
2010	68811.31	5714.86	8.31
2011	74654.04	14445.95	19.35

Data source: Various years' Statistical Bulletin of China's Outward Foreign Direct Investment (Ministry of Commerce; China Statistics Bureau and State Administration of Foreign Exchange)

Table 2 Distribution and percentage of OFDI stock from mining sector and China overall, 2004–2011 (millions of US$)

Year	Total OFDI ($)	Mining ($)	Mining as % of total OFDI
2004	44777.26	5951.37	13.29
2005	57205.62	8651.61	15.12
2006	90630.91	17901.62	19.75
2007	117910.50	15013.81	12.73
2008	183970.71	22868.40	12.43
2009	245755.38	40579.69	16.51
2010	317210.59	44660.64	14.08
2011	424780.67	66995.37	15.77

Data source: Various years' Statistical Bulletin of China's Outward Foreign Direct Investment (Ministry of Commerce; China Statistics Bureau and State Administration of Foreign Exchange)

2.2.4. The historical development of Chinese mining firms

'If the global mining industry is an adult, Chinese mining industry then is a teenager. Thus, the maturity of the industries is clearly different.' Address by former CEO of Sino gold Corporation, Mr Xu (Ren, 2011).

Several researchers have noted the imbalance between the development of Chinese and global mining industries (Cao et al., 2005; Pu, 2000), the evolution of international investment for the mining industry can generally be divided into four stages (Cao et al., 2005; Pu, 2000). Initially, China failed to develop its mining industry, while the other mining MNCs started to grow internationally from after World War II to the early 1960s.

The second stage involved Chinese mining SOEs starting to build up domestically, but not internationally. This trend was consistent with Chinese firms in general starting to internationalize. During this period, many developing countries had taken on the confiscation expropriation, and nationalization of the foreign investments, continuously strengthening their mining investment through other controls, such as monetary restrictions, taxes and tariffs. The traditional mining investment trends have changed,

with private mining companies starting to invest in developed countries like Canada, Australia and South Africa (Cao et al., 2005; Gu, 2009; Pu, 2000). This changed investment strategy has had a great impact on the world's trading patterns of raw mineral resources (Pu, 2000).

The first Chinese firms to start internationalizing were the SOEs. In the third stage, during the 1980s and 1990s, the Commonwealth of Independent States (CIS) and Eastern European and Asian countries have undergone huge political and economic changes and have generally moved towards a more open policy. Their governments have encouraged more private mining investment and international mining enterprises abroad, viewing such investment as an important pathway to developing the nation's mining sector and lifting the economy (Cao et al., 2005; Gu, 2009; Lu, 2003; Pu, 2000).

The fourth stage, from the early 2000s to the present, is charaterized by NSOEs becoming actively involved in international investment. In 2011, SOE accounted for about 55% of China's total OFDI and 45% were NSOEs (MOFCOM et al., 2012). It is becoming more common for mining firms from both developed and developing countries to engage in joint ventures. Chinese SOEs have become aggressive, with strong government support. For example, China's 'go global policy' and its accession to the World Trade Organization (WTO) in 2001 have dramatically changed the business environment for Chinese enterprises (Voss et al., 2008) across several sectors. The 'go global policy', announced in October 2004 as part of the government's long-term, innovation-oriented development plan (Deng, 2007), has also accelerated a more global view of Chinese mining firms. This 'current stage' of the Chinese mining industry, which follows from the four stages outlined above, is characterized by increased purchasing power (both domestically and internationally), rising enthusiasm for overseas investments, active government policy promotions, and more diverse, multi-level, and more comprehensive cooperation.

Different types of Chinese mining firms have been very active in buying up mining assets internationally since 2000. It had 158 recognized minerals with proven reserves (Austrade, 2012). Reserves of major minerals such as iron, manganese, aluminium, copper, lead, zinc, sulphur and phosphorus are limited, mainly low grade and less

competitive in the international marketplace (Austrade, 2012). Table 3 illustrates the growth in investment for both the world mining industry and Chinese mining firms.

Table 3 Growth in international investment for mining industry worldwide and Chinese mining firms

Stage and Time frame	Interaction of world mining industries with developing countries	Impact on Chinese mining firms' internationalization
One **After WWII to early 1960s**	The boom period for mining MNCs' internationalization. One of the key priorities was to make large profits and ensure supply of mineral resources by investing in the third-world countries and developing mineral prospecting.	Mining businesses undeveloped due to lack of funds, technology and poor competitive power. No internationalization for SOEs or NSOEs.
Two **1960s to late 1970s**	A period of strict control in third-world countries.	SOEs built up their strength domestically, but were not yet internationalized. No internationalization for NSOEs.
Three **Late 1980s to early 2000s**	International mining enterprises returned to developing countries.	SOEs started to internationalize, well ahead of the NSOEs.
Four **Early 2000s to present**	Cooperation between international mining firms and developing countries' mining firms becoming more common.	NSOEs becoming actively involved in international investment. SOEs becoming aggressive, with government support.

Data sources: Based on Cao et al. (2005), Pu (2000)

Chinese mining firms' growing internationalization has been influenced at both the country level and the industry level. At the country level, the global commodity boom (Buckley, 2008) and China's robust long-term demand for commodities and energy resources are contributing to a rise in prices. China is famous for being the 'world factory', and the demand for mineral and raw materials not only supports domestic economic growth but also utilizes production for manufacturing firms and their exports (Buckley, 2008). Therefore, a stable supply of raw materials to China's industrial processes is crucial for the country's economic development.

Internationalization has been prominent in the past decade across all mining firms globally (Zhang & Zheng, 2008). FDI in the extractive industries (including the mining

sector) has unique characteristics, and does not generally follow a gradualist path (Buckley, 2008). In the past, developed countries' mining firms used to acquire resources actively around the world, but it has now become more common for Chinese mining firms to do the same due to their growing financial capabilities.

Table 4 summarizes seven main reasons for the recent Chinese mining firms' boom in internationalization, and the implications. These seven key issues are:

1. The world commodity is boom (Buckley, 2008).
2. Demand for mineral and raw materials is a derived demand (Buckley, 2008).
3. Mining sector is strategically significant as the basis for the national economy of China (Trench, 2004).
4. Emerging country MNCs are prominent in the extractive industries (Buckley, 2008).
5. FDI in extractive industries does not generally follow a gradualist path (Buckley & Casson, 1976).
6. The scarcity of mineral resources makes assets in these niches comparatively more attractive (Buckley, 2008; Yuan & Luo, 2009).
7. Growing domestic competition encourages many Chinese companies, especially NSOEs, which lack domestic political protection, to find new markets abroad, and this has been providing fresh stimulus to Chinese OFDI flows (Taylor, 2002; Von Keller & Zhou, 2003; Voss et al., 2008).

Table 4 Reasons for and implications of Chinese mining firms' boom

	Key issues	Main explanations/reasons	Implications
1	The world commodity is boom (Buckley, 2008).	Supply and demand determine commodity prices. Prices react much faster since the supply of commodities cannot be easily expanded (Buckley, 2008; OilPrice.com, 2009).	This rise in prices in primary goods is being driven by China's robust long-term demand for commodities and energy resources, rather than market speculation (Belke et al., 2010).
2	Demand for mineral and raw materials is a derived demand (Buckley, 2008).	China is the 'world factory', so many raw materials are sent to China, the location of choice for many manufacturing firms.	These minerals and raw materials are not only consumed by Chinese domestic market, but also contribute to production for export (Kang & Ke, 2008).
3	Mining sector is strategically significant as the basis for the national economy for China (Trench, 2004).	Chinese development is highly resource intensive (Robinson et al., 2009).	The stability of raw materials supply to the industrial process in Chinese economic development is critical (Cao et al., 2005).
4	Emerging country MNCs are prominent in the extractive industries (Buckley, 2008).	This is a common trend of globalization, where rich world firms acquire resources and enterprises from poorer countries.	Although Chinese firms are not yet 'rich world firms', many have the ability to acquire the resources from different countries.
5	FDI in extractive industries does not generally follow a gradualist path (Buckley & Casson, 1976).	This brought out the unique characteristics of the mining sector – high entry barriers, capital intensive, the requirements of	These unique characteristics warrant incorporating the mining sector OFDI. Existing IB theories were developed from 1960s Western countries'

		accessing resources and construction, and access to other low cost-factor inputs, such as labour and energy (Buckley, 2008).	manufacturing experiences, and need careful validation if applied to developing countries like China's mining sector (Cao et al., 2005).
6	The scarcity of mineral resources makes assets in these niches comparatively more attractive (Buckley, 2008; Yuan & Luo, 2009).	Mineral resources are not renewable nature resources.	China has low per-capita mineral reserves and production, more obvious because of such scarcity. (Pu, 2000)
7	Growing domestic competition encourages many Chinese companies, especially NSOEs, which lack domestic political protection, to find new markets abroad, and this has been providing fresh stimulus to Chinese OFDI flows (Taylor, 2002; Von Keller & Zhou, 2003; Voss et al., 2008).	China is in the fortunate position of being cash rich at a time when many mining companies around the world are struggling to find financing (M2PressWire, 2009).	Domestic competition and being cash rich make it feasible for Chinese mining firms to invest in overseas mines.

2.3. Chinese mining SOEs and NSOEs

2.3.1. Chinese SOEs' reform and OFDI

As mentioned in the previous section, Chinese SOEs have dominated the development of China's OFDI. This section defines Chinese SOEs and discusses both their development process and China's economic development overall.

Chinese SOEs have experienced different levels of reform since the 'open door' policy (Gylfason et al., 2001) adopted in 1978. Reforms have been directed towards empowerment and marketization (Jing et al., 2008). Attempted reform models include the contracting system, the chartering system and capital operative responsibility system and more recently, a modern corporate system (Jing et al., 2008). Table 5 below displays the main actions taken in the four phases of development and the main policy changes that can impact on SOEs' internationalization.

The internationalization implications of these reform stages are significant. As early as in the first phase of SOE reform, between 1978 and 1983, greater decision-making powers in sales authority were assigned to the SOE (Pu, 2000). This means that, with the appropriate authorization, SOEs have the option to sell their products or services outside China. They were the exporting pioneers of PRC[4] and so have been pursuing internationalization for longer than other Chinese firms.

The biggest impact from the second phase of SOEs' reform (1983–1987) is the 'Loans takeover funds', whereby governments no longer provided free budgetary funds to SOEs. Instead, SOEs needed to apply for loans from state banks for their business activities, including investments in overseas markets. However, this reform had limited impact on internationalization because the OFDI were government-initiated projects and were normally associated with political benefits at that time (Pu, 2000; Voss et al., 2008).

4 The People's Republic of China (PRC)

Table 5 Four phases of Chinese SOEs' reform

Phase and Years	Key of the reformation	Main policy changes can impact to SOEs' OFDI
First Phase 1978–1983	The main aim is to give SOEs more decision-making power, including: - independent production power - sales authority - profits retention power - personnel authority (Pu, 2000).	More decision-making power in sales authority
Second Phase 1983–1987	The implementations focused on two main issues: - revenue from SOEs' profits replaced by paying the tax (also known as 'Tax substitutes profits') - no more free budgetary funds to the SOEs; the SOEs need to apply for bank loans from the state banks (also known as 'Loans takeover funds') (Pu, 2000; Voss et al., 2008).	'Loans takeover funds'
Third Phase 1987–1992	The key emphasis was implementation of the *contracting system:* - SOEs' contractors were under an obligation to achieve certain level of profits and pay a certain amount of tax. - Chinese Government first allowed the SOEs to share part of the performance improvement by a profit-retention program, which initially gave 12% of the increased profits or reduced losses to the enterprises. - The SOEs could use the retained income for paying bonuses to workers, supporting welfare programs and investing in capacity expansions. - The managerial autonomy was gradually deepened through replacing the profit-retention system by a contract-responsibility system in which the SOEs agreed to deliver predetermined amounts of revenue to the state and retained the residuals (Voss et al., 2008).	Contracting system and its impacts towards institutional factors
Fourth Phase 1992–Present	'Separation of state and enterprises' *(zheng qi fen kai):* - The modern corporate system is replaced: the state is entitled to the dividend on its shares in the SOEs' assets (Lin et al., 1998) - SASAC is set up to supervise the SOEs (SASAC, 2012).	Modern corporate system

The emphasis in the third phase (1987–1992) was the 'contracting system' and its implementation. This was an important step to break the 'iron rice bowl' from the SOEs and to move against corruption and improve efficiency. SOEs' contractors were under

an obligation to achieve a certain level of profit and to pay a certain amount of tax. The Chinese Government first allowed SOEs to share part of the performance improvement by a profit-retention program, which initially gave 12% of the increased profits or reduced losses to the enterprises. The SOEs could use any retained income for paying bonuses to workers, supporting welfare programs or investing in capacity expansion. The managerial autonomy was gradually deepened by replacing the profit-retention system by a contract-responsibility system, in which the SOEs agreed to deliver predetermined amounts of revenue to the state while they retained the residuals. The implementations from the third phase of reforms have strongly influenced the formation of China's current institutional conditions, especially for SOEs, whose firm resources and capabilities were altered at this stage (Voss et al., 2008).

The fourth or current phase of the SOE reform aims to set up a 'modern corporate system', and the Chinese Government has repeatedly stressed 'separation of state and enterprises' *(zheng qi fen kai)* as the reform policy (Voss et al., 2008). Many SOEs have been reformed, with the aim of turning into 'market oriented modern corporations'. The Chinese Government has been trying to phase out its connections with these 'modern corporations' by continuing liberalization. SOEs have not just been dominated by 'government-initiated OFDI'.

2.3.2. Chinese mining SOEs' OFDI

China has the largest government mining sector in the world, followed by Chile, Poland, India and Iran (Miningmx, 2010). This is not uncommon in the world mining industry. For example, about 60% of the world's tin is mined by state mining companies, and more than 50% of the coal and 40% of the alumina is extracted from the ground by state-controlled businesses (Miningmx, 2010).

China has a number of large SOEs with protected domestic market shares, especially in natural resources, such as Chinalco, BaoSteel, Shougang Group, China Minmetals and the ShenHua Group. These SOEs began investing overseas as early as the 1980s, and they still dominate the 'deal tables' due to the inherently large project costs (Rosen & Hanemann, 2009). For instance, Chinese mining SOEs have been able to obtain license

contracts for patented technologies, technology services and consultation, and equipment imports since the 1980s (Jing et al., 2008). Because of the historical developments and inherent ties between the state government and Chinese SOEs, SOEs also have a greater likelihood of gaining governmental financial supports than do NSOEs (Huang, 2003); data show that 94% of the loans of the four biggest commercial banks in China have been granted to SOEs. The most authoritative official newspaper, *People's Daily* (2012), has asserted that the state-owned enterprise is the backbone of the Chinese socialist market economy.

2.3.3. Hierarchy of Chinese mining SOEs

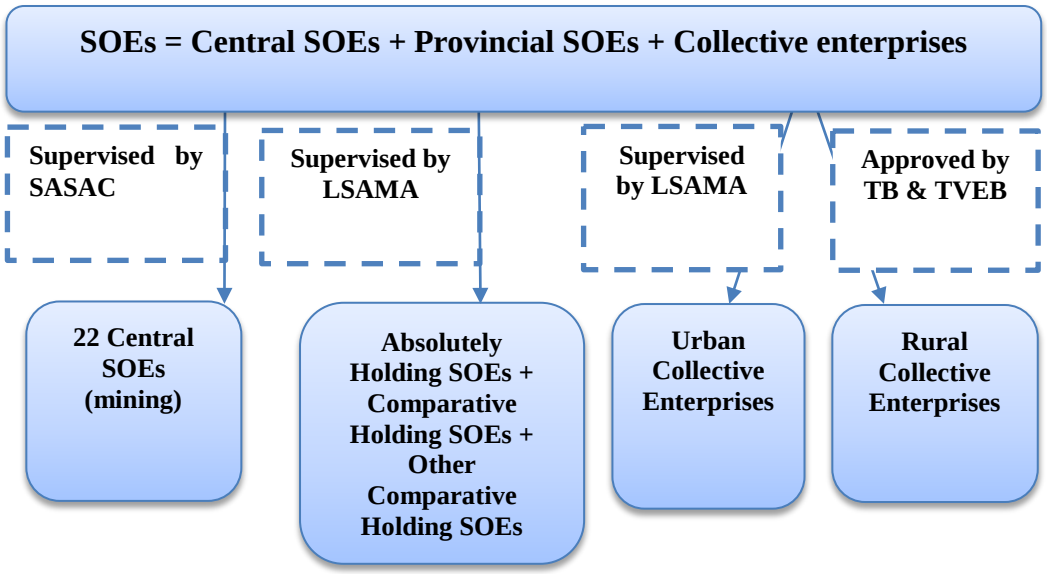
In China, SOEs comprise three different tiers of jurisdiction – central government owned, provincial, and municipal government owned. 'Central SOEs' is a relative new term used to distinguish SOEs which are no longer directly supervised by China's State-owned Assets Supervision and Administration Commission (SASAC), which was set up in 2003 (SASAC, 2012b). The number of Central SOEs has reduced dramatically from 236 in 2003 to 117 in August 2012 (SASAC, 2012a, 2012b). Forty-two central SOEs from different industries have been listed in the World Fortune 500 (SASAC, 2012c). In addition, among these 117 Central SOEs, 22 are specialized or partially specialized in the mining sector.

The next level of SOE is the 'Provincial SOEs', which are supervised by 31 different Local State-owned Assets Management Authorities (LSAMA) (International Finance News, 2009; SASAC, 2012a), which are composed of Absolute Holding SOEs, Comparative Holding SOEs and Other Comparative Holding SOEs (SASAC, 2009). These holdings are characterized by different levels of state-owned capital holdings.

The lowest level of SOEs consists of 'Collective enterprises', which can be divided into urban and rural enterprises. The establishment of an urban collective enterprise must be approved by provincial government departments, while a rural collective enterprise must be approved by both the Township Board (TB) and the Township and Village Enterprises Board (TVEB) (Guo, 2005). This three-tier hierarchy of SOEs reflects the administrative levels in Chinese institutions, and also influences the SOEs'

internationalization motives, discussed later in this thesis. Figure 5 displays the three major hierarchies of Chinese mining SOEs.

Figure 5 Components of China's SOEs from the mining sector (2013)



Notes: SASAC, State-owned Assets Supervision and Administration Commission; LSAMA, Local State-owned Assets Management Authorities; TB, Township Board; TVEB, Township and Village Enterprises Board

2.3.4. Chinese NSOEs' reform and OFDI

As with any other former socialist economy, SOEs are important because they account for a dominant share of the economy (Robinson et al., 2009). However, with greater liberalization and maturity in China's market economy, Chinese non-state enterprises (NSOEs) are increasingly contributing to its economy and OFDI. NSOEs, known broadly as the non-public sectors *(fei gong jing ji)*, consist of all enterprises excluding the previously defined SOEs (State Council China, 1990). All NSOEs are now commonly referred to as the 'Private-owned enterprises' (POEs) *(min ying qi ye* in Chinese), although NSOEs are a broader class than POEs. The NSOEs, particularly the POEs, have been growing rapidly, especially in the past two decades, and are seen as the backbone of the 'unique Chinese socialism economy' (Nakagane, 2000).

As with the SOEs, NSOEs have been through different phases of reform coinciding with China's increasing economic development (Zhu, 1996). Table 6 summarizes these three phases – the beginning phase, the recognizing phase and the growing phase – as

well as the main reforms and the corresponding policy changes that may impact on NSOEs' internationalization.

Table 6 Three phases of Chinese NSOEs' reform

Phases	Years	Key of the Reformation	Main policy changes impact on NSOEs' OFDI
First Phase (The beginning stage)	1979–1987	NSOEs were founded in the seminal state-limited quantity of NSOEs with poor production capability (Shi, 2005). The NSOEs did not own the rights to import or export.	Not relevant due to the political restrictions (Shi, 2005).
Second Phase (The recognizing stage)	1988–1998	Two milestones within this decade (Huang, 2008): - The Constitutional Law determined the legal status of NSOEs. - The MOFTEC[5] announced grant of self-importing and exporting rights to the NSOEs and scientific institutions in 1998.	NSOEs had gained the official right to participate in OFDI legally through international trade (Ralston et al., 2006).
Third Phase (The growing stage)	1999–Present	Relevant government regulations have been set up to encourage NSOEs to develop their international markets (Ralston et al., 2006).	NSOEs expand their international operations with deregulations and various kinds of government support (Ralston et al., 2006).

Since 1979 the development of NSOEs has been substantial, in terms of both their individual performance and their contribution to the economy (Shi, 2005). By 2011, approximately 45% of Chinese OFDI was contributed by NSOEs across different industries (MOFCOM et al., 2012). The total number of Chinese mining NSOEs reached 200,000 by 2012, compared with only 80,000 mining SOEs at that time (Austrade, 2012). Due to the political restrictions in the first phase, it was not until 1997, during the second phase of reform, that NSOEs were recognized as an important component of the economy (Huang, 2008). Subsequently, private ownership and the rule of law were incorporated into the Chinese Constitution. The major implication is that NSOEs gained official legal rights to participate in OFDI through international

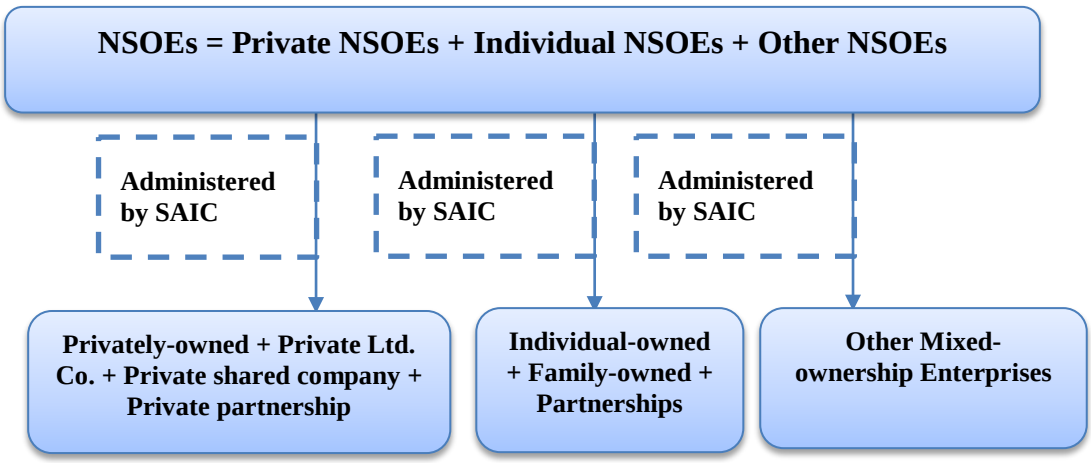
5 MOFTEC: Ministry of Foreign Trade and Economic Cooperation, P.R.C.

trade (self-importing and exporting rights). In addition, private business people were denied party membership until 2002 (Ralston et al., 2006). The third phase represents the liberalization of policies, the competition of industries, the encouragement of government and the development of firms. In 2004, NSOEs private assets and capital were finally legalized and protected by the country's constitution (Ralston et al., 2006).

2.3.5. Hierarchy of Chinese NSOEs' OFDI

As with SOEs, NSOEs also have a hierarchy. The three kinds of NSOEs from China's mining sector are Private NSOEs, Individual NSOEs and Other NSOEs, as illustrated in Figure 6.

Figure 6 Components of China's NSOEs from mining sector (2013)



'Private NSOEs' include privately owned firms, private limited firms, private shared firms and private partnership firms (Zi Jin Mines, 2009). According to 'Interim Regulations on Private firms' (SAIC, 1998), privately owned firms mean sole investment in an enterprise. Private partnership refers to firms with two or more people who have invested in a company (State Council China, 1988). The terms 'Private NSOEs', 'NSOEs' and 'POEs' are often used interchangeably, although strictly speaking they are slightly different (NSOE > Private NSOEs > POEs).

In light of the Registration Regulations by State Administration for Industry & Commerce of China (SAIC) (Hong & Sun, 2006; Zhang, 2006), 'Individual NSOEs' are

individually owned firms, family-owned firms and partnerships. 'Other NSOEs' are mixed-ownership enterprises that contain foreign-invested enterprises, such as Hong Kong/Macao/Taiwan-invested Enterprises, Sino-Foreign Cooperation Enterprises and other types (State Council China, 2005b).

2.3.6. Chinese mining NSOEs' OFDI

The primary characteristic of Chinese mining NSOEs is their short development history, especially their even shorter involvement in internationalization activities. In February 2005, NSOEs from the mining sector were officially incorporated into the state's regulations, permitting access to monopoly sectors of the economy (ACFIC, 2008; State Council China, 2005a) and thereby encouraging NSOEs to invest in the mining sector. Although the actual percentage of investment from mining NSOEs is not substantial – compared with mining SOEs – considerable progress has been made, with NSOEs currently presenting a more dynamic trend of international develop (Jiang, 2009).

Besides making an increasingly significant contribution to mineral production in China, NSOEs are also actively undertaking internationalization. Large mining NSOEs in China, such as ZiJin Mining Group, Sha-Steel Group (also called Shagang), Han Long Group and Jien Nickel, have internationalized their operations across Australia, Brazil, Russia, Canada, United States, South Africa, Tajikistan, Philippine, Mongolia, Myanmar and Vietnam (Han Long Group, 2010; JiEn Nickel, 2010; Shagang Group, 2010; Zi Jin Mines, 2009). Small-to-medium Chinese mining NSOEs, such as BoSai Mines and the JinGuang Group, have also undertaken international expansion (BoSai Group, 2013; JinGuang Group, 2010). NSOEs are commonly diversifying their operations. ZongShen Group, Loncin Holdings and Lifan Group have their core businesses in the motor manufacturing industry (LiFan Group, 2010; Loncin Holdings, 2010; Zongshen Group, 2010), while South Group and BaoBei Group have theirs in the real estate industry (BaoBei Group, 2010; South Group, 2010). Both groups of firms have diversified their international operations into the mining sector.

With these rapid developments of Chinese mining NSOEs' foreign investments, China's central government started to reinforce the importance of contributions from these NSOEs. For example, in 2010, the state government released the document 'Several suggestions of the State Council to encourage and guide the healthy development of private investment' (State Council China, 2010). In June 2012, the NDRC public announced the 'Regulations to encourage and guide private enterprises to actively carry out the implementation of the overseas investment' (NDRC, 2012) to further confirm domestic institutional support provided by the different administrative bodies to enhance the future OFDI activities of NSOEs. In addition, the Chinese Securities Regulatory Commission (CSRC) announced the implementation of regulations to encourage and guide private enterprises to actively implement overseas investment from the financial market (CSRC, 2012). These regulations encompass some governmental financial support, more managerial guidelines and simplified approval procedures.

2.3.7. The institutional environment and firm ownership types in China

Howell (2006: 278) presents Chinese state as a 'polymorphous state' that 'reveals contradictory features of developmentalism and predation, rivalry and unity, autonomy and clientelism, efficiency and inefficiency, across time and space'. It's believed that Chinese central government draws the general internationalization roadmap and attempts to control- to varying degrees- different branches of the state (Gonzalez-Vicente, 2011: 403). Governing, supervising and regulating CSOEs' internationalization are some of the primary tasks for different Chinese government agencies and representatives. The five primary agencies towards CSOEs' internationalization are the State Development and Reform Commission (SDRC), the Ministry of Commerce (MOFCOM), the State Administration for Foreign Exchange (SAFE), the State-Owned Assets Supervision and Administration Commission (SASAC) and the Central Organization Department (COD) (Chao & Ji, 2008; iFeng, 2013; Luo, et al., 2010; Zhang, 2013).

Ministry of Commerce of China (MOFCOM) is a major ministry at the central level promoting, guiding, facilitating, managing and assisting Chinese OFDI (MOFCOM, 2013). It has regularly power to influence OFDI through its Policy Research

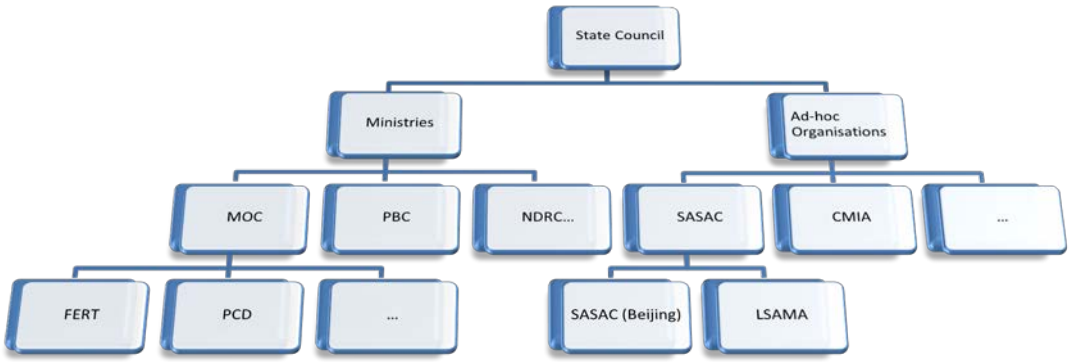
Department (PRD), Department of International Trade and Economic Affairs (DITEA) and the Department of Foreign Economic Cooperation (DFEC) (Luo, et al., 2010).
State Development and Reform Commission (SDRC) is a preeminent body sets China's overall economic, industrial and reform policies (SDPC, 2013). This authority originates from its responsibility to maintain equilibrium in balance of payments and it provides prior approval for large scale OFDI projects in industries like natural resources and infrastructure development and those involving large amounts of money (30 million dollars for resource-oriented investments and 10 million dollars for others) (Luo, et al., 2010).

State administration of foreign exchange (SAFE) is to monitor the cross-border capital flows and to implement supervision and checking of foreign exchange according to law, and punishing behaviours that violate the foreign exchange administration (SAFE, 2013). Foreign exchange and capital flows need to be approved for CSOEs practice OFDI. SASAC was established in 2003 by the State Council, also known as Central SASAC, who manages not a large number of firms but the largest and most highly capitalized firms in the state sector- the Central SOEs (Naughton, 2006). It has a broad and reasonably consistent vision of the future. Particularly, that vision involves the conversion of the entire state sector into a modern, reasonably transparent system of corporate governance (Naughton, 2006). Yet, due to the same administrative levels shared between Central SASAC and most of the CSOEs, Central SASAC does not have the appointment power to top executives of CSOEs as towards other SOEs. The Central Organization Department (COD) is one of the most important organs of the Communist Party of China (CPC) among the 15 departments under the CPC Central Committee (CPC, 2013). It is a secretive and highly trusted agency and its investigation reports include selections from each leader's formal and informal remarks delivered confidentially during the past couple of years within Party circles (Nathan & Gilley, 2003). It's the agency that has the actual power to appoint and dismiss the top executive of CSOEs.

The institutional environment surrounding mining SOEs and NSOEs in China is difficult for businesses to follow, and the government still plays an important role in their OFDI activities. Different Chinese institutional agencies still oversee the mining

sector's OFDI through relatively lengthy procedures (for instance, as shown in Figure 7, which details the formal administrative bodies involved in a Chinese mining OFDI project, based on the 2009 regulations).

Figure 7 Administrative bodies for Chinese mining OFDI project approval (2009)



Data source: www.mofcom.gov.cn Overseas Investment Regulations (2009)
Notes: MOC, Ministry of Commerce; PBC, People's Bank of China; SASAC, State-owned Assets Supervision and Administration Commission; LSAMA, Local State-owned Assets Management Authorities; FERT, Foreign Economic Relation & Trade; PCD, Provincial Commerce Department; CMIA, Chinese Mining Industries Associations (Various Associations)

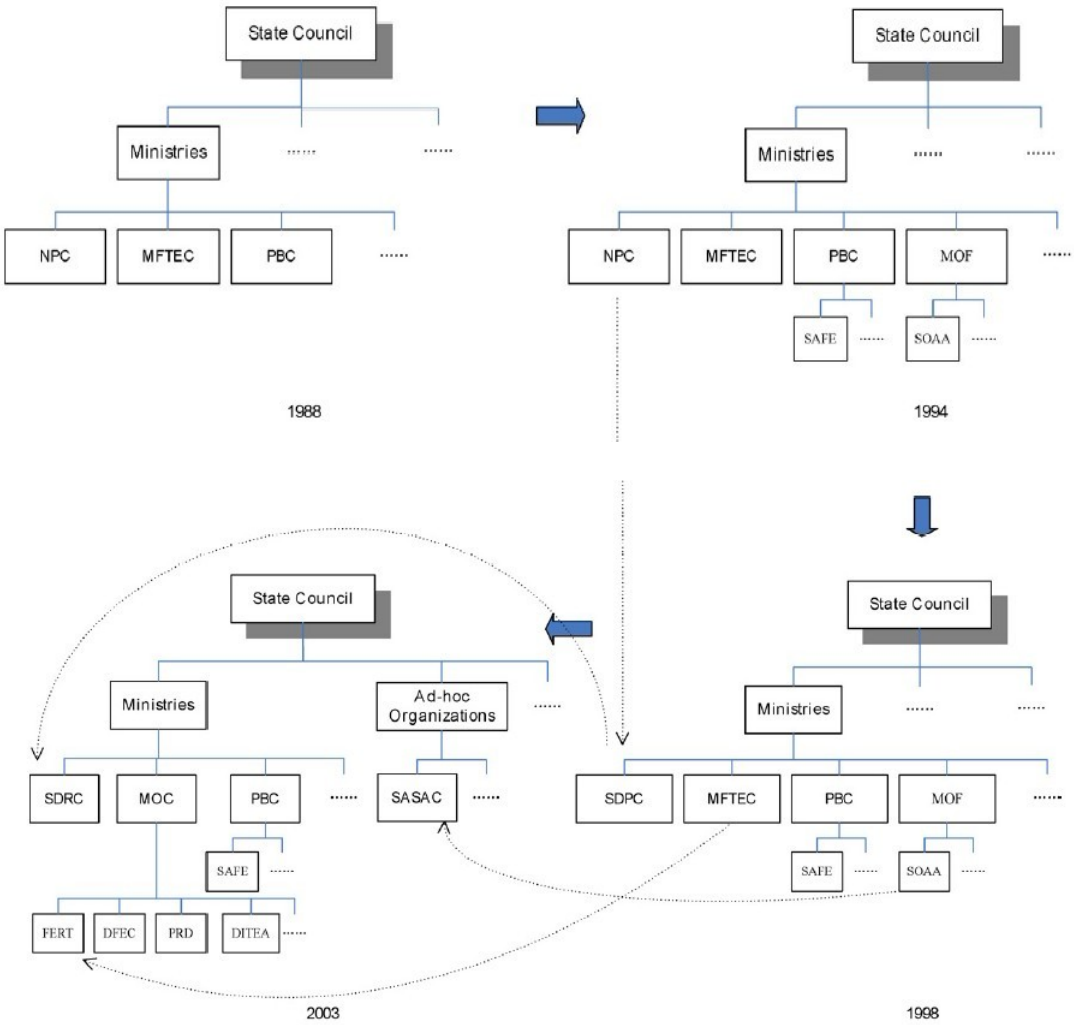
These formal administrative bodies include the Chinese Ministry of Commerce (MOFCOM or 商务部), State Administration of Foreign Exchange (SAFE or 国家外汇管理局), the Ministry of Finance (MOF or 财政部), the Ministry for Foreign Affairs (MFA or 外交部) and the People's Bank of China (PBC or 中国人民银行) (Liu, 2006), National Development and Reform Commission (NDRC or 中国发展改革委员会), State-owned Assets Supervision and Administration Commission (SASAC or 中国国有资产监督委员会(国资委)), Foreign Economic Relation & Trade (FERT, 对外经贸部), Chinese Mining Industries Associations (Various Associations) (CMIA 各类中国矿业行业协会), Provincial Commerce Departments (PCD or 地方商务部), and Local State-owned Assets Management Authorities (LSAMA or 地方国资委). Every overseas investment project must be supervised and have its application approved by at least some of these administrative bodies (SASAC, 2012b); which bodies depends on the firm and the project.

Despite the significant institutional resources and capabilities' differences listed in Table 10 between the Chinese mining SOEs and NSOEs, there are some additional differences, which are reflected by its institutional environment through those requirements and constraints. First, all Chinese SOEs overseen by SASAC must apply for OFDI approval from MOC. In contrast, OFDI projects directed at 135 designated countries (known as 'regular' countries) by Chinese NSOEs (except the foreign-invested enterprises) need approval only from local Foreign Economic Relation & Trade (FERT) at a provincial level. This may increase the efficiencies of Chinese NSOEs at this 'approval stage'. Second, most Chinese SOEs especially the Central SOEs have their top executives been appointed by SASAC every four years since 2000 (SASAC, 2012b). While Provincial SOEs' CEOs have more flexible tenures, ranging from four years to more than ten years, and the appointments are ambiguous in terms of transparency and even more freedom in the NSOEs' cases. Third, since different types of Chinese mining firms are dealing with different level of government and its agencies, the effectiveness of regulatory improvements may be varied depending on specific levels and provinces. Some regulatory improvements cover such items as increasing the proportion of funding, and revising and improving the offshore iron and steel, non-ferrous metals, energy and other resource development coordination mechanisms. Next, the recent boom of NSOEs' internationalization has reflected the new OFDI policies set since 2009 to further simplify the formal administrative approval process for all foreign investments (Li et al., 2010; Yang, 2012). Aimed more specifically towards major foreign energy investment projects by SOEs, the policies provide greater benefits in interest payments on loans and preferential loans (People's Daily, 2012) and the new policy from the State Council and NDRC (NDRC, 2012) specifies that this may be extended to NSOEs. Such changes encourage SOEs and NSOEs from the mining sector to make the best use of offshore mineral resources (NDRC, 2012). Finally, the top executives receive different kinds of compensation between the two kinds of ownerships. Political promotions have been used as a non-monetary form of incentives in managing the SOEs' top executives (Hu, 2010), which is opposite from the more market determined NSOEs' compensation as reported in the media.

Overall, the Chinese Government has been taking active steps to make the mining industries more competitive by providing more regulated and adequate supervision and

support for international investments at different levels (Luo et al., 2010). The administrative processes have been liberalized over the years, thereby allowing mining SOEs and NSOEs greater flexibility in terms of overseas investments, although these flexibilities have different implications for various categories of firms (MOFCOM, 2010). Figure 8 highlights the evolution of the Chinese Government's promotion of OFDI.

Figure 8 Evolutions of Chinese Government departments' OFDI approvals



Data source: Adapted from Luo et al. (2010)
Notes: NPC, National Planning Commission; MFTEC, Ministry of Foreign Trade and Economic Cooperation, the predecessor of MOC; PBC, People's Bank of China; MOF, Ministry of Finance; SOAA, State-owned Assets Authority; SAFE, State Administration of Foreign Exchange; SDPC, State Development Planning Commission; MOC, Ministry of Commerce; SDRC, State Development and Reform Commission; SASAC, State-owned Assets Supervision and Administration Commission; DFEC, Department of Foreign Economic Cooperation; PRD, Policy Research Department; DITEA, Department of International Trade and Economic Affairs; FERT, Foreign Economic Relation & Trade; Source: www.chinaorg.cn; www.mofcom.gov.cn

2.4. Chapter summary

This chapter has provided an overview of China's economic and OFDI trends, the Chinese mining industry's history and current status, and the two key kinds of Chinese mining firms' reforms and OFDI. It has shown that China is complex in terms of its administrative systems; however, the regulatory settings and official approval processes of the mining firms' internationalization are moving in a more liberalized direction.

The developments of the mining SOEs and NSOEs are uneven, due to different institutional and development histories, the economic boom, the liberalizing institutional environment, and SOEs' and NSOEs' different positions in the present Chinese socialist economy. This chapter has highlighted the importance of the mining industry in China's OFDI, and the need to further investigate its empirical and theoretical influence in international business (IB) studies.

Chapter 3: EMNEs' OFDI & Chinese firms' internationalization

3.1 Introduction

Most research into theories of internationalization and OFDI in China has focused on SOEs (Buckley, 2008; Cui & Jiang, 2010, 2011; Child & Rodrigues, 2005; Deng, 2004; Hu, et al., 2013). Despite the growing importance of OFDI by Chinese NSOEs, this study is one of the first to compare how and why Chinese mining SOEs and NSOEs engage in internationalization. To provide a background for this comparative study, this chapter reviews literature relevant to the research focus, which is firms' internationalization theories, firms' motives for engaging in OFDI and firms' attitudes towards OFDI risk. It also provides a conceptual framework to guide the development of this thesis.

This chapter contains four sections. Section 3.2 reviews firm-level internationalization studies and the internationalization of EMNEs, particularly from a Chinese perspective. It introduces the 'strategic tripod model' of firms' internationalization, emphasizing three dimensions: resource-based view, industry-based view and institution-based view. Section 3.3 reviews firm-level OFDI strategies of firms' motivations for internationalizing. Section 3.4 discusses OFDI strategies in the context of firms' risk behaviour. These two sections discuss the key IB literature and the current position of Chinese firms' internationalization in IB research. Section 3.5 outlines the research framework, the main research question and the five subsidiary research questions.

3.2. Firm, EMNEs and Chinese firms' internationalization

3.2.1. Firm level internationalization studies

Classical internationalization theory, like the neo-classical theory of capital movement or foreign investment, is based on the Heckscher-Ohlin-Samuelson (HOS) model[6]. This

6 The HOS model builds on David Ricardo's theory of comparative advantage by predicting patterns of commerce and production based on the factor endowments of a trading region. It says that countries will export products that use their abundant and cheap factor(s) of production and import products that use the countries' scarce factor(s) (Blaug, 1992).

model proposes that international movements of factors of production, including foreign investment, are determined by the proportions of primary production input available in different countries. Hymer (1960) was the pioneer of industrial organization theory. He pointed out that it was the movement of capital associated with FDI, rather than differences in rate of return on investment, that financed international operations. Penrose (1956) and Hymer (1960) detailed a number of important characteristics for the development of modern internationalization theory. Penrose (1956) emphasized internal dynamics as a reason for a firm's expansion, and began analyzing the internationalization that was a consequence of this growth. Hymer's (1960) theory concentrated on the reasons why foreign direct investment occurs, and highlighted how companies with certain market advantages attempt to exploit those advantages in foreign markets. This theory assumed certain firm-specific advantages (FSAs) were responsible for companies entering foreign markets. Hymer described market imperfections as being structural, arising from structural deviations from perfect competition in the final product market. These deviations can include exclusive and permanent control of proprietary technology, privileged access to inputs, scale economies, control of distribution systems and product differentiation; in the absence of such deviations, markets are perfectly efficient (Pitelis & Sugden, 2000).

Since the early 1980s, the Eclectic Paradigm has provided a valuable analytic framework for evaluating FDI (Holsapple et al., 2006). Dunning (1998, 2001) ownership, location and internalization (OLI) that explains the scope and geography of value-added activities of multinational enterprises (MNCs). The eclectic paradigm and the internationalization approach (Rugman, 1980; 1981b) are similar, because they both postulate that the existence of FSAs, ownership advantages (OA), country-specific or location advantages are not sufficient to explain a firms' decision to invest abroad. Furthermore, they both contend that there must exist some advantage to 'internationalizing' the foreign activity within the command hierarchy of the firms before FDI can occur (Denekamp, 1995). Hymer (1976), Buckley and Casson (1976) and Rugman (1981b) postulated that FDI would occur when firms possess proprietary resources and skills that would give rise to a competitive advantage.

3.2.2. EMNEs' internationalization and Chinese firms' OFDI

Since the 1990s the role of foreign direct investment (FDI) in 'transitional' or 'emerging' economies has brought back into focus some of the pioneering theories of the 1960s: the market imperfection theory by Hymer (1960), Kindleberger (1969) and Caves (1971), which resulted in a re-focus on market imperfections (Buckley & Casson, 1998). In particular, emerging economy MNEs (EMNEs) have gained new momentum in the world economy through actively engaging in outward FDI (OFDI). These changes have been reflected in a new body of literature which goes beyond early explanations for FDI from emerging economies (Amsden, 1989; Lall, 1983; Wells, 1983), since OFDI from emerging economies has increased significantly and represents a rising share of global FDI (UNCTAD, 2006, 2013b). The new literature strives to understand whether EMNEs follow distinct internationalization paths or whether their strategies are similar to those of MNEs from developed countries (D'Agostino & Santangelo, 2012; Fleury & Fleury, 2006, 2011; Rabbiosi, et al., 2012; Witt & Lewin, 2007). Fleury and Fleury (2011) describe Chinese firms as asset seeking. They are manufacturing, mining, energy and construction firms for guaranteeing the supply of the country's basic inputs, prioritizing Africa. Witt and Lewin (2007) claim these outward foreign direct investments are an escape response to home country institutional constraints. More studies have investigated whether existing theoretical concepts also apply to these firms (Liu et al., 2005; Luo & Tung, 2007; Mathews, 2006; Wang & Judge, 2012), or whether there are unique differences in the case of EMNEs investing in other emerging economies or less developed countries (UNCTAD, 2013a, 2013b).

Unlike Witt and Lewin (2007) and Fleury and Fleury (2011), Morck et al. (2008) believe Chinese firms own a unique kind of FSA not found in western firms. They claim that since these Chinese firms have been operating in a domestic market characterized by state intervention, insecure property rights, and non-transparent corporate governance, which allow them to develop unique resistance to these institutional features. Consequently, Chinese firms, particularly SOEs, may be endowed with 'sophisticated' measures that assist them to operate in politically risky global environments. Researchers have defined these as various forms of transactional advantages – in this example, representing a firm's ability to manage external

relationships and/or internal relationships (Morck et al., 2008; Rugman & Verbeke, 1992, 1993). Other studies have looked at comparative advantages from a country level or a firm level. FSAs do not occur in isolation; a firm's comparative ownership advantage arises from the complementary combination of the country-level factor endowments in industry and the firm-level comparative capability advantage (Sun et al., 2010). Sun et al. (2010) argue, therefore, that 'comparative ownership advantage' is best defined in the context of globalization as possession and leverage of assets that are relatively (not absolutely) valuable, rare, hard-to-imitate, and organizationally embedded in comparison with firms from other countries.

From an industry-based view (Porter, 1980), each industry's unique competitive pressure can result in various level of globalization, which in turn affects firms' strategies (Yamakawa et al., 2008). A resource-based view, exemplified by Barney (1991), suggests that it is firm-specific differences or ownership advantages (OA) that drive a firm's strategy. Chinese firms need to possess certain ownership advantages to expand overseas (Cui et al., 2011: 484). According to Peng et al. (2008), while the industry-based view and resource-based view assume that institutions are the 'background', because most of these theories developed in the United States, it may be reasonable to assume this 'background' as a considerably stable, market-based institutional framework. This 'background' may be very different from the institutional environment in China. In addition, institutional factors are influential and must be factored in to achieve a rounded and satisfactory explanation of FDI in extractive industries (Buckley, 2008). It is therefore essential to combine this Chinese 'background' when examining the OFDI from mining industries.

It is argued such institutional theory is the most useful approach when studying business strategy in emerging economies (Cui & Jiang, 2010; Lu et al., 2011). This theory can help to explain the outward investing behaviour of Chinese mining firms (Peng & Delios, 2006; Wright et al., 2005), since their home institutional environment is both formally and informally controlled by the government and its agents (Scott, 2002). This bears upon the norms and cognitions that influence investment, including OFDI behaviour (Buckley et al., 2007). The institution-based view asserts that the strategies behind an MNC's OFDI decisions are affected by 'the rules of the game' in both the

host country institutions (Cui & Jiang, 2010) and the home country institutions (Dunning & Lundan, 2008; Peng et al., 2009; Peng et al., 2008).

3.2.3. The 'strategy tripod model'

The first stage of 'strategic management' development was the growth period of the 1980s (Peng et al., 2009), when Porter (1980) introduced what we call today the industry-based view, highlighting the importance of different industrial environment impacts on firms' strategies. The second period of growth, in the 1990s, was propelled by the resource-based view advocated by Barney (1991), who conceptualized a firm as a bundle of resources that forms the basis of the firm's competitive position. Since around the turn of the 21st century, the previously assumed 'background' of the environment has been studied and found to be very important in influencing firm strategies (Peng et al., 2009), as, institutions directly determine the options available to firms as they struggle to formulate and implement strategy, and to create competitive advantage (Ingram & Silverman, 2002: 18).

As stated earlier, recent studies have transferred their focus to EMNEs, particularly Chinese MNEs' internationalization. Amongst several proposed theories, the 'strategic tripod model' incorporates both strategic management and international perspectives, and is a combination of resource-based, institution-based and industry-based views that is ideal for studying the characteristics of Chinese OFDI and its relevant internationalization strategies (Peng et al., 2009; Peng et al., 2008). This framework of 'strategy tripod model' particularly includes the previously ignored 'background' of institutional factors to be one of the key focuses (Gao et al., 2010a; Peng et al., 2009; Peng et al., 2008; Yamakawa et al., 2008; Yang et al., 2009). Additionally, it also points out the equal importance of adopting the institution-based view for researching developed economies, specifically highlighting the implications for Chinese firms (Cui et al., 2011; Lu et al., 2011).

In the institution-based view, a firm's internationalization is facilitated or constrained by a multitude of institutional forces, including elements that both promote and hinder the upgrading of existing resources and capabilities (Wang et al., 2011). Specific

regulatory policies introduced by home country governments will encourage firms to engage in overseas expansion if they are supportive and straightforward (Buckley et al., 2007). The institution escapism view suggests that poor institutional and environmental factors in the home country, such as regional protectionism, quota allocations, high tax rates, corruption, regulatory uncertainty, insufficient protection of intellectual property rights and governmental interference, may also push firms to move abroad in pursuit of greater efficiency (Luo et al., 2010; Wang et al., 2011; Yamakawa et al., 2008). In the institutional literature, economists have focused mostly on formal laws and regulations (Djankov et al., 2008) and sociologists have paid more attention to informational and cultural norms and values (DiMaggio & Powell, 1983; Meyer & Rowan, 1977).

3.2.4. The 'strategy tripod model': Resource-based view

Firm-specific advantage and Ownership advantage

One of the key issues in the field of international business research is how firms exploit their existing assets and explore new assets in host countries through FDI (Makino et al., 2002). Hymer (1976), Buckley and Casson (1976) and Rugman (1981a) have postulated that FDI occurs when firms possess proprietary resources and skills that give rise to a competitive advantage. The firm-specific competitive advantages may be ownership advantages (Porter, 1980), which can result from a firm's international experiences, their size, their ability to differentiate their product or services, the adaptability of the product or service and the technology intensity of their offerings . Ownership advantages need to be both unique and sustainable (Porter, 1980). Dunning (1993) prefers to think of ownership advantages as any kind of income-generating assets that allow companies to engage in foreign production and that may arise as a direct consequence of cross-border market activities. Nevertheless, a company's ability to benefit from such activities must be related to the assets that it possesses prior to the act of internationalization (Dunning, 2001).

The Chinese central government and various provincial and local governments tend to give SOEs policy benefits and privileges such as sub-sector monopolies, financial assistance, credit offers in resource utilization, raw material supply, the state ordering and product promotion, foreign exchange and foreign trade concessions, as well as the

special treatment of making up for losses bankruptcy, and so on (Deng, 2009a). In the Chinese mining industry, SOEs enjoy many kinds of superior ownership advantages over NSOEs. Under the Stalinist industrialization policy,[7] SOEs attracted the capital accumulation, the best technology and the best educated people (Wang & Chang, 1998). As noted by Maponga and Maxwell (2000), apart from these 'traditional' ownership advantages in technology application and management skills, the mining sector enjoys unique advantages, such as political support from both home and host country governments and access to flexible finance (UNCTAD, 2007). Chinese SOEs are offered large loans or credit agreements at preferential rates in order to purchase foreign assets (Robinson et al., 2009). Instead of privatizing SOEs, the Chinese Government has assisted SOEs to be more competitive domestically and internationally (Mcmillan & Naughton, 1992; Rawski, 1994). For instance, the dual price system[8] allows SOEs to maintain a relatively high price for their products. SOEs are generally larger in size than NSOEs; due to the particular evolution of the modern Chinese economy, they have been the pioneers in internationalization processes since the instigation of the 'open door policy' from early 1980. For these reasons SOEs have more valuable international experience than NSOEs.

Location has been a key consideration for foreign investment activities (Buckley & Casson, 1976; Dunning, 1998; Nachum, 2000; Pak & Park, 2005; Porter, 1998; Root, 1994). International locations have gained additional strategic importance as sources of new learning, knowledge creation, and new or enhanced competitiveness (Dunning, 1998, 2001, 2009; Pak & Park, 2005). Location advantages result from economic differences among countries and may take many forms. The host country may offer such features as low-cost labour, skilled labour, better access to vital raw materials or a large relatively untapped market, or simply offer the opportunity for a firm to make a defensive investment to prevent its competitors from gaining a foothold (Holsapple et al., 2006).

7 Stalinist industrialization policy: Stalin-style command economy/ planned-economic policy.

8 Dual price system, also called double-track price system (*jia ge shuang gui zhi*), has existed in China from 1979; the state government permitted the dual price on crude oil in 1981, and on petroleum and coal in 1983. The price ceiling was set up in 1988 for most of the core industrial resources. From 1 June 2010, the dual price system was abolished for natural gas China News. 2010. NDRC: improve management policy of natural gas pricing, abolish dural price policy 发改委：完善天然气价格管理政策 取消价格双轨. http://news.sohu.com/20100531/n272472353.shtml. Such a system is still valid for other kinds of mining activity, such as coal.

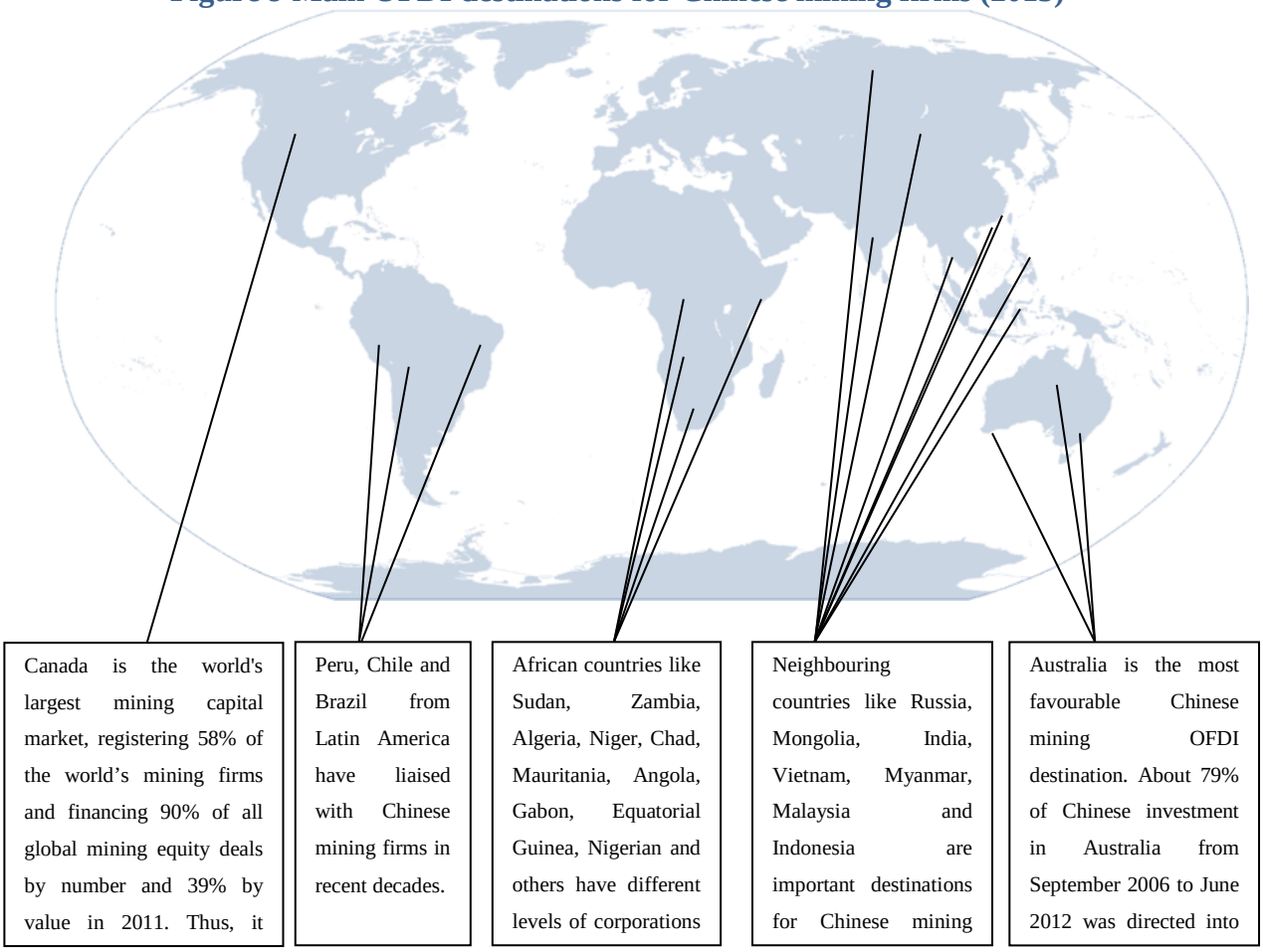
Given the importance of ownership advantage in the mainstream theory of FDI, the choice for the location of FDI is largely a function of possessing ownership advantages. Hymer (1960) has suggested that national firms enjoy the general advantage of better information about their country, such as its economy, language, law, politics, and so forth. These national firms (state-owned firms) can benefit from these advantages in two ways: (i) the value of output produced within its national boundaries independently of the ownership of that production; and (ii) the output produced by its own firms, including that part produced outside its national boundaries (Dunning, 2001).

The choice of location is particularly important for mining firms who seek to internationalize. A number of factors can easily increase, or reduce, the attractiveness of a location-specific advantage for mining sector MNCs (Etemad & Salmasi, 2002). Mining MNCs list criteria such as government policies and regultory systems as among the most important determinants of a location advantage (UNCTAD, 2007). Host governments can either empower or inhibit MNCs, and some firms are better able to utilize these locational advantages than other firms, thus enhancing their competitive advantage either within the new market, for example through better coordination of within-country activities, or internationally, for example through providing lower-cost labour which would result in a cost advantage in all markets where the firms' products are sold (Dunning, 1988). Measures of location advantages include sales demand and potential demand, difference or similarity in culture, economic, legal, political and trade policies, similarity of market infrastructures and the availability of lower production costs (Dunning, 1993).

Contrary to the historical trend that mining MNEs are mostly from developed economies and acquired resources from developing countries, Chinese mining firms have been acquiring resources from around the world due to their growing financial capabilities (Buckley, 2008). Researchers are increasingly drawing attention to the significant presence of Chinese companies in Africa, with interests in Sudan, Angola, Nigeria, Niger and the Congo (Alden & Davies, 2006; Chuan & Orr, 2009; Ericsson, 2010; Gu, 2009; Haglund, 2008; Naidu & Davies, 2006; Naidu & Mbazima, 2008; Shen, 2013; Tull, 2006; Zafar, 2007). Yet Chinese mining firms are not limiting their internationalization to developing countries; their world-wide spread includes many

developed countries. Indeed, Naidu and Davies (2006) explained that China's need for essential raw materials has resulted in its government being prepared to shoulder most of the risk for Chinese companies looking to invest in Africa. This underscores comments by (Buckley et al., 2007) and Buckley (2008) that Chinese extractive industry FDI is prepared to invest in high-risk geographic environments to secure viable raw material deposits. Figure 9 illustrates the main foreign investment destinations for Chinese mining firms in recent years.

Figure 9 Main OFDI destinations for Chinese mining firms (2013)



Sources: Data extracted from Corkin (2007); Davies et al. (2008); Naidu and Davis (2006); NBD China (2009); Reuters (2010); Sun (2007); Wang and Jiang (2007); KPMG and SCSC (2012); CCC(2013).

Assets exploiting

The resource-based view discussed above provides an understanding of how firms sustain their existing competitive advantages, but it is less successful in accounting for how firms create such advantages in the first place, or overcome incumbent disadvantages if a firm starts with few resources (Mathews, 2002). Mathews (2002, 2006) established the LLL framework, based on the 'new stream' of latecomer firms from Asia-Pacific region of the knowledge-intensive industries.

'LLL' stands for linkage, leverage, and learning. Linkage involves firms exploring resources and advantages which can be acquired externally, and is often characterized by joint ventures; leverage involves the development of links so that resources can be leveraged or exploited; and learning is the repeated application of linkage and leverage processes (Horner, 2008). Without significant ownership advantages over foreign competitors, internationalization is difficult for Chinese firms. As Child and Rodrigues (2005) noted, OFDI from China is not based on using ownership advantages to exploit assets abroad, but to redress ownership disadvantages by augmenting assets overseas. In other words, the Chinese firms invest overseas *not* to exploit existing competitive advantages, but to redress competitive disadvantages (Cui & Jiang, 2010). The idea that 'FDI enables firms to exploit their existing firm-specific assets (FSAs) or ownership advantage' as a standard explanation has limited traction when analyzing the internationalization activities of firms from emerging countries like China, since these firms have only limited ownership advantages to exploit (Child & Rodrigues, 2005; Luo & Tung, 2007; Mathews, 2002, 2006). As a comparison, Table 7, below, shows Dunning's OLI framework and the LLL framework of Mathews (2006).

Li's (2007, 2010) learning-based view of internationalization was developed to further enhance the 'Learning' factor of the LLL framework for the purpose of integrating conventional models with emerging models. Li (2007, 2010) proposed *a typology of learning trajectories* to integrate the motivations and capabilities of cross-border learning with cross-border entry strategies. Li (2007, 2010) believes that this learning-based view reframes alliance as a unique organisational form for bilateral learning, that is, co-exploration and co-exploitation, both being central to the new species of MNC for

an accelerated internationalization, especially from the perspective of MNC latecomers such as Chinese firms.

Table 7 Comparison of OLI and LLL frameworks

Criterion	OLI	LLL
Resources utilized	Proprietary resources	Resources accessed through linkage with external firms
Geographic scope	Locations established as part of vertically integrated whole	Locations tapped as part of international network
Make or buy?	Bias towards operations internationalized across national borders	Bias towards operations created through external linkage
Learning	Not part of the OLI framework	Learning achieved through repetition of linkage and leverage
Process of internationalization	Not part of the OLI framework: MNC's international reach assumed	Proceeds incrementally through linkage
Organization	Not part of the OLI framework: organization could be multinational or transnational	Global integration sought as latecomer advantage
Driving paradigm	Transaction cost economics	Capturing of latecomer advantages
Time frame	Comparative static observations, comparing one point in time with another	Cumulative development process

Data source: Adopted from Mathews (2006)

Developing economies are typically characterized by active governmental involvement in business, both through ownership and through regulation (Peng, 2000). This is certainly the case with China, which remains a political economy despite the development of a market system (Child & Tse, 2001). This is different from the mainstream perspective on the internationalization of the firm, which focuses strongly on the firm as an actor and less on its embeddedness in its wider society (Child & Rodrigues, 2005).

Assets seeking

Dunning (2006) commented on Matthews's LLL framework and agreed that Chinese FDI is both assets exploiting and assets augmenting. Nevertheless, firms in developed economies invest in foreign countries not only to exploit but also to develop their firm-

specific advantages or acquire necessary strategic assets in a host country (Makino et al., 2002). Empirical studies (see Almeida, 1996; Chang, 1995; Dunning, 1993, 1995; Frost, 2001; Shan & Song, 1997; Teece, 1992) suggest that firm-specific advantages would arise not only from a firm's possession of proprietary assets but also from its capacity to acquire, or efficiently coordinate, complementary assets owned by other firms in a host country (Dunning, 1998, 2000).

Resource-seeking motivation in the mining sector is illustrated by the worldwide search for cheap natural resources (Nachum & Zaheer, 2005), and is seen as the primary motive of Chinese mining firms (Kraemer & Tulder, 2009). Lu (2003) further emphasized this point by identifying three categories that may determine resource-seeking motives: seeking scarce resources for the domestic market, maintaining the stability of the raw materials' source and using the location advantage in resource production.

Other studies have noted that a number of investments made by Chinese mining firms are driven by the search for strategic assets, such as superior mining skills, marketing expertise, external markets, exploration and mining technology (Nachum & Zaheer, 2005).

From a resource-based perspective, the majority of EMNEs transfer country-specific advantages, (CSAs) rather than firm-specific advantages, (FSAs). when they invest overseas (Cui et al., 2011). Yet ownership advantages contain a mixture of both country-specific advantages and firm-specific advantages. In particular, the choice of location in internationalization is a function of possessing ownership advantages. However, this is only relevant for firms sustaining their existing competitive advantages. For firms from emerging countries, who are 'latecomers' to internationalization, instead of 'exploiting assets' overseas it's more appropriate for them to 'seek assets' through internationalization.

3.2.5. The 'strategy tripod model': Industry-based view

Chinese mining firms' internationalization

The way in which Chinese mining SOEs and NSOEs have evolved has resulted in pronounced imbalances (Cao et al., 2005; Huang, 2008; Pu, 2000). The evolution of international investment in the Chinese mining industry can be broadly divided into four stages (Cao et al., 2005; Pu, 2000). Initially, from the end of World War II to the early 1960s, China was unable to develop its mining industries, while mining MNCs in other parts of the world began significant internationalization.

In the second stage, between the 1960s and the late 1970s, Chinese SOEs started to develop domestically, but did not internationalize. During this phase many developing countries went through a period of protectionism in which governments expropriated, confiscated and nationalized foreign investments and intervened in mining investments through controls such as monetary restrictions, taxes and tariffs. The resulting conflict between host country governments and international mining MNCs ultimately led to private mining firms investing in developed countries like Canada, Australia and South Africa (Deng, 2007; Pu, 2000). This change had a great impact on world trading patterns in raw mineral resources (Cao et al., 2005; Gu, 2009; Pu, 2000).

The third stage began in the 1980s, when Chinese SOEs started to internationalize, leading the way for NSOEs. During the next 20 years, most developing countries moved to a more open policy, following significant political and economic changes. The Chinese Government encouraged more private mining investment and international mining enterprises abroad, seeing such investment as an important pathway to developing the nation's mining sector and lifting the economy (Pu, 2000).

From the early 2000s, the Chinese business environment has changed dramatically (Cao et al., 2005; Gu, 2009; Lu, 2003; Pu, 2000), with more NSOEs involved in mining investments, both domestically and internationally. Table 8 summarizes the four phases of Chinese mining internationalization.

Table 8 Stages in Chinese mining firms' internationalization and interactions with world mining industries

Stage	Timeframe	Interaction of world mining industries with developing countries	Impact on Chinese mining firms' internationalization
One	After WWII to early 1960s	The boom period for mining MNCs' internationalization. One of the key priorities is to make large profits and ensure supply of mineral resources by investing in the third world countries and developing mineral prospecting.	Mining businesses undeveloped due to lack of funds and technology, and poor competitive power. No internationalization for SOEs or NSOEs.
Two	1960s to late 1970s	A period of strict control in third-world countries.	SOEs build up their strength domestically, but are not yet internationalized. No internationalization for NSOEs.
Three	Late 1980s to early 2000s	International mining enterprises return to developing countries.	SOEs start to internationalize, well ahead of the NSOEs.
Four	Early 2000s to present	Cooperation between international mining firms and developing countries' mining firms becomes more common.	NSOEs become actively involved in international investment. SOEs become aggressive, with government support.

Data sources: Cao et al. (2005), Deng (2007), Gu (2009), Pu (2000)

'Push' and 'Pull' effects

Some empirical studies have explored push and pull factors behind China's firm internationalization (Cai, 1999; Cui & Jiang, 2010; Deng, 2004; Poncet, 2007; Wong & Chan, 2003). The determinants of OFDI are often classified in terms of 'push' (home country), 'pull' (host country), and 'policy' factors (in both home and host countries) (UNCTAD, 2006: 155). From an industry-based view, businesses develop competitive strategies that reflect the characteristics of their respective industrial environments, and these industry dynamics in turn play a critical role in determining a firm's strategic behaviour (Cui & Jiang, 2010). In other nearly industrialized economies of East Asia, firms' OFDI has been driven mainly by 'push' factors, such as appreciating currencies, growing current-account surplus, rising labour shortages, escalating operating costs and small, saturated domestic markets in the home country (Deng, 2004). Market-related factors, like the need to bypass trade barriers and avoid trade quotas, are some of the important push factors in Chinese manufacturing firms' OFDI (Poncet, 2007).

Besides these 'push' factors, Chinese firms' internationalization is also motivated by 'pull' factors such as a host country's favourable investment policies, including incentives and other location-specific advantages (Poncet, 2007). Deng (2004:14) claimed China's OFDI has been triggered by other 'pull' factors, such as desire to secure supplies of key natural resources, raise foreign exchange income, circumvent host-country trade barriers, penetrate new markets, acquire advanced technologies and management expertise, and seek strategic assets.

3.2.6. The 'strategy tripod model': Institution-based view

Host country institutions

North (1990：3) defined institutions as 'the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction', whereby the institutional setting determines the pace and the scope of a country's economic development as a consequence of the constraints and resources provided by a government to local and foreign firms. Similarly, Scott (1995: 33) defined institutions as 'regulative, normative, and cognitive structures and activities that provide stability and meaning to social behavior'. In North's (1990) classification of formal and informal institutions, institutions govern societal transactions in the areas of politics (e.g., corruption, transparency), law (e.g., economic liberalization, regulatory regime) and society (e.g., ethical norms, attitudes towards entrepreneurship) (Peng et al., 2008). The institutional theory excels in its ability to explain and predict complex, changing dynamics such as institutional transitions and firm responses (Peng, 2005).

The institution-based view asserts that the strategies behind an MNC's OFDI decisions are affected by 'the rules of the game' – namely, the institutions in the host country (Dunning & Lundan, 2008; Peng et al., 2009; Peng et al., 2008). Host countries are more attractive if they have large potential markets, natural resources, high-skill, low-cost and trainable or well-trained labour, and good communication systems and infrastructure (Li et al., 2009). Foreign investing firms may be subject to discriminatory policies that constrain their access to local resources, require mandatory exporting, or interfere with other operational matters (Wattanasupachoke, 2002). This is essential for the Chinese mining firms' internationalization, as any changes of the host governments'

formal institutional factors could have a fundamental impact on their investments. For instance, the Minerals Resource Rent Tax (MRRT), introduced on 1 July 2012, places a levy on 30% of the 'super profits' from the mining of iron ore and coal in Australia and dramatically changes mining firms' evaluations of their rate of returns to investment there. The Minerals Resource Rent Tax (MRRT) is a tax on profits generated from the exploitation of non-renewable resources in Australia (The Australian, 2010). According to North (1990), Scott (1995) and Peng et al. (2009), the dimensions of institutions can be summarized as shown in Table 9.

Table 9 Dimensions of institutions

Degree of formality (North 1990)	Examples	Supportive pillars (Scott 1995)
Formal institutions	Laws	Regulative (coercive)
	Regulations	Normative
	Rules	
Informal institutions	Norms	
	Cultures	Cognitive
	Ethics	

Source: Adopted from Peng et al. (2009)

Cui and Jiang (2010) have claimed that Chinese resources firms can transfer their low-cost production advantage overseas by sending their domestic workers from China to operate their foreign production sites. However, many host countries often imply quotas and restrictions to labour for Chinese mining firms, since transferring low-cost production advantages to foreign locations is not feasible for them. Relevant labour policies from the host governments must be feasible and practical to the Chinese firms, especially the SOEs who own more human resources than the NSOEs.

Home country institutions

Institutional theory is often cited as the most useful approach when studying business strategy in emerging economies (Peng, 2005; Peng et al., 2005; Wright et al., 2005). This theory can help to explain the distinctive behaviour of outward investing from Chinese mining firms (Buckley et al., 2007), since the home institutional environment is

formally and informally enforced by the government and its agents (Scott, 2002). This government control affects the norms and cognitions that influence investment, including OFDI behaviour (Buckley et al., 2007). A central tenet of the institutional theory is that formal institutions (laws, politics, judiciary act, regulations, economic rules and third-party execution), informal institutions (behaviour norms, conventions, code of conduct, values and beliefs), and changes in these institutions over time shape firms' behaviour and performance in a society (Kim et al., 2010; North, 1990; Peng et al., 2008; Scott, 1995).

At the firm level, national features include those formal structures and outcomes of the government of China that pertain to OFDI, which comprises the policies and regulations of agencies (Buckley et al., 2008a). Unlike transaction cost solutions, which are concerned primarily with exploiting existing capabilities, institutional context theory is 'motivated by considerations of not just exploitation but also enhancement or development of capabilities' (Madhok, 1997: 41), which suggests that the institutional context includes both tangible (resources) and intangible (capabilities) assets of the firm (Brouthers & Brouthers, 2000; Madhok, 1997).

Since institutional factors are influential and, therefore, must be considered if a rounded and satisfactory explanation of FDI in mining industries is to be achieved (Buckley, 2008). Table 10 summarizes the differences in firm resources (both tangible and intangible assets) between Chinese mining SOEs and NSOEs. Chinese mining SOEs and NSOEs' tangible assets have been compared from three key resource perspectives: (i) mineral resources, (ii) financial resources and (iii) human resources. Mineral resources and reserves are the key source of the value generated by mining entities and are essential to ensure future production. They are the most important economic asset for a mining entity. Its financial strength depends largely on the scale and quality of its resources and reserves (PWC, 2007). Mining is a highly capital intensive industry (Connolly and Orsmond, 2011). Human resources and expertise, in terms of the ability to manage long-term projects and associated risks, is critical (UNCTAD, 2007).

Mining firms' intangible assets, (mining rights, mineral exploration capability, production capability, financial capability, management capability, R&D capability, and

international experience) are compared between Chinese mining SOEs and NSOEs. Various kinds of capabilities are reflected in the formal and informal institutions in China. In addition, research on a firm's international experience posits that inexperienced firms prefer geographically closer and similar markets than firms with a longer history of broader international operating experience (Rosen & Hanemann, 2009). This is significant as Chinese mining SOEs began investing overseas as early as the 1980s (Musteen et al., 2008), whereas NSOEs lagged behind for at least two decades.

Table 10 Institution-based view of Chinese mining SOE and NSOE internationalization

Criteria	Coverage of the Criteria	Chinese Mining SOEs	Chinese Mining NSOEs
Firms' resources (Tangible assets)	Mineral resources	Own more mineral resources domestically and internationally (Yu & Sheng, 2002).	Occupied fewer mineral resources than SOEs.
	Financial resources	State-owned banks provided easy loans with limited interest.	Self-financing was the major form (First Finance Daily, 2009).
	Human resources	Limited people know international operation and foreign languages at the same time.	Limited people know international operation and foreign languages at the same time.
Firms' capabilities (Intangible assets)	Mining rights[9]	Commercially trade the mining rights.	Commercially trade the mining rights. The foreign-owned NSOEs were opened to buy mining rights in 2002.
	Mineral exploration capability	Stronger than NSOEs in general with traditionally owned professional exploration institutions.	Weaker than SOEs in general.
	Production capability	Stronger than NSOEs in general.	A few large NSOEs are compatible with SOEs, but weaker in general.
	Trading capability	Own both import and export rights (excluding exporting right for gold mines). Foreign trade concessions offered to SOEs.	Own both import and export rights (excluding exporting right for gold mines).
	Financial capability	Much stronger than NSOEs with government supports in different ways: - Financial assistance (large loans at preferential rates) - Credit support from state-owned banks	Weaker than SOEs in general with mostly self supports and some commercial loans and funds.

9 Two kinds of mining rights in China: right of prospecting and right of mining.

		- Foreign exchange benefits.	
	Management capability	Top managers appointed by SASAC: fewer incentives. SOEs may employ excess labour inputs due to politicians. SOEs may be pressured to hire politically connected people.	More owner/operator form: greater incentives. Employment based on firms' needs. NSOEs tend to hire people best qualified to perform desired tasks.
	R&D capability	Stronger than NSOEs in general with traditionally owned research institutions.	Weaker than SOEs in general, but seen an increasing focus on R&Ds from the larger NSOEs.
	International experience	Much longer history in OFDI than the NSOEs; more international experience.	Less international experience than SOEs, but catching up through learning.

3.3. Firm OFDI and strategies: Motivation

FDI theories have long recognized that firms invest overseas for different reasons (Behrman, 1969). The early theoretical and conceptual developments evolved from studies focusing on the international activities of large Western-based manufacturing firms (Beamish & Banks, 1987). The active internationalization of Chinese companies, especially the new surge from the Chinese private firms (i.e., NSOEs), is a recent, complex phenomenon (Bellabona & Spigarelli, 2007; Deloitte, 2013; Lu et al., 2011). IB scholars (Athreye & Kapur, 2009; Bellabona & Spigarelli, 2007; Deng, 2003, 2004; Lu et al., 2011; Wang, 2002; Wu & Chen, 2001) have shed light on the motives driving Chinese firms' internationalization since 2000.

Motives such as market seeking, asset seeking, resource seeking, and efficiency seeking are important strategic considerations in MNEs' internationalization (Dunning, 1988). The OFDI by Chinese firms typically combines the characteristics of two or more motives (Zeng et al., 2012). Moreover, the motives may change. If firms are more established and experienced through their foreign investments, each type of firm activity may be aggressive in the sense that the investing company is seeking to take proactive action to advance its strategic objectives. Alternatively, a firm's activities can be defensive in the sense that the firm reacts to actions taken by its competitors or by foreign governments, so it can protect its market position (Dunning & Lundan, 2008). Additionally, firms in different industries also show different levels of motivation for internationalization (Zeng et al., 2012).

3.3.1. Resource seeking

The resource-seeking motive in the extractive industries is represented by the worldwide search for cheap natural resources (Kraemer & Tulder, 2009). Zhang (2006) stressed that the factors influencing decisions on resource-seeking FDI are diverse and can change, depending on time and location. Lu (2003) further emphasized this point by identifying three categories that may determine resource-seeking motivations: seeking scarce resources for the domestic market; maintaining the stability of the raw materials' source; and using the location advantage in resource production.

A fundamental assumption underlying resource-seeking motivation has been the immobility of the resources sought (Behrman, 1974; Dunning, 1993). If resources can be transported over distance at lower cost, access is more economical. In this case, even if transport costs are higher, the scarcity of natural resources for China's rapid industrialization may override the cost disadvantages and be the primary incentive for Chinese mining firms to invest internationally. Hence, the resource-seeking motive is most influential in reference to physical, tangible resources which are immobile and costly to transport (Nachum & Zaheer, 2005).

The Chinese Government has generally shown strong support in international relations, policy and financial loans for internationalization activities (Kolstad & Wiig, 2012). OFDI from Chinese firms' investment strategies largely reflects governmental priorities (Deng, 2004). Chinese OFDI from mining industries is primarily undertaken by SOEs, which are organically tied into the Chinese political economy (Luo et al., 2010) and so are motivated not only by traditional determinants, but also by political strategic considerations (Alon et al., 2009; Buckley, 2008; Buckley et al., 2007; Deng, 2007; He & Lyles, 2008; Luo et al., 2010; Morck et al., 2008; Naidu & Mbazima, 2008; Wang, 2009c). Since the 1980s, the government has required Chinese overseas subsidiaries to achieve one of four goals: introduction of advanced technology, access to raw materials, earning of foreign exchange and expansion of exports (Deng, 2003). Beside the major forces that motivate Chinese firms, the other 'real unique' feature of Chinese OFDI is that 'the Chinese government has, to a great extent, played a crucial role in shaping the structure of China's approval of OFDI' (Deng, 2004: 14).

In contrast, Li et al. (2009) explained that Chinese NSOEs have fewer government ties than SOEs, simply by virtue of the contrasting ownership structures. The government still monitors NSOEs' internationalization, but with increasing liberalization and decentralization of OFDI regulations towards NSOEs these firms are considered more market-oriented with an economic goal of profit maximization.

3.3.2. Foreign market seeking

With the increasing competition among local and foreign companies over the last decade, Chinese manufacturing firms have to seek expanding foreign markets (Zeng et al., 2012). In the mining sector, foreign market-seeking investment is undertaken to serve particular markets by local production and distribution (Nachum & Zaheer, 2005). Buckley and Casson (1994) noted that internationalization of firms was driven by developing their own international markets. Researchers have proposed several reasons for this. The first is host governments' imposition of a variety of import barriers on foreign-made goods and services, which raise the costs of servicing a particular market via exports (Nachum & Zaheer, 2005). Based on the very scarce mineral resources in China, this is unlikely to be the motivation for Chinese mining firms. Another driver of foreign market-seeking investment is reduced transaction costs, primarily those arising from transportation, and the need for proximity to actual and potential customers so firms can be aware of and be able to better meet their specific requirements (Nachum & Zaheer, 2005).

In the Chinese mining industry, foreign investments can be further divided into three types related to content: mines and raw materials (e.g., iron mine, gold mine, and coking coal), finished products (e.g., rebar, steel, wire) and mining equipment. The incentives discussed above do not apply to mines and raw materials, as they are not final goods; however, the incentives are relevant to finished products and mining equipment that the Chinese mining firms could provide for export.

China's accession to the World Trade Organization (WTO) and the adoption of the 'go global strategy' has accelerated the global view of Chinese MNCs (Voss et al., 2008). A survey across different industrial sectors has indicated that expanding into overseas markets is the most important motivation of China's OFDI across all industries (CCPIT, 2009), but the relevance to mining industries is questionable. The business environment for Chinese enterprises has dramatically changed (Deng, 2007); growing domestic competition is likely to 'force' many Chinese companies, especially NSOEs which lack domestic support, to find new markets abroad, and this is likely to provide fresh

stimulus to Chinese OFDI flows (Taylor, 2002; Von Keller & Zhou, 2003; Voss et al., 2008).

3.3.3. Efficiency seeking

'The motivation of efficiency-seeking FDI is to rationalize the structure of established resource-based or market-seeking investment in such a way that the investing company can gain from the common governance of geographically dispersed activities. Such benefits are essentially those of the economies of scale and scope and of risk diversification' (Dunning & Lundan, 2008: 72). This aim is driven by the intention to spread value-adding activities geographically in order to take advantages of differences in the availability and cost of factor endowments in different countries (Nachum & Zaheer, 2005: 750). It occurs when outward investment seeks lower-cost locations for operations (Dunning, 2000), in particular in the search for lower-cost labour (Buckley et al., 2007). A firm's decision on how best to configure its international activities to reduce costs depends on the balance between the advantages to be gained by spreading value-added activities in various locations and the cost of communication and coordination over distance, including transportation costs (Aarland et al., 2007; Nachum & Zaheer, 2005).

Efficiency-seeking investment is designed to move production to countries where inputs, especially labour, are cheaper (Alon et al., 2010). Whether efficiency is a motive for Chinese firms is debatable. Nachum and Zaheer (2005) and Buckley (2008) have discounted efficiency as a major motivation for Chinese firms to invest abroad, due to China's comparatively low labour costs and inexpensive land. Although such low labour costs are seen as a sign that costs will continue to increase (First Finance Daily, 2010; Qing, 2010) in China, the impacts on OFDI are associated mainly with the manufacturing sector, rather than the mining sector. Efficiency seeking in terms of cost minimization is not a major motivation for Chinese firms to invest abroad (Deng, 2004). Conversely, Cui and Jiang (2010) claim that natural resource-based firms have conducted natural resource exploitation operations overseas by sending Chinese workers to operate their foreign production sites in order to extend their low-cost production advantage overseas.

3.3.4. Strategic asset seeking

Strategic asset-seeking FDI, defined as 'knowledge seeking' (Chung & Alcácer, 2002; Kuemmerle, 1999; Wesson, 2004) is driven by a firm's needs to access complementary resources, notably various kinds of knowledge, in order to upgrade its own capabilities (Deng, 2007). Firms seek strategic assets in order to develop new advantages and upgrade existing ones (Nachum & Zaheer, 2005). Strategically vulnerable firms can look to FDI as a means of acquiring key competitive resources. Internationalization trends for Chinese enterprises have evolved since the late 1990s into more advanced strategic asset seeking FDI (Lu, 2003; Zhang, 2006).

A number of investments by Chinese mining companies are driven by the search for **strategic assets** such as superior mining skills, marketing expertise, external markets, exploration and mining technology (Huang, 2008). This mining technology is relevant to extraction (e.g., the 'unmanned mine') and prospecting of mines. Gaining vital tacit knowledge could generate an essential 'leaders' edge' in an MNCs' international production system (Lu, 2003). These motives may be especially important for newly emerging companies from developing economies that are eager to rapidly develop their competitive assets (UNCTAD, 2007). This trend is highlighted by Kumar and Chadha's (2009) research on India's outward FDI from its steel industry, where the dominant motivation of senior managers is to develop their companies into global enterprises by acquiring access to strategic resources such as brand names and product networks. Likewise, a number of investment projects conducted by Chinese MNCs across sectors, particularly those undertaken in developed countries, are driven by the search for strategic resources, such as superior skills, marketing expertise and proprietary technologies (Deng, 2007: 74).

3.4. Firm OFDI and strategies: Risk attitudes

3.4.1. Risk exposed to mining firms

Risk is associated with all projects and business ventures taken by individuals and organizations regardless of their size, their nature or the time and place of execution and utilization with resulting in losses or gains (Ayyub et al., 2010). Risk can be seen as a

combination of the probability that an event will occur, and its consequences (Al Khattab et al., 2007). Firm internationalization is seen as an incremental, risk-averse and reluctant adjustment to changes in a firm or its environment (Johanson & Vahlne, 1977; 1990). MNCs operating in different countries with varying institutional environments will face diverse pressures, and some of these pressures in host and home institutional environments can exert fundamental influences on competitive strategy (Martinsons, 1993; Porter, 1990).

Mining internationalization is a relatively high-risk action and a vitally important issue in OFDI. Although risk is present in various forms and levels (Rockett, 1999), it becomes most apparent in large-scale investments. These large-scale investments are required in the mining sector, which can result in significant budget overruns, delivery delays, failures, financial losses, environmental damages, and even injuries and loss of life (Beer & Ziolkowski, 1995). In addition, international operations are highly uncertain (Ayyub et al., 2010). The level of risk can be increased by incomplete information about the foreign countries, limited control over the activities of foreign managers, political insecurities, fluctuations in exchange rates (Bausch & Krist, 2007) and lack of multinational experience (Agarwal & Ramaswami, 1992; Brouthers et al., 1996; Contractor & Lorange, 1988; Kim & Hwang, 1992; Luo & Peng, 1999). Since mining firms' internationalization involves high-risk actions, it is important for firms to understand what sort of risks they face and how best they can deal with them. Such international operations are subject to risks and failures (Bausch & Krist, 2007).

Many researchers have studied the risks involved in firms' internationalization. Mining firms generally face three categories of risk: country-based risks, geology-based risks and industry/firm risks. However, limited research has explored the risk attitudes of Chinese firms, especially those in the mining sector. Among these studies, Liu et al. (2008) found that most Chinese NSOEs are risk-averse, rather than opportunity seeking, when internationalising. On the other hand, Buckley et al. (2007) found that Chinese outward direct investors had a paradoxical attitude to risk and that risk aversion could not be assumed.

Country-based risks

Country-based risks are the risks that firms need to face at the national level, and include risks associated with the host country's political, governance and legal systems. These risks can vary, depending on the industry structure, management experience, international experience and culture. None of these risks should be viewed as an isolated situation, as operating across multiple political jurisdictions creates an important distinction between domestic and international management practice (Al Khattab et al., 2007; Bohn & Deacon, 2000). A unique firm-specific advantage for Chinese MNCs is that operating in a domestic market – characterized by state intervention, insecure property rights and non-transparent corporate governance – allows Chinese companies to develop a unique resistance to these institutional features (Morck et al., 2008). Consequently, Chinese companies, particularly SOEs, may be endowed with 'sophisticated' measures that assist them to operate in politically risky global environments. Researchers have defined these as various forms of transactional advantages, which can represent a firm's ability to manage external relationships and/or internal relationships (Morck et al., 2008; Rugman & Verbeke, 1992, 1993).

Country risk, or an investor's risk in a given country, is related to the country's stability and to the type of government in power. If the government is too unstable to enforce laws and predictably carry out policies, or it is too weak to control activity in the countryside, the country risk would be high (Ghoshal, 1987). Higher country risk generally reduces foreign direct investments (Feinberg & Gupta, 2009). However, firms from the mining industry always need to face different kinds of country risks, as many mineral resources are located in countries with relatively high country risks (e.g., African countries).

Political risk is broadly defined as the risk that the laws of a country will change to investors' detriment after they have invested capital in the country. This would then reduce the value of their investment, which does not cover the related and important investment that is involved in OFDI (Bohn & Deacon, 2000). Political risk is subjective and hard to quantify (Kobrin, 1979). The IB literature defines political risk in two main ways (Bach, 2005): first, government interference with business operations, the most common approach (Al Khattab et al., 2007) and, second, the risk that a sovereign host-

government will unexpectedly change the ‘rules of the game’ under a business operation (Burmester, 2000). This second definition emphasizes governmental action(s), such as ‘forced divestment’, as a sole source of risk. Although it is most commonly conceived of in terms of host government interference with business operations (Comeaux & Kinsella, 2001), it can also extend to home government interference as well. The differences in political risk between countries affect the stability of their markets, which in turn affects foreign companies aiming to do business there (Quer et al., 2012).

However, political risk is still a rather narrowly defined concept that covers only one aspect of a country’s formal institutional environment, and hence of external uncertainty (Butler & Joaquin, 1998). If the risk results in gains (e.g., taxation), the risk is uninsurable; if risk affects all forms (e.g., interest rate changes) the risk is diversifiable (Al Khattab et al., 2007). For instance, host government taxes have been targeting the mining sector. In just one year, 2011, mining royalties increased in Australia, Chile, Peru, South Africa, Ghana, Tanzania and Burkina Faso, while new export duties were introduced in India, Kazakhstan and Russia (Deloitte, 2013: 8). Some host countries are even threatening to renegotiate existing tax stability agreements, throwing mining firms into disarray and heightening political risk (Deloitte, 2013).

In addition, Root (1972) categorized political uncertainties in terms of the manner in which they affect the firm: (1) transfer uncertainty about flows of capital, payments, technology, people, etc.; (2) operational uncertainties about policies that directly constrain local operations; and (3) ownership/control uncertainties about policies relating to ownership or managerial control. He suggested that transfer and operational uncertainties stem primarily from political/economic events, and ownership/control from political/social events. Acts of war, terrorism and military coups are all extreme examples of political risk (Hood & Nawaz, 2004: 8).

Legal risk tends to be higher in some industries, such as the mining industry (Mccormick, 2007), than in others, such as the food industry (Otto, 1996). Legal risk is commonly understood to mean principally the risk of loss through (1) failing to operate within the law, be aware of its legal obligations, honour contractual commitments, agree remedies for compensation with a supplier in the event of default; or (2) as a result of

transaction documentation not having the legal effect that one or more of the parties intend, or (3) as a result of adverse claims (whether or not it results in litigation) (Chapman, 2012; Miranda et al., 2003). How long the legal system has been established, and its actual legislation and level of independence, are the criteria to consider regarding legal risk (Williams, 2002). For example, Chinese NSOEs face a huge challenge when preparing an appropriate mining contract in Africa, since Africa has established a complete set of advanced mining-relevant laws and regulations, starting from the early days of European colonization, that now run to millions of pages (Li, 2009).

Many resource-rich countries are classified as developing countries, and since the 1980s their mining legislation has changed from being 'restrictive' to 'attractive' to foreign investors (Wang, 2009b). It is crucial to capture the frequent changes and interpret these changes across different countries for foreign mining investment. Although some disputes may be resolved by personal negotiation, substantial legal risk still remains (Morgan, 2002). The absence of government-subsidized insurance[10] for the Chinese mining industry puts firms in an even worse situation. Law firms normally give advice on how to deal with legal aspects of investment to ameliorate this risk, but the capacity for specialized law firms is limited. The mining firms are entirely exposed to legal risk in a new international market. In practice, there are ways to measure and monitor these country-based risks, such as the Policy Potential Index (PPI)[11]. This index is specific to the mining industry. It is also a well-recognized composite index that reflects the risk level of mining investment's locational choices, specifically a country risk assessment. The index can be useful in the mining firms' initial stage of OFDI when evaluating a host institutional environment.

Geology-based risks

Certain risks and hazards are exclusive to the mining industry, such as exploration risk, environmental risk and natural hazards. In this thesis these risks are referred to as

10 This is the practice in developed countries such as United States, Japan. Chinese government can explore the establishment of foreign mining investment insurance system, which allows insurance companies to offer policies and prevent mining risks for the firms overseas (Shuai & Chen, 2013).

11 PPI (Policy Potential Index) is developed by the Fraser Institute in their 'Annual Survey of Mining Companies' reports (McMahon & Cervantes, 2010a, 2010b, 2011). The Fraser Institute surveys metal mining and exploration companies to assess how mineral endowments and public policy factors such as taxation and regulation affect their investments. The concept of 'Policy Potential' is an aggregate idea of combining political stability, potential policy, regulatory implementation, environmental control, taxation, land tenure, labour issues and other factors.

‘geology-based risks’. Since these risks are inherent to the industry, they have been treated as a component of any mining investment, rather than broadly applied to OFDI investment. First, hazards refer to a precisely defined involuntary event with potentially undesirable effects on life, whereas risk refers to a voluntary event (Ingles, 1991). Thus, natural hazards are events like earthquakes, excessive moisture, and flood. This term is usually misunderstood and used interchangeably with risk (Rockett, 1999).

Environmental risk describes the possible of occurrence of adverse effects as a consequence of the exposure of the environment to single or several stressors (Rapant et al., 2008). Environmental risk can be risk to people from development (e.g., health risk, individual risk, and biophysical environment risk); risk to the environment from development (e.g., environment pollution); and risks associated with chemicals and contaminated sites (e.g., industrial chemical, agricultural and veterinary chemicals risk) (Beer & Ziolkowski, 1995).

Exploration can be characterized as a multi-stage search process in which only the last stage, drilling, is usually definitive; at each stage, an attempt is made to reduce the area to which the next, typically more expensive, stage of search is applied. Every stage can be viewed as an attempt to discriminate between areas that contain valuable deposits and areas that do not (Singer & Kouda, 1999). Such exploration risk can be reduced by increasing the number of prospects examined, whether through submittals from smaller companies or from internal prospect generation. This approach should give a significant advantage to large firms because only they would have the financial resources to pursue such a policy. Joint venturing – a kind of OFDI, where exploration expenses, responsibilities and benefits are shared among companies – is the most usual way to take advantage of this method of risk reduction (Singer & Kouda, 1999). Mineral exploration is a business activity, and as such it is expected to provide an acceptable return to those who invest in it (Hall & Redwood, 2006; Singer & Kouda, 1999). However, the average probability of success in mineral exploration is so low, and the attendant geological uncertainty so high, that it has often been difficult for investors, managers and exploration geoscientists to actively manage for financial success (Kreuzer & Etheridge, 2010).

Industry/firm-based risks

Industry/firm-based risk for mining firms contains perceived risk, operating risk, transferring risk, ownership risk and construction/transportation risk. Perceived risk is different from actual risk. Layfield (1987) noted, 'As in other complex aspects of public policy where there are benefits and detriments to different groups, parliaments are best placed to represent the public's attitude to risks'. It can be so great as to preclude risk management options based on technically determined actual risk (Williams, 2002). Sarewitz et al. (2003) further distinguished between two components of risk, which they called 'event risk' and 'outcome risk': event risk is the occurrence of any particular event, such as war, whereas outcome risk is a particular outcome, such as financial losses, from a particular war (Al Khattab et al., 2007). Thus, perceived risk can be viewed as the 'outcome risk', which, according to Sarewitz et al. (2003), integrates both the characteristics of a subject and the chance of an event that jointly results in losses. Wiedersheim-Paul et al. (1978) noted that the perceived risk is closely dependent upon three factors: (i) decision-maker, (ii) the environment to the firm, and (iii) the firm itself. They also state that perception of attention relates not only to the characteristics of the individual decision-maker (e.g., the decision-maker's international experience), but also to the environment in which he acts. In the Chinese mining industry, this environment can be viewed as the decision making-process undertaken by various types of mining firms (SOEs and NSOEs). The decision-maker, or firm's CEO/top executive, is a reflection of the organization and its strategic decisions (Hambrick and Mason, 1984).The authors also claim that perception of attention relates not only to the characteristics of the individual decision-maker (e.g., the decision-maker's international experience), but also to the environment in which he acts. Thus, the institutional environment (from both home and host countries) will be included in the research framework. Additionally, the firm specific features will be also included in the investigation of the topic.

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events (Cornalba & Giudici, 2004), which can interact with legal risks. Operating risk is closely related to a firm's international experience, operational efficiency and entrepreneurship. When firms make international investments, they gain both specific knowledge of the host country and

more general knowledge of how to conduct international operations (Barkema et al., 1996). Firms with more experience in a host country have developed organizational capabilities suited to that country, and are able to make greater commitments to foreign investment (Johanson & Vahlne, 1977). Hence, the operating risk can be reduced if the firm has rich multinational experience.

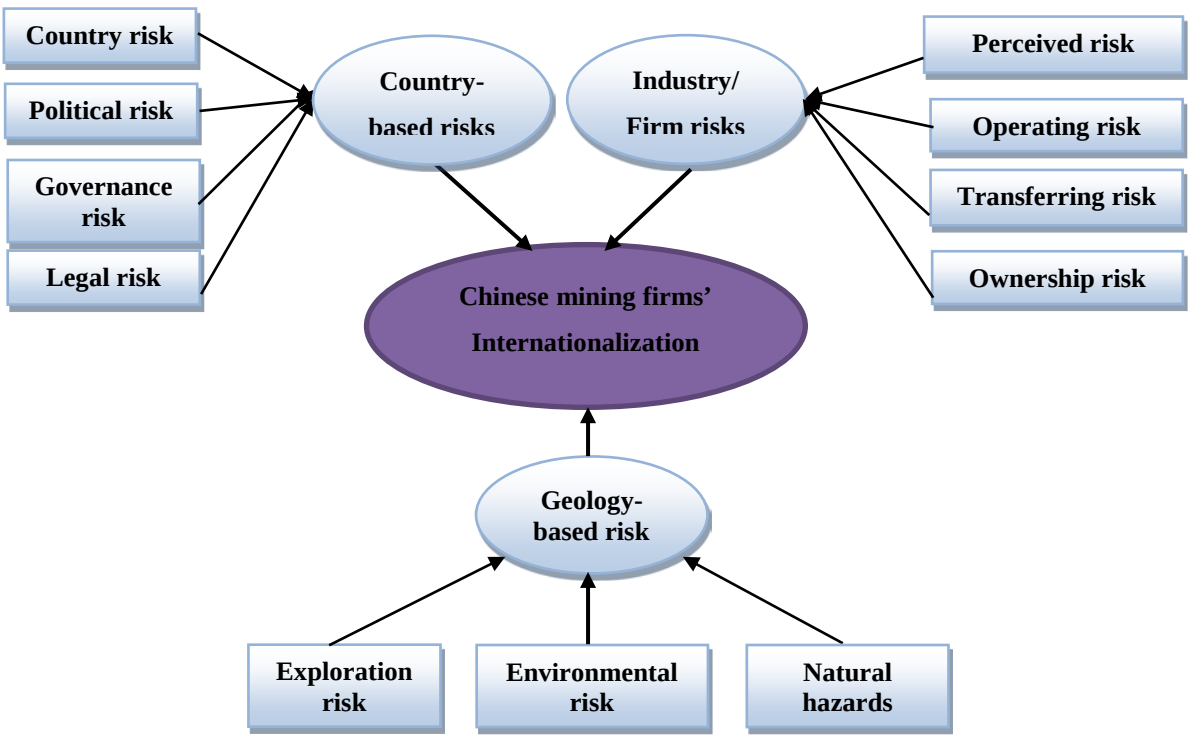
The danger of transferring risk is the lack of control. Transferring risk is sometimes interchangeable with technology risk. Technological and marketing know-how constitutes the basis of many MNCs' competitive advantages (Casson, 1982; Caves, 1982; 1996; Dunning & Lundan, 2008). Transferring risk is sometimes interchangeable with technology risk. The danger of transferring risk is a lack of control. As an example, transferring risk can likely occur while Chinese mining firms invest in countries that are less developed than China.

Table 11 Risks in mining firms' internationalization literature

Category	Type of risk	Relevant Academic Articles
Country-based risks	Country risk	Al Khattab et al. (2007); Bohn & Deacon (2000); Cosset & Roy (1991); Feinberg & Gupta (2009); Ghoshal (1987); Wang (2009b)
	Political risk	Al Khattab et al. (2007); Bohn & Deacon (2000); Comeaux & Kinsella (2001); Cosset & Roy (1991); López-Duarte & Vidal-Suárez; Quer et al. (2012); Slangen & van Tulder (2009)
	Governance risk	Agarwal & Ramaswami (1992); Brewer (1985); Delios & Beamish (1999); Henisz (2000); Kobrin (1979); Miller (1992); Poynter (1982); Rios-Morales et al. (2009); Tallman (1988)
	Legal risk	Akabzaa & Butler (2003); Chapman (2012); Li (2009); McMahon & Cervantes (2010a, 2010b, 2011); Miranda et al. (2003); Morgan (2002); Slangen & van Tulder (2009); Wang (2009b); Williams (2002)
Geology-based risks	Natural hazards	Andersson (2004); Griffin & Andrew Karolyi (1998); Kaartemo (2007); Li (2005); Shrader et al. (2000)
	Environmental risk	Beer & Ziolkowski (1995); Rapant et al. (2008); Shan (1991)
	Exploration risk	Beer & Ziolkowski (1995); Hall & Redwood (2006); Kreuzer & Etheridge (2010); Singer & Kouda (1999)
Industry/ Firm-based risks	Perceived risk	Al Khattab et al. (2007); Comeaux & Kinsella (2001); Layfield (1987); Sarewitz et al. (2003); Wiedersheim-Paul et al. (1978); Williams (2002)
	Operating risk	Barkema et al. (1996); Cornalba & Giudici (2004); Johanson & Vahlne (1977)
	Transferring risk	Casson (1982); Caves (1982, 1996); Dunning & Lundan (2008)
	Ownership risk	Bohn & Deacon (2000); Maignan & Lukas (1997); Woodcock et al. (1994)
	Environmental risk	Beer & Ziolkowski (1995); Shan (1991)

Ownership risk includes acts of government, such as actual expropriation, capital levies, unexpected export or excise taxes, theft by private parties and actions by capricious or ineffective courts (Maignan & Lukas, 1997; Woodcock et al., 1994). Extraction of other resources requires large up-front expenditure or heavy use of produced capital; however, this can cause the opposite outcome, in that if ownership in a given country is insecure, these capital-intensive resource stocks may remain unused because agents in the economy will not invest in the produced capital needed to exploit them (Bohn & Deacon, 2000). The ownership risk needs to be viewed together with the country-based risk. Table 11 summarizes different aspects in terms of mining firms' internationalization risks. Figure 10 shows the collective risks the mining firms need to face in their internationalization.

Figure 10 Mining firms' internationalization risk



3.4.2. CEO/Top manager's attitudes towards risk attitude

Hambrick and Mason's (1984) upper-echelon perspective articulates a model that highlights the organization and strategic decisions as reflections of its top managers.

This important aspect of strategic management research concerns how leaders, specifically chief executive officers (CEOs), affect firm strategy (Barnard, 1938). Agency theory also suggests that firms are often characterized by 'agency problems', wherein managers pursue strategies that reflect their own personal goals and interests rather than those of shareholders (Fama & Jensen, 1983). Pettigrew (1992: 178) noted that 'rather than assuming titles and positions as indicators of involvement, the first task … is to identify which players are involved and why'. This is echoed by Jackson's (1992) call to examine strategic issue processing groups. In China's case, the top manager does not always bear the title CEO, but may be referred to as board director, chairman, founder or CEO. In Chinese SOEs, the most powerful actor or the top manager (in Chinese: *yi ba shou*) is separate from the ownership of the firm (state assets). Therefore, the most powerful actor in a firm this study is referred to the '*yi ba shou'*. The top leaders (*yi ba shou*) of NSOEs are normally the founder and the owners of the firms. Hereafter, this thesis refers to *yi ba shou* (the most powerful actor in a Chinese firm) as CEO, regardless of his or her actual title in practice.

If we want to understand why firms perform certain actions, we must consider the biases and dispositions of their most powerful actor (Hambrick, 2007). CEOs' characteristics have been shown to affect strategic decision processes and strategic actions (Nadkarni & Herrmann, 2010). The strategic choices made in firms reflect the values and cognitive bases of the powerful actors, and these values and cognitive bases of the CEO are a function of their observable characteristics, such as their tenure, past experience or remuneration (Carpenter et al., 2004). The demographic profiles of top executives are highly related to strategic decisions (Boeker, 1997; Eisenhardt & Schoonhoven, 1990; Hambrick, 2007; Pettigrew, 1992).

Four aspects of the CEO's demographic and psychological characteristics are significant: tenure, personality, tacit knowledge and experience, as well as remuneration. Such selection is due to the interactions between the firms' ownership types and the constraints of Chinese institutional environment such as politically oriented nomenclature system and centrally controlled remuneration system, as discussed in both Table 10 and Section 2.3.7.

Tenure

Greater firm experience with longer firm tenure is shown to be associated with greater commitment to the status quo (Hambrick & Cannella, 1993) and reduced tendency to take risks (Finkelstein & Hambrick, 1990; Wiersema & Bantel, 1992). In addition, longer tenure is associated with a narrower, more limited knowledge base (Rajagopalan & Datta, 1996). Although greater experience may result in increased awareness of complex managerial environments, evidence suggests that longer firm tenure is associated with adopting less risky strategies (Herrmann & Datta, 2006). Agency theory also suggests that the longer the duration of a relationship between an agent and a principal, the more efficient it is (Eisenhardt, 1989a). Matta and Beamish (2008) claimed CEOs nearing retirement exhibit a growing aversion to risk. Therefore, the length of the tenure and the stage of their tenure will both influence how the CEO approaches firm risks.

In China, the personnel management of SOEs remains under the authority of The Central Committee of the Communist Party of China (CPC) (Groves et al., 1995; Hu & Leung, 2012; Li & Zhou, 2005). The CEOs of Chinese Central SOE are appointed by SASAC every four years, starting in 2000 (SASAC, 2012b), and work together with CPC. Provincial SOEs' CEOs have more flexible tenures, ranging from four years to more than ten years, and the appointments are ambiguous in terms of transparency. In NSOEs, the founder of the firm and the top manager are normally the same person, who is in charge of the company.

Personalities

A CEO's personality can affect the dynamics of the top management team, and such dynamics become reflected in the firm's strategies (Pettigrew, 1992). The impact of stable individual differences on risky decision making is one managerial influence worthy of investigation (Bromiley & Curley, 1992; March & Shapira, 1987, 1992). Individual willingness to take risks influences managerial beliefs about the perceived risks of decisions (Williams & Narendran, 1999). Managers with a higher perceived willingness to take risks or a higher need for achievement can influence other managers with similar characteristics to be willing to also take more risks (Williams & Narendran, 1999). Conversely, Nadikarni and Herrmann (2010) have noted that high achievers feel

a strong need to take responsibility for doing things immediately. Achievement-oriented CEOs also feel the need to personally take control and assume responsibility for strategic activities (Nadkarni & Herrmann, 2010: 1053). Therefore, they have a strong need to reduce uncertainty and to receive specific feedback on their performance (Judge et al., 2002).

Tacit knowledge and CEO experiences

The upper echelons theory proposed by Hambrick and Mason (1984) posits that executives' experiences represent valid proxies for their cognitions, values, skills and knowledge base and, consequently, represent powerful explanations for variations in their strategic choices. The central tenet of the upper echelons theory is that executives create a 'construed reality' of a firm's strategic situation based on their experiences, which, in turn, leads to specific strategic choices (Herrmann & Datta, 2006). Hambrick and Mason (1984) proposed that a CEO's experiences, values and personalities affect their field of vision (the direction they look and listen), their selection perception (what they actually see and hear) and their interpretation (how they act).

It is commonly accepted that international experience has a positive impact on internationalization (Agarwal & Ramaswami, 1992; Brouthers et al., 1996; Contractor & Lorange, 1988; Kim & Hwang, 1992). Herrmann and Datta (2006) and Musteen et al. (2002, 2006) have investigated positive effects between a CEO's international experience and the firm's internationalization. Among all kinds of tacit knowledge (education background, overseas experience, international view, past working experience), the executives' international business experience provides the most influence on a firms' competitive advantage (Daily et al., 2000).This industrial and managerial experience is the dominant factor affecting venture growth (Lee & Tsang, 2001). Previous research has provided ample evidence of relationships between the CEO's experience and the firm's strategies (Herrmann & Datta, 2006).

Remuneration

Theoretically, managerial incentive payoffs can mitigate the effects of agency problems and CEO risk aversion so that CEOs are more willing to take on risky projects (Coles et al., 2006). As internationalization in the mining industry generally involves more risky

investments, it is essential to reward CEOs and to induce them to work for the benefit of the firm's owners. Chinese firms are plagued by agency problems due to weak manager incentive schemes and restricted decision-making power (Chang & Wong, 2004). Conyon and He (2011) found that executive pay and CEO incentives are lower in SOEs and firms with concentrated ownership structures. Yet the evidence suggests that political promotion helps mitigate weak monetary incentives, and political incentives can substitute for direct monetary incentives for CEOs in China (Cao et al., 2011).

3.5. Research framework

3.5.1. Conceptual framework

Voluminous research has focused on Chinese firms' internationalization (Alon et al., 2009; Buckley et al., 2008b; Chen et al., 2009; Chuan & Orr, 2009; Fan et al., 2009; Jiang et al., 2009; Liang et al., 2011; Liang et al., 2012; Lin et al., 2011; Luo et al., 2010; Morck et al., 2008; Ning & Sutherland, 2012; Peng, 2012; Ramasamy et al., 2012; Ren et al., 2010; Sen, 2011; Tan & Nojonen, 2011; Vlado, 2011; Voss et al., 2008; Wang et al., 2011; Wang & Judge, 2012; Wei, 2011). Many studies have been trying to apply different frameworks to the Chinese context (Cui & Jiang, 2009, 2010; Cui et al., 2011; Ren & Jack, 2010; Zeng et al., 2012). One of the most significant frameworks to provide an institution-based view of EMNEs' internationalization is the 'strategic tripod model' (Peng, 2006; Peng et al., 2008). This model covers firm-level strategies such as internationalization motivations and its risk attitudes, and incorporates all three perspectives (resource-based, industry-based and institution-based).

Based on the theoretical background introduced from sections 3.2. to 3.4., Figure 11 shows how these perspectives and theories are interconnected. The figure graphically illustrates the conceptual framework of this research study: the revised strategic tripod model of internationalization. Upper echelon theory (Hambrick and Mason, 1984) states that the organization and its strategic decisions reflect its top managers. The top manager or CEO's characteristics have therefore also been incorporated into the research framework to explore their influences on the Chinese mining firms' internationalization strategies and decisions.

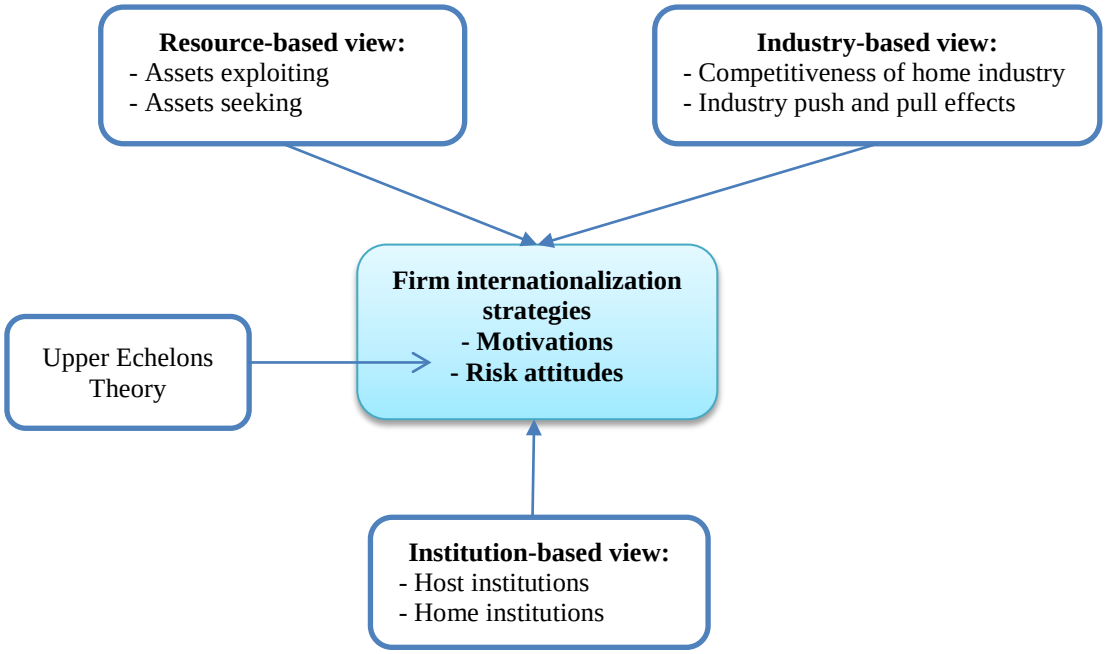
3.5.2. Research questions

The research questions for this study incorporates the questions of 'why', 'how' and 'what' (Wright, 2004), and also the more specific notion of whether 'Chinese extractive industries need a new theory' (Buckley, 2008). The central research question of this study is:

> **'How do Chinese mining firms' (SOEs vs. NSOEs) different ownerships influence their internationalization strategies and behaviours?'**

Much research has focused on the internationalization of Chinese SOEs (Buckley, 2008; Buckley et al., 2008a; Frost, 2004; Gao et al., 2010b; Jing et al., 2008; Lin & Germain, 2003; Nolan & Zhang, 2002; Rui & Yip, 2008; Voss et al., 2008; Wang, 2002; Wang & Yang, 2007). Chinese NSOEs' internationalization is more recent than that of SOEs and the data are less well reported, because NSOEs often deliberately structure OFDI via their offshore holding companies in order to circumvent domestic approvals and possible interference and monitoring of such activities (Ning & Sutherland, 2012). Another recent study (Shen, 2013) showed that China's investment in Africa is growing increasingly diverse and the driving force behind this evolution is the rising role of China's private sector. Based on an understanding of the Chinese SOEs' OFDI strategies and behaviours from the literature, this comparative study of Chinese mining SOEs and NSOEs explored the rapid development of OFDI by NSOEs (Bellabona & Spigarelli, 2007).

Figure 11 A revised strategy tripod model of internationalization



As a 'latecomer' to global business, Chinese firms can acquire assets to offset their disadvantages through internationalization (Child & Rodrigues, 2005) using firm specific advantages (FSA) such as financial strength. Instead of looking at the FSA from a single firm-level, the concept of 'comparative ownership advantages' (COA) blended an integrated vertical view, which was defined by Sun et al. (2010) to be the combinations of country-level, industry-level and firm-level from all tiers that firm owns as comparative capability advantages. Firms can use COA to acquire or leverage assets through firms' internationalization. Rugman's (1981a) FSA/CSA (firm-specific advantages/country-specific advantages) matrix and Dunning's OLI framework (Dunning, 1977, 1979) in IB see MNEs as deriving advantages from their superior resources that they exploit abroad. The subsidiary research question 1, therefore, is:

Subsidiary Research question 1 (SRQ1):

Do Chinese mining SOEs and NSOEs undertake OFDI to acquire assets or exploit assets overseas?

In the Chinese mining sector, a firm may be driven by various industrial push/pull factors to initiate their internationalization activities. The primary motivation which triggers the internationalization of SOEs and NSOEs may be acquiring assets from

overseas or exploiting assets. Many recent studies of Chinese firms' OFDI motivations (Deng, 2004; Jain, 2013; Ning & Sutherland, 2012; Rosen & Hanemann, 2009; Wei, 2010; Zeng et al., 2012) have shown that firms often pursue multiple objectives and consequently engage in OFDI for two or more different types of motivation. Additionally, different motives require different strategies and are associated with different capabilities (Dunning & Lundan, 2008). The literature recognizes four main kinds of motivations for FDI: the firm is seeking natural resource, foreign markets, efficiency and strategic assets (Buckley et al., 2007; Cai, 1999; Deng, 2003, 2004; Kang & Jiang, 2010). Given different Chinese mining firms have different firm strategies and capabilities, their OFDI strategies may need some justification. A subsidiary research question 2, therefore, is:

Subsidiary Research question 2 (SRQ2):

What are Chinese mining SOEs and NSOEs' motivations to conduct OFDI overseas?

Chinese firms generally have a shortage of ownership advantages and the FSAs are actually embedded in the firms of industrialized countries (Deng, 2009c). Acquiring strategic assets from overseas investment is one way for them to overcome their latecomer status (Luo & Tung, 2007). However, the unique ownership advantages of Chinese SOEs and NSOEs are not discussed in the literature. As previously noted, due to the historically uneven development of Chinese mining SOEs and NSOEs and institutional factors unique to China, it is quite obvious that Chinese mining SOEs have distinctly different ownerships advantages and disadvantages from NSOEs. We need greater insight into the ownership advantages of each kind of firm and how these advantages influence the firms' OFDI risks. The institution-based view is considered the most effective way of understanding emerging countries' multinationals (Peng, 2005; Peng et al., 2005; Wright et al., 2005). It is unclear how the multiple supervisory and administrative bodies formally approve Chinese mining firms' international processes. Even more difficult to understand are informal institutional factors and impacts on these firms' OFDI activities. The third and fourth subsidiary research questions investigate the sub-factors among the institutional perspective in Chinese mining firms' overseas investments.

Subsidiary Research question 3 (SRQ3):

How do the different ownership and institutional factors impact on Chinese mining SOEs and NSOEs' OFDI risk attitudes?

Subsidiary Research question 4 (SRQ4):

Why do the different ownership and institutional factors impact on Chinese mining SOEs and NSOEs' OFDI risk attitudes?

Research from both strategic management and international business have examined the relationships between CEO from various perspectives and those influences towards firms' strategic decisions (Cannella, et al., 2008). A recent study by Weng and Lin (2012) argue that instead of just looking at the tenures of the top executives, their prior experiences and relationships should also be viewed as individuals' embeddedness throughout their careers, namely 'CEO newness'. Hambrick and Mason (1984) proposed the upper echelons theory which posits that executives' experiences represent valid proxies for their cognitions, values, skills, and knowledge based and consequently, represent powerful explanations for variations in their strategic choices (Herrmann & Datta, 2006). The central tenet of the upper echelons theory is that executives create a construed reality of a firm's strategic situation based on their experiences, which, in turn, leads to specific strategic choices (Herrmann & Datta, 2006). Therefore the fifth subsidiary research question investigates the impacts from CEO or top executive to different Chinese mining firms' OFDI.

Subsidiary Research question 5 (SRQ5):

How do the CEO/top executives influence Chinese mining SOEs' and NSOEs' internationalization strategies?

Answering these four subsidiary research questions can lead to a better understanding of Chinese mining SOEs' and NSOEs' internationalization processes and provide significant insights that have not been addressed thus far within the Chinese mining context.

3.6. Chapter summary

This chapter has developed a conceptual framework, comprising the resource-based view, industry-based view and institution-based view, for investigating Chinese mining firms' motives and attitudes to risk when engaging in OFDI. After reviewing the IB, strategic management and upper echelon literatures, the 'strategic tripod model' was modified and combined with the CEO's characteristics to form the basis from which to investigate the five subsidiary research questions.

This was an exploratory study as it has set the framework to be aligned with various previously-studied theories with many factors. The study was also a comparative study, examining the different behaviours Chinese mining SOEs and NSOEs. The next chapter describes the research methodology and data collection processes.

Chapter 4: Research methodology and data collection

4.1. Introduction

This is an exploratory study. This chapter describes the research design and methodology adopted in this thesis and data collection techniques. First, Section 4.2 justifies the choice of a qualitative multiple-case research method and design, and describes how the multiple data sources were selected. Section 4.3 then describes the data collection and analysis. This section discusses how the cases were selected and the firms were accessed. It outlines the pilot study with one SOE and one NSOE, and discusses in detail the main case interviews with a further six firms – one SOE and one NSOE from each of China's three sub-mining industries. It also explains the techniques used in the interviews and highlights how the research processes complied with ethical requirements. Finally, this section describes data analysis, the triangulation, and theory building. The chapter concludes with a summary in Section 4.4.

4.2. Research methods and design

4.2.1. Selecting research methods

Qualitative research has three characteristics: 1) it seeks to understand the world through interacting, empathizing and interpreting the actions and perceptions of its respondents; 2) the data are collected in a natural setting, rather than in the laboratory; and 3) it tends to generate, rather than test, theory (Bryman & Burgess, 1999). These unique characteristics enable researchers to be at one with their research phenomena in a way that other methods do not require, sanction or even encourage (Birkinshaw et al., 2011).

A qualitative approach was particularly applicable to this research for a number of reasons. The first is the sensitive nature of the research topic. The mining sector is strategically important because it is often associated with national security. It is also one of the key determinants for national economics and politics, that a country has no ability to safeguard its basic resources and relies mostly on imports loses its initiative and

bargaining power in international markets (Paleri, 2008). Chinese firm-based internationalization qualitative studies are not uncommon in the IB field. According to Deng (2012), 21 qualitative studies and 72 conceptual or overview studies are among the 121 articles published in peer-reviewed journals over the period 1991–2010 that provide a snapshot of research interests in China's IB. The increasing appearance of such studies in prestigious journals suggests their value to global scholarship on management and strategy, and this trend is most likely to continue as China becomes a dominant global economic actor and its firms emerge onto the world centre stage (Alon, et al., 2009; Athreye & Kapur, 2009; Deng, 2012). Buckley, et al. (2007: 32) suggest that 'with respect to further work, an issue requiring investigation, possibly of a qualitative nature, is whether or not and how Chinese investors are influenced (as are industrialised country firms)'. In addition, as resources are often tied with national security, this makes the information more sensitive to mining OFDI. Sensitive data about Chinese business policies and strategies are best obtained through face-to-face interviews (Ahlstrom & Bruton, 2008), and this research situation has even greater sensitivity because the key researchers are from outside China (Birkinshaw, et al., 2011; Buckley, 2008; Gao, et al., 2010; Ge & Ding, 2008).

The second reason is that a qualitative approach can make a substantial contribution to theory in many ways (Doz, 2011), and adopting such an approach in this study facilitated powerful insights into the industry and firms concerned. Qualitative research stresses a social constructed nature of reality and highlights the relationship between the research and the situational constraints that shape an inquiry (Denzin & Lincoln, 1998; Feagin et al., 1991; Tellis, 1997). Qualitative research emphasizes quality rather than quantity; the objective is not to maximize numbers but to become 'saturated' with information on the topic (Padgett, 1998) and to consider issues that are meaningful to the people they affect (Brockington & Sullivan, 2003). For instance, deeper thought can be stimulated by providing rich, thick descriptions of real phenomena and action instances (Weick, 2007).

The third reason is that using a qualitative method allows the researcher to be flexible when collecting data and to also adapt to new circumstances during the process (Maxwell, 2005). Also, it is well recognized that qualitative studies enable the

researcher to generate rich insights into the research topic, while quantitative studies are critical for testing existing theory. Qualitative studies are thought to be especially appropriate 'to discover new relationships or situations not previously conceived' (Daniels & Cannice, 2004: 186). The research questions presented in Chapter 3 asked 'How?', 'Why?' and 'What?' These kinds of questions are most appropriately answered using a qualitative approach.

4.2.2. Adopting qualitative multiple-case-studies method

A qualitative approach can contain several methods, such as case study, politics and ethics, participatory inquiry, participant observation, visual methods and interpretive analysis (Denzin & Lincoln, 2003). The case-study method provides an opportunity for one aspect of a problem to be studied in depth, and offers the possibility to investigate the unique and common features of organizations and their interactive processes (Bell, 2005). In business studies, cases normally provide insight into an issue, a management situation or new theory (Ghauri, 2004). 'A case study is an empirical inquiry that investigates a contemporary phenomenon in depths and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (Yin, 2009: 18).

Case studies can investigate single or multiple cases. A multiple design must follow a replication rather than sampling logic (Tellis, 1997). Generalization of results, from either single or multiple designs, is made to theory and not to populations (Yin, 2003). Multiple cases strengthen the results by replicating the pattern-matching, thus increasing confidence in the robustness of the theory (Tellis, 1997). Multiple-case studies can be used to understand a real-life phenomenon in depth, which covers the logic of design, data collection techniques and specific approaches to data analysis (Yin, 2009). A case study captures the individual's point of view and secures rich descriptions and details (Yin, 2009). Each individual case study is a whole study in which facts are gathered from various sources and conclusions are drawn from those facts. Comparison across cases allows the researcher to suggest explanations for possible patterns, trends or linkages (Hamel et al., 1993; Yin, 2009).

Real-life phenomena are best explored by collecting data from several sources (Jack, 2006). Multiple-case studies incorporate a triangulated research strategy (Tellis, 1997). Triangulation can occur with data, investigators, theories, and methodologies (Snow & Anderson, 1991). Triangulation ensures the validity of the processes and, in case studies this can be achieved by using multiple data sources (Yin, 1984). Common data collection methods in case studies are archives, interviews, questionnaires and observations (Eisenhardt, 1989b).

Case studies can be *exploratory*, *explanatory* or *descriptive* (Yin, 2003). Each of these three approaches can be either single- or multiple-case studies. A positive paradigm, for instance, assumes reality as objective and knowledge as independent of our values; science is to discover natural laws which determine human behaviour – this implies that qualitative studies should be restricted to exploratory research, because small samples are not suited to uncovering general laws (Morais, 2011). However, little systematic data are available for the mining sector in China (MOFCOM et al., 2011) and, in the absence of more systematic firm-level data in China, this research replies upon case-study evidence (Child & Rodrigues, 2005). Therefore, this study is taking the exploratory approach.

Sayer (1992) has argued that both 'intensive' and 'extensive' forms of research are necessary to understand the social world. 'Intensive' research is seen as the stronger form of explanatory research because it seeks to understand 'how some causal process works out in a particular case or limited number of cases' (Sayer, 1992: 242). In summary, using a multiple-case-study design provided this research with several key benefits: greater breadth through replication of logic; emphasis on comparison; greater opportunity for generalizability and external validity; providing a cross-case analysis and being highly resource intensive (Fletcher & Plakoyiannaki, 2011; Pettigrew, 1990).

4.2.3. Choosing multiple data sources

Primary data were collected through interviews, using a conversational manner in order to let interviewees feel relaxed and easy. Interviews have the advantage of adaptability, whereby the interviewer can change and adjust the direction of the conversation

according to the responses of the interviewee (Benalcázar & Rudqwist, 2006). Interviews are also flexible, allowing the researcher to clarify and reformulate questions and answers (Benalcázar & Rudqwist, 2006). Different types of research questions require different types of corresponding interview questions (Eriksson & Kovalainen, 2008). Silverman (2005) described three types of interviews: positivist, emotionalist and constructionist. 'Positivist' (also called naturalist or realist) interview approaches seek facts (Silverman, 2005), and contain a lot of information questions (Stake, 1995). 'Emotionalist' (also called subjectivists) interview approaches consider interviews as a pathway to the participants' authentic experiences. The interview questions do not focus on information, but on people's perceptions (Silverman, 2005). 'Constructionist' interview approaches focus on how meanings are produced through the interaction that takes place between the interviewer and interviewee (Silverman, 2005). All these types of interviews are often believed as the best option to combine with both 'what' and 'how' questions (Eriksson & Kovalainen, 2008; Holstein & Gubrium, 2004).

Therefore, an interview of an open-ended nature is suitable for asking key facts as well as opinions (Yin, 2003). Because this research was exploratory, the primary data collection consisted of in-depth open-ended interviews (and some rank-order questions) in order to allow unexpected answers and perspectives to emerge. Combinations of such questions can allow the inclusion of both 'what' and 'how/why' questions and, as a consequence, a rich information set can be accumulated (Ghauri & Gronhaug, 2002).

Secondary data are a valuable source of information for gaining knowledge and insight into the research topic. Reviewing such data was significant for this research, as it indicated key ways for the researcher to address issues, understand the country-specific and local conditions, determine the direction and magnitude of changes in trends, and describe the current situation (McCaston, 2005). Secondary data analysis can be referred to as 'second-hand' analysis (McCaston, 2005), as it is the analysis of data or information that were either gathered by someone else (e.g., researchers, institutions, other NGOs), for some other purpose than the one currently being considered, or often a combination of the two (Cnossen, 1997). Such secondary data can be helpful in designing subsequent primary research and can provide a baseline with which to compare the primary data results.

This research study therefore began with a review of the secondary data, which was also subsequently used to supplement information gathered from the primary data. The secondary data were gathered through multiple sources, such as government documents, official statistics, technical reports, scholarly journals, trade journals, review articles, reference books, research institutions, universities, library search engines and databases, the world wide web (Shell, 1997), and firm-level data such as organizational records and reports (e.g., financial reports, achieves, operating statements, company newsletters, and other media reports).

4.3. Data collection and analysis

4.3.1. Selecting the cases and accessing the firms

Case selection is one of the most important issues in case-study research (Ghauri, 2004), since a 'case study is not a methodological choice but a choice of what is to be studied' (Stake, 2005). Sampling is complex; the literature contains many variations of sampling strategies and much confusion about what each technique entails and how it can be employed in case-study practice (Fletcher & Plakoyiannaki, 2011). For instance, Stake (1995) claimed that case study is not sampling research, so the selection of the companies in this study was based on theoretical rather than statistical sampling. Patton (2002) further provided a detailed list of 18 different types of sampling that may be employed in case research, recommending that the selection of cases involve purposeful, not random, selection. From these many techniques, this research employed the 'criterion sampling' proposed by Patton (2002). Given the limited number of cases which can usually be studied (Pettigrew, 1988), the 'criterion sampling' method (Patton, 2002) concentrates on selecting cases, such as a set of predetermined criteria important to the study. This sampling strategy has also been labelled selective sampling in that it refers to selecting cases or respondents based on an initial set of criteria (Fletcher & Plakoyiannaki, 2011).

Selecting cases was not an easy process, but the literature provided guidance (Yin, 1984). In order to make valid comparison between the mining SOEs and NSOE, the selected firms needed to comply with following criteria: (i) all firms were to be large,

ideally in the 'Top 10' ranking within their respective sector (iron and steel, gold, and non-ferrous industries), as larger firms generally had more established internationalization activities on the global stage (Child & Rodrigues, 2005); (ii) all firms were to have a similar level of foreign market commitment, as determined through the investment destinations, and all firms were to be involved in various kinds of OFDI activities with investments spreading to multiple destinations around the world, since only firms with similar levels of internationalization commitments would be comparable; (iii) equal numbers of SOEs and NSOEs were to be selected from each sub-mining industry, as unique sub-industries conditions may lead to firms having different behaviours; and (iv) different studies obtained different percentages of state-owned equities in determining if it was a state-owned enterprise (SOE). The SOEs in this study were to be state-controlled firms, in which the state owned at least 50% of the equity of the firms. If the majority stakeholder was the state, it could be at different administrative levels (Huang, 2012).

In March 2010, the author communicated with the China Mining Association (CMA) and Australian Trade Commission (AusTrade, Beijing), who provided details on the classifications of the sub-mining industries and a list of potential case-study firms. Eighteen firms from the three main Chinese sub-mining industries (iron and steel, gold, and non-ferrous metals) were selected as potential case study participants: nine SOEs and nine NSOEs.

The next decision was the number of cases to be included. Sample size in case research is relative and depends on the purpose of the study (Dubois & Gadde, 2002). It is not a situation of 'the more, the better' (Fletcher & Plakoyiannaki, 2011). With limited time and access for fieldwork, selected cases should be easy and willing to participate (Stake, 1995). A good instrumental case does not have to defend its typicality (Stake, 1995; Tellis, 1997). These guidelines were borne in mind when the researcher made initial contacts with the 18 shortlisted firms.

In any case studies research, accessing the organization is challenging, as the organization is being asked to contribute resources in terms of expensive management time, and access may not be granted lightly (Macdonald & Hellgren, 2004). Because of

cultural differences, cold calls in China are usually unsuccessful for researchers (Tan & Nojonen, 2011). Furthermore, mining is a strategic industry, every secret of the business is worth money and some may also affect national security. *Guanxi* are systems of personal connections that carry long-term social obligations and play a significant role in business relationships in China (Fock & Woo, 1998; Millington et al., 2005; Park & Luo, 2001). As China is a society characterized by relationships, it often makes more sense to tap into personal networks to obtain support (Tan & Nojonen, 2011), and 'guanxi' played a very important role in accessing the firms in this research. Nevertheless, Pettigrew (1985) also noted the usefulness of networking, or insinuation into an organization, so that access to one individual leads to access to another.

The researcher used different channels of 'guanxi' networks to contact all 18 pre-identified firms and gauge their interest in participating in this research. Only three responded. Different 'guanxi' networks were then used to make contact again with the remaining shortlisted firms through state governmental contacts, local government contacts, business contacts and several industrial associations. Following the theoretical sampling strategy recommended by (Hamel et al., 1993), eight case study firms, four each of SOEs and NSOEs, were selected from the original 18 short-listed firms. Then, with the aim of producing more generalizable results, six firms across three sub-mining industries were drawn from Beijing, Shanghai, Chongqing, Jiangsu and Yunnan provinces. This is important as exploratory studies are not readily generalized; rather, they develop general statements, hypotheses, which can be tested for generality in following studies. They have to reflect those possibilities (e.g., empirically testable propositions) (Mayring, 2007). The large number of potential cases gave the researcher the flexibility to choose alternatives, depending on the actual situations or the availability of access to these firms.

4.3.2. Conducting the pilot study

This research design involved a pilot study before the main data collection. In De Vaus's (1993) words: 'Do not take the risk. Pilot test first.' A pilot study, sometimes called a 'feasibility study', has several advantages: it can help the researcher assess whether the research protocol is realistic and workable; collect preliminary data; assess

the proposed data analysis techniques to uncover potential problems; and train the researcher in as many elements of the research process as possible (Teijlingen & Hundley, 2001).

A pilot study can improve the quality and efficiency of the main case studies (Altman et al., 2006). This small 'trial study' can normally provide only limited information on the research questions; however, it can reveal deficiencies in the design of the proposed multiple-case studies (Altman et al., 2006). In addition, pilot studies are very useful in determining the final protocols/interview guide that will be used (Tellis, 1997). Any modifications to the actual interview questions can then be addressed before time and resources are expended on larger scale studies. Furthermore, the pilot study may be able to provide vital information on the level of importance of proposed procedures (Tellis, 1997), since a good research strategy always requires careful planning and a pilot study will often be a part of this strategy (Altman et al., 2006).

In early April 2010, the pilot study was conducted with participants from one SOE (Hunan non-ferrous Metal Holding) and one NSOE (Hongbridge Holding Ltd.), chosen for convenience rather than using strict selection based on data availability and methodology. Convenience sampling concentrates on selecting cases which are easily accessible (Fletcher & Plakoyiannaki, 2011; Patton, 2002). The SOE's core business was in nonferrous metals and the NSOE's was in iron and steel. The purpose of this pilot study was to improve the quality and efficiency of the main case studies, to ensure the questions asked in the main data collection were aligned with the research aims, and to acquire additional insights prior to the main data collection. The sampling technique used did not affect the data credibility. In addition, convenience sampling is sometimes unavoidable when conducting case studies in China, and there is widespread agreement on the difficulties of gaining access to case firms (Eckhardt, 2004).

Table 12 provides details of the two pilot firms and the interviewees. Hunan nonferrous Metal Holding, the SOE, has its Australian division based in Sydney and was referred to the researcher by the China Chamber of Commerce in Australia (CCCA). The CEO of the Australian division agreed to participate, and introduced the other interviewee, the investment manager. Honbridge Holdings Ltd, the NSOE, was originally a Chinese

mainland firm that has recently publicly listed in Hong Kong. This firm was referred by the commercial counsellor of the Consulate General of Belgium in Hong Kong. The chairman of the board and the CEO participated in the personal interviews in their Hong Kong headquarter in April 2010. Two senior managers from each firm were interviewed in Australia and Hong Kong. Their responses were carefully examined, as the analysis was based on the case-study scenario describing their own firms' internationalization process, motives, risk attitudes and market entry modes. The senior management protocol/interview guide was used to conduct this set of interviews.

Table 12 Information on interviews conducted – the pilot study

Code	Position of the Interviewee	Date	Location	Length (hours)	Protocol Used
SOE- Hunan Nonferrous Metal Holding					
P1-1	Australian Division CEO/ Head of International Business Department in Parent Company	01/04/2010	Sydney	1.5	senior management
P1-2	Investment Manager	01/04/2010	Sydney	1	functional management
NSOE – Honbridge Holdings Ltd.					
P2-1	Chairman	10/04/2010	Hong Kong	1.5	senior management
P2-2	Chief Executive Officer (CEO)	10/04/2010	Hong Kong	1.5	senior management

These senior managers were asked to introduce the history of their firms' internationalization and the associated sub-mining industries' conditions. Based on their experience, respondents were asked to identify their motives to internationalize and choose from the firm's preferred modes of entry to new foreign markets. Shifts in understanding were detected by interviewing these participants before the majority of the cases were conducted.

The pilot study indicated potential differences between Chinese mining SOEs and NSOEs in terms of their internationalization motives and risk attitudes. The factors influencing these differences highlighted connections with their ownership differences, international experience, the institutional factors and the macroeconomic environment. This suggested that the proposed research design and interview questions are consistent with the pre-designed conceptual framework.

4.3.3. Conducting the interviews for the case firms

The interviews were conducted in both China and Australia between July 2010 and September 2011. Together with the pilot study, the entire research fieldwork was completed in four phases during the periods of July–August 2010, April–May 2011, June–July 2011 and September 2011. As interviews demand real interaction between the researcher and the respondent, an appropriate preparation in knowing the respondent, their background, values and expectations is essential for the researcher (Ghauri & Gronhaug, 2002). The secondary data from various media had been researched and prepared as firms' background information for more effective communication with the respondents.

Following Eisenhardt's (1989b) guidelines, four sections of semi-structured questions were designed in the final discussion guidelines. First, interviewees were asked for general demographic information about their company, and the company history from their own knowledge. Second, the respondents were asked to identify the motivations for their firms' internationalization. Third, the firms' internationalization goals were discussed. Finally, respondents were asked to discuss the firm's risk attitude in internationalization. Two sets of semi-structured interview guides (see Appendix) were designed and deployed for use with CEO-level managers and functional level managers, following the same framework. The use of the interview guide indicated that there was some structure to the interviews, even though they were treated as conversations during which the interviewer drew out detailed information and comments from the respondents (Bowen, 2005).

The author of this thesis was also the researcher to conduct the fieldwork interviews. As Phillips (1966) suggested, good involvement in all areas of a research project allows the researcher to ask subsequent questions and enrich the data collected. Additionally, it was also essential that the researcher could speak Chinese Mandarin (the official dialect in mainland China), to help interact with the respondents in their mother tongue to avoid the situation where those using a second language cannot express their point of view accurately.

This kind of interview demands particular skills from the interviewer (Ghauri & Gronhaug, 2002). As in semi-structured interviews, we would normally obtain information about personal, attitudinal and value-laden materials, and we are likely to be dealing with matters which call for social sensitivity in their own right (Jankowicz, 1991). Tables 13 and 14 provide an overview of the interviews conducted with participants from the three SOEs and three NSOEs.

The researcher visited seven cities in China and Australia (Beijing, Shanghai, Kunming, Zhangjiagang, Chongqing, Hong Kong and Sydney) to complete these interviews. Each interview lasted between 60 and 120 minutes. Thirty-eight interviews were conducted, using two sets of semi-structured questions (senior managers' protocol and functional managers' protocol; see Appendix). The researcher spent between eight and ten hours at each firm. Participants were assured of anonymity and were shown the ethics approval from the ethics committee before each interview. As the interviewer did not constrain answers to only a few alternatives (Ghauri & Gronhaug, 2002), the respondents were free to answer according to their own thinking and experience. When dealing with complicated or sensitive issues it is important that the interviewer can ask for further elaboration of answers and attitudes. This method of data collection therefore is highly suitable for such exploratory studies (Ghauri & Gronhaug, 2002).

Permission for recording was requested before the interview started, and all respondents permitted the interview to be recorded for study purposes.

While taking notes interfered with the interview process, it also helped the researcher to catch the key points from the respondents, and then to ask further questions elaborating on the previous points or extending to the relevant issues around the research questions.

Table 13 Interview data snapshot: List of interviewees of SOEs

Code	Position of Interviewee	Date	Location	Length (mins)	Protocol used
SOE 1 – Iron and Steel (Provincial SOE)					
S1-1	Chairman	14/04/2011	Beijing, China	120	Senior manager
S1-2	Chief Executive Officer (CEO)	15/04/2011	Beijing, China	90	Senior manager
S1-3	Investment Manager	8/09/2011	Beijing, China	60	Functional manager
S1-4	Hong Kong Subsidiary investment manager	12/07/2011	Hong Kong	60	Functional manager
S1-5	Hong Kong Subsidiary CEO	13/07/2011	Hong Kong	90	Senior manager
S1-6	Head of Administrative Officer	13/09/2011	Beijing, China	60	Functional manager
SOE 2 – Gold (Central SOE)					
S2-1	Vice Principal - Investment	24/07/2010	Beijing, China	90	Senior manager
S2-2	Former Vice CEO	23/07/2010	Beijing, China	90	Senior manager
S2-3	Former Chief Engineer	22/07/2010	Beijing, China	90	Senior manager
S2-4	Head of Investment Department	22/07/2010	Beijing, China	90	Functional manager
S2-5	Head of Overseas Investment Department	26/07/2010	Beijing, China	90	Functional manager
S2-6	Head of Marketing & International Department	26/07/2010	Beijing, China	90	Functional manager
SOE 3 – Non-ferrous (Provincial SOE)					
S3-1	Vice Principal – Parent group	1/07/2011	Kunming, China	90	Senior manager
S3-2	Chief Executive Officer (CEO) of Australian Subsidiary	24/05/2011	Sydney, Australia	90	Senior manager
S3-3	Investment Manager – Parent group	3/07/2011	Kunming, China	90	Functional manager
S3-4	Board Chairman of Australian Public Listed Company	25/07/2011	Sydney, Australia	90	Senior manager
S3-5	Divisional Assistant to CEO	17/06/2011	Sydney, Australia	90	Functional manager
S3-6	Investment Manager-Australian subsidiary	17/06/2011	Sydney, Australia	60	Functional manager

Table 14 Interview data snapshot: List of interviewees of NSOEs

Code	Position of Interviewee	Date	Location	Length (mins)	Protocol used
		NSOE 1 – Iron and Steel			
N1-1	Board Member	7/07/2010	Beijing, China	60	Senior manager
N1-2	Financial Advisor of Board	7/07/2010	Beijing, China	60	Senior manager
N1-3	Vice Principal	15/07/2010	Jiangsu, China	90	Senior manager
N1-4	Chief Financial Officer (CFO)	16/07/2010	Jiangsu, China	90	Senior manager
N1-5	General Manager International Trading Co. Ltd	16/07/2010	Jiangsu, China	60	Senior manager
N1-6	Head of Australian subsidiary	16/07/2010	Jiangsu, China	90	Senior manager
N1-7	Manager of raw materials/resources supplies Department	15/07/2010	Jiangsu, China	60	Functional manager
		NSOE 2 – Gold			
N2-1	Chief Executive Officer (CEO)	18/04/2011	Shanghai, China	90	Senior manager
N2-2	Deputy Chief Executive Officer	10/06/2011	Shanghai, China	90	Senior manager
N2-3	Investment and Project Director	25/04/2011	Shanghai, China	90	Senior manager
N2-4	Human Resources Manager	16/06/2011	Shanghai, China	60	Functional manager
N2-5	Investment and Project Manager	21/04/2011	Shanghai, China	90	Functional manager
N2-6	Account Manager	20/04/2011	Shanghai, China	60	Functional manager
		NSOE 3 – Non-ferrous			
N3-1	Founder and Board Chairman	5/07/2011	Chongqing, China	60	Senior manager
N3-2	Deputy Chief Executive Officer	6/07/2011	Chongqing, China	90	Senior manager
N3-3	Chief Financial Officer (CFO)	6/07/2011	Chongqing, China	60	Senior manager
N3-4	Exporting Manager & Head of Offshore Operations (Guyana)	8/07/2011	Chongqing, China	90	Senior manager
N3-5	Head of International Operations (Ghana)	9/07/2011	Chongqing, China	90	Senior manager
N3-6	Assistant to Founder and Board Chairman	10/07/2011	Chongqing, China	90	Functional manager
N3-7	Auditing Officer	6/07/2011	Chongqing, China	60	Functional manager

4.3.4. Processing data analysis

As stated earlier, the conceptual framework developed from the literature was used to guide both the interviews and the investigation. This aided in structuring, gathering and analyzing the empirical data (Yin, 2009).

The researcher completed all transcriptions from the MP3 audio-recorded interviews to typed Word documents, an appropriate method of familiarizing the researcher with the interviews (Eriksson & Kovalainen, 2008) and an important way of producing emergent insights (Patton, 2002). The transcriptions contained the interviewer's and respondents' precise wording, and were prepared and typed in Chinese. The completed transcripts resulted in nearly 1000 A4 pages of typed case notes.

All transcripts were re-read and edited to improve the accuracy of the transcripts from the audio recording. The transcript was then emailed as an attachment to each interviewee with a request to check the document for verification, and for their records**.** This occurred within one to three weeks of the interview. Any suggested changes were incorporated and further cross-checks were made for accuracy. Transcriptions in Chinese gave the interviewees the opportunity to provide feedback. This type of 'member check' increases the validity and reliability of data by avoiding possible interpretation errors (Flick, 2008). However, only one of the respondents sent back the corrected transcription with some basic comments and a few updates to the projects discussed in the interview.

Qualitative data analysis programs like NVivo use a fluid and creative analysis procedure to reveal the thematic ideas (Welsh, 2002), a process that does not always adequately address validity and reliability. Manual analysis was used in this study, therefore, to ensure the validity and reliability of the findings. Key focuses from each case were manually coded. The strategy most often used when the research is grounded in existing theory, and attempts to improve the theory (Eriksson & Kovalainen, 2008). The codes were derived from the theory and the research questions. The clustering of data was then analyzed to identify any associations (Miles & Huberman, 1994). Once data had been clustered, findings for each context were summarized in conceptually clustered matrices. The matrix technique promotes pattern matching and the effective

categorization of data (Miles & Huberman, 1994). The emergent findings are then tied to the literature, thereby enhancing internal validity and generalizability (Eisenhardt, 1989b). Coding responses when combining information from different firms highlights any tendencies or trends (Daniels & Cannice, 2004). This procedure was followed by the analyzed results/coded data being translated from Chinese to English to avoid loss of meaning in translation.

Subsequent transcription and coding can often produce unexpected information which does not fit into the outline of the interview guide (Daniels & Cannice, 2004). Not all such unexpected information is discussed in this thesis. An individual report was then prepared on each of the six cases in relation to the research questions, following the 'data triangulation' method and involving the use of different sources of data/information (Guion et al., 2011). Each case study was compared with the research questions and the literature review before further cross-case analysis was conducted. The secondary data included here incorporated information gathered from websites of the case-study firms and other organizations, some annual reports, press releases, news, personal blogs, and some internal publishing archives. Such information was used as the evidence to correct details that were not consistent from different respondents. For instance, if the public data (e.g., years, quantities) did not match the information given by the respondents, the researcher then used cross-references from secondary data to correct any misinformation. This was also important as sufficient information was needed to characterize and explain the unique features of the cases, as well as to point out common characteristics from the comparisons of the multiple cases (Ghauri, 2004). These individual reports formed the basis for both the individual and comparative case analysis.

Subsequently, a cross-case synthesis technique was employed. As similarities between answers began to emerge, categories of responses were able to be determined, allowing the data to be classified and sorted accordingly (Jack, 2006). Once data had been clustered, findings were summarized in conceptually clustered matrices to compare several categories at once, facilitating pattern matching and the effective categorization of data (Miles & Huberman, 1994). This process also allowed possible comparisons to be made by exploring the factors of the key dimensions more systematically, thus

increasing the opportunity to identify deviations and new factors within the body of the research (Ghauri, 2004). Relevant explanations for the findings were offered, and the conceptual framework was then developed through this process.

4.4. Chapter summary

This chapter has explained and justified the research methodology. An analysis of the methodology has explained why a qualitative, multiple-case-studies method was considered the most suitable approach for this research. The topic and the relevant theories are still at the early exploration stage. This, together with the mining industry's sensitivity, required the researcher, who is also the author of this thesis, to exercise appropriate interpersonal skills and strategies to use the 'guanxi' networks to gain agreement to participate from the six desired case-study firms from the three major sub-mining industries – iron and steel, gold, and non-ferrous industries. Given the rarity of case-study research in China, case firms for the pilot study were selected by convenience sampling. Theoretical sampling was then employed for the major case firm selections, due to the requirement of the comparative nature of this research. These firms were evenly distributed between the SOEs and NSOEs across each of the sub-mining industries.

This multiple-case-study approach allowed data from various cases to be assessed in a manner that compares theory to case data with the logical extension between the two kinds of Chinese mining firms. The number of interviews conducted within each firm ensured triangulation of the data collection process, as multiple interviews within each case ensured a consistent understanding (Jack, 2006).

The process of conducting interviews gave the researcher a greater understanding of the experience of the firms that is relevant to the research questions. Interpreting and analyzing qualitative data is perhaps the most difficult task while doing case-study research, as the idea is to present an 'authentic' understanding of people's experience' (Ghauri, 2004). This means not just understanding the point of view of the interviewees and firms being studied, but also viewing the data against the background and the context in which it has been produced (Hammersley & Atkinson, 1983). Per

recommendations of Yin (2009), the researcher also supplemented interview data with background information from secondary data sources, additionally from semi-structured questions that had been administered to respondents. This kind of supplemental information was used effectively to check for consistency. The number of interviews conducted within each case ensured that triangulation of the data collection process was achieved, as multiple interviews within each firm ensured that a consistent understanding was obtained (Jack, 2006).

Chapter 5: Individual case study firms

5.1. Introduction

This chapter presents the individual cases and analyses based on the in-depth interviews with senior and functional managers from six SOEs and NSOEs of three major sub-mining industries. They are Shougang Holding Co. (SOE, iron and steel industry); Shagang Group (NSOE, iron and steel industry); China National Gold Group Corporation (SOE, gold industry); Fosun Group: Fosun Mines (NSOE, gold industry); Yunnan Copper Corporation (SOE, non-ferrous industry); and Bosai Minerals (NSOE, non-ferrous industry).

The chapter presents the qualitative results. The analyses begin with the sub-mining industry profiles and international development of each participating firm. Each case examines the subsidiary research questions with a focus on motivations, institutional factors and risk attitudes during their internationalization. The aim is to gain, from a relatively small sample, a large amount of in-depth information about the internationalization process of these firms (Denzin & Lincoln, 1998; Miles & Huberman, 1994).

5.2. Chinese iron and steel industry

Steel is a globally strategic industry (The Australian Pipeliner, 2010), as steel consumption is the barometer for measuring development and economic progress (World Steel Association, 2012). China's opening of its markets to foreign trade has led to the rapid growth of its steel industry in recent decades, and China is now the world's largest producer and consumer of steel (Holloway et al., 2010). Chinese steel production increased at an average annual rate of 7% during the 1980s, 10% during the 1990s and nearly 20% in the 2000s. Actual steel production has increased from a mere 0.158 million tons in 1949 (when the People's Republic of China was formed) to 567.842 million tons in 2009 (Trench, 2004; World Steel Association, 2010). With further increases to 683.9 million tons in 2011, China continues to be the world's leading steel-producing country, as shown in Table 15 (World Steel Association, 2012). China has

become a net exporter of steel products since 2006, reducing its imports of steel products over the years (Emerging Markets Direct Insider, 2013). This has resulted in a sharp increase in demand for iron ore and coal, the natural resources which are the key inputs for steelmaking.

Table 15 Top five steel producing countries 2010–2011 (million tons)

	2010		2011	
1	China	637.4	China	683.9
2	Japan	109.6	Japan	107.6
3	United States	80.5	United States	86.4
4	India	68.3	India	71.3
5	Russia	66.9	Russia	68.9

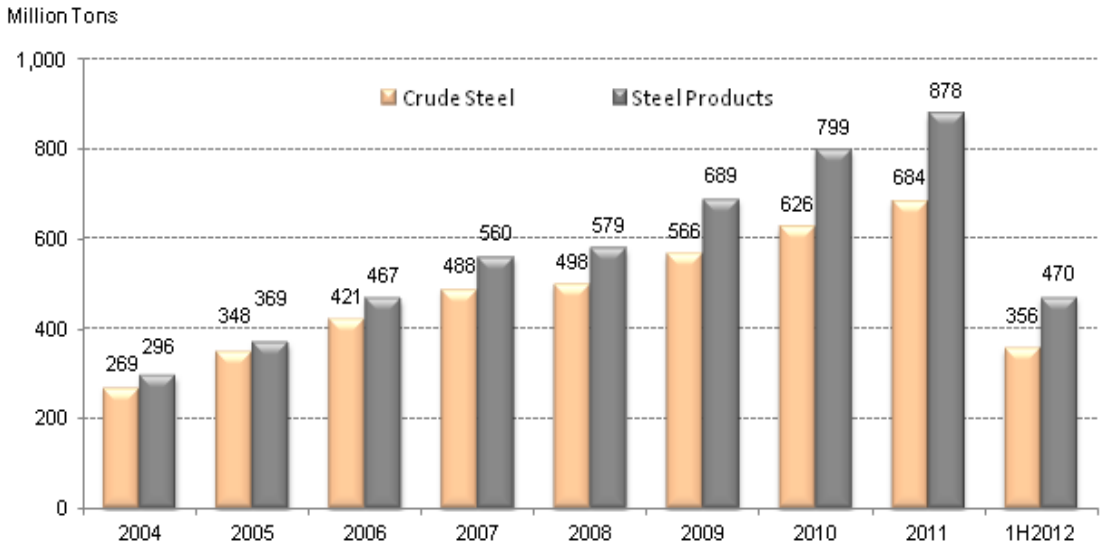
Data source: World Steel Association (2012)

Crude (or unprocessed) steel can be produced either directly from iron ore and coking coal using the blast furnace/basic oxygen converter method, or from scrap steel (and other inputs) using the electric arc furnace method (Holloway et al., 2010). Unlike developed nations, where the key material for steelmaking is using scrap with electric arc furnace technology (Holloway et al., 2010), 90% of China's crude steel is produced in blast furnaces (World Steel Association, 2010). The development of technology can transform iron ore to steel within a day; the raw materials, however, are the keys to China's crude steel production. Figure 12 shows China's production of crude steel and steel products between 2004 and 2012 (first half). There is a big drop in the production, since the industry was reported to have made no profit in the first six months of 2012 due to overcapacity (Emerging Markets Direct Insider, 2013).

China's demand for raw materials to make steel is consistent with its industrialized and urbanized development. However, such a demand will not last forever. In developed countries, recycling accounts for almost half of the steel produced (World Steel Association, 2012). In contrast, recycled scrap is not sufficient for production in China. If China is to follow the general global pattern of steel production and economic

development, demand would stay high for another decade or so and then start to decline (Holloway et al., 2010).

Figure 12 China's production of crude steel and steel products



Data source: Emerging Markets Direct Insider (2013)

Steel is regarded as a key strategic sector (Nolan & Yeung, 2001). The Chinese steel industry is highly decentralized with most of the larger steel producers state-owned enterprises (SOEs) and a significant proportion of the smaller producers non-state-owned enterprises (NSOEs) (Holloway et al., 2010). Table 16 details the top steel producing companies worldwide in 2011 (World Steel Association, 2012) including the two case firms which are ranked 8th and 7th. Figure 13 highlights the geographic location of these two firms.

Shougang (SOE, which reports directly to the Beijing LSAMA) and Jiangsu Shagang (NSOE) are selected as the cases to be studied in this research. According to the World Steel Association (2012) they have ranked 8th and 7th as the world's top steel producer in 2011.

Table 16 Top 10 steel-producing companies (2011, million tons)

		2011			
1	ArcelorMittal	97.2	6	Nippon Steel	33.4
2	Hebei Group	44.4	7	Shagang Group	31.9
3	Baosteel Group	80.5	8	Shougang Group	30.0
4	POSCO	39.1	9	JFE	71.3
5	Wuhan Group	37.7	10	Ansteel Group	29.8

Data source: World Steel Association (2012)

Figure 13 Location of selected firms from the Chinese steel industry

5.3. SOE 1: Shougang Holding Co.

5.3.1. Firm overview

Shougang Holding Co. Ltd. is one of the 38 member companies in Shougang Group (Shougang, 2011a). The firm considers itself as a market-oriented company, implementing new mechanisms and a new system of financing, resources investment and industrial investment. The company has approximately 30,000 employees and more than 20 independent companies and mines in China and internationally (Shougang Holding, 2011). As an important firm-level development strategy, the company has implemented the 'financial-led, resources-support' system to establish its investments. Here, 'financial-led, resources-support' means to enhance overseas expansions through financial advantages (e.g., ongoing restructuring, capital markets participating, assets reconsolidating, listed companies enhancing) to consolidate and strengthen domestic and overseas raw material bases to accelerate the development of external resources and expand the control of the scale.

Shougang Group, a multinational corporation (MNC) is the parent company of Shougang Holding Co. It was founded in 1919 based in Beijing, China, and was formerly named the Shijingshan Steel Factory. It experienced 30 years of hardship in the initial stages before the nation-wide liberalization, followed by 30 years of reform and growth after liberalization, and during the most recent 30 years the company has boomed as a result of the opening up of markets (Shougang, 2011b). The company has grown into a leading global steel producer, ranking 16th in the world's steel top producers in 2010 (World Steel Association, 2011). Since the group's formation, steel production has increased from 1790,000 tons to 12.19 million tons and sales have increased from 1.443 billion yuan to 1,320 billion yuan. The company's total profits have led to it paying state taxes of 57.66 billion yuan (Shougang, 2011b). Shougang Group has also extended its business from the steel industry to mining, machinery, electronics, construction, real estate, services and foreign trade. In 2009, Shougang

Group was 39th on the list of the Top 500 Chinese enterprises, and 12th in the Top 500 China Manufacturing Enterprises (Shougang, 2011b).

From 2002 to 2008, Shougang Group's steel production increased from 8.17 million tons to 12.19 million tons, an increase of 49%; sales revenue increased from 38.5 billion yuan to 132 billion yuan, representing growth of 240%; profits increased from 4.8 billion yuan to 44.88 billion yuan, a rise 830%; and total assets increased from 47.5 billion yuan to 207 billion yuan (Shougang, 2011b). Shougang Group was relocated between 2005 and the end of 2010, due to the environmental requirements of 2008 Beijing Olympic Games and the group's strategic repositioning (Wang, 2009a; Zhang, 2011b). The relocation saw the Beijing headquarters restructured as Research and Development (R&D), focusing on high-end materials and equipment manufacturing, automotive components and services. Following the relocation, new projects have been set up in ShouQin Company, Shunyi cold rolling Company and Jingtang steel plant to upgrade the steel production. One of the key focuses during the relocation process was enhancing the company's innovation capability. Those changes raised Shougang Technology Research Institute's ranking from 184th in 2001 to 4th in 2009 among China's rating of 569 national-level technical centres (Shougang, 2011b).

5.3.2. International development

Shougang Group was the first pilot of enterprise reform starting in 1978 (Shougang, 2011b) and first Chinese firm to undergo internationalization in 1979 (Lu, 2003). During the 30 years since these developments, the company has accumulated varied international experience, such as acquiring foreign advanced technologies and equipment, investing in joint ventures in several industries[12], exporting upgraded products that meet international standards, and investing directly through OFDI (Lu, 2003). According to Lu (2003), the company underwent three stages of internationalization development.

12 In July 1992, State Council issued 'State Council approved the State Council Economic and Trade Office, the State Commission on further reform to expand the autonomy of Shougang notice'. The main contents include: 1) The right of investment projects. Shougang may free to decide any investments in overseas under US$10 million, associated with the projects' feasibility report, contract and articles; can be validated in the domestic investment of below 200 million RMB in the forms of joint venture, cooperative operation projects, and feasibility study reports. 2) Foreign trade and foreign affairs power. Set up a 'China Shougang International Trade & Engineering Corporation' to specify these business practices. 3) The right to financial intermediation. Shougang agreed to set up banks. Shougang is allowed to establish bank branches at home and abroad, to acquire banks in Hong Kong, and to raise funds to any domestic investments and international investments if required.

The first stage was 1978–1987, when the firm was focusing on large-scale technological transformation and starting to form joint venture corporations (JVCs). Shougang Group was actively buying used equipment to introduce new technologies and improve its competitiveness. Table 17 shows the main technological activities undertaken during the first stage.

Table 17 Shougang Group's main technological activities, 1978–1987

Year	Number of projects	Internationalization destinations
1978	2	UK
		USA
1980	4	Unknown
1981	5	USA
1982	17	Various
1983	34	Various
1985	1	Belgium
1986	2	Belgium

Data source: Lu(2003)

In 1985, Shougang Group formed its first JVC with a Swedish company producing electric heating alloy wire. In 1986, it formed a JVC with a Hong Kong company specializing in the ocean shipping business. Then it followed further JVCs with Hong Kong firms, extending its business to the hotel and manufacturing sectors.

The second stage was 1988–1992; the firm was boosting the formation of new JVCs and starting to export its technologies. Within this five-year period, Shougang Group had formed 23 new JVCs. JVCs were the group's first method of diversification, extending the core business from mining and steel to electronics, building materials, food, furniture, textile, instrumentation, aquaculture, mechanical, engineering design, and many more. The firm has gained valuable international experience through these joint ventures, partnering with firms from Germany, Hong Kong, the USA, Denmark, Luxembourg, Japan and Singapore. Table 18 highlights the main joint ventures formed in this period.

Table 18 Shougang Group's joint venture corporations, 1988–1992

Year	Extended industries	Joint venture partners
1988	Aquaculture	Germany, Hong Kong
1988	Instrumentation	Hong Kong
1988	Electronics	USA
1988	Textile	Hong Kong
1989	Building materials	USA
1989	Building materials	Hong Kong
1990	Furniture/Design	Denmark, Hong Kong
1990	Furniture/Lighting	USA
1990	Food	Hong Kong
1991	Instrumentation	Luxembourg
1991	Auto Tyre	Japan
1991	Electronics	Hong Kong
1991	Electronics	Singapore
1991	Electronics	Japan
1991	Electronics	Japan
1992	Electronics	Hong Kong
1992	Food	Hong Kong
1992	Electronics	Hong Kong
1992	Manufacturing	Japan
1992	Engineering	USA
1992	Mechanical	Japan
1992	Manufacturing	USA

Data source: various years of Shougang Bao (Lu, 2003)

For mining investments, Shougang Group's first mining investment was a Peruvian iron ore mine in 1992, which has not proved very successful in the ensuing 20 years. Another important initiative from this stage was when Shougang Group started to export its technologies as well as its finished steel products. Table 19 displays Shougang Group's current international markets, their motivations and the year of establishment.

Table 19 Shougang Group's current international development

Country or region	Focus/Criteria	Motivations	Establishment
Peru	Mines	Government initiated investment	1992
Australia	Mines	1. Enhance the group's investments in upstream supply chain 2. Cheaper inputs 3. Secure resources for domestic production	2007 2011
Brazil	Mines		2011
Hong Kong	Manufacturing/ Technology	1. Early investment was limited in the mining industry 2. Financing –raise publicly listed firms in HK 3. Information gathering 4. Platform for exporting 5. Platform for international investments 6. Enhance the group's investments in upstream supply chain	1983
	Financing/ Investment		1991
	Financing/ Investment		1992
	Financing/ Investment		2002
	Financing/ Investment		2007
Zimbabwe	Information Centre	1. Research the African markets/ mines; gather local investment information 2. Promote Shougang Group in the region	1998
USA	Trading	1. Establish international sales networks 2. Help global information collection and analysis and provide multiple local depots for possible future investments	
Peru	Trading		
India	Trading		
New Zealand	Trading		
Korea	**Trading**		**2004**

5.3.3. Motivations

Resource seeking was identified as the primary motive by the Shougang respondents. All managers complained about the poor quality of Chinese iron ores. For example, the Investment Manager (S1-3) claimed:

> *I think because it's been a firm strategy to acquire overseas resources for Shougang, as there are simply not enough resources in China! So because of concerns about sustainability, the firm needed to get a portion of its resources overseas!*

> *The second reason would be the steel products' international sales. But, this is a separate consideration from the Shougang Group. It's separate from the mining investments.*

Hong Kong Subsidiary investment manager (S1-4) reiterated that he believes Chinese mining firms are just following the industry standard, which is to expand and operate at a global scale. He said:

> *Why are so many people surprised about Chinese mining firms' internationalization? It's quite standard in our industry to expand internationally and operate internationally. It's really just a common market-oriented flow from high-cost locations to lower cost locations. I can't see why Chinese mining firms have been seen so differently from other mining MNEs.*

Empirical studies have shown that Chinese SOEs often incorporate **political strategic considerations**[13] in their OFDI (Alon et al., 2009; Buckley, 2008; Buckley et al., 2007; Deng, 2007; He & Lyles, 2008; Luo et al., 2010; Morck et al., 2008; Naidu & Mbazima, 2008; Wang, 2009c). However, according to the Chairman (S1-1), this is not the case for Shougang, primarily because of the incentive scheme of SOEs:

> *We did not always respond positively to the state's calls! For the state-owned enterprises, in fact, I would say whether to take the international investments depends a lot on the sense of responsibility of the SOE's leader. Taking action to follow the government's 'going out' encouragement can only increase our responsibility, risk, and fatigue for the leader, but bring no benefits at all.*

To illustrate the fact from the OFDI of the Chinese firms, the CEO (S1-2) stated:

> *Although it's been discussed a lot in recent years about Chinese firms' internationalization, the reality is Chinese mining firms' OFDI developments are not as good as the MNEs from USA, Canada, and Australia. Most of our internationalization has still been tightly associated with labour-intensive industries, like construction. And in many cases we are just the sub-contractors under the developed countries' MNEs – it means that most profits had already been taken by them. Overall, we are still immature and not yet at the stage where we can compete with the international MNEs.*

Many researches have suggested that one of the major motives of china's OFDI would be to acquire advanced technologies; however, this was not the motive for Shougang to internationalize. According to the CEO (S1-2):

13 Since the 1980s, the government has required the Chinese overseas subsidiaries to achieve one of four goals: introduction of advanced technology, access to raw materials, earning of foreign exchange and expansion of exports (Deng, 2003).

> *No advanced technical capability in minerals needs to be acquired through OFDI. Really, mining technology is not complex. Now, China's low-cost and highly efficient mining technology is the best. We aim to look for a competitive price for the resources. Very simple, we want to buy cheap resources.*

This unique industry condition is also essential for differentiating the firm's internationalization approach among these sub-mining industries. Demand for certain mineral resources can be aggressive and ongoing, although this may not always be the case. For example, in the iron and steel industry, as the Chairman of Shougang (S1-1) pointed out:

> *Actually, the demand for natural resources is not unlimited. In the iron and steel industry, China has been requiring iron ore because it's been boosting its GDP and domestic development lately. If this lasts for another 30 years, China would finally reach the point that scrap metals recycling can sufficiently meet its demand. Like how the European countries supply over 70% of the iron and steel products through recycling now…*

The CEO (S1-2) and most of other respondents from Shougang believed the scarce resources and the product internationalization are the two main motives for the group to take the internationalization path:

> *One primary motive is seeking resources, as the required mineral ores are scarce resources in China. The grade of iron ore is too low for production. And also, we can seek markets for the final products.*

5.3.4. Institutional factors

The CEO of Shougang Group Hong Kong publicly listed firms (S1-5) stressed that domestic institutional factors like regulations and approval processes can only impact the investments taken from the firms based in mainland China, and so this is not an issue for them:

> *The Chinese laws and regulations can only directly impact on the firms' OFDI process for the group's investments or firms based in mainland China. Our four publicly listed firms in Hong Kong do not follow those procedures; therefore any investment decisions taken are market-oriented actions.*

While the HK subsidiary enjoys the flexibility of being out of reach of the home institutions, the Head of Administrative Officer (S1-6) believes it is still important that firms to have such support from the home institution – as an SOE, they will benefit from being in such position:

> *It is very important to get the state government to support the OFDI from the policy perspective. It's impossible to get approvals or acknowledgement without this fundamental support.*

The CEO of Shougang (S1-2) focused on the remuneration and incentive schemes associated with the home institutional factor, when explaining why the top managers from SOEs are not motivated to actively take the internationalization activities. In his words:

> *There might be some benefits from the firm level, but not at the personal level. There is no satisfactory level of incentives for the top managers. This remuneration has led to many top managers being unwilling to undertake firm internationalization activities. 'Going out' policies have been detailed a lot, but no policies or regulations encourage or reward the leaders of SOEs. Any OFDI project requires approvals and records from various government departments. Getting through all this has already been a great pressure for a firm, especially as sometimes we have to deal with many governmental bureaucracies. These bureaucracies and setting of complex approval process have become a disincentive for the investments.*

Ownership by SOEs constrains the way that the company can offer remuneration and incentive schemes to the top managers. Many of them are paid by rank, rather than by performance. This has not resulted in a satisfactory level of incentives, even if the investment is profitable, and so it has dampened their enthusiasm for OFDI. Another discouragement is the duration of tenure by the SOE's top leader. According to the CEO (S1-2):

> *The leader of SOE normally changes around every four years. With the much longer average developing process required for any kind of mines, it would be ridiculous for any leader to have carried all the risks and made all the effort but not see the results. It happened in another mining SOE, all the positive results and praise were heaped on the new CEO of the firm. But only those who knew the history of the firm would understand that this was a result of the former leader's efforts*

A unique feature of the mining industry is its much longer investment period. This normally involves stages broadly described as initiating, financing, investing, prospecting, extracting, treating, milling, producing and selling. Prospecting alone can often take up to four years. It is very common to have a mining project lasting for more than 10 years. As the CEO/*yi ba shou* needs to show their positive performance during their four-year tenure, they may not want to invest in a new mining project or they may

not be interested in spending years on the early stages of a mining project (even before the prospecting) without seeing any profits to the firm. The investments and risks are usually significant lower in the early stages of the project. In the later stages of a mining project (after the prospecting), the investments and risks are dramatically greater, but the firm can then enjoy immediate benefits from the mineral resources. Therefore, the standard four-year tenures of Chinese SOEs can be a direct influence on the CEO/*yi ba shou's* risk attitudes and internationalization decisions.

The CEO believed the NSOEs are more competitive than SOEs in OFDI for the following reasons:

1. *Fast decision-making mechanism.*
2. *Less resistance from the host country's government and society.*
3. *More responsible than SOEs.*
4. *More flexible (e.g., SOEs must go through all the required approvals step by step before taking any action, which may result in missing the best timing to take OFDI. NSOEs can act at the optimum time for the business and complete the approval procedures later).*
5. *It is hard for NSOEs who don't have sufficient funds to take up international expansions, but those with funds can make decisions and take action very efficiently. It takes much longer for SOEs to make the funds available, even with a better credit rating from the banks in China.*

In addition, the Hong Kong Subsidiary investment manager (S1-4) added:

> *We also have more credit than NSOEs. This credit applies both within the industry and from the bank's view. Our business reputation has been accumulated along the years. The banks view us as a more reliable borrower.*

Interestingly, the CEO (S1-2) claimed that the 'go global' policy has had a positive impact for the domestic firms, but a negative impact for the host government. He said:

> *'Go global policy' hasn't simplified the approval process. In fact, more specific departments have been set up because of this, but it did boost the speed of the process for the OFDI approvals. For example, if we spent five years before to obtain all the approvals, now we might need just two years. This theme is the 'reason' for those departments to speed up. However, this has sent a 'sign of hunger for resources' to the host governments. Before this was imposed, it was 'normal' to deal with our investment proposals, now these host countries are very cautious to identify your 'intention' of the investment. In fact it's complicated the process for us.*

Host countries have increased the barriers for the firm (SOE) to obtain OFDI approval by the host institutions. This was asserted by the Chairman (S1-1):

> *Australia's FIRB (Foreign Investment Review Board) is very alert to our investments, especially for the SOE background firms.*

The host country-based risks need to be viewed as a combination with the host government's institutional factors. The Chairman (S1-1) claimed:

> *Some developing countries, like African countries, would be a lot easier to deal with compared to the host governments from Canada or Australia, as they are far more flexible…*

The host government's taxation policies and regulations are tightly related to the costs. In the CEO's experience (S1-2), Australia's recent resources tax is a good example:

> *As Australia's resources tax is introduced, any new investments will be greatly influenced. We will therefore have to downgrade Australia as a preferred investment location.*

5.3.5. Risk attitudes

The CEO or the *'yi ba shou'*[14] of the SOE has a direct impact on the firm's attitude towards the risks of internationalizing. The CEO (S1-2) said:

> *The OFDI is reliant on our feelings and responsibilities towards the firm. Under certain circumstances where we don't have to make extra effort to make this happen, we can expand and invest some more. Otherwise, we don't want to take too much risk.*

According to the CEO (S1-2), the firm's internationalization goal depends on the leader:

> *In any SOE, the internationalization goal depends on the leader. No matter how wonderful your plan is, consistent implementation is more important. This support of consistent implementation comes from the leader. Unless the leader of the firm really wants to make it happen (the resources, human resources, and funds then are possibly arranged to serve this aim), otherwise a plan is a piece of paper.*

Country-based risks are major to Shougang's international investments, but these risks can be managed by establishing a good community relationship through national aid provided from the Chinese Government, as stated by the CEO (S1-2):

14 '*Yi ba shou*' refers to the top leader, who is the most powerful actor of the company. In this study, '*yi ba shou*' is used as substitute as 'CEO', ignoring this most powerful man's or woman's actual title.

> *We went to Africa to help local people to construct new roads, bridges, infrastructure projects aid, and medical aid. The local people recognized our efforts. It's easier to cooperate when they are more accepting of us.*

Environmental risk is also essential for mining firms. They have learned to adopt the local environmental standards through their overseas investments in different host countries. The CEO (S1-2) said:

> *We were shocked when we first saw how sophisticated the environmental protection program could be made by the Canadian Government. It's detailed thousands of pages to illustrate the protection responsibilities that a mining firm needs to carry to develop a mine in Canada. It covers everything from plants to little animals. It's really impressive.*

Another example from Australia also highlighted how such a learning process helped the firm to minimize/manage the environmental risk. They have also learned how such environmental protection could interact with the mineral investment and sustainability. The CEO (S1-2) said:

> *For instance, Tasmania (Australia) is very environmentally friendly. The mines are restricted in details to even one kilometre. If there is a rare species orchid found there, this whole area is then prohibited from exploitation. These details should be fully disclosed to avoid mistakes in investments.*

The Head of Administrative Officer (S1-6) said:

> *As an SOE, we would have more risk resistance capacity.*

The Chairman (S1-1) mentioned that choosing the more developed countries as the investment destination can be an effective way to manage these risks:

> *The country-based risks are lower in developed countries than in Asian or Middle Eastern countries. For instance, the political risk and social-related risks are substantially lower. More importantly, the transparency levels are high. Although the costs would be a lot higher, these costs are predictable and the investments are stable.*

5.3.6. Discussion

Resource seeking is essentially the key motive for the firm's internationalization, but the demand for Chinese iron and steel is not going to remain unlimited. After a few more decades, the domestic scrap metal recycling industry will be sufficiently adopted to meet the demand in the Chinese domestic market. One of Shougang's motives for

going international is to seek markets for their finished products, rather than seeking strategic assets such as advanced mining technologies. The firm's trading network is very established in the key regions, which is spreading out through North America and Asia. With the international experience gained from setting up these trading networks, Shougang then made a strategic move to set up a series of publicly listed firms in Hong Kong to make its foreign investments more market-oriented and more transparent. Calling Hong Kong the 'strategic location' enables the company to escape the constraints of the home country institutions. Instead of taking years to achieve OFDI approval in mainland China, being located in Hong Kong means the company can increase its efficiency by making quicker decisions and reacting in response to the market. It also serves as a platform for the firm to generate funds from the Hong Kong capital markets to be used in its foreign investments.

Shougang Group was the first SOE to obtain internationalization in China, forming a joint venture with Japanese firms in the late 1970s. The early developments of OFDI, before 2000, were mostly initiated by the government. Since 2000, however, overseas investments are not 'politically obligated' as they had been previously. They can be more accurately described as 'politically influenced'.

The preferences of the CEO or *'yi ba shou'* is a key factor in the firm's attitude towards the risks involved in OFDI and internationalization. In addition, adequate remuneration appears to encourage the top leader and managers to more enthusiastically take on more responsibilities and bear greater risks in terms of OFDI. However, the remuneration and more 'market-oriented' incentive schemes are constrained by the ownership of SOEs.

Host country political risks, environmental risks, taxation policies and regulations, and other risks have all influenced the firm's risk attitudes in different ways. Based on Shougang's experience, home government policies such as 'go global' speed up the process of domestic approvals, but they also make the firm's 'state-owned' status more obvious and thus increase the barriers from host governments to treat investments from the firm as more 'political obligated' or 'with non-economic ambitions'. However, senior managers from Shougang do not consider the firm's OFDI are bounded by any 'political obligations'. They may become involved in some government-initiated

projects overseas, but they have the flexibility to decide what, where and how to conduct their OFDI. Table 20 displays the list of key criteria in Chinese iron and steel SOE's internationalization.

Table 20 Key criteria in Chinese iron and steel SOE's internationalization

Types of mining firm		SOE (Provincial SOE)
Core business		Iron and steel
Drivers and motivations (ranking from most to least important)		'mixed economic and political considerations' 1.Resource seeking due to China's poor quality iron ore and scarce resources 2.Industrial standard and market-oriented flow from high cost location to low cost location 3.Political consideration: Host government employment and taxation needs (Chinese Government-led) 4.Foreign market seeking for the final processed products 5.China's economic development and urbanization
Risk attitudes		'Risk averse' and 'Risk resistance' with a **paradoxical risk attitude**
First internationalization experience		1992
Location choices	**Resources/Mines**	**Location of mines** • Australia • Brazil • Peru **Geological prospecting** • African countries **Trading houses** • Hong Kong • Zimbabwe
	Exporting markets	• Hong Kong • USA • Peru • India • New Zealand • Korea **Finance platform** • Hong Kong

5.4. NSOE 1: Shagang Group

5.4.1. Firm overview

Shagang Group is also called Sha-Steel. It is the largest privately owned steel firm in China. It falls into the category of non-state-owned enterprises in this study. Shagang Group's headquarters are located in Zhangjiagang city, Jiangsu Province, which is along the Yangtze River. The Shagang Group was established in 1975 by JinFeng ginning stripping cashmere factory (the former name was Zhangjiagang Jinfeng Ginning Stripping Cashmere Factory). A fund of 45 million yuan from cashmere production was used to establish the factory's own small steel-rolling workshop. Soon this small workshop became the steel factory of Shazhou, Jiangsu Province. In 1983, it officially separated from the Cashmere Factory (Shengyishe, 2009) and since then it has been locally known as the 'Shagang factory'. In 1986, due to the change of administrative divisions, Shazhou, Jiangsu Province was approved by the State Council to be the Zhangjiagang City, Jiangsu Province. This also resulted in the change of the steel plant from 'Shazhou Steel Factory' to 'Zhangjiagang City Steel Factory'. At that time the firm was a collective enterprise (iFeng, 2009).

It became a privately owned enterprise in 1987. The factory was facing great funding difficulties because of its intention to upgrade technologically and also because it is a collective enterprise. Therefore, the enterprise was restructured, resulting in the 38 voluntary-funded legal entities becoming the new shareholders (iFeng, 2009). The firm has been renamed several times: 'Jiangsu Shagang Group' in 1992, 'Jiangsu Shagang Group' in 1996, due to internal reorganization, and finally 'Jiangsu Shagang Group Co. Ltd' (Shagang Group, 2013).

By 2011, Shagang Group possessed total assets of 132 billion yuan and more than 35,000 employees. Its annual production capacity is 29 million tons of iron, 35 million tons of steel and 33 million tons of rolled products (Shagang Group, 2013). It has been a very reputable NSOE from the mining sector with great achievements both domestically

and internationally. For example, in 2012, Shagang Group was ranked 1st on the list of the Top 500 Chinese enterprises (SinaFinance, 2012).

5.4.2. International development

Currently, Shagang's leading products are targeted at industrial consumers, both domestically and internationally. These products include wide heavy plate, hot-rolled coils, hot and cold rolled stainless steel sheet, and special steel rebar with 60 series and more than 700 varieties with nearly 2000 specifications, among which are high speed wire rod and ribbed steel bar products (Shagang Group, 2013). The total annual production volumes and exportation of prime wire rods have both ranked the first in China for consecutive years; hot rolled strip coil has passed the CE Certification by the European Union; and shipbuilding steel plate has passed through the classification society authentication of nine countries. The trademark 'Shagang' has won 'the Well-known Trademark of China'. In 2009, Shagang Group made full use of its comprehensive advantages of its process equipment, product mix/structure, company branding strategy and modern logistics to optimize its product structure, promote its technological innovation, pay close attention to reducing cost and improving efficiency, innovate its marketing mechanism, expand the markets with its great efforts, and actively respond to the challenges and tests, so that the company's production operation has maintained good development momentum (Shagang Group, 2013).

The firm started to gain international experience through its import operations in the late 1980s. The starting point was importing machinery from the United Kingdom for its domestic productions (CEAIT, 2010). This was followed in 1993 by importing an 'all-star' production line that gathered the most advanced steel-making equipment from Germany, the United States and Switzerland. In 2002, the firm bought German ThyssenKrupp Steel. All equipment were broken down and re-installed in Shagang. The Western media called this project as 'the world's largest industrial demolition project after World War II' (CEAIT, 2010). With these imported advanced smelting machineries and technologies, production capacity was boosted dramatically and the quality of the products improved to meet international standards. Of the firm's exporting experience started since 1999, the Vice Principal- investment (N1-3) stated:

> *We started to export high-beam wire to the United States from 1999. Now our major exporting destinations are Korea, Japan, USA, Thailand, Vietnam, Indonesia and Dubai.*

However, she (N1-3) also pointed out:

> *It's just counted as a small portion of our total production. Despite the wide spread of countries that our products are exporting to, China will always be the main pillar of our market.*

The wholly owned subsidiary Jiangsu Shagang International Trade Co. Ltd. (Shagang ITC) has specialized in importing and exporting. It also recently extended its key activities from trading to broader ranges, such as exploration and mining of mineral resources, import and export of metallurgical equipment, spare parts and steel products, logistics of cargoes and their overseas investments (Shagang ITC, 2011).

The Head of Australian subsidiary (N1-6) further explained:

> *There are two main criteria for Shagang's internationalization: the raw materials (resources) and the finished industrial products. As a result of increasing production capability, the domestic resources in hand are not enough for us to meet the demand of production. Due to the locational advantage our firm has, we can buy and import any raw material at very competitive costs.*

Between 2002 and 2003, the first internationalized movement in mining investment occurred after much hard negotiation. The destination was Australia. According to the company's internal archives, the main proposed international investment destination until 2011 would be Australia.

The firm's chairman, Mr Shen Wenrong, has been the firm's leader since 1984, when Shagang was still a small collective steel factory. Unfortunately, because of illness he was unavailable for interview during the fieldwork period at Shagang Group, so the interviews were conducted without his participation. But his powerful influence and his personal leadership style were widely recognized and praised by all of the key managers/respondents.

The interviewees described how the firm has achieved an advanced level of internationalization in the distribution of its final products, but it is at an early stage

with its mining investments. Table 21 provides details of Shagang Group's current international markets.

5.4.3. Motivations

In terms of mining investment, all the interviewees highlighted the following two motivations for the firm to internationalization, as the senior board member first pointed out:

- *Many steel mills need a long-term stable supply of resources, yet the Chinese domestic ore is insufficient to support this need.*
- *Internationalization is a way to ensure the long-term stable supply of raw materials at low cost.*

Table 21 Shagang Group's current international markets

Major Country or region	Focus/ Criteria	Motivations	Establishment
Australia	Mines	1. Long-term stable resources 2. Competitive low-costs inputs 3. Maximize the rate of returns (profits) 4. The nature of firm development 5. Obtain international standard of management 6. Aligned with international industrial standards 7. Hong Kong and Singapore are used as strategic locations to collect latest industrial information and to finance if it's required	2002 2007 2008
Hong Kong	Financing/ Trading		2003
Singapore	Financing/ Trading		2004
USA	Trading	1. Establish international sales networks to compensate for domestic sales 2. This helps our global information collection and analysis	Since mid-90s
Korea	Trading		
Japan	Trading		
Thailand	Trading		
Vietnam	Trading		
Indonesia	Trading		
Dubai	Trading		
Africa	Venture Capital	1. Maximize the profits 2. Diversify the mining investments with different risk tolerance levels	Negotiating

The scarce domestic mineral resources limited the firms' choice in China. Senior management have been viewing the whole world as a 'global market' since around the turn of the century. The Chief Financial Officer (CFO) (N1-4) of the firm insisted there were other objective conditions that made Shagang take the international pathway:

- *Before 2001, we'd used furnace in production, that's why we did not need any ore. But since changing equipment and the steel production processes, we started to use the high quality iron ore as the input.*
- *This followed the first point, which is the quality of the domestic iron ore cannot sufficiently meet our production requirements. We then have to seek resources outside China, to source internationally.*
- *A great advantage for us is our strategic location along the Yangtze River.*

The financial advisor of board (N1-2) further elaborated on the location-cost relationship for mining firms:

> *Same raw materials generate different transportation costs for different firms. For Shagang, we have our own port along the Yangtze River which is attached to the Pacific Ocean. The ore can be directly sent through the transmission belt to the steel furnace. Compared to other firms, who need extra land transportation costs, we have already won.*

Yet the Head of the Australian subsidiary (N1-6) explained that their motivations are not just limited to 'resource seeking':

> *We don't just acquire resources overseas; instead, we have always emphasized the rate of return on investment. We want to maximize the firm's profits through our international projects. Of course, at the same time, the projects often need to fulfil our requirements of resources.*

For the formation of Hong Kong and Singapore offices, the CFO (N1-4) referred to the following considerations:

> *The 'window companies' that we set up in Hong Kong and Singapore are used as strategic positions to collect the latest industrial information, interact with other firms from the mining industry, and to assist with any financing needs in these international financial centres. Such information is essential for our decision-making process. It's also important to let these firms act as our 'bridges' between our headquarters and the international destinations.*

Nevertheless, from an export perspective, a few other motivations were added by the Vice Principal (N1-3) of the group:

- *It's internationalized by the nature of firm development. We need the support both domestically and internationally. As we have got the 'Two outer' strategy – meaning that the resources will be supported by the overseas materials and the finished products will be supported by the overseas markets.*
- *Internationalization is also indicating that our enterprise has grown from immature to mature. From such a process, we achieve international standards in different areas, such as management, technologies, production quality control systems, and many other areas.*
- *We have also been updating with the latest industrial standards through internationalization. For example, we passed CARES[15] Certification from UK, CE- marking[16] from the EU, and ISO 9001[17] quality assurance. These have lifted our whole management standard to a new level.*

Given the above introduced history of the firm, General Manager from Shagang ITC (N1-5) added a relatively minor need:

> *Our fully equipped imported machinery requires imported spare parts for maintenance and associated technologies.*

5.4.4. Institutional factors

Chinese institutional factors, like the government's political considerations, are not considered to be the motivation for Shagang Group to internationalize, stated by the CFO (N1-4):

> *Political obligations would not apply to us, but the 'Going out' policy is definitely positive and helps us to invest abroad.*

As an NSOE, the ownership advantages enjoyed by the firm have seemed very beneficial to its internationalization development. According to the CFO (N1-4) of the Shagang Group:

> *NSOEs like us have much faster internal decision-making mechanisms, compared with the SOEs. We don't need to have the 'step-by-step approvals' required with SOEs. Once we recognize there is an international opportunity, we*

15 CARES Product Certification was developed to meet the needs of users of steel products for the reinforcement of concrete. CARES' certification covers all stages in the supply chain from the processing of raw materials, the manufacture of steel and construction products through to the product installation or delivery to the customer. CARES Product Certification is based on the application of three essential elements: the manufacturers' management system as defined by BS EN ISO 9001: 2000; the full requirements of the relevant product standards; the control of the manufacturers process in order that product of a consistent level of compliance will result (http://www.ukcares.com, Accessed 01 March 2012)

16 Existing in its present form since 1993, the CE marking is a key indicator of a product's compliance with EU legislation and enables the free movement of products within the European market. By affixing the CE marking on a product, a manufacturer is declaring sole responsibility, conformity with all of the legal requirements to achieve CE marking and therefore ensuring validity for that product to be sold throughout the European Economic Area. This also applies to products made in third countries which are sold in the EEA (http://www.anec.eu/attachments/ANEC-SC-2012-G-026final.pdf, Accessed 02 March 2013).

17 ISO 9001 is a global quality management standard. Use it to establish and to update your organization's quality management system (QMS). *(http://www.praxiom.com/iso-9001.htm, Accessed 02 March 2012).*

will form a special team immediately, with financial advisers, legal advisers and others to investigate the feasibility and make the subsequent investment decisions.

The CFO (N1-4) of the Shagang Group further added such ownership advantage could benefit the firm's internationalization from the host government perspective. He said:

Compared with Chinese mining SOEs, the host country governments welcomed NSOEs more than the SOEs. We rarely faced any foreign restrictions for the investment approvals.

The Head of the Australian Subsidiary (N1-6) further added:

In fact, the host country governments believe it's not easy for NSOEs to have such achievement; we have been treated with respect.

The Head of the Australian Subsidiary (N1-6) raised the issue of remuneration and responsibility of key expatriates based on his experience:

We got a world standard competitive remuneration package. Our package is not guided by the domestic managers' standard. I'm not saying it's extremely good, but it's adequate from my perspective to work harder for the firm and take a more serious and more responsible working attitude.

He (N1-6) also claimed:

It's an additional benefit to get these learning opportunities through these foreign investments operations.

In terms of host destinations' preferences, the CFO (N1-4) affirmed the importance of Australia:

Australia is still our key investment destination. Not just because of the minerals availability, but also the distance is relatively short compared with Brazil and India; the country's political risk is low, actually very stable; the country's open market orientation helps to get our firm involved in the international competition in a direct way; and the transparency of the institutions – we can accurately predict the profits and lost status and have better credit in the market.

Other possible destinations, including African countries, are not yet part of the investment strategy, although the firm has been exploring the opportunities there in different ways. According to the CFO (N1-4) of Shagang Group:

There is a China-Africa Development Fund (CAD fund) that was formed in 2006 and aims to process mutually beneficial projects between China and Africa. We have been contacted by the CAD fund for possible cooperation. This kind of

setting has reduced the internationalization risks that we were exposed to when investing in Africa at the country level.

The Head of the Australian Subsidiary (N1-6) claimed that SOEs have ownership advantages:

> *The SOEs, especially the central SOEs, have been spreading their international investments around the world in recent years. This has already brought the problem for us to face competition in acquisitions. For example, one resource has been rated 300 million by central SOE, but it's only worth 200 million. Because of this pricing competition, we had to give up.*

According to him (N1-6), another ownership disadvantage for NSOEs is the home institutional environment:

> *There is a lot of discrimination against NSOEs' approval and financing for their internationalization. The state encourages NSOEs to go out, but in actual practice, there is a great reluctance. According to a senior government official, 'we encourage the qualified NSOEs to go global'.*

With the pride of being the both the largest NSOE across all sectors in China and the largest mining NSOE, the firm have also been aware that they have been treated differently from other smaller mining NSOEs by the home institutions, especially through the approval process. The Head of Australian Subsidiary (N1-6) further added:

> *Our local governments have simplified the approval process and subsidized some projects. But an interesting thing is the government only subsidized those successful projects. In my opinion, there are many of other unsuccessful projects that could have also got investment. This area should be the emphasis. The government should establish the compensation of risk investments.*

5.4.5. Risk attitudes

All respondents agreed that the firm's core competitive strength resides in its efficiency and fast decision-making mechanism, at least compared with any other mining SOEs. The internal decision-making mechanism leads to fast and clear directions and decisions. This internal decision-making mechanism was described by the CFO (N1-4):

> *If an investment project has been determined to proceed, it would be a fast 'project team formation'. Within this team, it includes financial support, human resources (HR) support and geological technicians. It would be timed for the associated outsourcing in project investigations and follow ups.*

With this fast-moving working style, the risk behaviour of the firm was consistently recognized by all respondents; that is, the firm is very cautious towards the international investments, thus a 'prudential risk attitude'. The board member (N1-1) mentioned:

> *Any mining investment is subjected to loss risk. If the loss does occur, for state-owned enterprises, it's the loss of business, but however, as it's state-owned, it's also the loss for the state, the nation. If this same loss happened for non-state-owned enterprises, equally it's the loss of business, and it's the loss for the boss. The extent of risks for SOEs and NSOEs is clearly different then. One is for the country to bear such risk; the other is for a person (our boss) to bear.*

Given the motivation of maximizing the firm's rate of return (profits), the manager of raw materials/resources supplies (N1-7) further explained this point:

> *In order to maximize our mining investment profits, there are a couple of things we would look at, including the country-based risks, banking and financing availabilities, exploration risks, costs (especially the logistic costs, which is largely determined by the distance between the host countries' destinations and our mill in China), and lastly the quality of the ore.*

In accessing the different geological projects around the world, the country-based risks were the most frequently discussed risks among the pre-identified mining firms' internationalization risks from the respondents, from a list including country risk, political risk and legal risk. The General Manager from Shagang ITC (N1-5) stated:

> *Although countries like those in Africa and Indonesia have rich resources that we need for production, their investment environments are not as good and stable as Australia or the USA. As our first preference, the political stability is the major concern for us…*

The Head of the Australian Subsidiary (N1-6) added that other kinds of risks would be considered as a whole in comparing various host countries. He also illustrated that the firm has started to differentiate various kinds of investment types within the mining investment field to manage various risks and opportunities:

> *We recently started to negotiate for investments in mining according to two criteria. One is the basics, including traditional mining investments related to iron and steel industry (like the existing ones in Australia). The other one is the venture capital investment in more risky areas like Africa.*

The reason behind such new movement is that (N1-6):

> *We want to ensure our long-term benefits, but the fact is it's hard for any Chinese NSOEs. The SOEs would be a lot better in this sense, especially in the African countries; they can gain company long-term benefits and protection*

through the government interventions … It's therefore better to take a different risk attitude to enter the risky countries, like those in Africa.

5.4.6. Discussion

Shagang Group has been one of the most successful Chinese mining NSOEs, involved in mining, production and sale of steel products. The firm started to export its products in the mid-1990s. Imported equipment has helped the firm to continuously innovate and improve its technology. In early 2000 the firm changed its input from steel scrap to iron ore, requiring it to extend its international focus from just exporting to seeking mining investments and thus strengthening its supply chain system.

The mining investments and its related business reached Australia, Hong Kong and Singapore, and will probably extend soon to African countries. These mining-related investments have diversified to include the traditional/basic mining investment (Australia), the 'window company' or 'platform company' for information and financing (Hong Kong and Singapore), and the venture capital mining investment in high-risk countries (African countries, still at the negotiation stage). The geographic spread of the firm's international markets covers USA, Korea, Japan, Thailand, Vietnam, Indonesia and Dubai as major exporting destinations, but the diversity and establishment of this sales/trading network does not necessary represent the importance of the overseas market to Shagang. In fact, the firm still sees China, the domestic market, as the most dominant market for its final steel products. The overseas markets comprise just a small proportion of the sales.

The firm adopts the 'two ends outside' guideline in their internationalization, meaning that international sourcing and global exports are the essential elements (illustrated by the 'U shape' in Figure 14).

In the interviews, respondents differentiated between the characteristics associated with 'exporting' and those to do with 'mining investments'. The international experience accumulated from its exporting activities gave the firm some advantages in dealing with their foreign counterparts when the firm moved into mining investment in Australia in 2002. The firm's competitive advantages from its ownership style, such as efficiency

and fast decision-marking ability, have also benefited the firm in its competition with rapidly-changing industrial conditions and encouraged the firm to deepen its internationalization.

Figure 14 Shagang Group's internationalization routes

For example, despite its 'conventional' investments in Australia, the firm has been actively trying to diversify the types of investment in different geological locations, depending on various kinds of risk tolerance levels and risk attitudes/expectations. Table 22 provides an overview of the key criteria in Chinese iron and steel NSOE's internationalization.

5.5. China's gold industries

The Chinese people have a long history of using gold. Gold mining in China dates back to the Song Dynasty (960-1279) (China Gold Association, 2012; Mathews, 2008), and gold has long been treated as a symbol of power and wealth in Chinese culture. Traditionally, China has been a country with limited gold resources. Such scarcity had led to the use of silver as the major currency in ancient and modern China.

Table 22 Key criteria in Chinese iron and steel NSOE's internationalization

Types of mining firm		NSOE
Core business		Iron and steel
Drivers and motivations (ranking from most to least important)		'Economic considerations' 1. Profit driven; 2. Resource seeking – higher quality resources at cheaper price abroad; 3. Information seeking; 4. Strategic assets seeking; 5. Foreign market seeking for the final processed products.
Risk attitudes		'Risk averse' with a **prudential risk attitude**
First internationalization experience		2002–2003
Location choices	**Resources/Mines**	**Location of mines** • Australia **Geological prospecting** • N/A
	Exporting markets	**Trading houses** • Hong Kong • Singapore • Hong Kong • Indonesia • Japan • Korea • Singapore • Thailand • UAE • USA • Vietnam

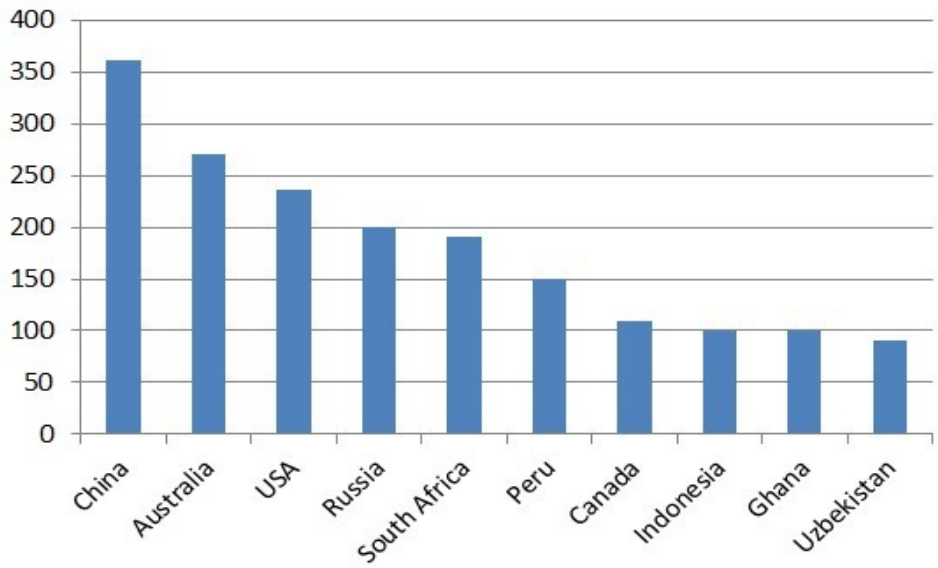
Private trading of gold and silver had been prohibited since 1950[18] (Lan, 2011). From 1950 to 2001, all trading related to gold in China was planned and managed by the People's Bank of China. In April 2001, the People's Bank of China announced the removal of the command system of gold trading (zhjtong, 2009). In June 2001, the central bank started its weekly gold price quotation system, which is adjusted by the international gold price. Shanghai Gold Exchange (SGE) was approved by the State Council and founded by the People's Bank of China to officially operate from 30 October 2002 (SGE, 2011). SGE is a non-profit and self-managing legal entity (SGE,

18 The People's Bank of China (National central bank) formulated and issued 'Gold and Silver Management Guide (Draft)' in April 1950. The guide set out that the domestic gold and silver trading operation and management are delegated only to the People's Bank of China.

2011). This date is seen as the sign of China's free gold market implementation and the new era of China's gold investments. Liberalization is continuing in the Chinese gold industry. In 2007, the State Council, China Securities Regulatory Commission approved the setting up of the Gold Futures in Shanghai Futures Exchange (China Securities Regulatory Commission, 2007). However, gold exports are still forbidden under the current regulations.

China has increased its production every year since 2004 (Miles, 2011). In 2007, became the world's largest gold producer. China's gold output rose 12% from 2006 levels to 276 tons (or 9.7 million ounces), overtaking South Africa (272 tons), who had previously held that honour since 1905 (Lan, 2011; Mathews, 2008). China's gold output reached a record high of 360.96 tons in 2011, cementing its top global ranking for the fifth consecutive year (Zhang, 2012). Figure 15 shows the top gold producing countries in 2011 (Australia Gold, 2012).

Figure 15 Gold production by country (2011, tons)



Data source: Australia Gold (2012)

The increasing consumption of gold from China has been the key factor for this change in world ranking. China was the second largest consumer of gold in the world in 2011, with a total of 811.2 tons, a 22% increase over 2010 levels, driven by demands for

jewellery and investment (Zhang, 2012). The World Gold Council (2012a) was predicting that China would replace India as the top gold consumer in the world for the first time in 2012.

Before 1995, NSOEs were prohibited from operating in the gold industry in China, not even at the lowest level of SOEs (Collective Enterprises[19]) in the hierarchy (see Figure 5 in Chapter 2). During this period, firms could be involved in the gold industry if they are at least provincial-level SOEs, or above. Today's NSOEs have all evolved from the privatization of SOEs, such as ZiJin mines, the biggest gold NSOE in China. This firm was initiated by the ShangHang County Government and the local geological team: the local government and a local SOE. The firm has been privatized and is publicly listed in China. It is treated more as an NSOE because the government owned only 20% of shares in 2011 and the biggest shareholders are all individuals.

China's gold reserves in October 2012 were still relatively small (about 1.7% of the world total; see Table 23 next page), and could supply only around one-third of the domestic gold needs (World Gold Council, 2011).

Production has usually been concentrated in the eastern provinces of Shandong, Henan, Fujian and Liaoning. China Gold Corporation (Central SOE, which directly reports to state-level SASAC and is the only central SOE from gold industry in China) and Fosun Mines (NSOE) were selected as the cases to be studied in this research, shown in Figure 16 next page. The insufficient domestic supply and strong consumption demand of gold has demonstrated the need to acquire gold from outside China.

19 Collective enterprises are situated at the lowest level among all SOEs. They are supervised by the Township Board (TB) and the Township and Village Enterprises Board (TVEB).

Table 23 World gold official holdings in October 2012

		Tonnes	% of reserves**
1	United States	8,133.5	75.4%
2	Germany	3,395.5	72.4%
3	IMF	2,814.0	1)
4	Italy	2,451.8	72.0%
5	France	2,435.4	71.6%
6	China	1,054.1	1.7%
7	Switzerland	1,040.1	11.5%
8	Russia	936.7	9.6%
9	Japan	765.2	3.2%
10	Netherlands	612.5	59.8%
11	India	557.7	10.0%
12	ECB	502.1	32.3%
13	Taiwan	423.6	5.7%
14	Portugal	382.5	90.3%
15	Venezuela	362.0	70.9%
16	Saudi Arabia	322.9	2.8%
17	United Kingdom	310.3	15.9%
18	Turkey[6)]	295.5	14.4%
19	Lebanon	286.8	29.4%
20	Spain	281.6	29.5%

Data source: World Gold Council (2012)
Notes: 1. BIS and IMF balance sheets do not allow this percentage to be calculated. In the case of any countries, up to date data for other reserves are not available.
2. Data for the value of other reserves are taken from IFS, table 'Total Reserves minus Gold'.

Figure 16 Locations of selected firms from the Chinese gold industry

5.6. SOE 2: China National Gold Group Corporation

5.6.1. Firm overview

China National Gold Group Corporation (referred to as 'China Gold') is the only central SOE from China's gold industry, directly supervised by SASAC. It is also the largest gold company in China. When founded in 1979, China Gold comprised three key entities – the Gold Force, the Gold Administration Bureau and the Gold Corporation – which fill the roles of exploration/mining, administration/supervision and operation for the entire Chinese gold industry. These three key entities had been cooperated since the end of the 1980s. In 1985, restructuring saw the Gold Force changed to the 'Armed Police Gold Inspection Headquarters' under the Armed Police system (Chinamil, 2008), still in existence today. The other two entities, the China Gold Bureau and the Gold Corporation, were separated in 1993 through the reform of SOEs to separate government and enterprises. The result was the China Gold Bureau, which represents the government control towards the gold industry, and the China Gold Corporation, an independent company. This Central SOE, the company China Gold we see today, was therefore formed in 1993 as part of this reform. However, in terms of management and funding, the firm was under the same management as the China Gold Bureau until 2003.

This firm's history highlights the close relationship of China Gold as an enterprise and the government (represented by the China Gold Bureau). They had long practised the 'one organization, two functions' management system, which means they had the same personnel and organization structure between 1979 and 2003 (China Gold, 2012), when China Gold became an independent SOE.

Today, China Gold's core businesses are gold, silver, copper, molybdenum and other non-ferrous metals in exploration, resources development, production and sales, as well as a general contracting business into geological exploration, mining, smelting mineral product refining, processing, sales, research, development and engineering design and

construction in an integrated large scale mining corporation (China Gold Corporation, 2010).

China Gold's reserves include more than 1200 tons of gold resources, ranking first in China; copper reserves of 800 million tons, ranking in the top five national non-ferrous industry; molybdenum reserves of 120 million tons, ranking in the top three non-ferrous industries. The firm's total assets are more than 34 billion Chinese yuan. The headquarters is in Beijing, China, which owns 85 member companies and 57 second-tier subsidiaries distributed throughout 26 provinces in China and overseas, including two publicly listed companies (China Stock Exchange 'China Gold' and the Toronto Stock Exchange 'Gold Mining') (China Gold, 2012).

5.6.2. International development

Like many other SOEs, China Gold had much longer international experience than the NSOEs. The firm's internationalization progress was intermittent. China Gold had started overseas risk explorations around 1984 to 1985 in African countries like Ghana and Guinea. Unlike other mining firms, gold firms cannot export gold in China. According to the Chinese Gold and Silver Management Regulations, before 2003 only the People's Bank of China had the right to acquire, import and export gold, and was responsible for the approval of the gold production, processing, wholesale, retail and gold processing operations (The Central People's Government of the People's Republic of China, 2012). Therefore, the overseas gold could enter the Chinese market only through the People's Bank of China. It was a semi-closed, semi-market-oriented channel till 2003. The Shanghai Gold Exchange (SGE), set up on 31 October 2002 (SGE, 2011), approved by the State Council and founded by the People's Bank of China, performs the regulated functions stipulated by Management Rules of Gold Exchange and organizes gold transactions. In March 2003, four major state-owned commercial banks from China qualified to obtain gold import and export rights. However, the gold import and export rights must still be approved by the Central Bank.

According to the former CEO (S2-2) of China Gold:

> *Only small-scale trading started in 1991 when the firm obtained the import and export right. In 1995, China Gold started to export the large-scale mining equipment to Ethiopia. Then the large-scale mining equipment has become the*

major exporting product to Russia, Mongolia, Kazakhstan, Australia, Mauritania. It is not publicly documented that the mining investment started in Madagascar and Indonesia around 1992–1993; in Bolivia around 1995–1996; in Kazakhstan in 2005–2006, and Canada and Mongolia in more recent years. Since most of the overseas cooperation and investments were failures, most of the managers generally resisted talking about the past cases, as these were recognized as failures…'

A few managers who had left the company were prepared to discuss those experiences without too many scruples. Their roles had changed after their departure from the company and they had served in China Gold for more than 20 years. After many trials and failures, China Gold had the most recent overseas investment of acquiring the publicly listed Canadian mining firm, Jinshan Gold Mines, in 2008 through its wholly owned Hong Kong based subsidiary, China Gold HK Pty Ltd (China Gold, 2008). As a new platform for the firm's international investments, the firm started to invest in Mongolia and had been scanning for opportunities around Australia, North America and Africa (Wangyi Finance, 2010). More acquisitions and investments were expected to take place through such operations.

5.6.3. Motivations

All of the respondents from China Gold confirmed resource seeking as the primary motive for the firm to invest overseas. The interview data were consistent with previous studies that showed SOEs' political strategic considerations were seen as the most important motivation (Buckley, 2008; Buckley et al., 2007; Deng, 2007; He & Lyles, 2008; Luo et al., 2010; Morck et al., 2008; Naidu & Mbazima, 2008; Wang, 2009c). The former Vice CEO (S2-2) further expressed:

SOEs are the firms owned by the country. If the state government has the 'go global' strategy, it's the first-ranked motive for us.

The Head of Investment Department (S2-4) addressed a similar issue with more emphasis on its Central SOE character:

The current mining internationalization is more like administrative actions for Central SOEs. As a Central SOE, we should be obligated to respond to the national call.

The Head of Marketing and International Department (S2-6) also added:

> *From the national strategic perspective, the SOEs have obligations to help the country's diplomatic developments. SOEs are also obligated to represent to image of the country. It's totally different for an NSOE.*

The Vice Principal (S2-1)focused on the principles of running a company, rather than the political considerations, when discussing the motives of internationalization for the firm. He claimed:

> *You need to take notice of the Chinese Government's principles. It is 'encouraging' the firms to go out, instead of 'specifying' the firms to go out.*

However, although the government plays an important role in Central SOEs' internationalization, the interview data also revealed that these political strategic considerations could quite often be passive.

The Head of Overseas Investment Department (S2-5) stated:

> *Everyone else has been going out (into international markets). To keep pace with the times and others, we should do the same.*

The SOE is seeking conformity with other SOEs' overseas expansion, within the vague goal of internationalization. Activities in international markets are treated as 'testing the water'. Most of the respondents could not state a consistent and clear goal for the firm's internationalization. The Head of Marketing and International Department (S2-6) said:

> *It's rather easy to have a goal to be set up for the internationalization. It may only take half a day to do it. But the key issue is whether we can achieve it in an effective way.*

Another motivation is that, under the macro environment of globalization, most of the respondents highlighted the developmental trend in the mining industry to internationalize. It showed both the industrial trend and firm strategy have also influenced the firm to be internationalized. The Vice Principal (S2-1) said:

> *With globalization, if we stay isolated in China just focusing domestically, it is not realistic. An open world and market economy will inevitably lead us towards internationalization.*

Nevertheless, the firm's own strategy and development needs have also been seen as another important motive for the SOE to internationalize. In the Vice Principal's (S2-1) words:

> *When you look at the Top 500 companies in the world, there is no single firm that operates only in its base location. Everyone runs as a multinational corporation. To be able to be big and strong enough to compete in the international market, internationalization is the only path to go through.*

Interestingly, half of the respondents addressed the outflow of SOE's advanced strategic assets. For example, the Vice Principal (S2-1) stated:

> *Many countries are constrained by their available funds, especially some mining countries with a lack of technology and investments. They need our experience, technology, skills, funds and strengths to develop to a better standard.*

The Head of Overseas Investment Department (S2-5) also confirmed this:

> *In terms of technology, we are quite advanced in our field even at the world stage. We don't intend to acquire mining technologies from overseas, but to share our world-standard mining technologies at lower cost.*

The FDI literature indicates that foreign market-seeking motives are considered the most important reason for firms to invest abroad (Brienen et al., 2010). However, due to gold exporting restrictions in China, this was not applicable to the gold SOE for its finished product, gold. Yet, China Gold is a very diversified mining firm, which also owns its exporting products, the large-scale mining equipment. The Vice Principal (S2-1) stated:

> *To expand our overseas market for the large-scale mining equipment has always been one of the key emphases for the group. It also aligns with its long internationalization history.*

Three out of six respondents rated seeking foreign markets as the second or third most important motive for China Gold. The Head of Marketing and International Department (S2-6) has over 20 years' experience of international business with the foreign partners, dealing with the large-scale mining equipment. He claimed:

> *From 1991, China Gold had officially owned its exporting license to start international trading business. At the initial stage, it was only the parts and accessories elements that got involved in the trading, without much value-adding. In 1995, we had exported our first set of large-scale equipment to Ethiopia. Later, the exporting activities had spread into many other countries.*

5.6.4. Institutional factors

The ownership differences between the SOEs and NSOEs are a fundamental issue in shaping the firm's internationalization strategies. In the former Vice CEO's (S2-2) opinion:

> *The 'value orientation' is not the same in SOEs and NSOEs. SOEs will always seek the maximization of enterprise value, so that could generate benefits to everyone; the goal of NSOEs is to maximize the shareholders' value, so the benefits would be associated with the investors. This is the essential difference.*

As the only gold mining firm among the Central SOEs, China Gold also showed its unique characteristics from an institutional perspective. The former Vice CEO (S2-2) mentioned the pressure from SASAC to reduce the number of Central SOEs:

> *We are also highly motivated by the power of acquiring more assets for our own firm. If we are not developed to be large enough, under the new scheme of the supervision of SASAC, we may be merged or acquired by another large Central SOE. It is a constant pressure there for us.*

The Vice Principal (S2-1) said:

> *We are at risk of being merged with other Central SOEs, if we are not very competitive. I would call this political responsibility. We also carry the social responsibility to look after our tens of thousands, or even hundreds of thousands, of employees' interests.*

The government bodies do not just put pressures on SOEs, but also provide various kinds of support. The former Vice CEO (S2-2) advised:

> *The Ministry of Commerce provides a full range of support to our investments, making the projects readily available for us. In addition, trade promotion and a set of specialized service systems are also organized to serve the goal of 'going out'. They would provide you with yearbooks, road shows for information. Of course, the follow-up services are available for us as well.*

Another idea under the Chinese institutional environment is 'personal performance'. The former Vice CEO (S2-2) highlighted the idea in this way:

> *The 'personal performance' is a solid thing. In the development of any mining firms, two things are vitally important: one is safety; the other is sustainable growth. To achieve this sustainable growth for a mining firm, the key is to acquire high-quality strategic assets with long-term development potential.*

The institutional factor, like government direction, plays a crucial role in determining the locational choices of China Gold's overseas investments. The Head of Marketing & International Department (S2-6) advised:

> *For example, as an SOE, we got to follow the broad direction from the country to invest in Russia and develop the business there. If we were an NSOE, sure we would not invest in Russia. Why is that? Russia's investment environment is not good. It's filled with very high political risk and operating risk.*

This was also confirmed by the former Vice CEO (S2-2):

> *Because of the historical connections, China National Gold Group and China Gold Association have very close relationships with the former Soviet Union (now the Commonwealth of Independent States) and Russia.*

The Head of Overseas Investment Department (S2-5) claimed:

> *It is a very self-contradictory thing for mining investments. Countries which are not institutionally transparent tended to be more welcoming to us to invest there. When we go to these countries, the risks associated with corruption, unstable low-quality labour, and poorer social environment started to generate incredible problems for us. Our experience may or may not work in different host destinations.*

The institutional factors in the host country environment, such as labour policy, were a great barrier for mining SOEs' overseas operations. Since Chinese mining SOEs had been used to the domestic labour-intensive resources from its large population, it became a challenge for them to operate in a new country without these human resources. The Head of Investment Department (S2-4) complained:

> *In Tajikistan, the restrictions on foreign labour created many managerial problems. We were constrained by the labour quotas. For me, the general manager for the project, I could only obtain a multiple travel visa on a yearly basis. Many other managers could only get visas to enter the country for a few months at a time. It's impossible for us to take our experienced and skilled labour to develop our own project there. The only way is to hire the locals. We lost our control from the management perspective.*

5.6.5. Risk attitudes

The former Vice CEO (S2-2) commented on China Gold's internationalization risks as follows:

> *Risks covered a lot for us: our local political risk, the host countries' political risks, host countries' legal risks, and environmental risk; then geological risks,*

including technical risk, cultural risk, and labour union risk. These issues have all contributed to how to have a sound risk management strategy.

The interview data revealed a new finding between the CEO's tenure and the firm's risk attitudes. The former Vice CEO (S2-2) stated:

> *There is no clear tenure set for the SOEs' CEOs from SASAC. If you don't get promoted after three to five years in that position, it means you are recognized as a failure. That's why every new CEO would try to achieve his own target within that timeframe. With every CEO's new targets, the strategies of the firm were then set to ensure the achievements.*

He (S2-2) further explained:

> *For example, our new CEO arrived in 2007 and set his target to be 'double the firm in four years'. This means all strategies and activities will serve the purpose to achieve this: aggressive developments and thinking, even sometimes contrary to national policies. The CEO's working style and personality have direct impacts on the risk attitudes. Another example is the former CEO. He was very conservative. All he wanted was stability to wait till his retirement. He did not want to take any risks; the more you do the more chances for you to make mistakes. We lost quite a number of good opportunities around that time.*

The Vice Principal (S2-1) provided another example to show such direct relationship:

> *We had overseas risk explorations around 1984 to 1985. After our then leader had a car accident, these trails dried up from the lack of support from the new CEO.*

The data has shown the CEO's working style and personalities have direct impacts on the firm's risk attitudes in internationalization in SOEs.

The Head of Investment Department (S2-4) believes risks are tightly related to 'control'. He said:

> *I believe risk problem is a matter of 'control'; a matter of 'power'. Who would determine such 'control' and 'power'? Our own managers' qualifications, languages, the managerial skills: of course, it is also associated with understanding laws and regulations, and having both countries' government support.*

An important piece of evidence from a functional manager highlighted that the risk attitude is also constrained by the institutional controls. For example, the Head of Overseas Investment Department (S2-5) told us:

> *We must have resistance to risk; however, we cannot take on too much risk either. For the Central SOEs, the administrative punishments are there if we have not got things right (failed in international investments). SASAC can impose administrative sanctions on us.*

Along the same issue, the Vice Principal (S2-1) also claimed:

> *The firms have the flexibility to choose and decide whether they actually take the initiative to invest overseas. If we make wrong investments or poor decisions, our higher-level unit – SASAC – will hold us responsible. Therefore, we have to be clear that the responsibility is ours, the income is also ours.*

5.6.6. Discussion

A lack of incentive schemes may cause the flow of managers from SOEs to NSOEs. In this study, one senior manager and one functional manager overlooking the investments had both served the firm for over 20 years, but had just resigned from the firm at the time of the interview. One went on to establish a new mining NSOE and one was about to join a mining NSOE. This shows that the international experience appears to be disconnected at the firm level – new managers are not fully aware of the firm's past international investment failures and performance (compared to these two managers from different levels but who had both had long tenures serving the firm). But those international experiences have been embedded with the top managers at the personal level, forming part of their tactical knowledge that they take away from the firm when they leave the SOE.

Institutional factors, such as the CEO's tenure, have had a direct impact on the firm's risk attitudes. According to the respondents, to a large extent, the preference of the CEO or *'yi ba shou'* towards risks actually represented the company's risk attitudes in internationalization. It clearly shows a top-down flow of the firm's international strategies and decisions. This phenomenon has produced an interrupted or intermittent international experience at the firm level. Therefore, due to the supervision from SASAC and the tenures of CEO, the firm's risk attitude has shown stage-like features. The other major impact of this phenomenon is the choice of market entry mode. M&A provides the firm the fastest option to see the investment results. Such results are

essential for expanding the firm domestically and getting the adequate personal benefits for the leaders.

Other institutional factors, like home government and host government support, had positive impacts on the firm's internationalization. This influence is strong enough to make the firm 'obligated' to follow the country's 'going out' policy, yet it was also balanced by the firm's own economic objectives. A few respondents tried to correct the 'extent' of such influence from 'obligations' to 'encouraging'. Therefore, the conclusion is the firm is 'half politically obligated' and 'half economically orientated'.

International experience also plays an important role in an SOE's internationalization. As stated above, the international experience at the firm level is discontinuous. A longer international development history does not necessarily contribute to the firm's present sustainable development. Longer international experience contributes more to gaining domestic comparative ownership advantages in various ways: firm structure has been well established relevant to international developments; and the firm's already-owned DCOA in mineral, finance, human resources, and institutional and government support have further strengthened. Thus, the firms are claimed to be more risk resistant with all these DCOA favouring the SOEs. Table 24 lists the key criteria in Chinese Gold SOEs' internationalization.

Table 24 Key criteria in Chinese Gold SOE's internationalization

Types of mining firm		SOE (Central SOE)
Core business		Gold
Drivers and motivations (ranking from most to least important)		'Half-political & Half-economical' 1.Political obligation/consideration: response to 'National calls' 2.Resource seeking – better quality minerals abroad 3.Conformity to other SOEs' internationalization 4,Information seeking 5.Strategic assets seeking 6.Foreign market seeking 7.Share advanced strategic assets and advanced technologies
Risk Attitudes		A stage-like featured risk attitude (generally more risk resistance than NSOEs)
First internationalization experience		1985–1986
Location choices	**Resources/Mines**	**Location of mines** • Madagascar (withdrawn) • Indonesia (withdrawn) • Bolivia (withdrawn) • Kazakhstan (withdrawn) • Canada (current) • Mongolia (current) **Geological prospecting** • Africa
	Exporting markets	**Trading houses** • Hong Kong • Canada • Russia • Kazakhstan • Tajikistan • Uzbekistan

5.7. NSOE 2: Fosun Group: Fosun Mines

5.7.1. Firm overview

Fosun Group was established in 1992. It is a classic story of success after China's reform and opening-up. The founder, Mr Guo Guangchang, and four friends started a business with RMB38,000 engaging in the market research production for food, electronics and chemical products (Fishtutu, 2011). In 1993, he decided to put all of the initial earnings from the marketing research to developing of genetic engineering products and hepatitis B diagnostic reagents. They achieved a great success, and soon entered the real estate market. At the beginning, the firm was just a sales agent for a private real estate group, Dahua Group. This action opened up the China real estate groups, following the precedent of the third-party marketing company. Since 1996, Mr Guangchang has spent approximately 500 million RMB to invest in the pharmaceutical, information and real estate industries. Around that time, the Fosun Group actively participated in a number of large and medium sized state-owned enterprises' joint ventures, restructuring and integrating. The firm had started to transform from a marketing company to a multi-industrial oriented company.

Fosun Industry (the current name, engaged mainly in the bio-pharmaceutical industry) was the first Shanghai private enterprise successfully publicly listed on the Shanghai Stock Exchange in 1998. Since then, the company has expanded into the pharmaceutical industry and undergone industrial diversification and expansion into the steel, media, finance, automobile and auto parts industries. The company has grown into a complex and diversified group with various publicly listed, wholly owned divisions, such as Forte Group, which successfully listed in 2004 (from the real estate industry), and Zhaojing Mining, successfully listed in 2007 (from the mining industry). On 16 July 2007, Fosun International, the parent company of Fosun Group, went public on the Hong Kong Stock Exchange. Fosun's business scope covers pharmaceuticals and healthcare, real estate, steel, gold, mining, retail, servicing and other investments (Fosun Group, 2013a). Table 25 summarizes brief history of Fosun Group's development since its formation in 1992. The items relevant to Fosun Mines/mining industry are highlighted in bold.

Table 25 Brief history of Fosun Group

1992	• **Fosun Group (Parent company of Fosun Mines) began business operations in 1992**
1994	• August 1994, Fosun entered real estate industry (Forte) • December 1994, Fosun entered pharmaceutical industry (current name: Fuxing Industry)
1998	• July 1998, Fosun public listed in Shanghai Stock Exchange • August 1998, Forte was established. The present name was Shanghai Fuxing Real Estate Development Co. Ltd. (Real Estate industry)
2000	• August 2000, Fosun issued 2,250 shares in Shanghai Stock Exchange China
2002	• **August 2002, Fosun invested in Jianlong Group (Iron and steel industry)** • November 2002, Fosun became the single largest shareholder of YuYuan Tourist Mart (Retail industry)
2003	• **January 2003, Fosun and Jianlong Group invested in Ningbo Iron and Steel** • January 2003, Fosun invested in Sinopharm (Pharmaceutical industry) • **March 2003, Dragons Alliance was established (Iron and Steel industry)** • May 2003, Debon Securities (Financial services) • October 2003, Fosun Pharmaceutical issued 950 million RMB of convertible bonds
2004	• February 2004, Forte completed its initial public offering to be listed in Hong Kong Stock Exchange (Real Estate industry) • **April 2004, Fosun invested in Zhaojin Mining (Mining- gold industry)**
2006	• Enabled new brands and logos- Fosun, brings together the strength of growth • April 2006, Forte re-completed the H share placement of 17,590 share in Hong Kong Stock Exchange (Real Estate industry) • **December 2006, Zhaojin completed its initial public offering to be listed in Hong Kong Stock Exchange (Mining-gold industry)**
2007	• July 2007, Fosun Group as a whole successfully listed in Hong Kong Stock Exchange • **August 2007, Fosun Group and Hainan Steel signed Hainan Mining United Co. Ltd. Joint venture contract** • Fosun Group invested in Yong An Insurance (Servicing industry)
2008	• February 2008, Fosun acquired 26.14% of shares from Focus Media from Nasdaq Stock Exchange. Fosun Group became the single largest shareholder of Focus Media
2010	• June 2010, Fosun Group acquired 9.7% shares of Club Méditerranée SA (Club-Med) from France (Luxury tourism industry)
2011	• May 2011, Fosun Group acquired 9.5% share of Folli Follie from Greece (Fashion industry)
2013	• First half of 2013, Fosun acquired 33.3% share of ST. JOHN from USA (Fashion industry); 96.6% share of Alma Lasers Ltd. From Israel; and became the single largest shareholder of Saladax Biomedical from USA

Data sources: various internet news, reports and Fuson Group's official web site

Fosun Group proactively taps into investment opportunities that are set to benefit from China's economic transformation, with a focus on domestic demand as well as China's progress in urbanization and industrialization (Fosun Group, 2012). Apart from strictly

implementing its strategy of value investment and continuously creating value for society and its shareholders, Fosun also actively contributes to improving the commercial environment and natural environment of China so as to support the rejuvenation of Chinese economy and culture.

As the largest Chinese integrated private enterprise, Fosun Group ranks among China's top 100 enterprises and within the top 100 among Fortune's recent release of top 500 enterprises of China 2013 (Fosun Group, 2013b). It has also been one of the largest taxpayers among China's NSOEs for many years (Fosun Group, 2012). With Fosun's three core competencies – exploring and identifying investment opportunities benefiting from China's growth, improving management and optimizing financing from multiple sources, and its entrepreneurial leadership that identifies itself with Fosun's culture – Fosun is enjoying a great development momentum that continuously creates value (Fosun Group, 2013a).

5.7.2. International development

Fosun Mines has been one of the six strategic scopes for the Fosun Group, with investments in Zhaojin Mining (also known as 'Gold Zhaoyuan'), China's largest pure gold manufacture, in 2004 and Zhaojin's IPO on the Hong Kong Stock Exchange in 2006 (Gold-zhaoyuan, 2011). Zhaojin Mining leads in its smelting capacity and ranks second in terms of mining capacity nationally. The company is honoured as one of 'the top 500 most valuable brands in China'. With gold mining as its core business, the company builds its core competitiveness in exploration, mineral processing, smelting and research (Gold-zhaoyuan, 2011).

Fosun Mines had also successfully acquired 60% shares of Hainan Mining in 2007 (Fosun Group, 2013b) and other mining investments across China, including Jin'an Iron and Steel, Shanjiao Wulin, Zunyi Shiji, and Huaxia Mining (Fosun Group, 2013a). The mines include gold, iron ore, coal and non-ferrous metals, and the products cover gold, iron and steel, coking coal, nickel and molybdenum ore, ammonium tetramolybdate and ferro-molybdenum (Fosun Group, 2013a). In addition, Hainan Mining owns one of the large domestic producers of cobalt and copper productions as its wholly owned

subsidiary, Hainan Changxin Cobalt Co. Ltd., which formed in April 2007. This subsidiary has cobalt and copper mining and smelting capacity (Economic Information Daily, 2012).

Fosun Mines' internationalization has an important characteristic: it has been strongly influenced by the corporate strategies and investment philosophy of its parent company, Fosun Group. With a strong base in China, Fosun Group adheres to the principle of linking China's growth momentum with global resources and reinforces its position as a China expert with global capabilities. Fosun Group's investment philosophy is to maintain a strong base in China and invest in the country's growth fundamentals (Fosun Group, 2012). The Fosun Group's internationalization aim is not just to acquire businesses overseas, but to be the access point for international companies to share the rising Chinese market.

Fusun Mines and its mineral resources development have been one of the few core businesses by the group. In fact, Fosun Mines' international development has been implemented through its joint ventures and the entities of its shareholding enterprises. Table 26 displays Fosun Mines' current international markets, their motivations, and the year of establishment.

Table 26 Fosun Mines' international markets, motivations and establishment

Country or region	Focus/ Criteria	Motivations	Establishment
Canada	Mines	1. Strategic assets seeking (learning) 2. Gain more international experiences	2011
Hong Kong	Financing/Mines	1. Strategic assets seeking (learning) 2. Gain more international experiences	2011

5.7.3. Motivations

The lack of per capita mineral resources in China was seen by all interviewees as the fundamental driver for their firm's internationalization. They all mentioned:

- *The per capita mineral reserves for gold and many other mineral resources are far below the world average level in China. It is therefore very appropriate to define China as a developing country. It is a 'must' for us, the mining firms, to go overseas to acquire resources in order to fulfil the country's domestic needs for industrialization, urbanization and inflation.*

- *It is a simple demand and supply problem. We have a huge domestic demand for mines that needs to be fed by international supplies. That needs to be balanced in the global scale.*

Therefore, all respondents confirmed resource seeking as the primary goal for their internationalization. However, it also needs to be integrated with the firm's own expansion strategy, which, in Fosun Mines' CEO's (N2-1) words:

> *If the types of mines are not the ones that China can demand on a long-term basis, or there are no shortages in China, we would not seek those resources overseas. We still focus on the domestic demand, and the resources we try to acquire from overseas are aimed to feed the Chinese market.*

The Investment and Project Manager (N2-5) further explained:

> *The principle here is to combine overseas resources and the Chinese market to make profits. If China does not lack those mines, we should not invest. For example, if we had invested in Australian mines and tried to sell the resources to Europe, this is not something we are good at. We must invest overseas and make use of these resources for the Chinese market, that's our strength.*

This particular strategy of overseas investment was confirmed by all senior managers from the firm. It also showed the firm's management level had a good understanding and communication in terms of the key firm strategies.

In terms of stage of development in the firm's overseas' mining investment, the deputy CEO of Fosun Mines (N2-2) interestingly stated:

> *Our firm is like a toddler who is just starting to learn how to walk. Unlike those large multinational mining firms, who had over hundreds years history, or at least had been there for half a century. Although the outsiders would view us (the Fosun Group) as a large NSOE from China, it's been much diversified, thus Fosun Mines is still relatively small. We are really just at our exploratory stage of internationalization. One of the priorities is to learn and gain more international experience now.*

This highlighted international experience and such a learning process as an important motivation for the firm. The account manager further noted that 'learning' is a part of culture of the firm and Fosun Group. He (N2-6) said:

> *Fosun has developed such a culture of learning, from a small private firm to a large scaled NSOE; we have been learning to achieve this. This applies not just to the senior managers, but our board members, the employees and the middle level managers; it is something for everyone to adapt to. We have been getting involved in mining investments and operations both domestically and internationally. This requires us to put more effort into learning. It is essentially the key to our success.*

Nevertheless, the firm has been seeking other kinds of strategic assets from the internationalization. The deputy CEO (N2-2) clearly expressed:

> *Beside resource seeking, acquiring advanced technologies and experience can be ranked the second most important motive.*

The Human Resources (HR) manager (N2-4) thought:

> *Internationalization can be used as a tool for the firm's internalization, in order to increase the firm's efficiency and competitiveness.*

The firm had set up trading houses in Canada and Australia for information-seeking purposes, as stated by the Investment and Project manager (N2-5):

> *One primary source of our investment projects is from networking with other recommended projects. But these kinds of recommended projects tend to be either very tight in time, or not the prioritized projects. Therefore, we have set up trading houses in strategically important mining investment countries like Canada and Australia, as we decided we must take the initiative to find the opportunities for investments.*

But the functionality of the trading houses is not limited to information seeking; they also act as a trading platform for the firm in that region. The Investment and Project Manager (N2-5) added:

> *The locational advantages for Canada and Australia are not just in their natural resources, they also have good medium-sized trading markets; many mining firms have been publicly listed there. Great potential and opportunities have opened there. Also, there is specialized mining human capital available there.*

5.7.4. Institutional factors

All of the respondents agreed that the firm's core competitive advantage resides in the firm's efficiency, fast decision-making mechanism and flexibility, at least compared with other mining SOEs. In the Investment and Project Director's (N2-3) own words:

> *Our comparative advantages are clearly shown in the following aspects: 1) Fast decision-making mechanism. This is not only fast, but also responsible. We all understand the money is owned by the boss. The quality of the decisions and the efficiency are relatively high-standard compare to the SOEs'. 2) We have a very good incentive system. We can offer competitive remuneration to our expatriates. This may be hard for SOEs, as the manager's administrative level in China would determine the remuneration. It may arrange some allowances for them, but still, this would link to their work efficiency and responsiveness. 3) Its more acceptable for the host country governments to approve the investments from NSOEs rather than SOEs.*

The HR manager (N2-4) ensured the importance of adequate remuneration as such:

> *Our internal system offers employees the responsibility, authority and benefits or remuneration to match their positions.*

She further explained the philosophy/corporate culture of Fosun is to 'create values, share values'. She (N2-4) said:

> *Every position in Fosun has its own responsibility and authorities. Such rights allow employees to be more creative to add value to the firm. In return, they are motivated to share the values that are added from the firm at the same time. But the right remuneration is just providing the basic support to our employees. We also provide the space for the embodiment of their self-accomplishment. This potential seems to be more attractive for our senior managers.*

The CEO (N2-1) also talked about the 'adding value' of self-accomplishments in this way:

> *Different generations would value different things. We appreciate the incentive scheme and the adequate remuneration; we also value the self-achievements and accomplishments. Unlike in SOEs, you could rarely have such feeling – the individual contributions are hardly recognized – the success or achievements are all devoted to the leaders. It could be quite damaging to your motivation, creativity and dynamic character. In contrast, it's another new world in NSOE – you got recognized for your contributions and achievements and are motivated to challenge more.*

The Investment and Project Manager (N2-5) added the comparative advantage of the firm in terms of flexibility:

> *We are very flexible in our overseas investments. It is not a 'must' for us to be the majority shareholder. We are fine to be a minority, to even hold less than 20% entity.*

Besides the comparative advantages, both home and host governments' policies and regulations are essential for Chinese mining NSOEs like Fosun Mines. From the home institutional side, the Deputy CEO (N2-2) said:

> *It's a simple issue that we are just one single firm under the People's Republic of China. The institutional environment is of course very influential towards our internationalization. The home government can either accelerate or constrain such developments through implementing relevant policies and regulations.*

However, the typical home institutional environment does not directly impact on the internationalization from Fosun, as the firm has been publicly listed in Hong Kong. The Investment and Project Director (N2-3) said:

> *The 'Go global' policy didn't have much effect on us. It is a lot different now compared with early 2001–2002, as most of NSOEs did not have that much funds to invest in overseas and the developments were not yet at that stage to put emphasis on OFDI. It was mainly IFDI. As a publicly listed company in Hong Kong, we don't have to go through all procedures to acquire approvals from the government bodies on the mainland. This gives us extra advantages in investment efficiency compared with the mining SOEs.*

The Investment and Project Manager (N2-5) gave another example to illustrate the situation from the other aspect, the host government policies:

> *New issues like the carbon tax could be implemented in many developed countries. This will directly affect the costs and profitability of our investments.*

In addition, the CEO (N2-1) indicated the host government policies and the institutional environments are also challenges for internationalization:

> *The three biggest challenges for any Chinese mining investments in developed countries are the environmental requirements, the labour policy and cultural integration. They are all incredibly detailed and strict, thus to enter these developed countries with our current standards still requires a lots of learning and improving.*

5.7.5. Risk attitudes

Fosun Mines' CEO (N2-1) clearly expressed the risk attitude for the firm as follows:

We don't prefer risks in general. We advocate a sound investment philosophy. But we also realize mining investments are generally associated with higher risks. How to balance this? We have been trying to balance such conflict through locational choices. A more established, developed country with better investment environments and better institutional environment are our targets at our early stage.

The Investment and Project Director (N2-3) also described this idea in his own words:

Every cent we are using to invest overseas is from our boss's own pocket. Of course we would be more cautious and must try our best to make sure it is not lost.

The limited international experience has direct impact on the risk attitude of the firm's internationalization, the Investment and Project Manager (N2-5) reiterated:

In the short run, as we have only limited international experience in the mining industry, we have determined to be the small shareholder for the entity that has invested in Canada. In our early internationalization development, we want to start at a smaller scale, but stay stable.

The Account Manager (N2-6) picked up country risks as vital here:

We don't invest in the 'risky countries/locations' – the instability from the country and political environment is something we cannot afford.

However, a strategy has been utilized to lower the risks in its internationalization, that is, to partner with more experienced SOEs. The account manager (N2-6) said:

Unless we are partnered with SOEs to invest in the more 'risky countries', like those in Africa, it can be somehow backed up by Chinese Government. That would be a different story.

The CEO (N2-1) highlighted this strategy as such:

Instead of investing by ourselves we tend to find some partners to invest together. SOEs are good potential partners since they've got more international experience and government support than we do. Our drawback is that we lack the human resources with experience in the industry, from exploration to management. Therefore, we'd like to use the experienced team from our partners to lower the risks. Of course, we've got our own advantages in areas of financing, capitalization and risk management. We can complement these with professional mining companies.

The Deputy CEO (N2-2) also mentioned a positive relationship between the host government's institutional environment and the firm's integrated internationalization risks as follows:

> *The host government's institutional environment is a key influence for us. Better and more transparent locations like Australia and Canada are seen to be stable and safer investments, although there are some minor changes. For others, like Eastern Asia, Middle East, Africa, their institutional environments are worse than it is in China. It's changing like the weather, which leads to a greater country risk for our investments.*

Interviewees also advised that it would be too broad to evaluate an investment from 'locations-costs' perspective. The Investment and Project Director (N2-3) had his own opinion on detailing the locations-costs in terms of its 'real' costs:

> *The actual mine's location-costs analysis is vitally important, depending on which kind of mineral is the target. If it's gold, this would not be an issue, as gold can be put into a briefcase and easily transported to anywhere you'd like. The locations-costs factor can be ignored for the gold firms.*

The risk attitude of the firm was recognized consistently by all respondents, that is, the firm is very cautious towards international investments and adopts a 'prudential risk attitude'. But the firm also shows its own distinct characteristic, explained by the Deputy CEO (N2-2) as:

> *We want to be flexible and innovative in our internationalization. The desired final goal for Fosun Mines is to set up an international new mining financial group, which owns several good mines and mining firms. We can still invest in quality firms internationally.*

The senior managers all confirmed this desire. The Deputy CEO (N2-2) further portrayed the future picture as:

> *We want to be creative in this mining industry. Instead of being a traditional mining company, we'd love to be a new kind of mining financial investing firm. The traditional mining investments would be just happening in the process of achieving the final goal.*

This reflects how the firm's strategy and goals have influenced the internationalization and the risk attitude.

5.7.6. Discussion

International experience plays an important role in an NSOE's internationalization. The lack of international experience for the firm made it seek more experiences through its new internationalization activities. This approach also reflects the firm's risk attitudes to

be ‘not preferred risks’ nor preferred to invest in any more ‘risky countries/locations’. Interestingly, the international experience seems to be a lot richer at the personal level than at the firm level. The reason is that many senior managers from the NSOE firm had previously had long working experiences with mining SOEs. They had learned from their international experience during their tenures in the SOEs, and utilized those experiences towards the NSOE’s OFDI developments. The firm’s international investment decisions and risk evaluations had been similarly influenced by this variety of past experiences at the personal level.

Domestic comparative advantages have different aspects. First, the NSOE is more flexible and more efficient in terms of decision-making mechanisms, without the ‘well-established’ organization and different level of government supervision like an SOE. Second, the NSOE is more market oriented, given that the entrepreneurs are not ranked by the same standards as SOEs, but by their performance. Therefore, a better incentive system and a more market-oriented remuneration mechanism can offer adequate responsibility, authority and benefits/ remuneration to its employees. As an added value, the firm offers the potential for self-accomplishments. Last, unlike SOEs that have been criticized by their ‘political aims’ to invest overseas, NSOEs are much more acceptable to the host country governments, who approve their overseas investments.

Risk attitudes for this gold NSOE are influenced by the firm’s international experience, capacities, strategies and locational choices (mainly from the firm’s internationalization risks view, rather than the locations-costs view). The firm is not heavily influenced by the CEO’s own preferences, but by the integrated behaviour of the management team. Although the CEO makes the final decision on the OFDI projects, it is more democratic and open than in SOEs. Table 27 highlights these key criteria in Fosun Mines’ internationalization.

Table 27 Key criteria in Chinese Gold NSOE's internationalization

Types of mining firm	NSOE
Core business	Gold
Drivers and motivations (ranking from most to least important)	**'Financial considerations'** 1.Profit driven 2. Resource seeking– better quality minerals abroad 3. International experience and learning 4. Strategic assets seeking (acquire advanced technologies and management skills/internationalization/ increase efficiency and competitiveness) 5. China's economic development and urbanization 6.Information seeking 7.Capital market seeking 8. Supply chain system
Risk attitudes	'Risk averse' with a **prudential risk attitude**
First internationalization experience	2010
Location choices Resources/Mines	**Location of mines** • Canada • Australia **Geological prospecting** • N/A **Trading houses** • Australia
Exporting markets	N/A

5.8. China's non-ferrous industries

The non-ferrous metals industry refines and processes a large number of metals (World Energy Council, 2008). The most commonly used non-ferrous metals are aluminium, copper, lead, zinc, nickel, titanium, cobalt, chromium and precious metals such as gold and silver.. This industry relies on demand from the industrial sector, and non-ferrous metal prices. Since the early 1990s there has been a gradual relocation of the world's non-ferrous industry towards countries that combine low-cost ore with relatively cheap energy (World Energy Council, 2008). The locations of metal ores and the stages of development are not evenly distributed across different geographic locations.

Consequently, trading of raw materials is essential to the industry, and countries with insufficient local deposits, such as European countries, have to rely on the imports of metal ores (World Energy Council, 2008). China is no exception (Xiang, 2005).

China produced 34.24 million tons of 10 major non-ferrous metal products in 2011, according to data from the National Bureau of Statistics of China (China Mining Association, 2012). China's non-ferrous production capacity has boosted the nation to be the world leader since 2002, with 10 kinds of non-ferrous metals exceeding 10 million tons production for the first time. The Chinese non-ferrous metal smelting industry has been rapidly developing since 1990, turning the main exports from raw materials and mines to smelting products (Huang, 2005). Two major applications tie in with the current technological innovations. One is to use information technology (IT) to automate the non-ferrous metal production through different stages of processing, such as mining, smelting and producing. The second is to develop non-ferrous applications for various industrial usages, such as information engineering, aerospace, bio-engineering, marine engineering and new energies (Xu & Yang, 2005). The industry has been further strengthened since 2004 with significant technological improvements: the smelting processing technology of 'Tantalum' and 'Tombarthite' continue to lead the world, and tungsten and molybdenum wire manufacturing technologies have evolved into the world's leading standards.

In 2012, the Chinese market accounted for 37% of world demand for copper and 44% for aluminium, figures that exceed the combined total consumption of the United States, Western Europe and Japan (Deloitte, 2013). Demand in China has been rising at break-neck speed and long-term forecasts indicate rising demand for decades to come (Deloitte, 2013). China's own self-sufficiency rate of copper is very low. The dominant sources of copper resources are imported, with some recycled materials from imports and domestically. Such rapid development was derived from the rise of industrialization and macro-economic development in China.

With more and more cooperation, mergers and acquisitions, and consolidations of non-ferrous industry, the main non-ferrous producers have controlled a considerable amount of the world's non-ferrous metals resources with their massive production capacity,

advanced sales and marketing networks, and advanced production management skills. The sizes of these MNCs have been growing and their comprehensive strength has been enhanced to further utilize their power and influence in the global non-ferrous industry. Their financing capacity has been growing concurrently (Xu & Yang, 2005). The capacity of the non-ferrous reserves and the quality of these resources are most likely to determine the company's core global competitiveness. It has brought these metals resources to a strategic important position for any Chinese non-ferrous firms. Yunnan Copper Mines Corporation (SOE) and Bosai Mines (NSOE) were selected from the Chinese non-ferrous industry in this study. Figure 17 shows the locations of these two firms.

Figure 17 Locations of selected firms from the Chinese non-ferrous industry

5.9. SOE 3: Yunnan Copper Corporation (YCC)

5.9.1. Firm overview

Yunnan Copper Corporation (YCC) was formally established in 1959. It is one of the 107 Soviet Union-initiated projects. Yunnan Copper Group is specialized in non-ferrous metal business with copper geological exploration, mining, beneficiation, smelting and processing, R&D and trading. The group has 34 wholly owned and holding subsidiaries, and 19 joint ventures employing approximately 20,000 employees. The total assets have reached 44.5 billion yuan, and net assets of 17.98 billion yuan in 2011 (YCC, 2013).

Yunnan province is most famous for its copper and tin resources. After China's liberation, YCC concentrated on large-scale copper extractions and it was a relatively large-scale state owned enterprise (SOE) in Yunnan province. In the Chinese copper industry, the upper stream is copper prospecting, exploration and mineral processing; the middle stream is copper smelting; and the downstream comprises further processing and production to be used in different industries (Seaveron, 2012). YCC's core business consists of middle and downstream businesses in the copper industry. The scale of production was initially small at 50,000 tons. With technological innovations and imported production plants, the production capacity had dramatically boosted to 60 million tons per year by 2004. YCC nowadays has wide range of products, consisting 19 series and 180 types of copper-related products. Other non-ferrous metals like silver production ranked 1st in China and gold production ranked 9th. High purity copper filled 12% of the domestic market share. YCC ranks 3rd in copper production in China and 18th worldwide (YCC, 2013).

By 2011, YCC ranked 115th among China's top 500 enterprises and 5th among the top 50 enterprises in China's non-ferrous metal industry. It was ranked 50th in the top 500 manufacturing enterprises in 2007, and 142nd among the top 200 best tax payment enterprises in China. YCC's international trading volume has been the largest in Yunnan Province since 2006. YCC has been honoured as 'National model of labour

relations harmonious enterprise', 'National Award of Excellence enterprise culture', 'Advanced unit in Yunnan Province's state-owned enterprises', 'Yunnan's most influential enterprises' and 'China's Financial famous enterprises' (YCC, 2013).

YCC owns domestic subsidiaries such as Yuxi Mining Group, Sand Mining, Metallurgy Chuxiong, Liangshan Mining, Xingyan Non-ferrous, Jinggu Mining, Diqing Mining, Midu Jiudingshan Mining, YCC Maguan Mining, and other medium-sized mines, including Mohan Copper Mines. YCC has extended its business to the upper stream of copper production – the resources market, both domestically and internationally, such as YCC's exploration company, Yunnan Copper (Australia), Liangshan Mining, YCC (Laos) for risk prospecting. Since the implementation of focusing on strategic resources, 680 million yuan of funds has been invested for exploration, resulting in 7.56 million tons of '334 copper' reserves, 5.77 million tons of '333 copper', 10 million tons of lead and zinc, 69 exploration rights and 36 mining rights. In 2009, YCC had retained copper reserves of 7.5 million tons (YCC, 2013). On 30 October 2007, YCC successfully strategically cooperated with CHALCO, sharing its resources, funding, processing, management expertise, international experiences and marketing opportunities (YCC, 2013). CHALCO has been YCC's parent company since the reformation in 2007.

5.9.2. International development

To fulfil the requirements of environmental and production scale, YCC sourced ISASMELT and ISA PROCESS technology from Australia in 1999. The ISASMELT plant was commissioned in 2002 to replace a sinter plant and electric furnace (Gao et al., 2004). This new plant and the improved technology have increased refining capacity to 20 million tons annually. Through the technological innovation, YCC further developed its own improved technology AXTRA to increase its refining capacity to 60 million tons annually, which accounts for one tenth of China's copper production.

According to the CEO of the Australian division, the firm's first internationalization occurred in 2000 to set up a wholly owned subsidiary in Hong Kong. YCC then set up a smelter factory in Zambia in 2006 and soon extended to a few more factories. Zambia's smelter factories products are mainly sold internationally. YCC also has risk exploration

wholly owned subsidiaries in Laos and Thailand. The Australian wholly owned subsidiary was established in 2004. One major function of the Australian division is to purchase raw materials for Chinese domestic production needs. The Australian publicly listed company was acquired in 2007. The most recent cooperation is in Chile in 2011. Apart from these major investments overseas, YCC also has human talent outputs to the Maldives, and non-mining real estate investments in Myanmar. Therefore, by 2011, YCC had the above-mentioned entities in different locations, as well as 12 mining projects in Australia and four mining projects in Laos. The senior managers pointed out that the Southeast Asian countries are the firm's key emphases. Other resource-rich countries, like Chile, Peru, and Argentina, would also be added to the firm's interests.

5.9.3. Motivations

YCC's Vice Principal (S3-1) did not think the Chinese mining SOEs are obligated to the state government's 'orders' in terms of internationalization; instead, he believed YCC's internal demand is the prime motivation. He said:

> *We have been purchasing foreign resources for our local production at competitively high prices. If we could obtain our own mines, we would have much more competitive inputs. In fact, most of the quality resources are controlled by large mining MNCs. It's really challenging for us to achieve this as a late-comer.*

He (S3-1) subsequently reiterated:

> *It's our firm's self-development needs. There was nothing to do with others.*

The CEO of the Australian division (S3-2) said:

> *The shortage of raw material for our production is a key motivation. It is the structural shortage in the copper industry in China.*

The Australian Division Assistant to the CEO (S3-5) commented as follows:

> *YCC has very strong smelting capacity. There has been a huge gap between the required and actual owned resources of copper to keep our production going. Where can we get the level of resources just to maintain our increasing production? It's really hard to alter the situation domestically; therefore internationalization is the only way for us.*

Downsizing production is not permitted for YCC as an SOE. The CEO of the Australian division (S3-2) also highlighted the social responsibility of a mining SOE:

> *We have to maintain production capacity and employment, as if we downsize our production capacity from the current 60 million tons to 12 million tons, most of the subsidiaries would have to shut down. As a mining SOE, we need to balance the profits and social responsibilities.*

Australian Division Assistant to the CEO (S3-5) pointed out that the firm and the higher level of the group's international strategies will both influence the firm's international development:

> *You know that the YCC had restructured to be the copper division of CHALCO since 2009. The parent group, CHALCO, has recognized the importance of developing the firm's internationalization and ensured further development overseas. These are very important foundations for us.*

The Vice Principal of YCC (S3-1) highlighted a couple of key functions of having a wholly owned subsidiary in Australia as the firm's overseas' platform:

> *First is information acquiring. Another one is it is the market requirement of international operations and skills. We can use the international codes of conduct to perform the M&A, instead of the Chinese way in mainland China. We need to get used to the international standard of operation through our offshore subsidiaries.*

Australian Division Assistant to CEO (S3-5) recognized this platform with additional function. He added:

> *We have been operating the Australian division as an international financing platform. Since we were publicly listed in 2007, we also have started to get involved in risky explorations. But as you know, the risky explorations will lead to a much longer time to see the actual investment results. It takes time.*

This idea was confirmed by the Board Chairman of the Australian publicly listed company (S3-4):

> *The Australian division is the overseas financial vehicle for YCC.*

The investment manager in YCC (S3-3) added another motivation for the firm's internationalization:

> *Any capital seeks profits. If we can ensure the premise of our own production needs, it's better to generate extra revenue via these overseas investments.*

He (S3-3) discounted technology seeking as a kind of motive:

> *China's mining technology is not low. It's at least comparable to the advanced countries. In terms of mining technologies, we actually have done more outsourcing than acquiring. Because we have not protected intellectual property in a sound manner, we had to import some technology that had been invented by Chinese but patented by foreigners. It looks like we are acquiring the advanced mining technology from overseas, but it's not the truth. For example, the ISA technology – the real name is submerged oxygen top-blown technology. I have seen this identical design in Kunming Metallurgy Researcher CRR documented from the 1950s.*

5.9.4. Institutional factors

From the home country perspective, the Vice Principal of YCC (S3-1) commented:

> *There is no doubt that the Chinese institutional factors would influence our overseas investments. As we are an SOE, we will be supervised and administrated by relevant government bodies. If it's supportive, our internationalization will get more support. Of course, we will be more confident and relaxed if it's been supported from the government level. At least if we get into any difficulties overseas, the government would help us to resolve the problems at the country level.*

The Board Chairman of the Australian publicly listed company (S3-4) concurred with the Vice Principal of YCC about the essential influence of the Chinese Government:

> *Chinese policies and regulations are very important because, without the Chinese Government's approval, it's impossible for Chinese firms to invest in overseas or to do anything outside the country. They have encouraged the Chinese mining firms to go outside the country to set up companies, to source raw materials, to invest in projects. So the relevant Chinese policies and regulations have been very good and helpful for these mining firms' internationalization development.*

In terms of host country government policies, the Board Chairman of the Australian publicly listed company (S3-4) commented:

> *It's been changing all the time. At the moment, Australian economic development is quite driven by the resources sector. There are quite a lot of activities by Chinese buying them. The Australian Government in some way has been making it quite hard for exploration companies and mining companies to buy assets. They might be very alert and aiming at a different agenda, which may not be commercial or something particularly for the Chinese SOEs. For the many companies who are not SOEs, they are put into certain categories. It seems less restricted for them.*

He (S3-4) also suggested an alternative solution to overcome the resistance from the Australian Government:

> *In my thinking we will be better off to have the company to be listed in Toronto or another market because they don't have the same restrictions on it. So we can do things a lot easier. And the fact is that if we can get into Laos, Chile, the environments for us to do business are much simpler than doing business in Australia from the government perspective. Also, Chile and Laos have good relationships with China, which will make things a lot easier there.*

As a Chinese mining SOE, the Board Chairman of the Australian publicly listed company (S3-4) stated quite a few ownership advantages owned by the firm from YCC's foreign partner's perspective:

> *The principal advantage is that we can access the China banking system. It means a lot for us. It means we get very good interest rates and good rates for trading. The other key advantage is that being SOE can give us certainty; the demand for resources is constant. At the same time, we have substantial bargaining power and advantage because of the financial arrangement. It is that a large amount of money can be raised out of China if a project is found.*

This opinion has been supported from the other Chinese party; from the investment manager's view (S3-6):

> *Unlike many NSOEs, capital-seeking profits with short-run affects; our internationalization is more stable and certain.*

According to the CEO of the Australian division (S3-2), the length of the tenure for YCC's CEO/leader has some interesting implications:

> *Our former first leader of the company had been in that position for more than 10 years. This provided us with the opportunity to focus on the early stage of the mining investments: risk explorations and risk prospecting internationally. Otherwise, maintaining this pathway till today is nearly impossible for us.*

The 'go global' policy is claimed to have a positive impact on the firm's internationalization. The CEO of the Australian division (S3-2) said:

> *The 'go global' policy has indeed accelerated our internationalization. It's announced a series of Operational Clauses. For instance, we had to go to Beijing to seek approval from the Ministry of Commerce, but we can obtain the approval in Yunnan now. The approval process has been simplified and the approval time has been shortened.*

5.9.5. Risk attitudes

The investment manager in YCC (S3-3) understood the firm's international investments risks in the following way:

> *First, as an enterprise, we must carry our own internationalization risks. But as we are an SOE, the state government performed two kinds of duties: one is approvals, another one is records. The firm has whole responsibility to the recorded cases. For the ones that need approval, the government is concerned more on state-assets value and hedging, instead of risks concerned. If this project is massive in scale, the government may take necessary consideration at the country-to-country level.*

In comparison to the mining NSOEs, he (S3-3) added:

> *We have a better risk control system than many other NSOEs who invest in overseas mines. As a much experienced mining investor, we have much better industrial knowledge, and more specialized teams to ensure the risk control system radically works for our investments. Many NSOEs are not that specialized in the mining field; this has put them into a worse situation when facing bundles of internationalization risks.*

The investment manager (S3-3) raised a 'maximum overseas risks' idea in this way:

> *An important bottom line is that any international investments should be independent from the YCC. Any total internationalization risks should only affect the independent unit. So that the 'maximum overseas risks' is something the independent unit could carry by themselves. It should not bring the negative impacts to the parent company, YCC.*

The political risk is the biggest concern for YCC, according to the Vice Principal (S3-1) of YCC:

> *We consider the political risk as the biggest risk in our internationalization. If the countries are relatively volatile, we will not invest there no matter how great their resources. Because we are an SOE, the assets belong to the country. If it's lost, the person in charge would be held formally responsibility by our higher-level regulatory body.*

The Board Chairman of the Australian publicly listed company (S3-4) thought those government factors did not affect the Australian subsidiary's risk attitude:

> *At the moment, neither Chinese nor Australian governments can affect our risk attitude for the Australian company because we have got the acquisitions here. But it's hard to tell in the future.*

The Australian Division Assistant to the CEO (S3-5) also stated the relationship among risks, funds, and the development stages:

> *The earlier the stage a firm gets involved, the less initial investment needed, but this will associate with higher risks (for example, risk explorations). On the other side, the mature project requires big initial investments, but the associated risk is a lot lower (for example, producing mines).*

The Board Chairman of the Australian publicly listed company (S3-4) ensured the relationship occurred between locational choices and risks:

> *Canada is also a very good resource capital market. Part of the reason of why Canada is quite attractive to us is that if we have the interests in the US and Chile, Canada understands more about Chile than many other countries. It can be a vehicle for South America and North America. Australia is not good for that kind of jurisdiction. Australia is good for South-East Asia and China.*

The CEO/top executive also contributes essential meaning for a firm's long-term international strategies. Claimed by the CEO of the Australian division (S3-2):

> *Our former top executive worked over 10 years in YCC. It provided the company a stable, consistent guide towards its international developments through the years.*

5.9.6. Discussion

This Chinese mining SOE has shown it is eager to maintain its raw mineral material supplies and the goals of generating extra revenues through international investments. With a relatively loose relationship with the state government and SASAC, it is supervised and administrated from the provincial level, the LSAMA. Fewer government initiatives have been seen in the firm's internationalization. It is therefore a 'mostly economically driven' SOE in terms of its motivations, with relatively minor political considerations.

Table 28 lists the firm's motives for internationalization. Resource seeking is triggered by the firm's domestic demand and production capacity requirement. A new issue to be addressed is maintaining both the firm's social responsibilities and its huge copper production capacity. As an SOE, the leaders and managers see the firm's responsibility is to maintain the existing production capacity and/or even increase such capacity to employ more workers locally, and hence ensure local economic development and social

stability. Internationalization strategies are essential from both YCC's firm level and CHALCO's group level. Setting up international 'platforms' can help the firm to seek information, strategic assets (in the areas of international operational skills, managerial skills, international codes of conduct) and being an important financial vehicle for the firm to access the stock markets.

Institutional supervision has constrained the risk tolerance level of the firm's internationalization. State government ownership means the firm tends to have a better resistance to risk, and the SOEs are more 'risk tolerating' when internationalizing. However, to ensure the SOEs are not unrealistically 'risk taking', the SASAC and LSAMA supervise and administer the SOEs at different levels. The new penalty systems for the primary leaders and the key responsibilities of the SOEs have effectively constrained the SOEs to be rational 'risk tolerating' investors rather than 'risk takers'.

Table 28 Key criteria in Chinese non-ferrous SOE's internationalization

Types of mining firm	SOE
Core business	Copper
Drivers and motivations (ranking from most to least important)	'Mostly economical driven' 1. Resource seeking (demand/production driven) 2. Social responsibilities toward local employments 3. Firm's and group's internationalization strategies 4.Industry status – different copper-producing countries at different stages of development; allows strategic investment in different aspects of copper mining and production 5. Supply chain system 6.Information seeking 7. Political considerations 8. Strategic assets seeking (International operational skills, managerial skills, international code of conduct) 9. Overseas financial vehicle
Risk attitudes	A 'risk tolerating' attitude (Less 'risk taking' with institutional constrains) Not 'risk averse' (Involved in many risk prospecting/ exploration projects internationally)
First internationalization experience	2000
Location choices — **Resources/Mines**	**Location of mines** • Chile **Mineral productions** • Zambia **Geological prospecting** • Australia • Laos • Thailand • Myanmar **Trading houses** • Australia • Hong Kong
Location choices — **Exporting markets**	• N/A • Only finished products sold internationally via Zambia's smelter factories.

5.10. NSOE 3: Bosai Minerals

5.10.1. Firm overview

Bosai Minerals Group Co. Ltd. is a privately owned comprehensive group of companies with businesses covering industrial minerals mining, fusion manufacturing, international trade and real estate. Bosai Minerals Group was established in 1994. By the end of 2009, it had total assets of nearly RMB5.0 billion and more than 6,000 employees, including 800 foreign employees. The group comprises more than 12 plants, subsidiary companies and branch offices, which are located in China's Chongqing, Tianjin, Sichuan Province, Guizhou Province, Guangxi, Jiangsu Provinces and in the Co-Republic of Guyana and Ghana (BoSai Group, 2013).

The main products of Bosai Minerals are aluminium metal, metallurgical grade alumina, brown fused alumina, calcined bauxite, coke and coal. In 2013, Bosai Minerals Group has an annual capacity of 600,000 tons of calcined bauxite, 200,000 tons of brown fused alumina and 300,000 tons of coke. After expansion in 2009, the group has an annual capacity of 600,000 tons of metallurgical alumina, 200,000 tons of aluminium metal and 500,000 tons of coal. Bosai products are sold in more than 30 countries and regions in the world, such as Europe, America, Japan and India. Among these products, the output volume of both bauxite and brown fused alumina are ranked 1st in the world (BoSai Group, 2013).

Bosai Minerals Group has been honoured as one of the 'Top 500 Privately Owned Enterprises in China', the 'Top 50 Industrial Companies in Chongqing', the 'Top 10 Exporting Companies in Chongqing' and the 'Top 5 Privately Owned Enterprises in Chongqing' in various years in the last decade. In 2011, Bosai Minerals Group was striving to achieve a goal of three '1's and three '5's: a total sales turnover of RMB 10 billion, a total profit of RMB 1 billion and an amount of Import and Export to US$100

million. Further goals are to make Bosai Minerals Group be a member of 'Top 500 Companies in China', 'Top 50 Privately-Owned Enterprises in China' and 'Top 5 Industrial Companies in Chongqing'. With the goal of 'Ten Billion Bosai, Global Bosai and Centenary Bosai', Bosai Minerals Group is growing at a fast rate and looks forward to cooperating with companies both inside and outside China to develop a prosperous future together, 'Supplying Products Worldwide, Serving the Public, and Devoting to Society' (BoSai Group, 2013).

5.10.2. International development

Since its formation in the 1990s, Bosai's initial core business has specialized in the international trading of aluminium products. Then the firm soon expanded to industrial mineral products. According to the Deputy CEO (N3-2):

> *Now we rarely deal with trading businesses, the firm has been dominated by industrial mineral productions and mines.*

The firm has a short and successful history in mining investment. All respondents from Bosai Mines described the firm's internationalization as 'relatively steady'. Until 2011, two major international investments carried the firm. The first was in September 2006, when the firm started its initial contacts and investigations for the Guyana project. By December 2006, the takeover was successful. Bosai acquired the world's largest producer of refractory grade bauxite ore, Oumai Mining's 70% of shares (China-Abrasive, 2011). The formal takeover occurred in January 2007. Since February 2007, the firm has sent to Guyana staff to participate in its offshore operations, and management staff. As a result of this acquisition, the Bosai Mines owns approximately 200 million tons of high quality bauxite resources worth more than US$20 billion, which is the equivalent of one-fifth of China's proved reserves (CNTV, 2011). The firm has become the largest producer of bauxite clinker and the second largest producer of brown fused alumina worldwide (China-Abrasive, 2011).

The second overseas acquisition for Bosai Mines was the firm's takeovers in Ghana, Africa. In addition to the acquisition of the largest local production plant for electrolytic aluminium, Bosai Mines also determined to invest around 2 billion yuan in a new aluminium refinery in Ghana in 2009 (Ometal, 2009). According to the Founder/CEO

of the Bosai Mines, this is intended to complement and extend the firm's mining industry chain in overseas (Ometal, 2009). This project is in the Awaso area of Ghana in West Africa. It is the only bauxite mine in Ghana, commissioned in 1941. The former owner before Bosai was Rio Tinto. This acquisition of an 80% stake in Ghana Bauxite Company obtained the formal approval of the Government of China and Ghana in 2010 (Xinhua News, 2010). Starting on 1 February 2010, Bosai Mines became the new owner of this mining company with 75 years' mining history. The Ghana bauxite reserves measure about 100 million tons, and all are open-pit mining, which brings great cost advantages in production (Xinhua News, 2010).

The firm's third international acquisition has progressed to the negotiation stage, aiming to establish a production line with an annual output of 300,000 tons of electrolytic aluminium, with approximately US$500 million investment in North Europe (CNTV, 2011); and the firm is approaching the investment of US$1 billion for its Indonesian factories (Cao, 2012).

5.10.3. Motivations

The Founder and Board Chairman (N3-1) stressed the imbalanced allocation of resources 'forced' them to start their internationalization:

> *The limited resources in China and the imbalanced allocation between SOEs and NSOEs left us no choice to survive in the domestic market. This was a bad thing at that time, but it seems a good thing now. We were 'forced' to go out initially because of the limited core production resources left for us in China.*

He did not mention the details of the initial situation for the firm, but a news report, dated 2010, gave the story (Chongqing Daily, 2010):

> *In 2004, the CHALCO threw a $5 billion bid for the bauxite ore resource in Nanchuan, China, where the bases of Bosai Mines' mineral ores and production lines are. There are total of 50 million tons of bauxite ore in Nanchuan and 40 million tons are allocated to central SOE, CHALCO. Only 10 million tons are left. It means Bosai Mines could only survive for less than 10 years with the firm's present annual consumption rate of 1 million tons, with these available resources.*

The Head of International Operation in Ghana (N3-5) further explained this fact in this way:

> *It would be fair for NSOEs and SOEs to compete overseas from the same starting point. Unlike how it's happened in China, the SOEs enjoy a greater advantage compared to NSOEs. The opportunities are not equal domestically.*

Apart from the above motives, the Head of International Operations in Ghana (N3-5) also stated:

> *This (internationalization) is applicable for any multinational mining company, as it is a standard way of operation to globally source the resources, but this is not just limited to the domestics.*

The Assistant to the Founder and Board Chairman (N3-6) confirmed the need for the firm's natural growth:

> *It's our firm's development needs. It's essentially the key requirement from our own natural growth.*

The Assistant to the Founder and Board Chairman (N3-6) stated:

> *I don't know if you have realized our industry is very different from the consumer markets. The senior managers' intention has often matched the government's preferences. But of course, we cannot just 'go out' because the government is encouraging the firms to 'go out'. We still need to optimize our industrial chain as the most realistic objective.*

For the third possible investment in North Europe, the Founder and Board Chairman (N3-1) commented on the importance of input costs:

> *The host government had offered us a highly competitive price for our major input, electricity. This cost benefit is very attractive for us, as electricity is one key input resource for our electrolytic aluminium production.*

5.10.4. Institutional factors

The Deputy CEO (N3-2) disagreed that political considerations from China influenced their investment strategy:

> *We don't generally consider the political issues from China when we initiate an OFDI project; host countries' political issues are our real concerns.*

To elaborate more about their 'real concerns' while conducting a foreign investment, the Head of International Operations in Ghana (N3-5) claimed political risk is the firm's prime concern for the host country selection:

> *The host government's laws, regulations, stability and the sustainability of the political environment would be the key concerns for us when determining the investment destinations. We prefer to choose those countries with more stable political environments.*

Most of the interviewees believe the host government's institutional environment is crucial for the firm's internationalization. The Assistant to Founder and Board Chairman (N3-6) claimed:

> *This is vitally important to consider whether its government's stable, as this is closely related to the country risks that we need to face for our overseas investments.*

The Founder and Board Chairman (N3-1) stated that host governments' attitudes are essential for the firm's overseas development:

> *Generally, the African countries and South American countries are welcoming us to invest there. The local governments can enjoy the economic growth, employment benefits and the taxation revenue through these investments. Of course, if the turnover is extremely high for the firm, the government would want to share the revenue by imposing a windfall tax. It's understandable. I will look at the long-term benefits. Only the win-win situation will last for longer cooperation.*

For the Founder and Board Chairman (N3-1), the positive responses received from the host country policies have actually accelerated the firm's further investment:

> *Ghana has recently decreased its tax rate from 30% to 25% and Guyana has decreased the tax rate from 33% to 25%. There are good signals for us to accelerate our investments there. It reinforced our decision of the second project investment in Guyana.*

Nevertheless, the home government's institutional environment is also impacting the firm's decisions. The Assistant to Founder and Board Chairman (N3-6) claimed:

> *The home institution is quite influential for our overseas investments, as regulations and policies related to exporting, tax returns, and foreign exchanges will directly impact on our internationalization.*

The Exporting Manager and Head of offshore operations in Guyana (N3-4) detailed the situation there:

> *The home governments have been positively influencing the firm's internationalization. Both the state government and Chongqing government have been supportive and given us real monetary subsidies. This money is a good incentive for us to be more confident to develop our overseas activities.*

The Assistant to Founder and Board Chairman (N3-6) stated the ownership advantages of being a mining NSOE, rather than SOE:

> *1. Efficiency is higher than the SOEs' in decision-making and implementation.*
> *2. It is more market oriented for its profitability analysis.*

And the ownership disadvantages are:

> 1. *Credit: banks will perceive this very differently according to various levels of credit abilities. The host governments will view the credit ability differently as well.*
> 2. *Human resources (talents). As this industry was historically occupied only by SOEs, the experienced talents are still in SOEs. As an NSOE, we only have than 10 years history; we are limited to having enough talent from attracting, training, reserving and maintaining resources. For example, one of the reasons we had to give up an opportunity to acquire a mining production plant in Europe is because of the shortage of talent. We don't feel we are capable of driving the project with our current talent. We are stretching ourselves from a managerial perspective and this has become a real challenge for us in our internationalization.*

The Exporting Manager and Head of offshore operations in Guyana (N3-4) further elaborated the ownership advantage of the SOEs, as follows:

> *Large SOEs have fully established divisions including exploration, prospecting, mining, engineering, training, institutions, subsidiaries which would provide them good talents resources. Unlike most NSOEs, we are quite limited in these resources.*
> *The SOEs' funding advantage is also very obvious. So if it is massive large overseas investment, we probably cannot handle the opportunity, being constrained by our funding capability.*

He (N3-4) also stated the ownership advantages of NSOEs over SOEs:

> *First, all overseas investments are self-funded. We will be more responsible to these operations than SOEs. Second, the NSOEs are more flexible and will try everything possible to maximize profit. Every cent invested is ours; every cent earned is also ours. We have more enthusiasm to work and participate than the SOEs' staff. Finally, many SOEs' internationalization is related to political achievements, but we don't have this issue.*

5.10.5. Risk attitudes

Being 'highly specialized' in just the bauxite/alumina field is the key to Bosai's internationalization risk management. According to the Founder and Board Chairman (N3-1) :

We are highly specialized in bauxite/alumina and the peripheral products. We only invest in the upstream and downstream of the industry chain within our sub-mining industry, so the relevant knowledge and experience we have would minimize the risks of internationalization. We know this specific field inside-out. It just can't go wrong this way.

In terms of various kinds of internationalization risks, the Founder and Board Chairman (N3-1) commented that they are prioritized differently. Three kinds of risks have been described as the most important ones:

Of course, it's also important to have the local governmental support, local community support, and local employment support. I think these three areas would directly contribute to our success.

The Assistant to Founder and Board Chairman (N3-6) said these local risks can be managed:

We use a 'localization strategy', the use of maximum numbers of local employees to lower the local-rated risks.

The Assistant to Founder and Board Chairman (N3-6) synthesized the locational choices for the firm as having relevance for various kinds of risks and other factors:

1. Resource abundance;
2. Country-based risks, including political risks;
3. Construction, transportation and ports;
4. Within our sub-mining industry and extend our current industrial chain;
5. Preferably to choose familiar countries or areas, and have a cost advantage. Because we have the electrolytic aluminium process, the cost of electricity is a big portion of our production costs. It is therefore a very important consideration. If a country's electricity has a cost advantage, we will consider moving the production plants there.

The mining-specific risk cannot be underestimated. The CFO (N3-3) further added:

The uncertainty for mines is huge. Quite often, mining firms need to estimate reserves based on the proven reserves. So that will lead to risk in the acquisition process; the firm needs to evaluate more accurately in order to negotiate for a less risky deal.

The Exporting Manager & Head of offshore operations in Guyana (N3-4) noted:

Our risk attitude is more 'conservative' and we have a 'prudential' investment attitude.

5.10.6. Discussion

The uneven domestic allocation of resources had been the biggest motive for the firm to seek resources overseas. According to the senior managers, the firm was initially 'forced' to go abroad to seek resources. The successful operations overseas made the firm a 'surprise gain' through internationalization. The firm's current development and future strategies are set at a global scale. Therefore, the motivations have changed over time for the firm. As the firm moved from the initial 'passive' international development to more 'active' mature investments, the firm has expanded, 'increasing the firm's global competitiveness' and getting more assets to be competitive with future global competitors.

This firm's senior managers had gained international experience from being involved in mineral products trading in their earlier careers serving the SOEs overseas; at that stage, around the late 1980s to the early 2000s, SOEs were just starting to internationalize with the forms of non-equity cooperation. Such experience seems very important in building these managers' key international visions and views. Some of them have founded firms themselves; others have become senior managers with a good understanding of the international mining market.

Country-based risks are seen as the most important kind of risk that a mining firm faces in internationalization. The political risk is the most important one. Community risks can also be significant and mining-specific risks can lead to a higher acquisition risk. The firm needs to estimate its negotiations more accurately. Bosai hold a 'prudential risk attitude', but it is not 'risk averse'. The key tool used by the firm to manage the complex internationalization risks is simple: be highly specialized, and invest only in this area of mining expertise. In addition, the firm prefers to have local partners cooperate in new local projects to minimize the country-based risks. There are no preferences of market entry mode by Bosai while it is internationalizing, as this is heavily dependent on the host governments' requirements and regulations. Table 29 summarizes the key criteria of Bosai Mines' international development.

Table 29 Key criteria in Chinese non-ferrous NSOE's internationalization

Types of mining firm		NSOE
Core business		Aluminium
Drivers and motivations (ranking from most to least important)		'Economical driven' 1. Resource seeking (forced to go out, as imbalanced resources allocations between SOEs and NSOEs) 2. Seeking a fair competitive market 3. Following the industrial standard- global sourcing for mining firms 4. Firm's development needs 5. Optimize the industrial chain 6. Cheaper inputs Note: Strategic assets seeking is not included as one of the motives here, but the respondents affirmed these are the 'side benefits' they have gained through the internationalization. But they did not consider this as the motive for the firm to invest in overseas.
Risk attitudes		Conservative and 'Prudential' risk attitude
First internationalization experience		2006
Location choices	**Resources/Mines**	**Location of mines** • Guyana • Ghana **Mineral productions** • Guyana • Ghana **Geological prospecting** • N/A **Trading houses** • N/A
	Exporting markets	• Japan • European countries • North America

5.11. Chapter summary

This chapter has given an individual overview of each case study firm, including their international development, institutional factors and risk attitudes. The quotes from the interviewees provide insights into how and why internationalization processes occur, the firms' risk attitudes, and who and what contribute to the factors affecting internationalization of Chinese SOEs and NSOEs from the iron and steel, gold and non-ferrous industries.

This discussion has provided the preliminary analysis to be used for further analyzing the findings on the proposed propositions in the next chapter. It has revealed that interrelated factors influence the internationalization motives and risk attitudes of Chinese SOEs and NSOEs, with some variations. Ownership differences between two kinds of Chinese mining firms determine each firm's resources. Of the Chinese institutional factors, differences in ownership and resources trigger the firms' distinctly different orientations towards their own internationalization, depending on their sub-mining industry, the firm's OFDI strategies, international experience, knowledge and, more importantly, their top manager's/CEO's characteristics.

In pairing one SOE and one NSOE from each sub-mining industry, this study has found that while institutional, industrial and firm forces motivate their internationalization, some aspects of both home and host institutional factors simultaneously inhibit and promote these firms' internationalization. Some 'unconventional' motives are exclusive to either Chinese mining SOEs or NSOEs. Some possible extensions to the 'conventional' motives are appeared in both firms' internationalization motivations.
The top manager/CEO (or *yi ba shou*) allows the firms to take different risk attitudes toward internationalization. Substantially, the findings suggest that the characteristics of the CEO (or *yi ba shou*) determine the kinds of risk behaviour he or she will undertake during the firm's internationalization (e.g., risk tolerating, risk averse, risk escape or risk taking).

The next chapter discusses the key findings and presents the cross-case analysis, in response to the pre-determined research questions and subsidiary research questions set out in Chapter 3.

Chapter 6: Discussion and key findings

6.1. Introduction

This chapter contains the cross-case analysis, providing an in-depth analysis of the Chinese mining SOEs and NSOEs' internationalization motives and attitudes towards risks. Section 6.2 presents the key findings that synthesize the cases and relate back to the research questions developed in Chapter 3. It explains the extended approach used to distinguish the comparative ownership advantages (COA) of each type of firm. Since both kinds of firms claim insufficient COA in the global mining industry, the newly defined term 'domestic comparative ownership advantage' (DCOA) is therefore more appropriate.

The discussion in the previous chapter showed that no single perspective (e.g., resources-based, industry-based or institution-based view) should be taken in isolation in viewing the motives and risk attitudes of Chinese mining firms' internationalization. This reflects the conceptual framework (Figure 11) whereby all of these three 'legs'/perspectives of the 'strategic tripod model' are integrated to shape the firms' internationalization strategies. Section 6.3, therefore, discusses a set of 'new' motives and presents a multidimensional view of the 'conventional' motives.

Section 6.4 sets the scene for the in-depth analysis of risk attitudes by discussing how the upper echelon theory has been represented in the form of CEO's or *yi ba shou's* characteristics in Chinese mining firms. These personal characteristics are seen as the primary influence on the firm's internationalization risk attitudes. The chapter concludes with a summary of the major findings and their relevance to prior research in Section 6.5.

6.2. Key findings: Chinese mining SOEs exploit assets & NSOEs acquire assets and the concepts of DCOA/ DCOD

Collectively, the cross-case findings reveal a number of issues related to the factors affecting firm internationalization strategies proposed in the 'strategic tripod model'

(see Chapter 3). As a 'late-comer' to global business, Chinese firms can acquire assets to offset their disadvantages through internationalization (Child & Rodrigues, 2005) using firm-specific advantages (FSA) such as financial strength. Rather than following a single approach towards FSA, Sun et al. (2010) proposed a concept of 'comparative ownership advantages' (COA). This blended, integrated vertical view combines country-level, industry-level and firm-level advantages from all tiers of the firm. COAs are the possession and leverage of assets that are relatively (not absolutely) valuable, rare and hard to imitate; these assets are embedded within the organization and give the organization a comparative advantage over firms from other countries (Sun et al., 2010). Firms can therefore use COA to acquire or leverage assets through their internationalization strategies. In contrast, Rugman's (1981a) FSA/CSA (firm specific advantages/country specific advantages) matrix and Dunning's OLI framework (Dunning, 1977, 1979) in IB see MNEs deriving advantages from the superior resources that they exploit abroad.

In order to answer the first subsidiary research question presented in Chapter 3 – Why do Chinese mining SOEs and NSOEs undertake OFDI to acquire assets or exploit assets overseas? We need to first identify whether these firms internationalize to acquire assets or exploit assets, and if there is a difference between SOEs and NSOEs. This study proposes an extended term: 'domestic comparative ownership advantage' (DCOA). The interview data revealed that Chinese mining firms do not yet have the benefit of COA due to their significant late-comer status in the global mining market and their current level of international development. The 'domestic comparative ownership advantage' is therefore more appropriate to apply to the Chinese mining industry when comparing the two major kinds of firms, SOEs and NSOEs.

Table 30 presents illustrative or 'proof quotes' from the respondents of each firm. Pratt (2008, 2009) emphasized the use of proof quotes to highlight the prevalence of a point and to enhance the triangulation of qualitative data. These proof quotes from managers of both SOEs and NSOEs show that all firms adopt this 'domestic' orientation.

Table 30 Proof quotes confirming that Chinese mining firms' 'comparative ownership advantages' have 'domestic' orientation

Chinese mining SOEs	Chinese mining NSOEs
Shougang Group (iron and steel)	**Shagang Group (iron and steel)**
S1-2: Although it's been discussed a lot in recent years about Chinese firms' internationalization, the reality is Chinese mining firms' OFDI developments are not as good as the MNEs from USA, Canada and Australia. Most of our internationalization has still been tightly associated with labour-intensive industries, like construction. And in many cases, we are just the sub-contractors under the developed countries' MNEs – it means that most profits have already been taken by them. Overall, we are still immature and not at the stage to compete with the international MNEs yet.	*N1-3: The diversified trading network of our company still contributes just a small portion of our final sales. China has always been our primary focus and major market. We grow with the Chinese economy.*
	Fosun Group (Gold)
	N2-2: Our firm is like a toddler, who is just starting to learn how to walk. Unlike those large multinational mining firms, who've had over hundreds of years of history, or at least have been there for half a century. Although the outsiders would view us (the Fosun Group) as a large NSOE from China, it's been much diversified, thus Fosun Mines is still relative small. We are really just at our exploratory stage of internationalization. One of our priorities is to learn and gain more international experience now.
China Gold (Gold)	
S2-5: We are at risk of being merged with other Central SOEs, if we are not very competitive.	
	Bosai Mines (Non-ferrous)
Yunnan Copper (Non-ferrous)	
S3-2: Our company's competitive advantages made the overseas investments more affordable but now we need to build up our overseas shares in order to reform domestically.	*N3-1: Our comparative advantages are clearly shown in the following aspects: 1) Fast decision-making mechanism … compare to the SOEs'. 2) We have a very good incentive system. This may be hard for SOEs, as the manager's administrative level in China would determine the remuneration. 3) It's more acceptable for the host country governments to approve the investments from NSOEs rather than SOEs.*

Note: Interviewees' codes are coded in Table 13 and 14.

‘Domestic comparative ownership advantages’ (DCOA), therefore, are the possession and leverage of assets that are relatively (not absolutely) valuable, rare, hard-to-imitate and organizationally embedded, in comparison with other firms operating within China’s domestic market. Such comparative ownership advantage (COA) is ‘domestic’ because:

1. these firms do not have absolute advantage over their counterparts overseas (Luo & Rui, 2009; Sun et al., 2010);
2. each type of firm has a comparative ownership advantage/disadvantage over the other, both domestically and within its industry;
3. their relatively shorter international experience and latecomer status mean the firms are not yet ready to develop appropriate COA internationally.

The managers of Chinese mining SOEs described themselves in the interviews as ‘the big brother of the family’. Overall they own significantly more DCOA than do the NSOEs. The Chinese mining NSOEs are seen as ‘the step-son of the family’. They therefore have less support from the home country institutions. NSOE managers even claimed ‘if home institutions don’t intervene in our internationalization, we have already received the bonus or ‘support’’.

As shown in Table 31, many DCOA enjoyed by the SOEs are different from the DCOA enjoyed by the NSOEs. Interestingly, many of the SOEs’ DCOA correspond with the DCOD of the NSOEs; and many of the SOEs’ DCOD are the DCOA of the NSOEs.

Table 31, below, demonstrates the key ‘domestic comparative ownership advantages’ and disadvantages (DCOA/DCOD) between two major kinds of Chinese mining firms.

Table 31 Key domestic comparative ownership advantages and disadvantages (DCOA & DCOD) owned by Chinese mining SOEs and NSOEs

DCOA/DCOD	Chinese mining SOEs	Chinese mining NSOEs
Domestic Comparative Ownership Advantages (DCOA)	DCOA-S1: Funds DCOA-S2: Human resources DCOA-S3: Well-established organization DCOA-S4: More institutional support DCOA-S5: State government can shoulder some country risks for SOEs DCOA-S6: Capable of investing in long-term and large scale overseas projects DCOA-S7: More international experience	DCOA-N1: Efficient and flexible DCOA-N2: More market oriented: more enthusiasm/more responsible and more thoughtful/cautious decisions DCOA-N3: Fewer host countries' political barriers
Domestic Comparative Ownership Disadvantages (DCOD)	DCOD-S1: Less efficient, less flexible DCOD-S2: Political obligation constraints DCOD-S3: Lack of market-oriented incentive scheme DCOD-S4: Tighter institutional supervision DCOD-S5: More political barriers in host countries	DCOD-N1: Mainly self-financing DCOD-N2: Lack of human resources DCOD-N3: Lack of institutional support DCOD-N4: Less capable of investing in long-term and large-scale projects DCOD-N5: Limited international experience

DCOA-S= Domestic Comparative Ownership Advantages owned by SOEs
DCOA-N= Domestic Comparative Ownership Advantages owned by NSOEs
DCOD-S= Domestic Comparative Ownership Disadvantages owned by SOEs
DCOD-N= Domestic Comparative Ownership Disadvantages owned by NSOEs

For example, the DCOA of Chinese mining SOEs, listed as DCOA-S1 to DCOA-S7 in the table, highlight the SOEs' important support from the Chinese Government or the inherent advantages from the firms' histories as stated-owned enterprises. Their relatively longer firm histories and stability attract unlimited numbers of fresh graduates every year. Their ability to obtain cheap funds from the national-owned banks has enabled the firms to invest in long-term and huge projects through OFDI. Finally, the state government's support of their OFDI activities has ranged from providing tradeshows to shouldering the country risks for the SOEs; to a large extent, the SOEs depend on the state government when dealing with country risks (e.g., risks in operating

projects in African countries, Tajikistan, and others). The SOEs have significantly more international experiences than do the NSOEs.

In contrast, the DCOA associated with NSOEs, listed as DCOA-N1 to DCOA-N7, show that the NSOEs' efficiency and flexibility are aligned with their more market-oriented status. This greater market orientation leads to the NSOEs generally having more competitive remuneration and incentive schemes than the SOEs, and so the managers are more enthusiastic and take more responsibility for their work commitments, decision making and performance. In addition, they face fewer host country political barriers when they apply for foreign investments overseas.

Table 32 Domestic comparative ownership advantages and disadvantages of Chinese mining SOEs and NSOEs

	Chinese mining SOEs		Chinese mining NSOEs	
Criteria	*DCOA*	*DCOD*	*DCOA*	*DCOD*
1 Mineral resources	Own the majority of mineral resources domestically (Sun et al., 2010) *'… Resources are controlled by large SOEs and central SOEs. This weakens the competitive position of NSOEs…' (N3-1)*			Own minor portions of poorer mineral resources in China, compared with SOEs
2 Financial resources	State-owned banks provide 'easy' loans at low interest *'…very good interest rates and good rates for trading as the advantages...'(S2-2)*			Self-financing is the major source (Yu & Sheng, 2002) *'The SOEs' funding advantage is also very obvious. So if it is a large overseas investment, we probably cannot handle the opportunity constrained by our funding capability' (N2-2).*
3 Human resources	More human talent, compared with mining NSOEs *'Our much longer international experiences, compared with NSOEs, give us the chance to train our own employees in a global context' (S1-1)* *'Most large SOEs have their own training institutions, R&D centres and various levels of subsidiaries. Such fully established functionalities give SOEs rich human capital in different disciplines: prospecting, mining, management,*			Limited human resources. *'As this industry was historically occupied only by SOEs, the experience and talent are still in SOEs. As an NSOE, we have only just over 10 years' history; our talent comes from attracting, training, reserving and maintaining. For example, one of the reasons we had to give up an opportunity to acquire a mining production plant in Europe is because of the shortage of talent. We don't feel we are capable of driving the project with our current talent' (N3-1).*

Criteria	Chinese mining SOEs		Chinese mining NSOEs	
	DCOA	*DCOD*	*DCOA*	*DCOD*
	engineering, foreign languages, law… in different aspects… such setting is still impossible for most NSOEs…' (N1-6)			
4 *Institutional factors*	**Home countries institutions:** Institutional supports from different levels of governments *'Different levels of governments will give a green light to the SOEs in their investments or OFDI with the most convenience…' (S2-3)* Institutional support from state government in international policy for international activities and assistance in foreign operations *'In African countries, for example, we are appointed to establish certain projects. If anything happened, we will surely look for assistance from our diplomatic agencies to solve…' (S1-2)*	**Home countries institutions:** Lack of market-oriented incentive scheme *'Government encourages SOEs to go out. As for the leaders of SOEs, but going out just increases the responsibility, risk, and exertion. Nothing else gives us any good or benefits…' (S2-1)* Tighten institutional supervision from SASAC *'The SASAC provisions: not more than 70% of the debt ratio for central SOEs.' (S2-5)* *'SASAC's Order No. 20 (2008): The central enterprise assets loss accountability interim measures, reinforces the punishment of the top managers and key personnel for huge losses occurred in inappropriate investments.' (S2-5)* **Host countries' institutions:** High barriers set up by the host countries, especially the more developed countries.	**Host countries' institutions:** Low barriers from host countries for OFDI	**Home countries' institutions:** Lack of institutional supports from home government *'Unlike the SOEs, they are the big brothers of the family; we, as NSOEs, are just the step-son of the family…' (N3-2)*

Criteria	Chinese mining SOEs		Chinese mining NSOEs	
	DCOA	*DCOD*	*DCOA*	*DCOD*
		'Often SOEs' OFDI approvals are harder to obtain from the host governments, as it's commonly questioned for its non-economic objectives (e.g., political objective).' (S1-3)	approvals. *'We normally received a lot of respect once the host country government heard we were an NSOE. So the approvals always went very smoothly. No barriers for us generally… we were welcomed to invest there.' (N1-6)*	
5 *International experience*	Pioneers among the Chinese firms, government-initiated OFDI started 30 years ago			The real latecomers to OFDI, only in the last decade *'We only started to internationalize from 2002–2003. Compared with other SOEs, who started from the 1980s, we are far behind. The international experience for us is very limited. We had to learn everything through our OFDI projects over the years.' (N1-3)*
6 *Efficiency*			More efficient than SOEs: *'POEs like us have much faster internal decision marking mechanism, compared with the SOEs. We don't need to have the 'step*	

Criteria	Chinese mining SOEs		Chinese mining NSOEs	
	DCOA	*DCOD*	*DCOA*	*DCOD*
			by step approvals' as required for SOEs.' (N3-2) *Internationalization has provided a most efficient way for us to succeed and to be able to compete with SOEs domestically. Through this process, we obtained the resources, made profits, earned foreign currencies, trained our talent, and gained experience, knew more international operations and managements. All of these benefits just speed up our development and growth from a small to medium POE to a relatively powerful firm within the field. (N3-1)*	

Note: Interviewees' codes are coded in Table 13 and 14.
DCOA: domestic comparative ownership advantage,
DCOD: domestic comparative ownership disadvantage.

Table 32 summarizes the DCOA and DCOD of the case study firms based on six criteria: mineral resources, financial resources, human resources, institutional factors, international experience and efficiency. These six criteria were synthesized from the interviewees' responses.

These factors have formed the fundamental differences in determining the firm strategies in OFDI between Chinese mining SOEs and NSOEs. The table indicates that Chinese mining SOEs have significant DCOA over NSOEs in the context of internationalization. Mineral resources and financial resources are two primary differences, influenced by uneven levels of support from the Chinese Government. While the SOEs enjoy significant DCOAs in these two criteria, the NSOEs rely merely on a minor portion of local mineral resources and self-financing.

In the area of human resources, SOEs can further exploit their assets through international expansion. The SOEs' greater human capital is an advantage in two main ways. First, SOEs' longer international experience has provided opportunities to train their local talent with an international perspective and experience. Second, SOEs can attract more personnel from multiple sources as 'exterior talent'. For example, in 2003 SASAC began to recruit central SOE executives globally using a competitive approach instead of appointing through the Parties (First Finance Daily, 2009); many graduates and professionals are attracted to working for SOEs because of better social recognition and status; the Chinese Government has been working to attract overseas talent back to China using a variety of incentives (CCTV, 2010); and many large Chinese mining SOEs even have their own training institutions, R&D centres and various levels of subsidiaries. This fully established organizational structure gives SOEs rich human capital in different disciplines: prospecting, mining, management, engineering, foreign languages, law, and so on. However, SOEs still lack a competitive managerial labour market because the personnel management of SOEs remains under the authority of The Central Committee of the Communist Party of China (CPC) (Groves et al., 1995; Hu & Leung, 2012; Li & Zhou, 2005). At the same time, the mining NSOEs are hard-pressed to have enough human capital to match their international development.

The institutional factors have two-sided effects for the mining SOEs. Mining SOEs have DCOA and DCOD associated with different kinds of institutional factors in both home country (Luo & Tung, 2007; Witt & Lewin, 2007) and host countries (Henisz, 2000; Henisz, 2003). Previous research has highlighted the government's strong support in international relations, policy and financial loans for internationalization activities (Kolstad & Wiig, 2012). This support comes from various levels of home institutions and, through international policies, it can increase SOEs' ability to conduct internationalization through their DCOA. Buckley et al. (2007) also found that home institutional factors can accelerate an SOE's internationalization. The opposite side of the home institution factor is that, even with encouragement from the government for the SOEs to 'go out', SOEs' incentive schemes still appear to be underdeveloped. Hence, the managers, especially the key personnel, have been less motivated to take more responsibility in conducting risky activities for the firm.

Host countries are more attractive if they have large potential markets, natural resources, high-skill, low-cost and trainable or well-trained labour, and good communication systems and infrastructure (Li et al., 2009). Host government policies and institutional arrangements have important implications for the survival of foreign investors (Hoskisson et al., 2000).Higher barriers have been set up for Chinese mining SOEs than for NSOEs, especially from more developed host countries. The mining SOEs' internationalization activities have often been questioned in terms of their underlying national interests or political objectives.

Chinese mining NSOEs are the 'real latecomers' to internationalization. Compared with SOEs, which started investing internationally around the early 1980s, Chinese mining NSOEs have fewer DCOA, especially as related to accumulative international experience. Most of the NSOE interviewees in our case studies admitted that NSOEs are relatively limited in both the length and scope of their international experience. Therefore, investing abroad is a very strategic move for NSOEs who are keen to rapidly develop their competitive assets (Luo & Peng, 1999) and acquire various resources and assets around world that they cannot access in China because of their type of ownership. Mainstream IB scholars believe international experience has a positive impact on internationalization (Agarwal & Ramaswami, 1992; Brouthers et al., 1996; Contractor

& Lorange, 1988; Kim & Hwang, 1992). Explanations of the international expansion process suggest that the accumulation of foreign country-specific experience is time related (Luo, 1999b). Scope of experience, which measures the diversity of international experience (Clarke et al., 2010), is another important dimension (Luo, 1999a). However, international experience at the personal level is worth noting. Most of the key entrepreneurs and senior managers from the Chinese mining NSOEs have previously worked in SOEs; therefore the international experience acquired from former SOEs has helped them to establish the OFDI in their NSOEs.

The different ownership structures of the Chinese mining SOEs and NSOEs impact on their efficiency (Vining & Boardman, 1992): SOEs will be inherently less efficient than private ownership (Alchian, 1965). Private corporations are significantly more profitable than government firms (Furubotn & Pejovich, 1972). In this study, respondents from both SOEs and NSOEs claimed that NSOEs are more efficient than SOEs. NSOEs generally have fewer hierarchies in their organizational structure, so the decision-making mechanism is simpler, more direct and more efficient. This leads to a more efficient procedure in terms of OFDI decision making. NSOEs then want to enhance such efficiency via OFDI, where they are able to compete with SOEs in foreign markets with no unwanted pressure from home institutions. A lack of DCOA is being rectified, in a relatively short period, through enhancing the efficiency of internationalization.

Both SOEs and NSOEs ensure that their focus still largely emphasizes the domestic market, as many of these sub-mining industries are very competitive, and maintaining their domestic market positions are the primary goals for these firms at their current stage. Some firms have even tailored their internationalization targets of resources so as to be the only firm that supplies the needs of the domestic market. The senior manager of NSOE (iron and steel) (N1-3) stated:

> *We are internationalizing to acquire the quality resources in order to strengthen our market position domestically. Because the iron and steel industry is a fully competitive industry, we need to make such internationalization to maintain our domestic market position.*

In summary, in response to subsidiary research question 1 ***– Do Chinese mining SOEs and NSOEs undertake OFDI to acquire assess or exploit assets overseas?*** – given the different DCOA and DCOD owned by Chinese mining SOEs and NSOEs, SOEs are undertaking OFDI to exploit DCOA, whereas NSOEs move abroad to mainly redress their DCOD and augment their very limited DCOA.

6.3. Key findings: Chinese mining firms' OFDI motives

6.3.1. Chinese mining firms OFDI motives are 'Multiple'

In response to subsidiary research question 2 – What are Chinese mining SOEs' and NSOEs' motivations to conduct OFDI overseas? Findings from the interview data reveal that resources, strategic assets and market seeking are among the 'conventional' motivations of Chinese mining firms. But the diversity of their multiple aims goes beyond these items. Table 33 summarizes the Chinese mining SOEs' and NSOEs' motives for internationalization.

To compare, the motives of Chinese mining SOEs and NSOEs showed some commonalities – they both seek resources (higher quality mineral resources, cheaper production inputs and richer mineral reserves), strategic assets and foreign markets. Respondents also emphasized that China's rapid urbanization contributed to the huge domestic demand for the mining industry and this should be seen as one of the fundamental motives for the firms to internationalize. Respondents also mentioned the importance of firms developing their own supply chain systems: instead of focusing on just one or a few aspects of production, they need to complete the supply chain from the minerals and resources to refining and producing industrial products. Each sub-mining industry's own industry environment has led both SOEs and NSOEs to seek inputs more cheaply from overseas than they could obtain domestically.

Table 33 Comparison of Chinese mining SOEs' and NSOEs' motives for internationalization

Core business	SOE ownership type	NSOE ownership type
Iron and steel	*Provincial SOE*	*Privately owned*
Motives	1.Resource seeking due to China's poor quality iron ore and scarce resources 2.Industrial standard and market-oriented flow from high cost location to low cost location 3.Political consideration: Host government employment and taxation needs (Chinese Government-led) 4.Foreign market seeking for the final processed products 5.China's economic development and urbanization	1. Profit driven; 2. Resource seeking – higher quality resources at cheaper price abroad; 3. Information seeking; 4. Strategic assets seeking; 5. Foreign market seeking for the final processed products.
Gold	*Central SOE*	*Privately owned, publicly listed*
Motives	1.Political obligation/consideration: response to 'National calls' 2.Resource seeking – better quality minerals abroad 3.Conformity to other SOEs' internationalization 4,Information seeking 5.Strategic assets seeking 6.Foreign market seeking 7.Share advanced strategic assets and advanced technologies	1.Profit driven 2. Resource seeking– better quality minerals abroad 3. International experience and learning 4. Strategic assets seeking (acquire advanced technologies and management skills/internationalization/ increase efficiency and competitiveness) 5. China's economic development and urbanization 6.Information seeking 7.Capital market seeking 8. Supply chain system
Non-ferrous	*Provincial SOE*	*Privately owned*
Motives	1. Resource seeking (demand/production driven) 2. Social responsibilities toward local employments 3. Firm's and group's internationalization strategies 4.Industry status – different copper-producing countries at different stages of development; allows strategic investment in different aspects of copper mining and production 5. Supply chain system 6.Information seeking 7. Political considerations 8. Strategic assets seeking (International operational skills, managerial skills, international code of conduct) 9. Overseas financial vehicle	1.Profit driven 2.Forced internationalization – forced to go global to sustain its domestic market position 3.Resource seeking – cost efficiency, stability and quality assurance; unmatched resources and production capacity; 4.Seeking a fair competitive market 5.Following the industrial standard- global sourcing for global mining MNEs 6.Firm's development needs 7.Supply chain system 8.Location advantage, resources advantage, logistics advantage and production cost advantage 9. Cheaper inputs

In other ways SOEs and NSOEs are different. Conformity and political obligations/considerations were important to SOEs, while seeking efficiency was more important for NSOEs. Institutional factors such as SOEs' job placement costs, political considerations and conformity can sometimes conflict with firms' economic interests and thus reduce their efficiency. In contrast, respondents from NSOEs see themselves as economically driven or profit motivated. These findings are consistent with other research (Buckley et al., 2006; Deng, 2004; Dunning & Lundan, 2008; Zeng et al., 2012) that has identified that multiple motives drive Chinese firms' internationalization.
In relation to the 'political obligation/consideration' motive of Chinese mining SOEs, our findings suggest that the two-way, dependent relationship between the state government and business varies, depending on the firm's ownership and hierarchy. The higher the Chinese mining SOEs are in the hierarchy[20] (e.g., central SOEs), the more political considerations are involved in their OFDI and the more dependent they are on the government in their overseas operations. The lower the Chinese mining SOEs are in the hierarchy (e.g., provincial SOEs, collective enterprises), the more they are market oriented and the less dependent they are on the government in their overseas operations. NSOEs are the least affected by this issue. The differences between different kinds of SOEs have also been discussed in a recent study by Ramasamy et al. (2012).

The case studies also revealed some unique motives: information seeking (applicable to both SOEs and NSOEs), conformity with other SOEs' internationalization (applicable to SOEs), 'forced' internationalization (applicable to NSOEs), seeking financial vehicles (applicable to both SOEs and NSOEs), and seeking supply chain development (applicable to both SOEs and NSOEs). These can be viewed as extensions to existing motives or representations of the uniqueness of Chinese firms' internationalization.

Motivation – 'Information seeking' (both SOEs and NSOEs)

Information seeking appears to be a motive for both SOEs and NSOEs. All six firms have an office complex established in Hong Kong and/or Singapore. Respondents call this type of foreign investment 'informational centres'. The CFO of the NSOE (iron and steel, Shagang) (N1-4) stated:

20 The 'hierarchy' here means the three top-down tiers of jurisdiction for SOEs: central SOEs, provincial SOEs and municipal government-owned SOEs (e.g., collective enterprises at urban and rural areas).

> *We need to spread to Hong Kong and Singapore to gather and analyze global industrial information. This information is critical to our investments and managerial decisions.*

The Hong Kong Subsidiary investment manager (SOE, iron and steel) (S1-4) of Shougang claimed:

> *These are strategic locations for us, which provide us latest industrial information, and overseas investment and capital platforms.*

Respondents from the SOEs were not as specific, but they did highlight that their Hong Kong office is a 'window company', which serves an information-seeking purpose and provides feedback on international mining markets. This directly relates to the degree of freedom of information in mainland China and the opinion of the SOE respondents that relevant (domestic) advice is not as reliable or transparent as information sources in markets like Hong Kong or Singapore.

Motivation – 'Conformity' (SOEs)

Conformity to other SOEs' internationalization is a motive for central SOEs. The interview data revealed that this tends to be 'passive'. A functional manager (Central SOE, gold) (S2-5) of China Gold expressed:

> *Everyone else has been going (into international markets). To keep pace with the times, we should do the same. SOEs are the firms owned by the country. If the state government has the 'go global' strategy, it's the first ranked motive for us.*

The Head of Investment Department (S2-4) addressed similar issue with more emphasis on its central SOE character:

> *Current mining internationalization is more like administrative actions for central SOEs. As a central SOE, we should be obligated to respond to the national call.*

This passive movement is a motive that is exclusive to the SOEs and can be termed 'conformity' or the 'bandwagon effect'. SOEs seek conformity with other SOEs' overseas expansion, with a relatively vague goal of internationalization. Activities in international markets are treated as 'testing the water'. This conformity is generated by informal institutional pressures and is in contrast to: (i) inter-organizational imitation which emphasizes a technical perspective – that is, the imitation is a conscious attempt

to learn from other organizations (Nelson & Winter, 1982), and (ii) formal institutional pressures to make the organization 'tie in' with focal firms (Meyer & Rowan, 1977).

However, YCC's Deputy CEO (Provincial SOE, Yunnan) did not think the Chinese mining SOEs are obliged to comply with the state government's 'orders' in terms of internationalization; instead, he believed YCC's internal demand is the prime motivation. With these contradictory opinions, the CEO from Shougang Holding (Provincial SOE, iron and steel) concurred with YCC's Deputy CEO (provincial SOE), that is, that Chinese mining SOEs are not obliged to comply with the state government's 'orders' in OFDI, but the firm would have to consider the trend and influence from other SOEs' active participations in OFDI activities. He (S1-2) said:

> *We did not respond positively to the state's calls! You can't understand the impact of such ownership on how we feel. For the state-owned enterprises, in fact, I would say whether to undertake international investments depends a lot on the SOE leader's sense of responsibility. Taking actions in response to the government's 'going out' encouragement can only increase the responsibility, risk and fatigue for the leader, but gives us no benefits at all.*

Therefore, it seems the higher the SOE in the administrative level, the more significant the 'political obligations'. In other words, central SOEs tend to be more 'politically obliged' than provincial SOEs to undertake OFDI. The hierarchy of the SOE in the administrative pyramid enhances this process.

In contrast, none of the interviewees from NSOEs claimed the Chinese institutional factor, such as political considerations and obligations, as potential motives for mining NSOEs. These NSOEs see themselves as 'international operators' who follow the world mining firms' developmental trends to go global. The Chinese 'Going out'/'Go Global' policy has created a more positive and encouraging institutional host country environment for NSOEs investing overseas, while not making the NSOEs feel obliged to conduct OFDI as such. Seeking profit maximization is essential for NSOEs. The Head of the Australian subsidiary of Shagang (NSOE, iron and steel) (N1-6) explained:

> *We don't just acquire resources overseas; instead, we have always emphasized its rate of return on investment. We want to maximize the firm's profits through our international projects. Of course, at the same time, the projects often need to fulfil our requirements for resources…*

Motivation – 'Forced' internationalization (NSOEs)

This study revealed that not all NSOEs were actively taking the initiative to start their internationalization pathways. The Founder and Board Chairman of Bosai Mines (NSOE, non-ferrous) (N3-1) stressed that the imbalanced allocation of resources between SOEs and NSOEs in China has 'forced' the firm abroad:

> *The limited resources in China and the imbalanced allocation between SOEs and NSOEs left us no choice to survive in the domestic market. We got no other options, but to internationalize. This was a bad thing at that time, but it seems a good thing now. We were 'forced' to go out initially because of the limited core production resources (bauxite) left for us in China.*

He was not the only respondent from an NSOE who addressed this issue. Similarly, the CEO of Fosun (NSOE, gold) (N2-1) commented:

> *We didn't have much choice to expand our mineral reserves domestically, as the majority of large-scale, high-quality mines are controlled by the SOEs. We can really just get the resources that they don't bother to get…*

This passive movement is a motive for NSOEs conducting OFDI and can be termed 'forced' internationalization. This motive is determined by formal institutional pressures, and results in an uneven allocation of resources domestically between SOEs and NSOEs (large-scale and highest quality mineral resources are always possessed by SOEs; the NSOEs can then only compete for less favourable portions).

Local protection in China has further isolated NSOEs into a weaker position of acquiring resources within their respective sub-industries. These have shown a need to seek 'fairer' markets overseas. A few respondents (NSOEs) mentioned that they have been treated 'equally' when competing with other firms (including Chinese SOEs) while internationalizing, and that is a bonus for them.

Motivation – 'Seeking financial vehicles' (both SOEs and NSOEs)

Seeking financial vehicles is another motive for Chinese mining NSOEs, as the mining industry is a capital-intensive sector, and NSOEs have lack of government financial support domestically. It seems logical for NSOEs to seek financing through overseas expansion. The CFO (iron and steel, NSOE) of Shagang (N1-4) stated:

> *These overseas firms can be used as financial platforms. Since they are both located in the world's financial centres (Hong Kong and Singapore), accessing*

> *the latest information and convenience of financing is the main motivation [for their establishment]*.

Therefore, the 'information-seeking' centres owned and operated by NSOEs in Hong Kong and/or Singapore are also utilized as 'financial platforms'.

Surprisingly, 'seeking financial vehicles' was also claimed as an important motive for the SOEs, despite it being well documented that Chinese SOEs have easy access to cheap loans and other forms of financial support through the state government (Buckley, 2008; Deng, 2009b; Wang, 2002). The Board Chairman of YCC's Australian Publicly Listed Company (Provincial SOE, non-ferrous) (S3-4) stated that getting involved in the international stock market, in order to learn and develop their own 'international market-based' financial vehicle, is one of their primary motives:

> *Although the SOEs have the ability to obtain sufficient large investments from Chinese financial institutions, it is more efficient for us to generate funds from the share markets of the Sydney Stock Exchange for our local explorations ... If we have large projects, of course we can access cheaper funds from China. Alternatively, we can also strategically list in Canada, where the market is more mature for mining financing than the Australian stock market … It gives us the flexibility to use multiple financial sources for our potential investments…*

This reflects the previous finding that the lower the Chinese mining SOEs' position in the hierarchy, the more market oriented they are and the less they depend on the government in their overseas operations (e.g., less dependent on the governmental financial support).

Motivation – 'Seeking supply chain development' (both SOEs and NSOEs)

Another finding of this study is that both mining SOEs and NSOEs intend to develop the international supply chain they establish through internationalization. Most of the firms in this study initially started as traditional mining firms, focusing more on the importing and exporting/trading businesses of mining products, such as Shougang (SOE), Yunnan Copper Group (SOEs), Shagang (NSOE) and Bosai (NSOE). With their growth in production, the requirements of resources have presented a huge gap for these firms. These gaps have been addressed through trading resources, but extending the supply chain to the upper stream to be directly involved in ore resources and mines has

emerged as the more sustainable and economical solution. Most respondents commented with similar ideas:

> *The only sustainable way for any mining firm's long-term development is to invest in mines in order to extend the firm's supply chain.*
> *This could bring the firm numerous advantages in cost control and risk control by creating the firm's own competitive advantages within the industry. It could also bring more bargaining power for the firms.*

The Australian Subsidiary CEO of YCC (S3-2) stated:

> *It's an efficient way to gain advanced mining technologies via internationalization. A good example is the Isa smelting technology of Yunnan Copper Corporation (YCC), a submerged lance top-blown smelting technology jointly developed by Xstrata Mount Isa Mines (MIM) and Commonwealth Scientific and Industrial Research Organization (CSIRO) – it is a high-intensity nonferrous smelting process.*

To facilitate technology spillovers, as pointed out in YCC's case, close and continuous interaction between the user and the producer of foreign firms is essential for local firms in emerging economies (Giuliani et al., 2005). If local firms can be part of the MNEs' supply chains, it will encourage technology spillovers to the firms through vertical linkages, and accordingly contribute to the development of the local supplying industry (Buckley et al., 2002; Hatani, 2009). Shagang has developed and benefited through its supply chain system via their first internationalization project liaised with BHP Australia. The Head of the Australian Subsidiary (N1-6) explained this:

> *Our first internationalization project was cooperated with BHP Australia. While we didn't have any former international experience, it was a great opportunity for us to join a few other Chinese firms to make this initial step to go overseas. This has brought us not only mineral resources, but technologies, international experience and managerial skills. It's been a huge success for that project, generating very good percentage profits to the parent company.*

6.3.2. Chinese mining firms OFDI motives are 'Multi-dimensional'

Multidimensional motives in 'Resources seeking' (SOEs and NSOEs)

That mining firms' internationalization must be driven by the desire to acquire mineral resources was confirmed by nearly all respondents:

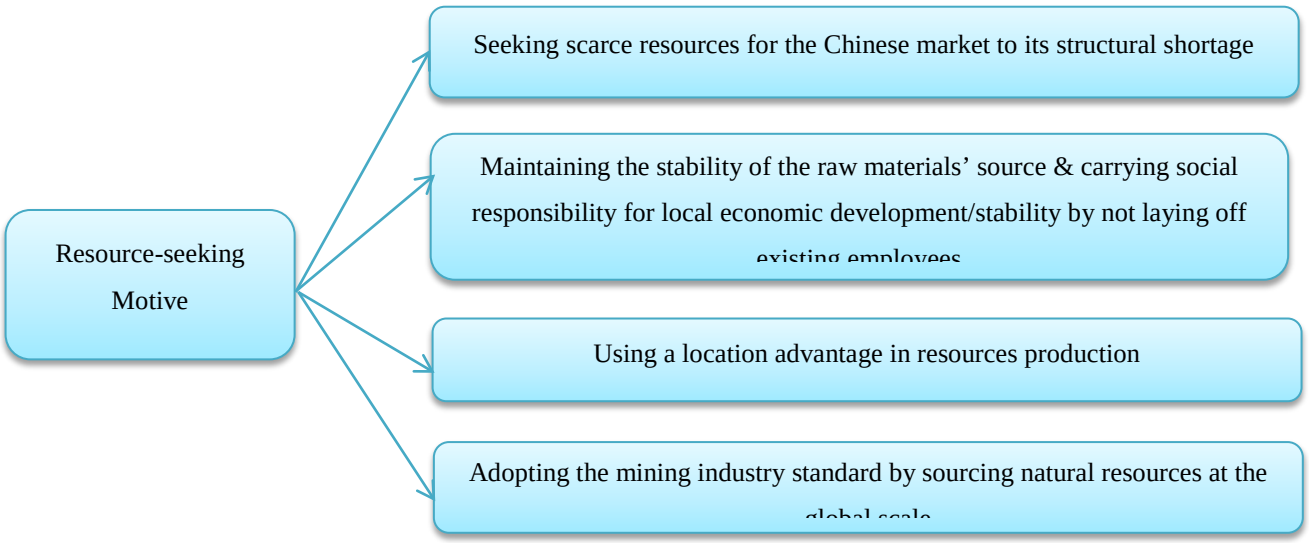
> *Of course, seeking resources is the primary motivation for us to go abroad.*

However, even if seeking resources is the primary motivator for both SOEs and NSOEs, it is a multi-dimensional motive which is influenced by each firm's individual strategies and circumstances. As an extension of Lu's (2003) three-dimensional taxonomy of Chinese firms' motives for seeking resources, this study has identified four dimensions of firm resource-seeking strategies:

1. seeking scarce resources for the Chinese market (NSOEs) as a 'principal rule'
2. maintaining the stability of the raw materials' source (all SOEs and NSOEs), and taking on the social responsibility for the local economic development and social stability by not laying off existing employees (SOEs –non-ferrous)
3. using a location advantage in resources production (SOE – iron and steel and NSOE – non-ferrous)
4. adopting the mining industry standard by sourcing natural resources at the global scale (all SOEs and NSOEs).

Figure 18 illustrates these four dimensions of Chinese mining firms' resource-seeking motives.

Figure 18 Chinese mining firms' four-dimension of 'Resources seeking'



1. Seeking scarce resources for the Chinese market (NSOEs)

Senior managers from NSOEs highlighted that the aim of acquiring overseas resources is simply to maximize profits. The resources that NSOEs receive from overseas

investments have been used mainly to support their domestic production, or for trading to maximize profits, depending on the current market conditions. Strategically, they target only resources that are scarce in the domestic Chinese market. This is due to different firm strategies; for instance, respondents from Fosun the 'principle' of Fosun's overseas investment (N2-2):

> *The principle of our overseas investments is ONLY investing in resources that China has shortages. We still believe we should rely on the domestic market for the sales of our final productions at this stage.*

Alternatively, the Founder and Board Chairman of Bosai (NSOE, non-ferrous) (N3-1) explained that this similar 'principle' is held by the firm by different reasons:

> *We invest only in what we specialized in: bauxite. Not only because it is a scarce resource in China, but also because we have decades of experience in this particular field. We are very confident of our professional ability in this specialized sector.*

The respondents' comments highlighted that the motive of seeking specific kind(s) of resources that are scarce in the Chinese market is closely associated with individual firm's strategies, but overall, these activities all share two common characteristics. First, this strategy strengthens the firm's existing comparative advantages within the domestic sub-mining sectors; second, such strategies are exclusive to Chinese mining NSOEs. In contrast, respondents from SOEs claimed that securing resources globally for China's development is aligned with the national resources strategy, and they are not limiting themselves only to the scarce resources. Again, this underlines the limited resources associated with NSOEs, who are constrained in terms of the scope of the resource investments they can afford to conduct overseas. Interestingly, despite the political obligations, many respondents from SOEs also addressed the growing importance of maximizing profit. The Head of Marketing and International Department of China Gold (Central SOE, gold) (S2-6) claimed that this is caused by a tighter institutional assessment and evaluation mechanism from the higher administrators:

> *Making more profits by SOEs has seen to be more and more important, as we feel the pressure from our higher authorities (like SASAC). SASAC has been developing a more rigorous assessment and regulatory system to evaluate our internationalization and its performance. It is often linked with the key personnel's promotions, or even some administrative penalties.*

2. Maintaining stability of the raw materials (all SOEs and NSOEs)and carrying social responsibilities (SOEs)

All SOEs and NSOEs emphasized the importance of maintaining a stable supply of raw materials through their international investments in mines. However, SOEs and NSOES appear to have different triggers for this motive. Maintaining stability of raw materials for NSOEs means increasing Shagang's 'bargaining power' in the 'iron ore war', both domestically and internationally. It is also the way for NSOEs to effectively control input costs to avoid restraints on their high-capacity production in varies sub-mining industries. This has been viewed as the key way for NSOEs to sustain their current positions in China.

Unlike NSOEs, SOEs have the obligation of more social responsibility for local economic development and social stability (Deng, 2009a), such as job placements. The CEO of an Australian subsidiary (non-ferrous SOE) (S3-2) explained this issue with figures and statistics:

> *…the processing fee for copper has been reducing since 2004. It has actually contributed to a loss in production for our firm. For example, we earned $11 billion profit last year. If we had just produced our own 120,000 tons of copper ore, our profit would be $20 billion. But we bought extra copper ore from an international firm in order to avoid lying off our employees or closing any factories. The cost of balancing our social responsibility for job placement was $9 billion just for last year…*

The managers from NSOEs doubted that SOEs have done enough in terms of social responsibilities, arguing that Chinese SOEs own approximately 80% of assets but employ only 30% of employees and take 40% of profits, while the NSOEs carry the other 70% of employment and take little more than 50% of profits. If the SOEs own more favourable resources than NSOEs, they should take a greater share of job placements.

3. Using location advantages in resources production (SOE - iron and steel and NSOE - non-ferrous)

Some Chinese mining firms have well-established international distribution networks for their finished mineral products sales. Transportation costs are the key influence (for iron and steel and non-ferrous industries) on determining the viability of any location

advantages owned through their overseas investments. In Shougang (SOE, iron and steel) and Bosai (NSOE, non-ferrous), location advantages have been utilized as a strategic step to establish regional centres for further developing their foreign market sales. Processing the mineral resources acquired overseas in the current location and obtaining supplies within that region is a way to improve efficiency when transportation costs are too high to send the mineral resources back to China.

Seeking international markets is one motivation for Chinese mining firms. More internationally developed firms (both SOEs and NSOEs) have their own international trade companies as wholly owned subsidiaries to take care of this part of the business. Shougang and Shagang's finished iron and steel products can be traded around the world without any restrictions. Market seeking is more important for these companies than for other sub-mining industries. International markets are always secondary; even with established and mature international sales networks, sales within China are still the key market.

Gold cannot be exported from China by law, which prohibits firms in the gold industry from developing their international markets as their core business. Therefore, these firms have moved their focus from exporting to acquiring large-scale equipment in mining, refining and smelting for international markets. For example, China Gold has been a pioneer in developing its international markets for Chinese-made large-scale mining equipment. Yunnan Copper and Bosai both own some international clients for their finished products; however, respondents insisted that market seeking is not an important motive.

4. Adopting the industry standard by sourcing natural resources globally (all SOEs and NSOEs)

All respondents mentioned the common trend within the world mining industry of acquiring resources at the global scale. Major MNEs in the mining industry, such as BHP and Rio Tinto, have a long history of internationalization. The industrial standard is to develop different stages of mineral production globally. With shorter international history and limited international experience, Chinese mining firms have been following

the industry leaders' development pathways and adopting the industry standard by sourcing resources globally.

Not only high-quality mineral resources seem attractive to Chinese mining firms; other key inputs used for in production are also deemed to be important triggers. For example, the Founder and Board Chairman (Bosai, non-ferrous, NSOE) (N3-1) mentioned the following issue for their next investment in North Europe:

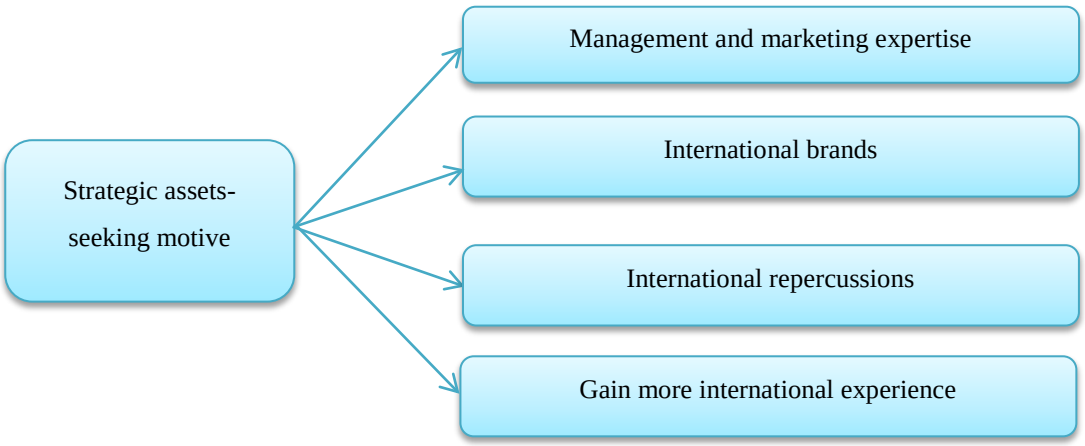
> *The host government had offered us a highly competitive price for our major input – electricity for our electrolytic aluminium production. This cost benefit is very attractive for us, as electricity is one of the key inputs that will directly impact the finished products' market price.*

Seeking financial vehicles and supply chain systems, through OFDI, can be viewed as extensions to seeking strategic assets. However, they are also multi-dimensional motives – seeking financial vehicles uses the overseas firms as financial platforms for further investments and benefits from locational advantages in world financial centres for more efficient financial operations. Supply chain systems 'stretch' production lines further upstream to secure resources and target alliances, thereby allowing 'latecomer' NSOEs to catch up and gain the resources and knowledge necessary to potentially expand globally (Luo & Tung, 2007; Mathews, 2006; Ning & Sutherland, 2012).

Multidimensional motives in Strategic assets seeking

Huang (2008) found that strategic assets such as superior mining skills, marketing expertise, exploration and mining technology investments are driving the Chinese mining firms' OFDI. This study reveals strategic assets such as management and marketing expertise, international brands and international repercussions are seen as more important for both mining SOEs and NSOEs. In addition, gaining more international experience seems valid for some NSOEs, although this idea was rejected by the respondents from the SOEs. Respondents from SOEs and some NSOEs claimed the Chinese firms had already captured world competitive mining skills with their low-cost high-efficiency advantages, so that internationalizing to acquire the superior mining skills or exploration and mining technologies may not be relevant. Figure 19 shows the four dimension of 'strategic assets seeking' for the Chinese mining firms.

Figure 19 Chinese mining firms' four dimensions of 'Strategic assets seeking'



Of the various forms of international investment, the Chinese mining NSOEs in particular noted the desire to learn and gain more international experience. As they generally have shorter histories in OFDI developments than the mining SOEs, learning and international experience accumulation are essential for the firm and the employees involved in such processes. The Head of the Australia Subsidiary of Shagang (NSOE, iron and steel) (N1-6) said:

> *It's such an unforgettable journey of learning. We have learned so much through the actual international investments over years. At first, we thought people who could speak English would be all right to deal with international business. Now, we know this is not the case. There are so many other things that we ought to understand and be able to manage.*

The account manager from Fosun (NSOE, Gold) further extended 'learning' as a part of the culture of the firm and Fosun Group. He (N2-6) claimed:

> *Fosun has developed such a culture of learning, from a small private firm to a large-scale NSOE; we have been learning to achieve this. This applies not just to the senior managers, but our board members, the employees and the middle level managers; it is something for everyone to adapt to. We have been getting involved in mining investments and operations both domestically and internationally. This requires us to put more effort into learning. It is essentially the key to our success.*

Additionally, the China Gold's Head of Overseas Investment Department (S2-5) claimed:

> *In terms of technology, we are quite advanced in our field, even at the worldwide stage. We don't intend to acquire mining technologies from overseas, but to share our world-standard mining technologies at lower costs.*

This is a new finding that contradicts recent literature which suggests that Chinese firms internationalize to acquire advanced technologies and skills from host country firms. It indicates in a specific field, like the gold-mining industry, China Gold already had a competitive advantage to exploit its firm-specific assets overseas. Such flow of strategic assets is not just inflow from overseas to China; it is also outflow from China to other countries.

6.4. Key findings: Risk attitudes

With the previously defined DCOA and DCOD owned by both kinds of Chinese mining firms, the subsidiary research question 3 and 4 in Chapter 3 – How do different ownership and institutional factors impact on Chinese mining SOEs and NSOEs' OFDI risk attitudes? And why do different ownership and institutional factors impact on Chinese mining SOEs and NSOEs' OFDI risk attitudes? – looked at the impacts of DCOA and DCOD on Chinese mining SOEs and NSOEs in their risk attitudes. Subsidiary Research question 4 (SRQ4): Why do the different ownership and institutional factors impact on Chinese mining SOEs and NSOEs' OFDI risk attitudes summarizes the Chinese mining SOEs and NSOEs' risk attitudes for internationalization.

Table 34 compares, the risk attitudes between Chinese mining SOEs and NSOEs SOEs are more resistant to risks and NSOEs are more cautious, primarily due to their different ownership types. Yet, the CEO/top executive is the key influencer in both SOEs and NSOEs. The CEO/top executive's tenure, personality, preferences and institutional constraints have been discussed from different perspectives. This section compares and contrasts these features in their risk attitudes.

Table 34 Comparison of Chinese mining SOEs' and NSOEs' risk attitudes for internationalization

Core business	SOE ownership type	NSOE ownership type
Iron and steel	*Provincial SOE*	*Privately owned*
Risk attitudes	**'Risk resistance' with a risk tolerating attitude** 1.CEO/top executive is the key influencer of the firm's attitude towards internationalization risk; 2.SOE ownership gives the firm more risk resistance capacity (state-owned); 3.Country-based risks are the primary concerns, but these can be managed through locational choices (e.g. developed countries) or the state-owned identity and good community relationship establishment in developing countries; 4.Environmental risk is essential for mining firms. International experience is required to manage this kind of risk.	**'Risk averse' with a prudential risk attitude** 1.The firm is very cautious towards the international investments and CEO 's preference is the key; 2.NSOE ownership gives the firm less risk resistance capacity (personal-owned); 3.Country-based risks (country risk, political risk and legal risk) are the primary concerns. Prefer developed countries and geographically closed locations; 4.Exploring different kinds of investments for traditional (lower risk category) and venture capital investment (higher risk category).
Gold	*Central SOE*	*Privately owned, publicly listed*
Risk attitudes	**'Risk averse', 'risk tolerating' and 'risk resistance' with a paradoxical risk attitude** 1.CEO/top executive is the key influencer of the firm's attitude towards internationalization risk; 2.CEO/top executive's tenure and personality are especially relevant to the firm's strategies and risk attitudes in internationalization; 3.Risks are tightly related to 'control'; 4.Home institutional supervisions constraint the risk attitude (e.g. SASAC).	**'Risk averse' with a prudential risk attitude** 1.The firm is very cautious towards the international investments and CEO 's preference is the key; 2.NSOE ownership gives the firm less risk resistance capacity (personal-owned); 3.Locational choices are used to manage country-based risks with preference of developed countries and geographically closed locations; unless partner with SOEs to invest in more 'risky countries' (e.g. state will shoulder the risks), we will not invest in those locations; 4.Host government's institutional environment is a key influence for us. 5.Limited international experience has led to a more risk averse attitude. 6.Partner with SOEs can increase the firm's risk resistance capability through its international experiences and ownership advantages.
Non-ferrous	*Provincial SOE*	*Privately owned*
Risk attitudes	**Not 'Risk averse' but 'risk tolerating'** 1.CEO/top executive is the key influencer of the firm's attitude towards internationalization risk; 2.Political risk is the biggest risk in our internationalization; 3. Different stages of overseas investments associate with different degree of risks (e.g. higher risk at earlier stage & lower risk at mature stage); 4. Locational choices can effectively help us to manage risks and diversify different kinds of investments.	**'More conservative' with a prudential risk attitude** 1.The firm is very cautious towards the international investments and CEO 's preference is the key; 2.NSOE ownership gives the firm less risk resistance capacity (personal-owned); 3. 'Highly specialized' in just one mining field is the key to the risk management. 4.Localization strategy and host government's supports are effective ways to manage risks; 5.Locational choices are used to manage country-based risks with preference of developed countries and familiar locations with cost advantages.

6.4.1. Chinese mining SOEs: 'paradoxical' risk attitudes

Mining investments are generally high-risk actions because they involve large-scale international investments. The findings of this study partially support those of Buckley et al. (2008a), who found that Chinese outward direct investors had a paradoxical attitude to risk and that risk aversion could not be assumed. In this study, only Chinese mining SOEs showed this paradoxical risk attitude towards their internationalization. Chinese mining SOEs' DCOAs (e.g., richer domestic mineral resources, abundant financial resources, more human capital, greater home institutional support and relatively more international experience) led the SOEs to be more risk tolerating; on the other hand, their DCODs (e.g., lack of market-oriented incentive scheme, tighter institutional supervision from SASAC and more barriers from host country governments) led the SOEs to be more risk averse. In addition, the CEO/top manager's characteristics appeared to be the key influencer to the firms' risk attitudes. In China's case, the *yi ba shou's* characteristics contribute to such paradoxical risk attitudes.

SOEs can be risk tolerating

Amongst all the DCOAs enjoyed by Chinese mining SOEs, respondents noted three significant areas: mineral resources, financial resources and other forms of institutional factors (see Table 28). Under these circumstances, the risk attitudes of the Chinese mining SOEs are more 'risk tolerating'. First, SOEs own more mineral resources domestically and internationally with the institutional support of different levels of government (Yu & Sheng, 2002). This was confirmed, and complained about, by all respondents from NSOEs, who stated that they have been treated unequally when acquiring resources, obtaining mining rights and in allocations of mineral resources. This kind of institutional support is not limited to prioritizing the best quality mines in China for the SOEs. Relevant government bodies, like the Ministry of Commerce, also provide a full range of support to SOEs' investments, such as trade promotion, yearbooks and road shows to guide and provide information to serve the SOEs' goal of 'going out'.

Second, SOEs have access to easy loans with low interest rates. Although the CEO from Shougang (SOE, iron and steel) complained that the process is sophisticated and lengthy,

and SOEs may miss the best investment timing, there is no doubt that SOEs have much stronger financial capacities than NSOEs. In general, in terms of scale of overseas investments, the dominant large-scale projects are still mainly taken by the SOEs for this reason.

Third, the Chinese Government has shown strong support in international relations policy for internationalization activities (Kolstad & Wiig, 2012). Host country-based risks need to be evaluated in combination with the host government's institutional factors. Senior managers from SOEs tend to talk about state government support in some African and other less developed countries as a part of the firms' 'extension arms'. Based on their experience, state governments have effectively assisted them to resolve many country risks, especially in their operations. This implies firm risks can be separated from the home country level for SOEs. This underscores comments by Buckley et al. (2007) and Buckley (2008) that Chinese extractive industries' FDI is prepared to invest in high-risk geographical environments to secure viable raw material deposits. The extractive industries include oil, gas, coal and minerals (Buckley, 2008). This was proudly confirmed by the respondents from China Gold (Central SOE, gold) (S2-5):

> *We are central SOEs. We can afford huge losses or failure; therefore we can be more 'risk-tolerating'. We dare to invest in Africa or Central Asia because if anything (bad) happens, we will survive, but for an NSOE, it can be a fatal blow…*

SOEs can be risk averse

Chinese mining SOEs can be risk averse due to two aspects of institutional factors (see Table 28). First is the lack of a market-oriented incentive scheme, and the second is the tightened institutional supervision from higher administrative bodies.

China's SOEs are affiliated with the Chinese bureaucratic hierarchy, which lacks market-based competition (Hu, 2010). State ownership is frequently regarded as the root of SOE inefficiency through bureaucratic interference, multiple conflicting objectives and weak incentives (Wang & Judge, 2012). Although the partial state shares are listed and traded in the stock market, it not free market oriented (Hu, 2010). Under this system,

respondents, especially the senior managers, have complained of an underdeveloped market-oriented incentive scheme, given they claim to have lower incentives than either the NSOEs or the market standards. They are less motivated to take more risky decisions for the firm, such as OFDI. The incentive schemes adopted by China's SOEs listed in Chinese domestic securities exchange market between 2001 and 2005 rely heavily on administrative means such as appointment, promotion or firing (Hu, 2010). Furthermore, these administrative means have been further utilized by the Chinese Government to incorporate relative economic performance criteria into the evaluation procedures for officials in Chinese bureaucratic hierarchy, including the senior managers of SOEs (Li & Zhou, 2005). As mentioned before, Chinese SOEs' top leaders are politically appointed by the higher ranked administrative bodies, such as SASAC for Central SOEs and LSASAC for Provincial SOEs. These administrative bodies can then monitor and supervise the CEO/*yi ba shou*'s performance and, recently, they have even suggested administrative punishments if the SOE failed in overseas investments. A quote from the Head of Overseas Investment Department (Central SOE, gold) (S2-5) explained this:

> *We must have resistance to risk; however, we cannot take on too much risk either. For the Central SOEs, the administrative punishments are there if we have not got things right (failed in international investments). SASAC can impose administrative sanctions on us.*

In fact, more regulations have been set up to tighten supervision of the state assets. For instance, SASAC announced Order No. 20: 'The central enterprise asset loss accountability Interim Measures' in 2008 to reinforce the punishments towards the CEOs/top managers and key personnel for huge losses occurred in inappropriate investments (SASAC, 2008; Xinjiang Daily, 2012). Three categories of penalties apply to persons responsible for the loss of assets: economic penalties, administrative sanctions and being banned. Economic punishment refers to the withholding of the performance salary (bonus) to terminate the grant of new equity. Administrative sanctions include warning, demerit, demotion (staff), being ordered to resign, being dismissed. Banned restriction means the person has limited rights to be employed by enterprises or as a corporate person in charge for one to five years, or for lifetime. These three categories of penalties can be applied separately and can also be combined if applicable. In addition, if the responsible person has transferred to another job or has

been retired, they will also equally liable for this punishment (SASAC, 2008; Xinjiang Daily, 2012). More recently, SASAC officially released on 27 June 2012 the 'Central business outside the State-owned Assets Supervision and Administration Interim Measures' (hereinafter referred to as 'foreign assets of the regulatory approach') and the 'central business outside the state-owned property management Interim Measures' (hereinafter referred to as 'overseas property management approach'), and these took effect from 1 July 2012 (SASAC, 2012d). According to the 'foreign assets of the regulatory approach', the responsible persons (normally the leader of the firm and other managers who were involved in the key areas of the investments) would be punished based on the losses and negative impacts. This is subject to verifying and identifying responsibilities, plus the relevant provisions need to compensate for the losses incurred. This recent 'overseas investment regulatory approach' and the 2011 released 'central business outside the State-owned Assets Supervision and Interim Measures' (SASAC Order No. 26) together with the 'central business outside the state-owned property management Interim Measures' (SASAC Order No. 27) have constituted an administrative system for SASAC to supervise and punish the responsible persons from the central SOEs (SASAC, 2012d). These are constraining the risk-tolerating levels that the CEO is prepared to bear during firm internationalization.

The key influencer of SOEs' risk attitude: CEO/yi ba shou's characteristics

In response to the subsidiary research question 5 in Chapter 3 – How do the CEO/top executives influence Chinese mining SOEs' and NSOEs' internationalization strategies? – It shows no significant sign of influences by the CEO's characteristics in both firms' internationalization motives. However, when it comes to the questions such as 'Which risk attitude would a Chinese mining SOE take when internationalizing? What is the key influencer in determining firms' OFDI risk attitude?' The respondents concurred that the CEO/*yi ba shou* of the SOEs holds the key. Whether the firm's OFDI risk attitude will be risk taking, risk tolerating, risk averse or even risk escape depends mainly on the SOEs' CEO/*yi ba shou*. Specifically, the interviews revealed four aspects of the CEO/*yi ba shou* affect this decision – tenure, personality, tacit knowledge and CEO experience, as well as their remuneration. This and the following sections compare and contrast these features in their risk attitudes between SOEs and NSOEs.

Tenure

A very important feature of all SOEs is the separation of owner (state) and management (CEO or *yi ba shou*). Tenures in this study ranged from four to ten years. Tenure of approximately four years is the most common arrangement nowadays; ten years is rare now but was more common in the past. Agency theory suggests that the longer the duration of a relationship between an agent and a principal, the more efficient it is (Eisenhardt, 1989a). Thus, based on agency theory, the CEO/*yi ba shou* of an SOE is not as efficient as the CEO/*yi ba shou* of an NSOE, because their tenures are shorter.

This study also reveals that a CEO/*yi ba shou* approaching retirement adopts a very conservative risk attitude: they can be 'risk averse' (taking minimum OFDI to avoid risks), or even 'risk escape' (not taking any kind of OFDI to exclude risks and/or prevent failures). This finding supports the work of Matta and Beamish (2008), who also found that CEOs nearing retirement exhibit a growing aversion to risk. Because SOEs have 'periodical tenures' of approximately four years, and the CEO/*yi ba shou* is reluctant to undertake new OFDI activities close to their retirement or in the later stages of their tenure, at the firm level the SOEs' risk attitudes appeared to have 'periodical characteristic' within each *yi ba shou's* tenure. Firms' risk attitudes tend to be relatively consistent within every *yi ba shou*'s tenure, but the risk attitudes could change dramatically due to the new appointment of a CEO/*yi ba shou* with different characteristics and preferences. Since every newly appointed SOE CEO would try to achieve his own target within the time frame of his tenure, the firm's strategies are set to ensure these achievements. Those CEOs who are closer to retirement may even have a 'risk escape' attitude, meaning they undertake no internationalization at all so there is no risk of investment failures during their tenure. In a sense, myopic considerations near retirement and the political appointment of four-year tenures will focus CEOs on the short-term implications of their strategic investments, rather than on long-term considerations of firm growth (Matta & Beamish, 2008).

Personalities

Managers' personalities play an important role in firm-level strategies (Musteen et al., 2010). The CEO/*yi ba shou's* personality and their willingness to take risks in general have also been a strong factor in determining the SOEs' OFDI risk attitudes.

Respondents related stories that show the distinct difference between their firm's top leaders and how the general trends of OFDI have been affected by the leader's personality. Because of the length of tenure, different CEOs or top leaders have shown different personal approaches towards risks. If some are more adventures, it is more likely for the SOE to actively conduct and explore more OFDI during their tenure (risk taking/risk tolerating). This kind of leader is frequently described as ambitious, challenging, creative, energetic or achieving. Some are more conservative, and OFDI activities tend to be minimized during their tenure (risk aversion/risk escaping). This type of leader is described as conservative, steady, not a high achiever but seeking less failure. The description of personalities here may not be limited to psychological characteristics but may also be affected by the leader's gender, tenure (especially if close to their retirement), industry and corporate experience.

The following story shows how an individual CEO's personal character can direct the same firm's OFDI risks attitudes, shifting from 'risk escape' to 'risk taking' (S2-2):

> *For example, our new CEO arrived in 2007 and set his target to be 'double the firm in four years'. This means all strategies and activities will serve the purpose to achieve this – aggressive developments and thinking – even sometimes contrary to national policies. The CEO's working style and personality have a direct impact on the risk attitudes. Another example is the former CEO. He was very conservative. All he wanted before was stability to wait till his retirement. He did not want to take any risks – the more you do, the more chances for you to make mistakes. We lost quite a number of good opportunities around that time.*

Another real-life example was provided by the Vice Principal (SOE, gold) (S2-1) to show how the individual CEO's intentions directed the firm's OFDI strategies:

> *We had overseas risk explorations around 1984 to 1985. After our then leader had a car accident, these trails dried up from the lack of support from the new CEO. We were not involved in any OFDI for about 10 years since the 1980s.*

<u>Tacit knowledge and CEO experiences</u>

Our interviews revealed that with the periodical characteristic of the CEO/*yi ba shou's* tenure, the longer international experience acquired from firm-level DCOAs may not be necessary carried out by the current CEO/*yi ba shou*. This reflects how the tacit nature of knowledge creates difficulties in transfer, as tacit knowledge is often built from individuals' experiences and therefore is rather personal (Chang et al., 2012; Hébert et

al., 2005; Simonin, 1999; Song et al., 2003). Such tacit knowledge and experience would be carried and transferred as the CEO/*yi ba shou* moves to a position in a different firm.

The CEO/*yi ba shou* of an SOE is appointed by SASAC, who works together with CPC. The appointments and arrangements are not transparent. The CEO/*yi ba shou* may have managerial experience yet no specific industrial experience. Yet any venture's growth is dominated by relevant industrial and managerial experience (Lee & Tsang, 2001). A new CEO may take considerable time to adapt and acquire the relevant experience at the beginning of their tenure, which also reinforces their risk attitudes being more conservative at that stage.

In addition, in this study the CEO/*yi ba shou*s of the SOEs generally had less international educational background than those of the NSOEs. A CEO/*yi ba shou's* international vision is influenced by tacit knowledge, work experience and overseas experience. A CEO who lacks international vision will have less general interest in looking globally and expanding the SOE on a global scale.

Remuneration

Managers of SOEs usually receive low salaries (Zhou & Wang, 2000). The line between government official and SOE manager is ambiguous, and there are specified salaries for different ranks of government officials; it often happens that an SOE manager is paid according to their rank as government official instead of on their real managerial effort (Zhou & Wang, 2000). This situation still occurs today. The CEO of Shougang (SOE, iron and steel) (S1-2) noted:

> *Under certain circumstances where we don't have to make extra effort to make the international investment, we can expand and invest domestically. Whether the leader of the firm is motived to take the risks is the key. Otherwise, why would we bother to take more risks and pressures, or even run the risk of being punished if it fails?*
> *There might be some benefits from the firm level, but not at the personal level. There are no incentives for these individuals. So many people are unwilling to do this (firm internationalization activities). 'Going out' policies have detailed a lot, but no policies or regulations were stated to encourage and reward the leaders of SOEs. Any OFDI project requires approvals and records from various government departments. Getting through this has already been a great pressure*

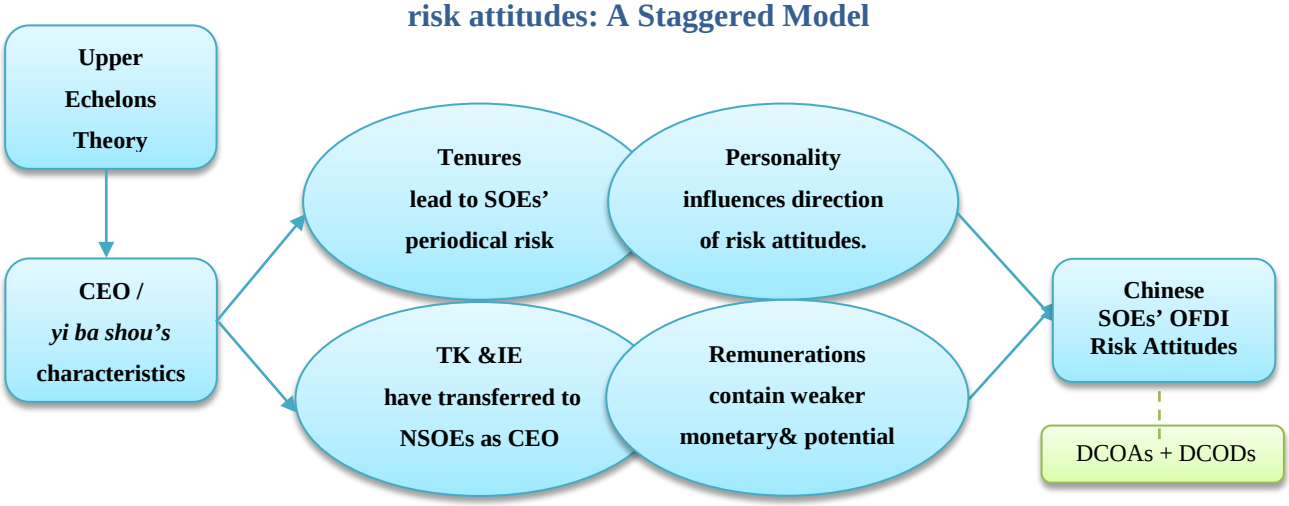
> *for a firm, especially when sometimes we have to deal with governmental bureaucracies. These bureaucracies and setting of complex approval process have become a deterrent to investment. Last, the contract involved in OFDI also needs to be correctly monitored and implemented.*

According to agency theory, a situation might exist where the compensation the agent receives for his services is not tied to his performance under the contract (Eisenhardt, 1989a). In situations of this nature, the participants' motivation tends to reflect their own self-interests because the participants may have different levels of risk acceptance (Eisenhardt, 1989a). It may also depend on whether the CEO/*yi ba shou* has been paid appropriately in terms of the effort they invested in the firm's development. The CEO/ *yi ba shou* might not be motivated enough to take the extra risks to get the firm involved in the OFDI, because they would be exposed to greater risks if anything went wrong during the internationalization. This can even been seen as a disadvantage for SOEs, as the risks taken by their CEO/*yi ba shou* are greater in OFDI, but with no reward system to reinforce any good performance.

In the SOEs' case, the government bodies (CPC, SASAC) have the right to appoint the CEO, and these CEOs often have implicit political aspirations as well as an explicit role as a CEO (Cao et al., 2011). Such political promotion is based largely on non-economic factors, and incentives for promotion may interfere with any incentives to maximize firm value (Cao et al., 2011). So the risk preference depends on the CEO's personal view of whether monetary incentive or political promotion is more important, and if the adequate decision-making power (authority) and responsibilities have been aligned to their incentive schemes like NSOEs.

The above data show the CEO/*yi ba shou's* tenure, personality, tacit knowledge and international experience, together with their remuneration, have different kinds of influences in determining the SOEs' OFDI risk attitudes. 'Risk tolerating', 'risk averse' or, more extremely, 'risk escape' or 'risk taking' are all possible SOE's internationalization attitudes, depending on the individual CEO/*yi ba shou's* characteristics and preferences. Based on the findings from this study, Figure 20 conceptualizes the CEO/ *yi ba shou's* impacts towards risk attitudes into a staggered model.

Figure 20 CEO/*yi ba shou's* characteristics towards Chinese mining SOEs' OFDI risk attitudes: A Staggered Model



Note: TK & IE: Tacit knowledge and international experience

6.4.2. Chinese mining NSOEs: 'conservative' risk attitudes

NSOEs can be risk averse

Chinese mining NSOEs' DCOD and DCOA have led the NSOEs to have a more conservative risk attitude when it comes to their overseas investments due to three key reasons:

1. NSOEs' DCODs listed in Table 28 (e.g., poor domestic mineral resources allocations, self-financing, limited human resources, lack of home institutional support and the real latecomer status to OFDI which associated with shorter international experience);
2. ownership of the firms;
3. more market-oriented incentive schemes.

All respondents admitted that the NSOEs are not capable of handling certain types of overseas investments, especially large-scaled long-term projects. This was seen as a direct consequence of the DCODs owned by NSOEs in financial resources and lack of domestic institutional support.

This point was frequently raised by respondents from NSOEs, talking about the ownership of the firms. The Investment and Project Director from Fosun (NSOE, gold) (N2-3) described:

> *The NSOE is owned by the founder/boss. Every cent we made or lose through the investments is totally related to the owner's benefits. Therefore we got to be extremely careful about our internationalization decisions.'*
> *Every cent we are using to invest overseas is from our boss's own pocket. Of course we would be more cautious and must try our best to make sure it is not lost.*

The board member from Shagang (NSOE, iron and steel) (N1-1) commented:

> *Any mining investment is subject to the risk of loss. If the loss does occur, for state-owned enterprises, it's the loss of business, but because it's stated-owned, it's also a loss for the state, the nation. If this same loss happened for non-state-owned enterprises, equally it's the loss of business, and it's the loss for the boss. The extent of risks for SOEs and NSOEs is clearly different then. One is for the country to bear such risk; the other is for a person (our boss) to bear.*

The different types of ownership reveal a fundamental difference between the approach adopted by SOEs and NSOEs. For SOEs, the state carries any losses and partly shares the profits, whereas managers from NSOEs tend to be more risk averse and more responsible about decisions related to OFDI.

Incentive schemes also make them more responsible. All respondents from the case NSOEs talked about their competitive incentive schemes and remuneration with pride. The Fosun's (NSOE, gold) Investment and Project Director (N2-3) stated:

> *We have a very good incentive system. We can offer competitive remuneration to our expatriates. This may be hard for SOEs, as the manager's administrative level in China would determine the remuneration. It may arrange some allowances for them, but still, this would link to their work efficiency and responsiveness.*

The CEO from Fosun (NSOE, gold) (N2-1) also proudly stated:

> *We are very proud of our expatriates who have very competitive remuneration and benefits to ensure that they can comfortably work and live overseas while conducting these projects.*

These incentive schemes are not limited to monetary remuneration, but include actual support from appropriate authorities. The HR manager from Fosun (NSOE, gold) (N2-4) said:

> *Every position in Fosun has its own responsibility and authority. Such rights allow the employees to be more creative to add value to the firm. In return, they are motivated to share the values that are added from the firm at the same time. But right remunerations are just providing the basic supports to our employees. We also provide the space for the embodiments of their self-accomplishment. This potential seems to be more attractive for our senior managers.*

The CEO of Fosun (NSOE, gold) (N2-1) extended the 'incentive scheme' to include the 'adding value' of self-accomplishment:

> *Different generations would value different things. We appreciate the incentive scheme and the adequate remunerations; we also value the self-achievements and accomplishments. In SOEs, you could rarely have such feeling – the individual contributions are hardly recognized – the success or achievements are all devoted to the leaders. It could be quite damaging to your motivation, creativity and dynamic character. In contrast, it's another new world in an NSOE – you get recognized for your contributions and achievements and are motivated to challenge more.*

These highly praised incentive systems have strengthened the key managers' sense of responsibility towards the firms' OFDI projects. The managers are more careful and more cautious about the firm's OFDI decisions, with the result that the firm's risk attitude is more conservative.

The key influencer of NSOEs' risk attitude: CEO/Top Leaders' characteristics

Tenure

All respondents from the NSOEs asserted that the CEO/*yi ba shou* of the firm has the greatest impact on risk attitudes regarding OFDI. Unlike the SOEs, in the Chinese mining NSOEs the top leader, founder, owner and/or CEO/*yi ba shou* is usually the same person. Their tenure is generally the length of their NSOE's history. Consistent with agency theory (Eisenhardt, 1989a), the CEO/*yi ba shou* has developed a much longer relationship with the NSOE. These CEOs know the firms significantly better and more efficiently than the CEO/*yi ba shou*s from SOEs. The length of the CEO/*yi ba shou's* tenure with the NSOE has been at least ten years. While there are no tenure restrictions to the CEO/*yi ba shou* of the NSOEs, the NSOEs' risk attitudes are more

consistent over the entire tenures of their CEO/*yi ba shou.* As a result, unlike SOEs' periodical risk attitudes associated with frequent changes of CEO/*yi ba shou,* NSOEs tend to have continuing and consistent risk attitudes at the firm level.

Additionally, no sign of relationship was observed between the retirement of CEOs and the risk attitudes from the NSOEs. It is not uncommon in NSOEs for a CEO who is near retirement to take a more risky investment in a more risky country; respondents claimed this outcome is related more to the personality of the particular CEO/*yi ba shou* than to their proximity to retirement.

Personality

As with SOEs, the personal character of the CEO/*yi ba shou* of an NSOEis also a key influence on the firm's OFDI risk attitude. Interviewees noted that the CEO/*yi ba shou's* personality may lead firms to favour different locational choices (e.g., a more risk-taking CEO/*yi ba shou* may decide to invest in countries with higher country-based risks, whereas a more risk-averse CEO/*yi ba shou* may decide to invest only in developed countries with lower country-based risks). Making locational choices have been viewed an effective way of managing internationalization risks. The CEO may not prefer risks in general, but at the same time they also realize that mining investments are commonly associated with higher risks. The general principle is 'a more established and developed country will have a better investment environment and more transparent institutional environment'.

This is slightly different from the influence of 'personality' in the SOEs, in the way that 'personality' influences the extent (e.g., locational choices) of NSOEs' OFDI, while it influences the direction of the risk attitudes of SOEs' overseas investments (e.g., it can be risk taking/risk tolerating or conversely risk averse/risk escaping).

Tacit knowledge and CEO's experiences

The CEO/*yi ba shou's* tacit knowledge, including international experience, overseas educational background and international vision, are the key influences on NSOEs' intentions/actions to OFDI. Nearly all CEO/*yi ba shou*s in the pilot studies and case study NSOEs had long periods of international work experience in SOEs in the earler

years of their career. The international experience gained through SOEs had been transferred to the NSOEs when they changed their positions. In this way the international experience is 'periodical' for SOEs, but not for NSOEs.

Such tacit knowledge and international experience have influenced the risk attitudes of NSOEs to favour more international investments in general and to tolerate more risks while internationalizing. According to the pilot study case firm's CEO (NSOE, iron and steel) (P2-2):

> *Our foreign educated background and overseas living experience have given us a more global view of firms' development. I name this as a CEO's international vision. Internationalization is a 'must' for us while managing firms.*

Remuneration

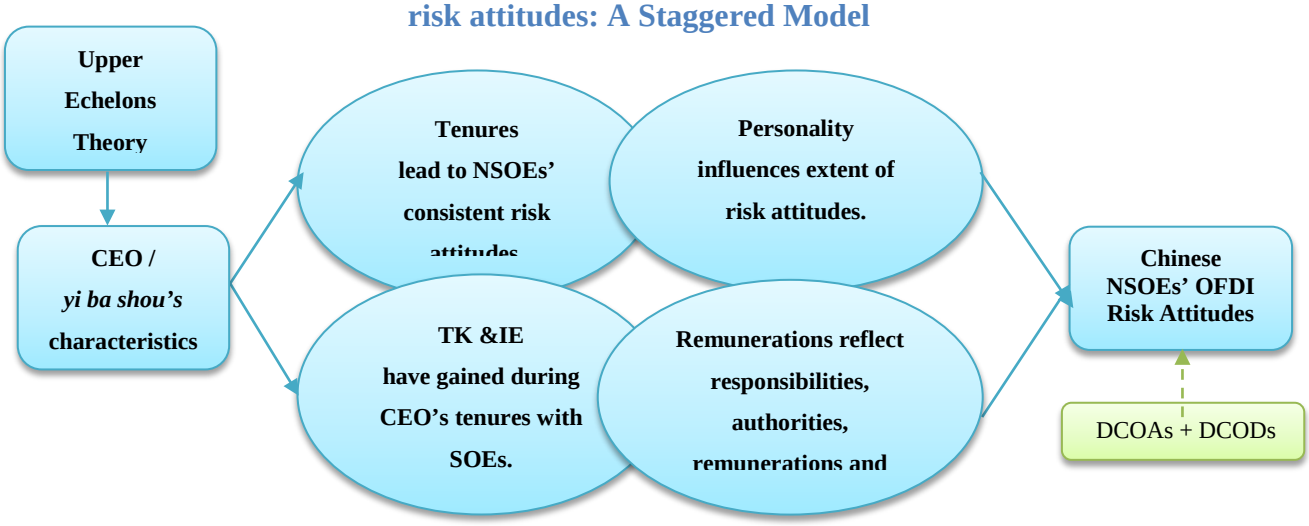
Agency theory research focuses primarily on identifying situations in which problems may arise when the goals of the agent and the principal are in conflict (Eisenhardt, 1989a). Jensen and Meckling (1976) demonstrated that when managers/agents were offered equity-sharing options by their employers (the principals), the managers were less likely to demonstrate self-serving behaviour because their interests were now in closer alignment with those of their employer (Jensen & Meckling, 1976; Meyre et al., 2009). The same is the case for Chinese mining NSOEs. The HR manager from Fosun (NSOE, gold) asserted the importance of matching adequate remuneration with employees' responsibilities and level of authority. Together with the corporate culture of 'create more values; share the values', the CEO/*yi ba shou* and different levels of managers are well motivated to perform at the best of their ability to achieve the best possible results.

The Head of the Australian Subsidiary of Shagang (NSOE, iron and steel) (N1-6) confirmed this through his own experience:

> *We got a world standard competitive remuneration package. Our package is not guided by the domestic managers' standard. I'm not saying it's extremely good, but it's adequate from my perspective to work harder for the firm and take a more serious and more responsible working attitude.*
> *It's an additional benefit to get these learning opportunities through these foreign investment operations.*

This study shows that NSOEs have a better alignment of the key elements amongst responsibilities, authority, remuneration and self-accomplishment, to match their positions in the NSOEs' internal incentive schemes. The CEO/ *yi ba shou's* remuneration is also reflected by this general principle, as shown in Figure 21.

Figure 21 CEO/*yi ba shou* 's characteristics towards Chinese mining NSOEs' OFDI risk attitudes: A Staggered Model



Note: TK & IE: Tacit knowledge and international experience

6.5. Chapter summary

This chapter has provided an in-depth cross-case analysis in response to the main and subsidiary research questions. In general, current IB theories are sufficient to explain the new surge of Chinese OFDI, with some logical extensions. One theoretical extension is to apply the vertical view of COA (comparative ownership advantages) into China's mining industry by extending the concept to DCOA (domestic comparative ownership advantages). This study found that the differences between DCOA and DCOD (domestic comparative ownership disadvantages) owned by Chinese mining SOEs and NSOEs cause the variations in their internationalization motivations and risk attitudes.

This study has also revealed that the CEO/*yi ba shou's* characteristics are a key influence in determining both SOEs and NSOEs' internationalization risk attitudes. Yet the details of these characteristics have spelled different meaning toward such

influences. That is, the CEO/*yi ba shou's* tenure leads to risk attitudes of SOEs being periodical but those of NSOEs being consistent; the CEO's personality influences the SOEs' direction of these risk attitudes but NSOEs' extent of these risk attitudes; the CEO's tacit knowledge and international experience transfer to NSOEs as the CEO moves, thus such tacit knowledge and international experience are gained during the CEO's tenure with an SOE; CEO's remuneration reflects weaker monetary and potential political incentives for SOEs, but responsibilities, authority and self-accomplishment for NSOEs. Therefore, the 'staggered models' are proposed to illustrate the CEO/*yi ba shou*'s characteristics towards Chinese mining SOEs' and NSOEs' OFDI risk attitudes, with different variations.

The next chapter presents the conclusions and discusses implications and possible directions for future research.

Chapter 7: Concluding remarks

7.1. Introduction

This chapter provides the discussion, implications and conclusions of this thesis. In response to the broad research objective stated in Chapter 3, this thesis has investigated Chinese mining SOEs and NSOEs and found their different internationalization strategies are the resulting of their different types of ownership. More importantly, this research provides further evidence to support previous studies that have explained the process of internationalization by emerging countries' multinational enterprises (EMNEs), based on Chinese mining firms' experience. This research extends the findings of those previous studies.

This chapter first provides a summary of these extensions and contributions to the literature in Section 7.2. The findings have shown the ownership types of Chinese mining firms can cause differences in the firms' internationalization motivations and risk attitudes. Section 7.3 presents the implications of this research as recommendations for practitioners and policy makers. Section 7.4 discussions of limitations of the research methodology and the cases. Finally, Section 7.5 provides suggestions for future research directions.

7.2. Contributions to literature

Through studying the 'revised strategic tripod model' displayed in Figure 11, this research has proposed the extended concepts of 'domestic comparative ownership advantage' (DCOA) and 'domestic comparative ownership disadvantage' (DCOD), and has examined how the differences in these two concepts can influence Chinese mining firms' internationalization strategies. Chinese mining firms' late-comer status to the international marketplace restricts the 'comparative ownership advantages' (COA) that might be available to them internationally. These firms, therefore, are not primarily concerned with competing in the global mining industry. Instead, the NSOEs are not internationalizing to gain global competitiveness, but instead they are aiming to sustain or improve their existing position within the Chinese mining industry and strengthen

their DCOA. Chinese mining SOEs are hoping to turn those DCOA to COA over foreign firms in the global mining industry, but their current aim is still to sustain or improve their existing competitive positions within the domestic mining industry.

This research provides a further differentiation of the Chinese mining industry in terms of how firms deal with their domestic advantages and disadvantages caused by ownership differences. In response to the first subsidiary research questions, this study has demonstrated that the SOEs internationalize to further exploit their DCOA, while NSOEs move abroad to mainly redress their DCOD and augment their limited DCOA.

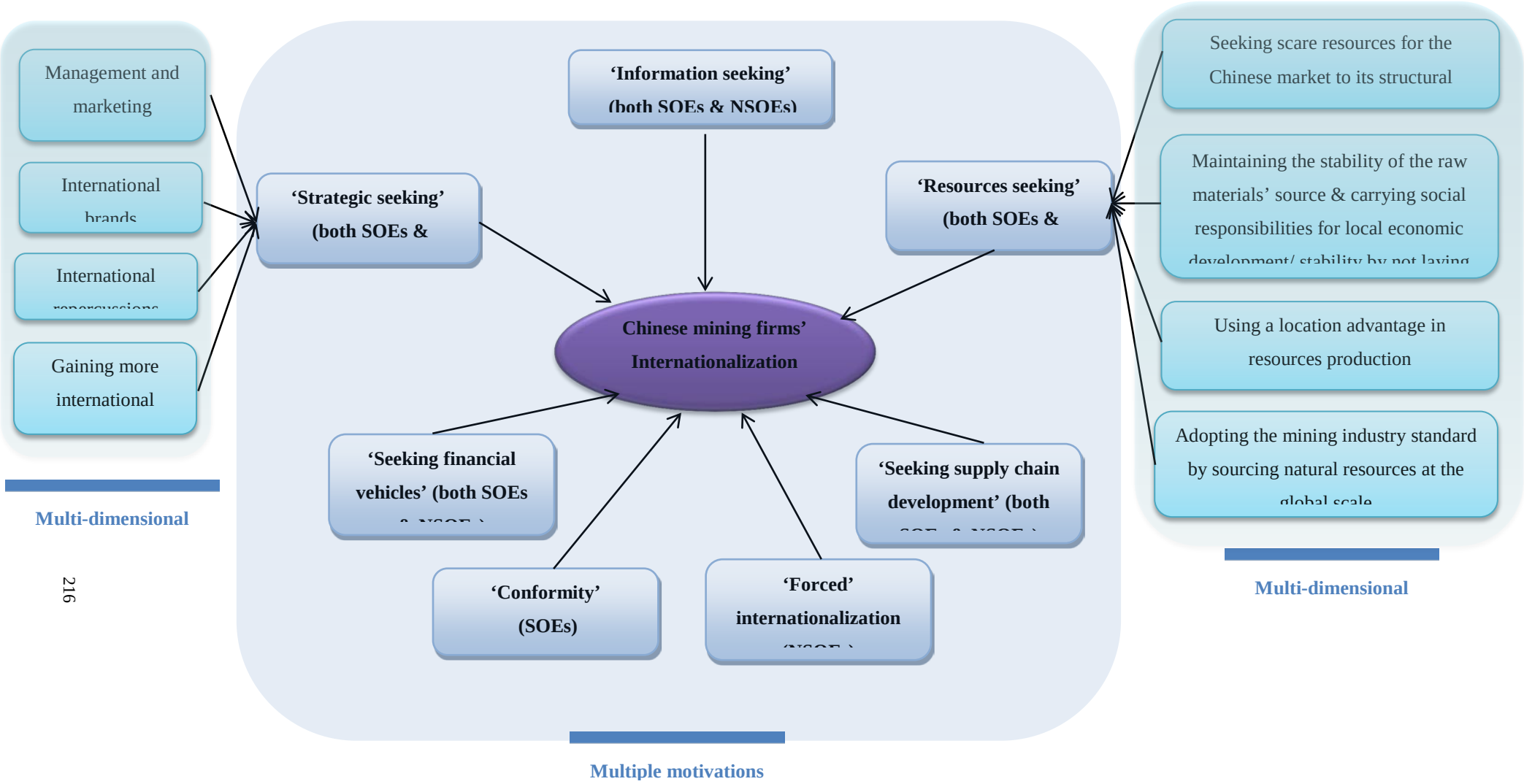
Additionally, the findings of this study concur with recent research, such as that by Verbeke and Kano (2012), that the IB literature can explain the internationalization strategies and no new theory is needed for emerging countries' multinational enterprises' (EMNEs) internationalization. However, this study has integrated and extended previous findings to fit the Chinese context. For example, it has incorporated the upper echelon theory of the CEO/top manager/*yi ba shou*'s characteristics to provide a short-cut in understanding the Chinese mining firms' internationalization risk attitudes.

This study concentrated on Chinese mining firms, and in so doing it extends our knowledge of state-owned and non-state-owned firms in three general areas: their internationalization motivations, the risks involved in internationalization, and the firms' attitudes towards these risks.

7.2.1. DCOA/DCOD & Chinese mining firms' internationalization motivations

This study makes a number of contributions to the literature in terms of motivations for internationalization. First, this study has synthesized the two main characteristics of Chinese mining firms' internationalization motives – multiple and multi-dimensional – as illustrated in Figure 22.

Figure 22 Internationalization motivations are multiple and multi-dimensional for Chinese mining firms



These findings are consistent with those of Dunning and Lundan (2008) and Buckley et al. (2006), who identified that multiple motives drive Chinese firms' OFDI, yet with additional variations. The case studies presented here have indicated that the firms' motives fulfil multiple aims and are multi-dimensional. Mining SOEs and NSOEs share some 'conventional' motives, such as seeking resources, strategic assets and foreign markets. Within the primary motive of resource seeking, they are motivated beyond just acquiring natural resources. For Chinese mining SOEs the initiative is a mixture of political obligations and profit considerations, while the Chinese mining NSOEs are simply seeking to maximize profits.

Second, not all Chinese mining SOEs act as the 'extension' of government representatives, tied up with political obligations. The finding indicates that the higher the SOE in the administrative hierarchy, the more important are their 'political obligations'. For this reason, central SOEs tend to be more 'politically obliged' to take the OFDI than are the provincial SOEs. This finding echoes that of Wang et al. (2011), who also noted that political considerations are the most important motivation for central SOEs.

To detail, the findings from the case studies suggest that the higher the Chinese mining SOEs are in the hierarchy (central, provincial and collective, ranked from highest to lowest), the more political considerations are involved in their OFDI, and the more dependent they are on the Chinese Government in their overseas operations. The case studies revealed that the central SOEs and the Chinese Government are interdependent. Central SOEs take OFDI as a form of 'responsibility' and 'obligation' in response to the state government. In return, the state government provides them with significant institutional support in China and assists the firms' overseas operations. The state government may also rely on central SOEs to achieve its political aims, especially with a large volume of investments. In contrast, provincial SOEs are not as 'obliged' as the central SOEs; indeed, the lower the Chinese mining SOEs are in the hierarchy (e.g., provincial SOEs), the more market oriented they are and, consequently, the less they depend on the government in their overseas operations.

Third, this study has revealed other variations and extensions to the existing motives discussed in the literature. For example, this study has identified that both SOEs and NSOEs are seeking some strategic assets, such as marketing expertise, international brands and international impacts, yet not seeking other kinds of strategic assets, such as acquiring superior mining skills or exploration and mining technologies. Finally, gaining more international experience is the aim of NSOEs, but no SOEs. All these motives reflect their own DCOAs and DCODs.

Fourth, in addition to 'conventional' motivations, finding a 'new' set of motives sheds new light on OFDI motivations that Chinese mining SOEs and NSOEs share with EMNEs, such as seeking information and financial vehicles. Both types of mining firms, as part of their foreign investments, aim to develop their supply chains and follow industrial standards when globally sourcing their raw materials. Due to the domestic institutional factors, mining SOEs adopt a 'conformity' approach to international investment, while 'forced internationalization' is associated with mining NSOEs.

Fifth, the sub-mining industry conditions, rather than the different types of firms, are important in determining the Chinese mining firms' market-seeking motivation. Every sub-mining industry generates different finished products, with different demands for the product in the Chinese market, and so the marketing needs and opportunities are diverse.

Sixth, firms have shown multi-dimensional motives towards resources and strategic assets in terms of the available DCOA. As mining firms, they are not just acquiring natural resources or adopting more advanced technologies via internationalization. Resource seeking is formed by:

1. seeking resources that are scarce in the Chinese market;
2. maintaining the stability of the raw materials' source and bearing the social responsibility for local economic development/stability by not laying off existing employees;
3. taking advantage of the location in resources production;
4. adopting the mining industry standard by sourcing natural resources on a global scale.

These different practices result from different firm development and strategies towards internationalization. Strategic asset seeking is formed by:

1. management and marketing expertise;
2. international brand;
3. international repercussions;
4. gaining more international experience.

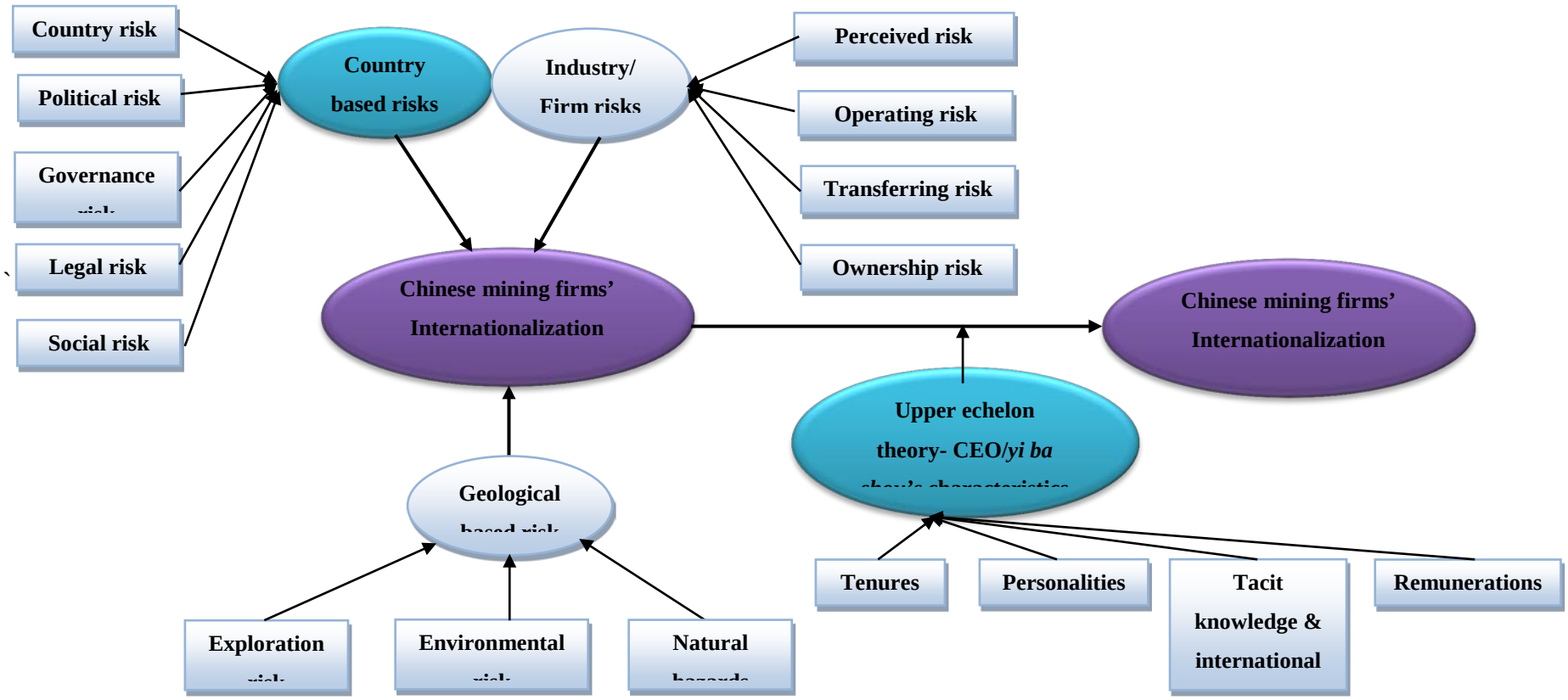
These are reflected the firms' DCOD and their late-comer status in the world mining industry as a Chinese investor. Internationalization is therefore seen as an efficient way to overcome firms' DCOD in order to make them more competitive in the domestic mining industry.

7.2.2. DCOA/DCOD and Chinese mining firms' internationalization risks

This study has also identified that the type of ownership can affect the Chinese mining firms' attitude towards risk in internationalization. Consistent with the findings of Buckley et al. (2007), this study found that the Chinese mining SOEs have a 'paradoxical attitude to risks'. Chinese mining SOEs show a wide range of attitudes towards risk in their OFDI, including being risk averse, risk escape, risk tolerating and risk taking. The NSOEs claim to take a 'prudential risk attitude'; rather than being 'risk averse', these firms are prepared to carry various kinds of risks for their international investments through different stages, while minimizing these risks as much as possible.

The findings are four-fold, as illustrated in Figure 23.

Figure 23 Modified illustration of Chinese mining firms' internationalization risks and their risk attitudes



First, country-based risks are the most important kind of risks in Chinese mining firms' internationalization. These include the country risk, political risk, legal risk and social risk in accessing different geological projects around the world. These risks are a priority for both SOEs and NSOEs, especially if the risk determines their choice of overseas investment location.

Chinese mining SOEs are more dependent on government support in resolving country-based risks. Since SOEs have more DCOAs in terms of home institutional support, they can therefore afford more risks in accessing more risky locations for obtaining resources (e.g., African countries). Chinese mining investments in the more 'risky' countries like Africa increased 10-fold from 2010 to 2011, reaching US$15.1 billion (MOFCOM, 2012). In contrast, NSOEs have the DCOD of a lack of home government support, and so NSOEs are less interested in investing in countries with high country-based risks, that is, in countries with less stability and less government-enforced power. In these countries, governments can interfere with business operations (Al Khattab et al., 2007) or unexpectedly change the 'rules of the game' under a business operation (Burmester, 2000).

SOEs' DCOA have boosted their ability to resist political risk, whereas Chinese mining NSOEs are disadvantaged by their DCOD for the same reason. Extreme examples of political risk, such as war, terrorism or military coups (Hood & Nawaz, 2004), mean the NSOEs are more concerned about their employees' safety and any possible negative outcomes. Thus, NSOEs tend to be more conservative when considering these high-risk locations.

Another DCOD for NSOEs is that their legal risk is higher because of their shortage of human resources. Although legal risk is generally high in the mining industry (Mccormick, 2007), SOEs who have DCOA in human resources are better able to manage this risk than NSOEs. A related DCOA owned by SOE, international experience, also means that SOEs have learned and accumulated more experience, expertise or relevant outsourcing partners than have the NSOEs.

Second, ‘social risk’ is a new kind of risk (Figure 23) revealed from the interviews. Social risks include cultural risk, community risk and union relations that the mining firms need to deal with in the host countries. Both kinds of Chinese mining firms have previously ignored these risks, but their recent international experiences have highlighted the importance of these risks. Social risk is often related to other country-based risks. The mining NSOEs have successfully managed social risk by adopting localization strategies and seeking the support of the local government, community and employment sectors.

Third, of the risks that are exclusive to the mining industry (exploration risk, environmental risk and natural hazards), environmental risk is the most discussed, especially the risks to the environment from development (e.g., environment pollution). These risks are found to be less influential when the firms consider the overall internationalization risks, and so environmental risks do not have a large influence on firms’ risk attitudes in practice. Both kinds of Chinese mining firms are attempting to learn and adopt the local environmental standards in their host countries. They all believe that environmental and exploration risks can be effectively managed by implementing higher exploration safety standards.

Fourth, consistent with previous research, this study found that firm-based risks (perceived risk, operating risk, transferring risk and ownership risk) depend upon four factors – the decision-maker, the firm’s environment, its international experience and the firm itself (operational efficiency) – plus the interaction between these factors (Barkema et al., 1996; Johanson & Vahlne, 1977; Wiedersheim-Paul et al., 1978).

In addition, consistent with upper echelons theory (Hambrick & Mason, 1984), for both Chinese mining SOEs and NSOEs the CEO/*yi ba shou* is the key influence on the firms’ risk attitudes, as a result of the CEO/*yi ba shou’s* own characteristics (tenure, personalities, tacit knowledge, and experience and remuneration). This finding builds a more integrated view of the firm’s OFDI risk attitudes, which combines influences at the firm level (DCOA and DCOD) and the personal level (CEO/*yi ba shou’s* characteristics).

7.2.3. DCOA/DCOD, CEO/ *yi ba shou* and Chinese mining firms' internationalization risk attitudes

The interview data reveal Chinese mining SOEs' DCOA allow the firms to take a more risk-tolerant attitude, and SOEs' DCODs make the firms more averse to risks. In the case of NSOEs, their DCOAs reinforce a more conservative risk attitude, and their DCODs lead them to be even more risk averse. The industry-based view stresses that the key principle of competitive strategy formulation is a firm's relationship to the industry environment in which it competes (Deng, 2003, 2004; Dunning & Lundan, 2008). Indeed, empirical studies have shown industry factors to be the primary determinants of a firm's internationalization (Lu et al., 2011).

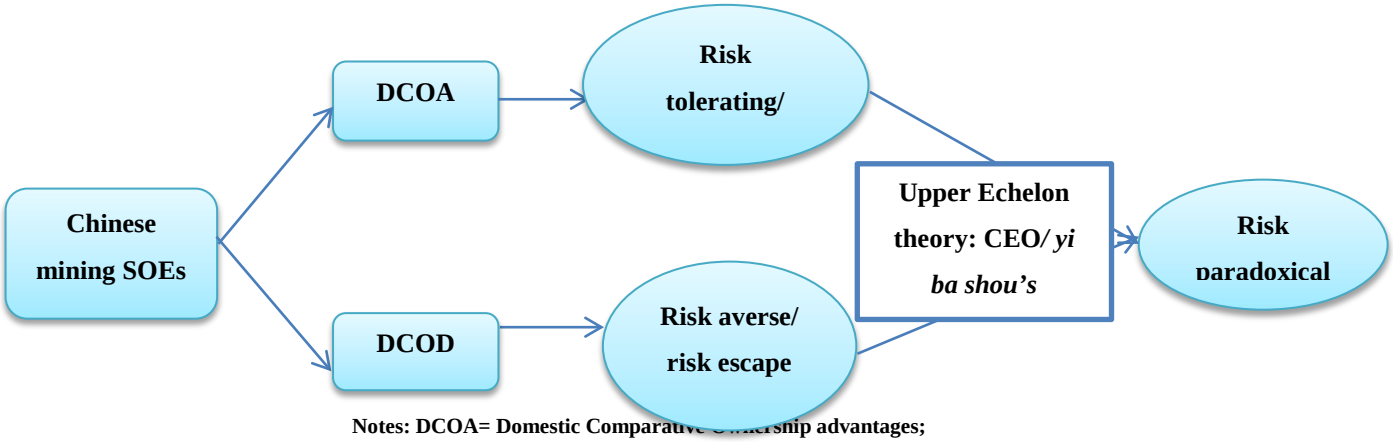
Furthermore, this study has confirmed that upper echelon theory does play a key role in Chinese mining firms' internationalization in determining the firm's internationalization risk attitudes, but not so much for its motivations. It's shown in the form of the CEO/*yi ba shou*'s characteristics for Chinese both mining SOEs and NSOEs, with some variations. These CEO/*yi ba shou*'s characteristics include the length of their tenure, the personal character (e.g., 'radical' or 'stable'), international experience, industry knowledge and international vision, as well as their remuneration. This study highlighted some important findings in this regard:

1. NSOEs' CEO/*yi ba shou*s have acquired and accumulated international experience through their previous tenure with SOEs, as discussed in Chapter 6, and the CEO/*yi ba shou* brings this tacit knowledge and international experience when he or she transfers to the NSOE. For SOEs, such international experience is shown to be 'periodic' or disconnected at the firm level, but continuous at the personal level (e.g., CEO/*yi ba shou*). In contrast, such experiences more consistent and more highly utilized in the NSOEs.
2. The ideal ownership structure in terms of management performance is the owner/operator, where there is no separation between a firm's management and control (Dewenter & Malatesta, 2001), as is the case with NSOEs. The OFDI risk attitudes carried by NSOEs are more consistent and stable than those of the SOEs. NSOEs were also found to have a more long-term, consistent and sustainable OFDI strategy than did the SOEs.

3. The 'remunerations package' for NSOEs employees comprises their remuneration, responsibilities, authority and self-accomplishment. These elements are better aligned for the CEO/*yi ba shou* of an NSOE than an SOE, and these further influences the NSOEs to be more responsive in accessing various internationalization risks. This is linked to the Chinese institutional environment and it's highlighted the impacts of the NSOEs' internationalization;
4. CEO/*yi ba shou*s of SOEs have more institutional constraints than those of NSOEs. As the SOEs' organizational structures are more established and contain more bureaucratic procedures, SOEs are likely to miss the best timing for business opportunities to OFDI. Therefore, the CEO/*yi ba shou* is less likely to take higher risks in such a lengthy process.

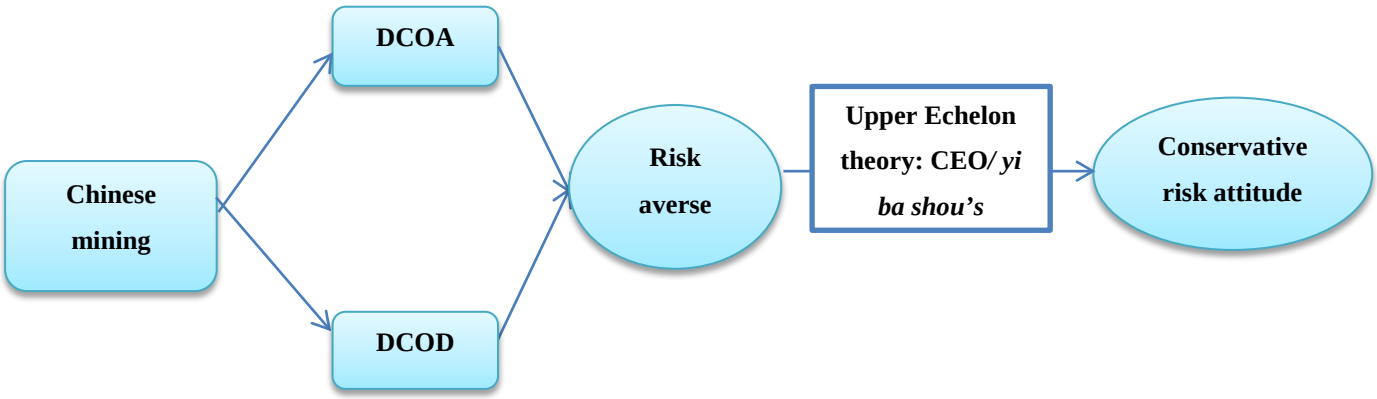
The results from such CEO/*yi ba shou*'s influences are different – a more paradoxical risk attitude for the SOEs, and a more conservative risk attitude for the NSOEs (as shown in figures 24 and 25). However, Chinese mining NSOEs generally have a 'conservative risk attitude'; rather than being 'risk averse', the firms are prepared to carry unavoidable risks, but generally they remain cautious and conservative.

Figure 24 Chinese mining SOEs' 'paradoxical risk attitudes' towards OFDI



Notes: DCOA= Domestic Comparative Ownership advantages;
DCOD= Comparative Ownership disadvantages.

Figure 25 Chinese mining NSOEs' 'conservative risk attitudes' towards OFDI



Notes: DCOA= Domestic Comparative Ownership advantages;
DCOD= Comparative Ownership disadvantages.

7.3. Managerial and policy implications

In addition to the contributions to the emerging MNC internationalization literature, this research has a number of managerial implications. First, it demonstrates that both economic and institutional factors shape the motives for OFDI by Chinese mining firms. These mining firms are not internationalizing just to gain mineral resources. The differences in their DCOA lead the two major types of Chinese mining firms to have two sets of multiple motives. Host country counter-partners and managers can take these findings into consideration while developing relevant negotiating strategies, and also differentiate the needs and concerns of Chinese mining SOEs and NSOEs while dealing with them.

The second implication of the study concerns how to overcome the DCODs encountered by Chinese mining SOEs and NSOEs in their internationalization. Many Chinese mining SOEs' DCOAs are the NSOEs' DCODs, and vice versa. The NSOEs are more efficient, flexible and responsible, and have lower management costs and fewer barriers to gaining the host governments' approval for their investments; the SOEs have richer human resources, greater financial capabilities and stronger resistance to risk. For instance, overseas large-scale investments still seem more reasonable to associate with Chinese SOEs due to their strong financial DCOA through domestic

institutional support; and NSOEs have lower barriers from host countries for OFDI approvals. One suggestion is that some kind of 'mutually beneficial, cooperation body', consisting of Chinese mining SOEs and NSOEs, may be able to assist the Chinese mining firms to internationalize in a more efficient and successful way.

The third implication concerns host institutions. Similar to the previous suggestion, the managers in Chinese mining SOEs may find it useful to evaluate the pros and cons of their strategies, compared with those of the NSOEs. Chinese mining NSOEs are less concerned about host labour policies and they usually retain the existing local HR set-up while implementing the localization strategy because of its DCOD in human resources (HR). However, Chinese SOEs have trouble transferring their existing DCOA (domestic HR teams) to overseas operations to enjoy the low-cost labour advantages.

The fourth implication concerns more cooperation with different levels of Chinese mining SOEs. Central SOEs are more likely to work closely with the state government and heed political considerations, while provincial and local levels SOEs may be more driven by economic goals. With similar overseas locational choices (more risky areas like African countries; developed countries like Canada and Australia), they may be able to encourage their overseas subsidiaries to share industry/sub-industry information and gain both financial and institutional support through those operations.

The fifth implication concerns expanding information sources. The case studies revealed that both Chinese mining SOEs and NSOEs have been heavily reliant on their global information centres (e.g., in Singapore, Hong Kong) and the CEO/*yi ba shou's* tacit knowledge to access industry information. Expanding their information sources to include more independent third parties (e.g., newly set up Tianjin Mining Exchange, local consulting firms) could enable them to access more transparent and comprehensive industry information, more swiftly. And, more importantly, such information would not be limited or confined.

The next implication is that, while there is a need to understand a Chinese mining firm's internationalization risk attitude, a short cut is understanding the CEO/*yi ba shou's* characteristics (e.g., the length of their tenure, their personal character (e.g., 'radical' or

‘stable’), international experience, industry knowledge and international vision, as well as their remuneration). For example, some Chinese mining NSOEs may be new to the global market, yet its CEO/*yi ba shou* may be quite experienced from his/her tenure with SOEs. The trends for such CEO/*yi ba shou*’s influences differ between SOEs and NSOEs – a more paradoxical risk attitude for the SOEs, and a more conservative risk attitude for the NSOEs (as shown in figures 24 and 25). However, Chinese mining NSOEs generally have a ‘conservative risk attitude’; rather than being ‘risk averse’, the firms are prepared to carry unavoidable risks, but generally they remain cautious and conservative.

This study has produced two main implications for Chinese OFDI policy makers (possibly SASAC and other state administrative bodies). One is to set up a market-oriented incentive scheme for the key responsible persons (CEO/*yi ba shou* and key managers). Simply regulating the SASAC’s penalty orders is not a constructive way of supervising and administering the state assets and their overseas investment. In fact, such actions discourage the SOEs’ CEOs and the key managers’ enthusiasm for OFDI. More positive reinforcement is required.

The other implication is to extend the tenure of leaders for mining SOEs from an average of four years to ten years. Mining investments are usually very lengthy processes, from first investing to achieving the final output. Authorities could take this important feature into consideration and implement longer tenures for mining SOEs’ CEO/*yi ba shou*. This would enable the CEO/*yi ba shou* to work in a more ‘stable’, more responsible and more enthusiastic way to assist the firm to have a relatively consistent internationalization plan and goal. The risk tolerating level may be also increased through such a change.

7.4. Limitations of current research

Like any other academic research, this research also has some limitations. First, the total number of Chinese mining firms in 2009 was 117,965, comprising 4,156 large enterprises, 5,303 medium-sized enterprises, 56,675 small-scale enterprises and 51,831 minor mines, representing 3.52%, 4.5%, 48.04% and 43.94%, respectively, of all

mining firms (China Mining Yearbook Editorial Board, 2011). All the firms selected for inclusion in this study were large enterprises, and were not necessarily representative of smaller-scale businesses. Future research could extend to different sizes of Chinese mining SOEs and NSOEs, such as small-scale and/or medium-scale enterprises, to ascertain whether this study's findings about large firms' internationalization behaviours are applicable to firms of different sizes.

Second, the methodology contained some limitations. An interview-based, qualitative study provided the data necessary for an in-depth account of the research problem; however, the responses from individual respondents may have contained personal biases (Jack, 2006). Such perceptual biases were minimized by following a systematic research protocol and including two sets of semi-structured interview guides. Running a pilot study before the actual interviews also helped the researcher to justify the research protocol and the interview guides used in the major data collection. Interviewing senior managers from each firm and using a variety of secondary data allowed the researcher to cross-check the validity of the data.

In addition, the small sample size of case studies limits any study's generalizability. However, this study was exploratory, and the findings were more focused on exploring new characteristics and features than on drawing conclusions. The study was also based on a theoretical framework which encompasses the resource-based, industry-based and institution-based views of 'strategic tripod model'. Although these theories are comprehensive and capable of explaining the internationalization phenomenon in China (Ramasamy et al., 2012), a more insightful and effective framework may be able to provide a different perspective of conceptual framework.

7.5. Future research directions

This research raises a number of possibilities for future research. It provides a useful method for beginning to differentiate DCOA and DCOD for key types of Chinese mining firms in the OFDI context. Further studies could compare the effects on their internationalization strategies, such as market entry mode choices.

The current research provides only case-study evidence from the Chinese mining industry; it would be interesting to investigate the OFDI behaviour of SOEs and NSOEs from other industries in China. Cross-industry analysis could be the next step. Alternatively, it would also be interesting to conduct a cross-country analysis within the mining industry, comparing SOEs and NSOEs.

Another pathway could take a view of the future. That is, extend the findings of this research by using this strategy tripod model to examine the OFDI performance of Chinese mining SOEs and NSOEs. Future research could look at how the different causes and firm-level strategies in internationalization interact and impact on their OFDI performance.

This exploratory study has developed a set of propositions for future research. Historically, there has always been an imbalance of resources between Chinese mining SOEs and NSOEs, due to their different types of ownership. Growing domestic competition is likely to force many Chinese firms, especially NSOEs which lack domestic support, to find new markets abroad, and this is likely to provide fresh stimulus to Chinese OFDI flows (Cao et al., 2005; Deng, 2007; Pu, 2000). The transition towards a market economy in China has created a very competitive environment for domestic NSOEs (Taylor, 2002; Von Keller & Zhou, 2003; Voss et al., 2008). Recent mining industry conditions and the NSOEs' eagerness to shed their 'latecomer' status (Lu et al., 2011) lead to the first proposition:

> **P1: An uneven industry status, and intensive domestic competition, will have a greater influence on the internationalization of Chinese mining NSOEs than of Chinese mining SOEs.**

Host countries are more attractive if they have large potential markets, natural resources, high-skill, low-cost and trainable or well-trained labour, and good communication systems and infrastructure (Li et al., 2009). However, the country-based risk mentioned in the earlier discussion is seen as crucially important for the mining firms. On the other hand, Chinese mining investments are more presented in the more 'risky countries' like Africa (MOFCOM, 2012). Furthermore, foreign investing firms may be subject to discriminatory policies that constrain their access to local resources,

require mandatory exporting or interfere with other operational matters (Wattanasupachoke, 2002). The host government's regulations and constraints act strongly and directly as barriers of entry, and they impact on the availability of the entry mode choices for the mining firms. For example, Australia's mining tax and the tighter FIRB (Foreign Investment Review Board) approvals for Chinese mining investments in Australia have resulted in a 70% drop in total investments from the mining sector between 2010 and 2011, to US$1.3 billion, and the total investments from China to Australia in the first half of 2012 reached just US$ 1.4 billion (MOFCOM, 2012). Therefore, the second proposition is:

> **P2: Chinese mining firms' risk attitudes are paradoxical in their OFDI host country selections, under the influence of their ownership and contextual factors.**

As discussed earlier, international experience is closely related to country-based risks, industry and firm-based risks, and operating risk for the mining firms. Previous studies (Athanassiou & Nigh, 2000; Sambharya, 1996; Tihanyi et al., 2000) have further highlighted the importance of top management's international experience in the context of internationalization. Herrmann and Datta (2006) found the CEO's international experience plays an important role in the choice of entry modes, because such experience provides CEOs with the mindset, knowledge base and confidence to opt for entry modes that entail greater resource commitments, more risks and higher levels of information processing. The third proposition, therefore, is:

> **P3: The more experienced CEOs from Chinese mining firms would be more risk tolerating because of their rich experiences.**

In terms of host countries, foreign investing firms may be subject to discriminatory policies that constrain their access to local resources, require mandatory exporting or interfere with other operational matters (Wattanasupachoke, 2002). However, Chinese resource-based firms can transfer their low-cost production advantage overseas in natural resource exploitation operations by sending their domestic workers from China to operate their foreign production sites (Cui & Jiang, 2010). Hence, the fourth proposition is developed in relation to this efficiency-seeking motive:

P4: Host governments' labour policies determine if the Chinese mining firms (both SOEs and NSOEs) can have an 'efficiency-seeking' motive and transfer their low-cost labour advantage to overseas operations.

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Appendix: Two sets of open-ended questions

A1. Interview guidelines for CEO-level managers (English)

General

1. Please give details about the company itself, starting with its historical development in the Chinese market
2. Please answer the following questions about your company, to the best of your ability:
    A) Total number of employees
    B) Total sales
    C) Total number of foreign employees
    D) Total number of wholly-owned foreign mines (companies)/joint venture mines (corporations)
    E) Year company was established
    F) Year company first internationalized
    G) Estimated percentage of sales/productions attributed to foreign sales/ production.
3. How many countries are you in presently? What are they?
4. What are the potential destinations of your company's interests of internationalization? Why did you choose these markets? Why did you ignore other markets?
5. How would you describe the internationalization for your company in the future? (both short-run and long-run)

Factors that Motivated Companies to Internationalize

1. What motivated your company to want to internationalize?

2. How much do you think the Chinese policies and regulations would affect your internationalization decisions? How much do you think the host countries' policies and regulations would affect your internationalization decisions?
3. Do you think these above-mentioned government factors would affect your risk attitude? If yes, to what extent? Can you give an example?
4. Could you please rank these motivations below, and add more if it is not included:
   A) Gain foreign market share
   B) Internationalization. Increase company efficiency and competitiveness
   C) Internationalization. Diversification
   D) Access to natural resources
   E) Gain advanced technology and experience
   F) Share my own company's strategic assets
   G) Reduce costs
   H) Acquire international brands
   I) Avoid trade barriers/tariffs
5. Question for SOEs: What do you believe the ownership advantages to be enjoyed by your company?

   Question for NSOEs: What do you believe the ownership advantages to be enjoyed by your company?
6. Is there any particular area/country you want to discuss? E.g., African countries? Australia? Canada? Or any other Asian countries?

Internationalization Objectives and Plans

1. What is the company's objective from internationalization? How did the company plan to achieve this objective?
2. Does your company have an internationalization plan? If so, did you follow that plan? Was the plan flexible?

Internationalization risk attitudes

1. Could you please make a statement that what are the key factors influencing the firm's internationalization risk attitude?
2. How do you see its relationship between CEO/ top manager and the firm's internationalization risk attitude?
3. What were the barriers to enter the host countries?
4. How did Chinese and those host countries influence the firm's risk attitudes? Please give some examples.
5. Any other factor you believe worth mentioning here as additions?
6. How do you believe the CEO/top executive's characteristics influence the firm's internationalization risk attitudes? (e.g. tenure, personalities, tacit knowledge and international experience, and remuneration)?

A2. Interview guidelines for CEO-level managers (Chinese)

行政总裁（首席执行官）/总经理级采访大纲

<u>概况</u>

1. 请简要的介绍一下贵公司的概况，就从其在中国市场的发展历史开始吧！
2. 请尽可能地回答以下关于贵公司的一些问题：

A) 雇员总数

B) 销售总额

C) 外籍员工总数

D) 海外全资矿山（公司）总数/海外合资矿山（公司）总数

E) 公司成立年份

F) 公司首次国际化年份

G) 大约的海外销售/产量占总公司的销售/产量的百分比

3. 目前贵公司在多少国家运作？都是哪些国家？
4. 哪些国家或目的地是贵公司认为有潜力发展国际化业务的？您为什么选择这些市场？为什么您忽视其他市场？
5. 在对非洲的投资中，贵公司是如何看待风险的？ 所谓’高风险’的认知对您公司向非洲的投资有什么样的影响呢？
6. 您会怎么描述您的公司在未来的国际化？（包括短期和长期）

<u>企业国际化的动因分析</u>

1. 是什么促使您的公司要国际化？
2. 您认为中国政策和法规的变化对您企业的国际化有多重要的影响？您认为东道国政策和法规的变化对您企业的国际化有多重要的影响？
3. 您认为上述这些政府因素会影响贵公司对风险的态度吗？如果影响，是什么程度？您能举个例子吗？

4. 能否请您对以下各海外投资目的按其重要程度来排序。如果您认为重要的动机并不包括在以下的项目中，请您谈谈是什么。

A) 扩大海外市场份额

B) 内部化——提高公司的效率和竞争力

C) 内部化——多样化

D) 获得资源

E) 获得先进的技术和经验

F) 分享本公司的战略资产和先进技术

G) 降低成本

H) 获取国际品牌

I) 回避贸易壁垒/关税

5. 对国企的问题：相对于非国企，您认为贵公司作为国企所享有的所有权优势是什么？

对非国企的问题：相对于国企，您认为贵公司作为非国企所享有的所有权优势是什么？

6. 有没有什么特别的区域/国家您想谈谈？例如，非洲国家？澳大利亚？加拿大吗？或任何其他亚洲国家？

企业国际化目标与计划

1. 贵公司国际化的目标是什么？公司是如何计划实现这个目标的？
2. 贵公司是否有一个实现企业国际化的计划？如果是这样，在实际操作中是否遵循了这一计划？该计划是不是灵活的？

国际化中对待风险的态度

1. 能否请您对公司对于国际化过程中对风险的态度做一下评价- 什么是您觉得最重要的一些影响因素？
2. 您怎么看待公司国际化中对风险的态度和 CEO 及高层管理人员之间的关系？
3. 进入东道国的各种壁垒是什么？

4. 中国的和东道国是怎么样影响到公司对于国际化中所持风险的态度？请举例。
5. 您觉得还有什么其他的我们没有谈到的影响风险态度的因素吗？
6. 您认为‘一把手’的各种特征如何影响公司对于国际化风险的态度？（比如说他的任期、性格、国际化经验和隐性知识，和报酬？）

A3. Interview guidelines for functional level managers (English)

General

1. How many countries is your company in presently? What are they?
2. How would you describe your company's internationalization current status?
3. How would you describe your company's internationalization status in the future?

Factors that Motivated Company to Internationalize

1. What were the primary motivating factors for your company's internationalization?
2. How much do you think the Chinese policies and regulations would affect your internationalization decisions? How much do you think the host countries' policies and regulations would affect your internationalization decisions? Can you give examples?
3. Could you please rank the motivations below, and add more if necessary:
   J) Gain foreign market share
   K) Internationalization. Increase company efficiency and competitiveness
   L) Internationalization. Diversification
   M) Access to natural resources
   N) Gain advanced technology and experience
   O) Share my own company's strategic assets
   P) Reduce costs
   Q) Acquire international brands
   R) Avoid trade barriers/tariffs
4. Question for SOEs: What do you believe are the ownership advantages to be enjoyed by your company?

Question for NSOEs: What do you believe are the ownership advantages to be enjoyed by your company?

5. Is there any particular case you want to discuss? What role did you perform in this project?
6. Is there any particular area/country you want to discuss? For example, African countries? Australia? Canada? Any other Asian countries?

Internationalization Objectives

1. What is the company's objective from internationalization? How did the company plan to achieve this objective?
2. Does your company have an internationalization plan? If so, did you follow that plan? Was the plan flexible?
3. Who was the main driving force behind the plan?

Internationalization risk attitudes

1. Could you please make a statement that what are the key factors influencing the firm's internationalization risk attitude?
2. How do you see its relationship between CEO/ top manager and the firm's internationalization risk attitude?
3. What were the barriers to enter the host countries?
4. How did Chinese and those host countries influence the firm's risk attitudes? Please give some examples.
5. Any other factor you believe worth mentioning here as additions?
6. How do you believe the CEO/top executive's characteristics influence the firm's internationalization risk attitudes? (e.g. tenure, personalities, tacit knowledge and international experience, and remuneration)?

A4. Interview guidelines for functional level managers (Chinese)

国际业务/市场/海外市场经理级采访大纲

<u>概况</u>

1. 请问目前贵公司在多少国家运作？都是哪些国家？
2. 您对现在贵公司国际化的现状如何描述？
3. 您对贵公司未来国际化的状况如何描述？

<u>企业国际化的动因分析</u>

1. 您认为什么是促使贵公司国际化的最重要的几个因素？
2. 您认为中国政策和法规的变化对您企业的国际化有多重要的影响？您认为东道国政策和法规的变化对您企业的国际化有多重要的影响？
3. 能否请您对以下各海外投资目的按其重要程度来排序。如果您认为重要的动机并不包括在以下的项目中，请您谈谈是什么。

   J) 扩大海外市场份额

   K) 内部化——提高公司的效率和竞争力

   L) 内部化——多样化

   M) 获得资源

   N) 获得先进的技术和经验

   O) 分享本公司的战略资产和先进技术

   P) 降低成本

   Q) 获取国际品牌

   R) 回避贸易壁垒/关税
4. <u>对国企的问题：</u>相对于非国企，您认为贵公司作为国企所享有的所有权优势是什么？

   <u>对非国企的问题：</u>相对于国企，您认为贵公司作为非国企所享有的所有权优势是什么？

5. 有没有什么特别的项目您想谈谈？在这个项目中您的职责是什么？
6. 有没有什么特别的区域/国家您想谈谈？例如，非洲国家？澳大利亚？加拿大吗？或任何其他亚洲国家？

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3. 谁是该计划背后的主要驱动力？比如：是企业高层的承诺要去国际化？还是政府政策？或是其他的什么因素？

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