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Article (Accepted Version)


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Does State Ownership Really Matter? The Dynamic Alignment of China’s Resource Environment and Firm Internationalization Strategies

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FINAL DRAFT VERSION

Boston, February 2019

Journal of International Management, 25 (3).
ABSTRACT

Recent research suggests that unequal access to home country institutional resources affects firm internationalization strategies. We add to this debate, based on an analysis of state-owned (SOEs) and non-state-owned (NSOEs) Chinese mining firms, by developing a more dynamic and multi-layered understanding of this interplay. We find that home institutional support can be ownership-based or performance-based, whereby the former benefits SOEs and the latter favors high-performing NSOEs. Combined, these support structures serve as institutional control mechanisms in promoting competition, performance and loyalty to national policies. In addition, they establish a permanent link between firm- and home country-specific assets and incentivize firms to develop dynamic resource access capabilities at home and abroad. Our findings inform our understanding of the firms-institutions nexus and Chinese foreign direct investment dynamics, especially in industries of strategic importance to the state.

KEYWORDS

Ownership, China, mining, institutions, internationalization
1. Introduction

Home institutional conditions, i.e. more or less home country-specific rules, norms, regulatory frameworks and support infrastructures, have increasingly been considered an important factor affecting firms’ internationalization and performance, especially for emerging economy firms (Peng et al., 2008; Wang et al., 2012). Recently, particularly the way firm ownership models affect internationalization has attracted attention (Bhaumik and Selarka, 2012; Lu et al., 2011; Cuervo-Cazurra et al., 2014). For example, state-owned enterprises (SOEs) in China often enjoy easy access to financial capital and other critical resources. When internationalizing, SOEs exploit these privileges (Brockman et al., 2013; Deng, 2013; Estrin et al., 2016; Ren and Jack, 2014; Sun et al., 2012; Cuervo-Cazurra et al., 2014). By comparison, non-state owned enterprises (NSOEs), which lack those privileges, are said to go abroad as a way to ‘escape’ unfavorable institutional conditions, and to access alternative resource pools (Cui and Jiang, 2012; Witt and Lewin, 2007; Rugman et al., 2016).

Firm ownership thus has a significant effect on how firms compete internationally. For example, prior studies suggest that Chinese SOEs rely a lot on their access to home country-specific assets (HCSAs), e.g. institutional support (Meyer et al., 2014; Rugman et al., 2016), whereas NSOEs rely much more on firm-specific assets (FSAs), e.g. resource-seeking skills abroad (Liang et al., 2012). In general, FSAs include mostly intangible and often proprietary firm-specific resources, such as intellectual capital, patents, brand value, learning capabilities, management skills, and relationships, which firms can capitalize on across countries (Rugman and Verbeke, 2003; Kirca et al., 2011). By comparison, CSAs include country-specific resource endowments, such as natural resources, labor force, cultural factors and institutional support (Porter, 1990; Marinova et al., 2011). Rugman et al. (2016) make the critical point that HCSAs and FSAs are often interlinked in complex ways (see also Estrin et al., 2016). Specifically, Rugman et al. (2016) argue, based on the case of Chinese firms, that initial institutional
privileges (or the lack there-of) can have self-reinforcing effects on the way firms learn and perform abroad. As SOEs in particular enjoy a lot of government support they lack incentives to innovate or develop FSAs abroad (see also Wei and Nguyen, 2017), whereas NSOEs, lacking access to HCSAs, depend a lot on developing FSAs to compete (Liang et al., 2012; Rugman and Verbeke, 2001). However, we still know little about this dynamic. Also, prior research treats home country institutional conditions largely as a ‘monolithic block’ that either benefits firms and their international expansion or makes them escape the home country in search for more favorable environments (Choudhury and Khanna, 2014; Luo and Wang, 2012; Witt and Lewin, 2007). In reality, home institutional conditions are complex and change over time (see e.g. Jackson and Deeg, 2008; Ahmadjian, 2016).

We thus seek to develop a more nuanced understanding of the interplay between home country institutional conditions and firm internationalization. Specifically we ask: What are the mechanisms by which home country institutional conditions – specifically in the context of Chinese firms – interrelate with firm internationalization decisions and performance? How do these mechanisms affect the interplay between home country-specific and firm-specific assets?

We address these related questions based on a multiple in-depth comparative case study of six state-owned (SOEs) and non-state-owned (NSOEs) Chinese mining firms. The mining industry is of strategic importance to China (Alon et al., 2011) and constitutes a good example of where institutional conditions – specifically related to a firm’s ownership model – have had a significant effect on international expansion decisions (Bruton et al., 2015; The China Analyst, 2014). We find that home institutional contexts affecting internationalization are multi-layered, including access to both ‘performance-based’ and ‘ownership-based’ resources. Ownership-based resources are reserved for SOEs, including e.g. domestic mineral resources, talent and diplomatic support. They serve as ‘conditional enablers’ aiding SOE’s international expansion while demanding, in exchange, loyalty to national diplomatic policies and priorities.
In contrast, performance-based resources, e.g. subsequent funding and political support, are allocated based on firm brand value and international success. They benefit mostly NSOEs and serve as ‘selective compensation’ for firms that do not enjoy ownership-based privileges. Together, these resource endowments are means of institutional control that induce loyalty, while also stimulating some competition. As a result, FSAs and HCSAs develop reciprocally, with home country institutions playing a continuously important role.

Our findings have important implications for future research. First, we propose a more dynamic, multi-layered understanding of the firms-institutions nexus (Peng et al., 2008; Peng et al., 2009; Wang et al., 2012) and the related interplay between FSAs and HCSAs (Rugman et al., 2016). As part of it, we present an alternative to the notion that firms often internationalize to either exploit state resources or reduce resource dependencies (see e.g. Choudhury and Khanna, 2014; Cuervo-Cazurra et al. 2014). Instead we develop the idea that managing access to institutional support in general, and ownership-based or performance-based resources in particular, is continuously linked to developing FSAs. Second, we add nuance to our understanding of drivers and process of OFDI of Chinese firms (Cui and Jiang, 2012; Liang et al., 2012), and add to our knowledge of how home country conditions may affect internationalization strategies (Porter, 1990; Witt and Lewin, 2007). In addition, our study sheds light on internationalization in mining and other strategically important and highly regulated industries, in emerging economies and beyond.

We start out by discussing the interplay of FSAs and HCSAs based on prior research. We then introduce the context of Chinese mining firms. This is followed by an overview of our data and methods, our findings, a more generic process model, some theoretical propositions, and broader implications for future research.
2. The dynamics of FSAs and HCSAs in internationalization

In international business research, firm strategy and performance are often discussed as a function of the availability of firm-specific assets (FSAs) and country-specific assets (CSAs) (Dunning and Lundan, 2010; Peng, 2003; Porter, 1990). FSAs include mostly intangible and often proprietary firm-specific resources, such as intellectual capital, patents, brand value, learning capabilities, management skills, and relationships, which firms can capitalize on across countries (Rugman and Verbeke, 2003; Kirca et al., 2011). CSAs include country-specific resource endowments, such as natural resources, labor force, cultural factors and institutional support (Porter, 1990; Marinova et al., 2015). The joint workings of FSAs and institutional conditions is also known as the firms-institutions nexus (Peng et al., 2009). Some studies specify FSAs/CSAs as firm-specific or country-specific advantages (e.g. Rugman et al., 2016). We prefer the more neutral term ‘assets’ since whether or not an asset is an ‘advantage’ depends on the reference group and time horizon – an assessment that goes beyond the scope of this paper. Importantly, CSAs and FSAs often operate together, for example when firms develop the ability (FSA) to hire specific talent that is specifically available in certain countries (CSAs) (Rugman et al., 2016; Zaheer and Nachum, 2011).

Rugman and Verbeke (1992, 2001) made the important point that FSAs can be more or less tied or bound to specific locations. Non-location-bound FSAs may include generic marketing, client- or resource-seeking capabilities that are relatively easy to replicate across locations. By contrast, location-bound FSAs, e.g. certain government connections, home brand advantages, or exclusive supplier access, may not be as easily transferable. In fact, they might be a rather serious obstacle to international growth. For example, certain local managers may be unable or unwilling to move, thus becoming very ‘location-bound’. The location-bound properties of many FSAs in part explain why many multinationals are ‘regional’ rather than ‘global’ players (Rugman and Verbeke, 2004). This also explains why, despite a rapid increase
of OFDI activities in recent years (EY, 2016), the vast majority of Chinese firms remain domestic (Peng et al., 2012; Rugman et al., 2016).

In the context of emerging economy firms, and Chinese firms in particular, one very important tie between FSAs and home CSAs (HCSAs) is firm ownership structure (Cuervo-Cazurra et al., 2014). For historical reasons, many resources that Chinese firms possess are deeply embedded in the home institutional context (Rugman, 2014). For instance, Chinese state-owned enterprises (SOEs) can get unique access to rare resources, such as natural resource endowments, or human capital, guidance, and knowledge (Lu et al., 2014), compared to non-state-owned enterprises (NSOEs). Also the state government and state-owned banks provide SOEs with cheap funds to expand globally and sometimes support their investments with diplomatic negotiations (Lu et al., 2014). Ren et al. (2012) further argue that SOEs are guided by state ideology and a sense of national pride (see also Hope et al., 2011). By contrast, Chinese NSOEs lack privileges, thus relying much more on FSAs, such as efficient resource allocation (Child and Rodrigues, 2005; Luo and Tung, 2007; Mathews, 2002, 2006). Indirectly, however, even the development of those FSAs can be traced back to the SOEs’ specific embeddedness in the Chinese system (Rugman et al., 2016).

Prior literature suggests that initial institutional properties of firms, such as state or private ownership, will have self-reinforcing effects as firms choose to go abroad. Access to particular institutional resources (or lack thereof) shapes MNEs’ strategy, innovation, internal structure, and external relationships (Ahmadjian, 2016). Ownership structure has been shown to impact why and how firms go abroad. As for objectives, SOEs often support larger geopolitical strategies and resource-seeking motives of the government in going abroad (Cuervo-Cazurra et al., 2014; Bass and Chakrabarty, 2014), whereas NSOEs are often driven by the lack of home institutional support, resource constraints and domestic competitive pressure (Luo and Wang, 2012; Liang et al., 2012). As for implementation, prior studies have
shown how ownership structure may drive mergers and acquisitions (Sun et al., 2012), various modes of entry (Cui and Jiang, 2012; Peng, 2012), types of overseas investment (Wang et al., 2012), choice of FDI locations (Meyer et al., 2014; Ren et al., 2012), and what risk firms are willing to take (Ren and Jack, 2014). Also, in the case of SOEs, Rugman et al. (2016) argued that due to their strong reliance on home country institutional support, SOEs are neither incentivized to develop FSAs in host countries nor compelled to adapt business models, structures, and capabilities to host environments and global competitive contexts. As a result, SOEs often underperform internationally. By contrast, but in a similar path-dependent fashion, NSOEs are said to focus on learning, efficiency, and resource-seeking in host environments due to the lack of domestic support (Child and Rodrigues, 2005; Luo and Tung, 2007; Mathews, 2002, 2006), which may in part explain their superior international performance compared to SOEs (Liang et al., 2012; Lyles et al., 2014).

We argue that both viewpoints might be a little deterministic. The IB literature suggests that MNEs’ institutional environments are multidimensional and diverse, and that they can be subject to changes over time (Ahmadjian, 2016; Jackson and Deeg, 2008; Kostova et al., 2008). This, in turn, suggests a more complex and dynamic relationship between FSAs and HCSAs in the case of internationalization. For example, Wang et al. (2012: 655) argues that “[d]ifferent types and levels of governments have different objectives, exert different institutional pressures on [Emerging Market Enterprises], and impact their willingness and ability to internationalize differently.” Institutional conditions in general, and home country institutions in particular, might thus be both enabler and constraint of action, and firms need to learn how to navigate this institutional complexity (e.g. Ahmadjian, 2016). For this reason we argue that the development of FSAs and HCSAs can be highly interdependent over time, that is (1) FSAs may be affected by HCSAs (or the lack thereof), and (2) HCSAs may be affected by FSAs as well. We investigate this notion in detail next.
With our emphasis on interdependence, we not only seek to present an alternative to deterministic viewpoints, but we also counter the frequently expressed notion that HCSAs either dominate FSAs, or FSAs dominate HCSAs. In the former view, HCSAs compensate for the potential lack of FSAs and make the development of the latter less necessary. In fact, having privileged government support can impede learning internationally. This situation has been exemplified by SOEs in the Chinese context (Rugman et al., 2016; Wei and Nguyen, 2017). In the latter view, firms lack access to HCSAs and thus rely on developing FSAs internationally to better compete. This view mirrors studies that emphasize the need of firms to competently respond to institutional constraints (Oliver, 1991; Witt and Lewin, 2007), and develop institutional or political management capabilities to navigate potentially challenging institutional contexts (Oliver and Holzinger, 2008). For example, according to Oliver (1991), firms may ‘choose’ from a range of responses, from acquiesce and compromise, to avoidance, defiance and manipulation. Similarly, Hunt and Morgan (1996: 109) argued that “firms [with institutional disadvantages] attempt to neutralize and/or leapfrog the advantaged competitor through reactive innovation: by better managing existing resources, obtaining the same or equivalent value-producing resource, and/or seeking a new resource that is less costly or produces superior value.” However, to what extent disadvantaged Chinese firms actually avoid institutional constraints, e.g. by ‘escaping’, vs. trying to align their strategies with the home institutional environment is little understood.

We argue that a more nuanced understanding is needed of how potentially differentiated institutional conditions affect firm behavior, to better capture the interplay of FSAs and HCSAs. For this purpose we employ ‘mechanism-based theorizing’ (Davis and Marquis, 2005) which focuses on identifying intermediate principles based on which structures or processes affect decisions or actions. Importantly, different mechanisms, i.e. of how certain institutional structures affect behavior, may co-exist. Also, within the same institutional context, different
types of resources or structures may have different effects based on different logics and mechanisms they employ. Relatedly, we argue that home country institutional conditions may have multiple layers that may affect the same group of firms differently as well as different groups of firms in distinctive ways over time. This, in turn, may influence how or to what extent firms ‘choose’ to respond to institutional constraints. Based on this understanding and the empirical case of Chinese mining firms, we now analyze how SOEs and NSOEs are affected in their internationalization by specific institutional mechanisms shaping their decisions in certain ways and driving the continuous interplay of FSAs and HCSAs.

3. The case of Chinese mining firms

We took an inductive, qualitative case approach to examine how home country institutional conditions affect firm internationalization decisions and performance and the related interplay of FSAs and HCSAs. Qualitative case studies are increasingly applied in international business literature (Birkinshaw et al., 2011; Tsang, 2013) as they allow to better comprehend complex and processual phenomena (Eisenhardt, 1989; Yin, 2014) – here: firms-institutions dynamics in internationalization processes and the specific role of ownership structure. Also, inductive case studies help tackle ‘how’ questions (Tsang, 2014) as implied in our goal of identifying mechanisms by which home institutional conditions affect firm internationalization.

More specifically, we selected the Chinese mining industry as the empirical context for multiple reasons. First, extractive industries (e.g., mining, oil industries) have been among the pioneers in international expansion across countries, including China (e.g. Li et al., 2014), thus providing an important ‘lead case’ for understanding internationalization dynamics. More specifically, the mining industry has been one of the key contributors to the dramatic surge in Chinese outward foreign direct investment (OFDI). Between 2004 and 2014, mining industries accounted for 19.6% of China’s OFDI flow and 14.9% of its OFDI stock (MOFCOM et al.,
Mining has been the leading industry both in terms of its actual transaction amount (17.9 billion dollar) and share (31.4%) in China’s M&As in 2014 (MOFCOM et al., 2015) (see Table 1). Second, the mining industry is strategically important for China’s economic development and national security (Alon et al., 2011; Paleri, 2008), which is why firm strategies in this sector are very much affected by institutional conditions and national priorities. Although China is a leading country in terms of both reserves and the production of many metals and minerals, its international relations and investment policies are also focused on acquiring natural resources abroad to strengthen long-term supply. Also, with expanded government infrastructure spending under the new 13th Five Year Plan (2016-2020), Chinese demand for mineral resources may prove to be stronger than expected, with the result that Chinese mining firms are actively buying up mining assets globally.

Third, the mining industry in China is a great example of recent internationalization dynamics of state-owned enterprises (SOEs) vs. non-state-owned enterprises (NSOEs). Across industries, the share of NSOEs in OFDI involvements has gradually increased (see Figure 1). Historically, SOEs were the only type of Chinese firms that could internationalize from 1979 to 1985. SOEs were strictly monitored and controlled by the state and NSOEs did not own the rights to import or export. With some liberalization during 1986–1991, more SOEs were able to invest abroad if they had adequate funding, technical skills and potential overseas partners (Lu, 2003). During the Acceleration phase, 1992–2000, NSOEs, such as small and mid-sized enterprises, began to engage in FDI (Li et al., 2014), and some Chinese firms became known worldwide. From 2001 to the present, also known as the ‘Take-off phrase’, there has been the most rapid development for Chinese firms’ FDI. At this time, state support became less tied to ownership structure. For example, the 11th China’s 5-Year plan dedicated support to “enterprises with mature conditions to conduct direct foreign investment and transnational operation”.
As the most recent development, the significance of Chinese NSOEs in OFDI has seen a continuous growth (MOFCOM et al., 2015). NSOEs amounted to 46.4% of China’s OFDI stock in 2014 as opposed to merely 19% in 2006 (MOFCOM et al., 2015). Mining has been at the forefront of this development, resulting in private enterprises becoming the main source of Chinese overseas investment (The China Analyst, 2014). Industry experts explain this trend by the fact that many NSOEs acquired experience and skills in resource exploration and “[NSOEs] find it easier to win approvals from foreign governments for energy and resources investments” (Du, 2012). As a result, different ownership types of firms’ OFDI from China have caught International Business (IB) scholars’ attentions in recent years (see Cui and Jiang, 2009; Cui and Jiang, 2012; Lu et al., 2011; Wang and Judge, 2012).

Fourth, firms in the mining industry operate in the context of multiple demands from the home government (Wang et al., 2012), which include profit maximisation, implementation of national strategies (e.g., go global policy and the One Belt, One Road Initiative), supporting the state in achieving long-term interests in the industry (e.g., securing strategically important resources), and maintaining/supporting political performance (e.g., increasing employment in the home country, acquiring an overseas brand).

In sum, the case of Chinese mining firms has particular value for three reasons: (1) it helps better understand dynamics of Chinese OFDI; (2) it represents an industry with strong institutional enablers and constraints; and (3) it helps illustrate firms-institution dynamics with particular emphasis on multiple layers of state support.

4. Data collection and analysis
To examine how home country institutional conditions, specifically with regard to ownership structure, affect firm internationalization, in the context of the Chinese mining industry, we included six cases of Chinese mining firms – three SOEs and three NSOEs – from three major sub-mining industries: iron and steel, gold, and non-ferrous. All firms are of Chinese origin.
with operations in major Chinese locations as well as abroad. Multi-case study designs help strengthen evidence in support of theoretical generalizations (Tsang, 2014; Yin, 2009), for “it can be difficult to separate theoretical relationships found in a case, which are generalizable, from idiosyncrasies associated with the case.” (Tsang, 2014, p. 374). For that purpose, sampling has to be ‘theoretical’ (Eisenhardt, 1989) by purposefully adding partially similar, partially different cases to add robustness and/or to differentiate results (Yin, 2009). For our study we took a similar strategy: by including three SOEs and three NSOEs we aim to add robustness with regard to ownership-related differences, while covering different sub-mining industries to be sensitive to any product-specific differences. The latter, however, were not significant in terms of our main findings, thus adding robustness to our results. Equal numbers of SOEs and NSOEs were selected from each sub-mining industry, to promote robustness within each sub-industry category.

To make a valid comparison and to lower extraneous variation (Eisenhardt, 1989), the selected firms had to meet two criteria: (i) all firms had to be large, ideally in the ‘Top 10’ ranking within their respective sector, as larger firms generally have more internationalization experience (Child and Rodrigues, 2005); (ii) all firms had to have a similar level of foreign market commitment, in terms of the level of investment, whereby firms were to be involved in various kinds of OFDI activities spreading across multiple destinations, since only firms with similar levels of international commitment would be comparable.

Furthermore, the SOEs in this study only refer to those with state ownership of at least 50% of the equity of firms. Notably, state ownership can be at different administrative levels (ChinaValue, 2012). For instance, at the highest administrative level – the state level, SOEs are commonly referred to as Central SOEs; at the secondary administrative level, SOEs are known as Provincial SOEs. The lowest level of state ownership applies to municipal and township level SOEs. One major difference comparing SOEs with different administrative levels of
ownership is the level of state support they enjoy both domestically and in going abroad. In our study, two out of three SOEs are Provincial SOEs, one is a Central SOE. Despite differences in administrative levels of ownership, the main drivers and challenges of internationalization we focused on were very similar. The three firms selected are considered the three largest SOEs in the sector. As for NSOE, while they include various forms of private ownership – ranging from individual to family and mixed ownership, in all cases, they are distinctively different from SOEs in their decision-making, specifically because their decisions are not determined by majority state ownership. In our study, all selected NSOE do without any state-backed shares, which qualifies them as NSOE in the more narrow sense. All three are publicly listed, and they are considered top three (in terms of size) in their respective sectors. Table 2 informs about all case firms included in this study, including ownership model, market position, size, geographical presence, types of businesses involved overseas, and entry modes.

Importantly, for each selected firm, at least six managers at both senior and lower functional levels were interviewed (see Tables 3 and 4). In total, 38 interviews were conducted with managers and employees at SOEs and NSOE. Each interview lasted between 60 and 120 minutes. To complete these interviews, one of the authors who speaks Chinese as her mother tongue visited seven cities in China and Australia (Beijing, Shanghai, Kunming, Zhangjiagang, Chongqing, Hong Kong and Sydney) between 2010 and 2011. The researcher spent between eight and ten hours at each firm. The interviews took place in cafes, offices, and tea houses. Notably, obtaining such data is very difficult, since interview access at large Chinese enterprises is typically very restricted. The author who carried out the interviews used exclusive business contacts to get interview access. One important condition for getting access was to sign a non-disclosure agreement (NDA) (see similar, Ethiraj et al., 2005; Hochberg, 2016; Liu and Maula, 2016). As for interview questions, interviewees were asked for general information.
about the firm, the firm’s history, market positioning, the relationship with the state, motivations for internationalizing, performance of OFDI activities, risk attitude, and future opportunities and strategies. To further increase validity, we also collected secondary data, including annual reports, press releases, news, internal publishing archives, and industry-level reports and business press (Yin, 2014).

All interviews were MP3 audio-recorded and transcribed by the interviewing co-author. Transcriptions contain the interviewer’s and respondents’ precise wording, and were done in Chinese language, yielding nearly 1000 A4 pages. All transcripts were re-read and edited to improve their accuracy, and they were emailed to each interviewee with a request to check the documents for verification. 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). Based on the final version of transcripts, the interviewing co-author carried out a first round of themed coding across interviews, using the interview questions to organize the data. Findings were reported to the co-authors in English language. Based on these discussions, findings were then re-coded in a systematic fashion in order to address the central research question of this study. During the coding process, the interviewing author served as a critical interface between the emerging codes and the original data. We acknowledge that having only one author capable of understanding and reading Chinese was a limitation of our team project. Yet, despite the language issue, we consider our main findings to be highly supported by our data across the six cases. Also, adding robustness to our findings, supplementary industry reports were screened by two authors independently – depending on the language in which they were made available.

Specifically, our inductive multi-step process of data analysis builds on and extends existing insights on Chinese OFDI and the interplay of FSAs and HCSAs. First, we coded each key stage of internationalization – from (1) initial motivation and location choices, to (2) initial
learning and performance, and (3) subsequent expansion decisions. We coded the key sources of HCSAs and FSAs associated with all three stages, whereby we found an important distinction between ‘ownership-based’ resources affecting stages (1) and (3) vs. ‘performance-based’ resources affecting only stage (3). Second, the data was clustered at the firm group level to identify core similarities among NSOE$ and SOE$ respectively, as well as differences between these groups (Miles and Huberman, 1994; Daniels and Cannice, 2004). We thereby carefully looked at potential sources of variation, specifically sub-sector variety and timing of internationalization. The most significant differences, however, emerged from grouping firms into NSOE$ and SOE$. Based on that analysis we were able to compare key HCSA$ and FSA$ for each group, both prior to internationalization (pre-OFDI) and after initial expansion (post-OFDI). Some examples of HCSA$ are listed in Figures 2. Third, we examined the interrelation between HCSA$/FSA$ and stages of internationalization more dynamically, condensing previous findings. The main goal was to identify key institutional mechanisms contributing to the interplay of HCSA$ and FSA$, explaining major differences between SOE$ and NSOE$. These mechanisms are further linked to five dynamics, which we elaborate on below. Fourth, we developed a dynamic model of the interplay of HCSA$ and FSA$, as well as theoretical propositions to inform future research.

5. Research findings

Our data analysis reveals five basic interrelated dynamics between home-based institutional conditions and firm internationalization in the context of the Chinese mining industry. These are: (1) unequal access to ownership-based institutional resources affects internationalization decisions; (2) internationalization decisions interrelate with international performance over time; (3) firms’ international performance gives access to performance-based institutional resources; (4) unequal access to performance-based institutional resources affects further expansion; (5) institutional resource endowments get adapted and reallocated over time. With
regard to the most central dynamics – (1) and (4) – two key mechanisms are discussed that specify how firm behavior is affected by institutional conditions in different ways.

5.1. Unequal access to ownership-based resources affects internationalization decisions

Chinese mining firms differ in the extent to which they can initially access critical resources, such as domestic mineral resources and capital. This difference stems from differences in firms’ ownership structure, whereby SOEs initially enjoy resource privileges based on state ownership. Access to ownership-based resource endowments is performance-neutral because access is granted (or not granted) entirely based on the founding conditions of each firm (here: ownership model). Examples of ownership-based resources are: allocation of domestic mineral resources, access to funding, market access and diplomatic support in internationalization – a feature we elaborate on next. Importantly, China has also increasingly offered a range of ‘performance-based’ resources whose properties we discuss later. Figure 2 displays examples of both ownership-based and performance-based resources available to SOEs and NSOEs. We discuss how these resource endowments get adapted over time under 5.5.

Insert Figure 2

First, we focus on how unequal access to ‘performance-neutral’ ownership-based resources among Chinese mining firms has significantly affected firm international expansion decisions. Depending on ownership model, mining firms either augment or compensate for their home resource base. SOEs’ main motivation to internationalize is to maintain their privileged resource position at home. In exchange, SOEs – much more than NSOEs – are expected to ‘represent’ China abroad and support international relations at the political level. This SOE’s Head of Marketing and International Department (Table 3, S2-6) states:

*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 a NSOE.*
The Head of Investment Department of a SOE (Table 3, S2-4) expresses a similar opinion with more emphasis on Central SOEs:

*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, such as ‘go global policy’.*

This implies that the provision of ownership-based resources is a ‘conditional enabler’ in supporting the international expansion of SOEs under the condition that SOEs represent state interests and follow diplomatic priorities abroad. Ownership-based support thus becomes an institutional control mechanism from the perspective of the state. As we see further below, this also affects the international performance of SOEs as compared to NSOEs.

As a result, SOEs initially follow institutional expectations rather than an economic rationale. Related to this, ‘conformity to other SOEs’ and resulting isomorphism becomes a related driver of internationalization: A functional manager of a SOE (Table 3, S2-5) states:

*Everyone else [other SOEs] 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, then it ought to be the first ranked motive for us.*

However, since SOEs initially enjoy much easier access to institutional resources than NSOEs, it gives them a competitive head start, which forces NSOEs to take a follower position. For example, SOEs are initially much more capable of investing in large-scale and long-term OFDI projects compared to NSOEs, based on government support, the bureaucratic administrative system (favoring SOEs), cheap funds, and human resources.

The Exporting Manager and Head of offshore operations in Guyana (Table 4, N3-4) elaborates on initial ownership-based advantages of SOEs compared to NSOEs as follows:

*The SOEs’ funding advantage is very obvious. If it is massive large overseas investment, we probably cannot handle the opportunity; being constrained by our funding capability. Many large SOEs have fully established divisions including exploration, prospecting, mining, engineering, training, institutions, subsidiaries, which would provide them good talents resources. Like most NSOEs, we are quite limited in these resources.*
The Assistant to Founder and Board Chairman of a NSOE (Table 4, N3-6) lists access to talent as one of the major obstacles to a NSOE:

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 talents. We don’t feel we are capable of driving the project with our current talents. We are stretching ourselves from a managerial perspective and this has become a real challenge for us in our internationalization.

In making internationalization decisions that align with state expectations, SOEs not only maintain resource access at home but also get ‘diplomatic support’ from the government: 1) ‘Initial diplomatic support’ comes from the approval procedures that are controlled and influenced by the provincial and/or state government entities. These procedures co-determine timing, scale, and funding of OFDI projects. 2) ‘Progressive diplomatic support’ assists SOEs when they experience conflicts in overseas operations. For example, SOEs use state government connections to resolve business issues between them and overseas partners in host locations, and to ease access to lower-cost mining equipment and technologies. The Vice Principal of a SOE (Table 3, S3-1) explains:

There is no doubt that the Chinese institutional factors would influence our overseas investments. As we are a 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 Head of Overseas Investment Department of another SOE (Table 3, S2-5) states:

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.
By contrast, NSOEs do not get access to such ownership-based resources thus suffering from an initially disadvantaged position vis-à-vis SOEs. However, unlike SOEs, NSOEs are less constrained in their location choice or in questions of timing and scale of operations abroad. In fact, going abroad allows NSOEs to improve access to critical resources – natural resources, capital, and capabilities. For example, the Founder and Board Chairman of a NSOE (Table 4, N3-1) stresses that the unequal allocation of resources at home ‘forced’ them to start 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 local news report, dated 2010, gave the full story:

*It means this non-ferrous NSOE could only survive for less than 10 years with the firm’s present annual consumption rate of 1 million tons, with these available resources after a major bauxite ore resources allocation to central SOE.*

In sum, both initial internationalization decisions and implementation of such decisions are affected by the mining firms’ domestic ownership structure. This, in turn, has intended and unintended consequences for further expansion abroad as we detail next.

5.2. *Internationalization decisions interrelate with international performance over time*

Access to ownership-based institutional resources (or lack thereof) not only shapes firms’ initial internationalization motivation and decisions but also affects the way firms perform and learn from their international experiences and make follow-up decisions. In a nutshell, more or less pressure to succeed internationally affects the way and extent to which firms develop FSAs in host countries and benefit from internationalization experiences.

As noted above, SOEs’ initial decisions to internationalize are driven and constrained by institutional expectations and conformity. Because of abundant resource access and
privileges at home, SOEs’ internationalization journey is not constrained by resources or driven by the pressure to generate revenue. As a result, SOEs typically do not engage in deliberate learning processes or even seek to increase international performance over time. Moreover, activities in international markets serve to ‘test the water’ and maintain favorable political relations between home and host country. They also affect SOEs’ subsequent location and expansion decisions. For example, several initial projects were implemented in ‘high-risk’ locations such as Russia and Mongolia for political rather than economic reasons. This not only increased the failure rate of SOEs, but also impacted capability development, and subsequent location decisions. The Founder and Board Chairman (Table 4, N3-1) explains:

“The failure rate of SOEs’ OFDI was significantly higher than the NSOEs.... as partially SOEs were not seeking economic performance in OFDI”.

By comparison, NSOEs have been motivated from the start to internationalize by the opportunity to acquire advanced technologies, gather industry information, build networks, improve efficiency and compete better domestically. In other words, their internationalization decisions have been much more ‘strategic’ and driven by a business rationale. This has allowed them to strategically develop unique FSAs and incrementally learn from operating in favorable host environments. The deputy CEO of a NSOE (Table 4, N2-2) states:

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 as a large NSOE from China, it’s been much diversified, thus we are still relatively small and inexperienced. We are really just at our exploratory stage of internationalization. One of the priorities is to learn and gain more international experiences.

The Head of the Australia Subsidiary of another NSOE (Table 4, N1-6) says:

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 internationalised projects.
Initial resource constraints forced NSOEs to become more efficient over time and select projects based on their potential to generate revenue. NSOEs have also been more careful in choosing locations, i.e. their willingness to enter high-risk locations is much lower than in the case of SOEs. Over time, NSOEs would further benefit from more deliberate learning and higher success rates abroad in getting access to resources internationally, e.g. mines, extractive technologies, as well as in developing managerial capabilities, e.g., setting up ‘world-standard remuneration packages’, adopting higher standards in environmental protection, and managing cross-cultural employees. This has encouraged NSOEs to engage further in OFDI.

Finally, whereas SOEs would mainly exploit existing political connections abroad, NSOEs would gradually learn to tap into underutilized institutional resources in host countries, thereby counterbalancing their domestic resource disadvantage. The Founder and Board Chairman of a NSOE (Table 4, N3-1) explains:

*It turned out to be a good thing to be ‘forced’ to go global initially. We have learnt a lot these years and this has broaden our vision. We don’t just focus on our domestic ownership disadvantages any more in terms of getting resources quotas and allocations in China. We are thrilled of having today’s opportunities to compete and cooperate with other companies globally.*

In sum, we find that patterns and consequences of internationalization in the Chinese mining industry have been strongly interrelated with SOEs’ initial reliance on ownership-based institutional resources and NSOEs’ lack of access to such resources. Not only do these initial resource endowments affect initial internationalization decisions but they also affect how firms learn, take risks, and perform abroad. As a result, SOEs and NSOEs typically differ in the way and extent to which they develop FSAs internationally.

5.3. *International performance gives firms access to performance-based resources*

With international experience, however, firms’ competitive position has changed substantially. For example, one NSOE partnered with a world-leading iron and steel multinational
corporation (MNC) to acquire a yield and quality rich iron ore mine in Australia. With this steady, cost efficient, and high-quality iron ore input, this NSOE has rapidly become the number one company in the industry both domestically and internationally, in terms of production volume. As a result, the firm’s initial lack of access to institutional resources at home was counterbalanced by economic success abroad.

Moreover, international performance can give a NSOE access to certain home-based institutional resources, particularly those that are performance-based. One example is a NSOE (non-ferrous) that initially explored international opportunities due to ownership-related domestic mineral reserve constraints. As a result of its OFDI, this NSOE managed to expand its overall resource base, including cheaper production inputs (e.g., electricity), global reputation, better management skills and increased brand value. In other words, this NSOE developed unique and potentially highly transferable FSAs in various host countries. As a consequence, the home country government has started to give this NSOE more privileges in terms of easier access to capital (e.g., from the local banks), human resources (e.g., more experienced talents) and support for OFDI approval (see Figure 2). Whereas these resources would typically be provided mainly to SOEs, the Chinese government would increasingly incorporate a firm’s brand value and international success in their resource allocation process.

Accordingly, the chairman of this NSOE (Table 4, N3-1) explains:

*We have got our municipality government supporting us in many aspects: funding, talents, and regulatory supports. As we have been recognized as ‘quality tax-payer’, they want us to succeed in the global market. It will then not only be the economic gain for the government, but also the reputation and political achievements.*

In other words, given the importance of the mining industry and its international expansion to the Chinese government, the state faced a choice – to support the internationalization of SOEs whose FSAs almost entirely depend on HCSAs, or to support the internationalization of NSOE that develop unique FSAs in international host environments. Our findings suggest that state authorities have recognized the value of NSOE’s FSAs and in turn given NSOE access to
in institutional resources. Examples include access to human resources and financial support for further international expansion.

5.4. Unequal access to performance-based resources affects further expansion

Improved access to home institutional resources, in turn, has enabled high-performing NSOEs to pursue international expansion more aggressively and further improve their competitive position. While both SOEs and NSOEs may potentially access such resources, over time, NSOEs seem to utilize such resources more, partly in response to their initially limited access to ownership-based resources and the related push towards outperforming SOEs. The more strategic use of government support by NSOEs at this point is partly a result of their growing ability to establish ties with governments – first in host countries and later in their home country. The chairman of one NSOE (Table 4, N3-1) illustrates:

*We even assisted the local government to draft their OFDI policies based on our experiences. We worked together with the government officials to communicate with the ministry of commerce and related state level administrative bodies (because we knew which were the right departments to go through). It’s a unique experience we didn’t expect, but it definitely gave us some special bond with the local government.*

Similarly, one NSOE manager stresses the ability of their company to pursue international projects more aggressively thanks to performance-based state support.

*The home governments have been positively influencing the firm’s internationalization. Both the state government and local 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.*

Importantly, the experience of NSOEs abroad – with both international competitors and different host governments – has also been an important learning experience for Chinese government agencies. This also explains their increasing interest in further supporting NSOEs’ internationalization efforts. As a result, especially high-performing NSOEs increasingly
exploit a combination of international FSAs and HCSAs (performance-based institutional resources), which allows them to further expand abroad.

Yet, similar to the case of ownership-based resources, from the perspective of the state, the provision of performance-based resources is another institutional control mechanism. By selectively compensating high-performing NSOEs given their initial lack of access to home-based institutional resources, the Chinese government induces a sense of loyalty among NSOEs and converts potential resistance and escape motives into conformity, while at the same time promoting competition for international success.

In sum, we find that in the context of the mining industry, HCSAs and FSAs of mining firms do not develop independently in the context of internationalization, but they are rather an outcome of a continuous interplay. The differentiation of home-based institutional resources into ownership-based and performance-based is key to this important dynamic.

5.5. Institutional resource endowments get adapted and reallocated over time

The dynamic by which SOEs and NSOEs make internationalization decisions, based on the unequal distribution of ownership-based resource endowments, and their subsequent process of learning and capability development, has triggered a continuous learning process within the institutional support environment in China, in the course of which the relative availability of ownership-based and performance-based institutional resources has changed.

Whereas a few years ago, access to capital and talent was primarily granted based on ownership structure, in more recent years, such resources would be tied more strongly to firms’ performance both domestically and internationally. However, the distribution of ownership-based and performance-based resources is not merely a function of the performance of firms abroad, but has been influenced by a number of factors, including shifting priorities in national industry support programs, but also shifting resource needs.
For example, in 2017 the State-Owned Assets Supervision and Administration Commission (SASAC) drew a ‘red line’ in preventing its 102 major SOEs going forward from investing overseas in real estate, iron ore, petroleum and nonferrous metal. Also, heavily polluting industries or those affected by the fluctuation of global commodity prices will be more strictly monitored by regulators (China Daily, 2017). In turn, the SASAC will focus support on new areas, according to the vice-chairwoman of SASAC Huang:

*The SASAC encourages central SOEs to invest in fast-growing sectors including high-speed railway, nuclear power and high voltage projects in overseas markets, as well as infrastructure and manufacturing projects such as roads, waterways, telecommunication and high-end industries. (cited from China Daily, 2017)*

In parallel, the SASAC has further specified and refined over time the performance criteria based on which SOEs will be supported. These refinements reflect continuous benchmarking of both SOEs’ and NSOE’s performance abroad. For example, SASAC’s Order No. 35 from 2017 stipulates that Central SOEs’ overseas investment must meet the enterprise development strategy and international business planning, focus on the main business, and keep investment risks low. This new policy is clearly a reaction to the experience of SOEs making unnecessarily risky investments in the past, whereas NSOE’s increasingly outperform SOEs based on more strategic and feasible location and investment choices.

Importantly, despite continuous policy adjustments, the Chinese institutional resource environment is far from being a level-playing field for SOEs and NSOE’s. For example, despite easier access to performance-based resources for NSOE’s, and despite greater performance restrictions in allocation of support for SOEs, the latter continue to enjoy ownership-based privileges. For example, access to talent is still very much constrained for NSOE’s. The key point, however, is that FSAs and HCSAs are dynamically interlinked. Chinese mining firms continue to respond to (and rely on) changing institutional environments at home. Plus, their performance abroad has a significant effect on how institutional resource endowments at home
are allocated. It remains subject to speculation why SOEs continue to enjoy important privileges. The very China-specific interlinking of the political and economic system, along with career paths of business leaders and political party members, may be one key driver. However, because SOEs continue to enjoy privileges, NSOEs – more or less intentionally – continue to be pressured to outperform SOEs abroad, which has had a positive impact on the overall performance of the Chinese mining industry abroad.

6. Discussion of case findings

Based on our findings, we now discuss a generic model to better explain the dynamic interplay of firm-specific assets (FSAs) and home country-specific assets (HCSAs) in the context of internationalization. The model extends prior research that showed, based on the example of Chinese firms in particular, that HCSAs may lead firms to neglect building FSAs, and that, in turn, lack of access to HCSAs may push firms to develop FSAs abroad (Rugman et al., 2016; Cui and Jiang, 2012; Liang et al., 2012; Wang et al., 2012; Cuervo-Cazurra et al., 2014). We add nuance to this research by (1) developing a more differentiated understanding of – ownership-based and performance-based – institutional resources and associated mechanisms by which they affect firm internationalization and performance, and by (2) elaborating on the continuous interplay of FSAs and HCSAs. The basic model is displayed in Figure 3. We further derive propositions on FSA-HCSA dynamics below.

To begin with, summarizing our results, we find that five basic dynamics contribute to the continuous interplay of FSAs and HCSAs in firm internationalization (see Figure 3). Key to understanding these dynamics is the distinction between ‘ownership-based’ and ‘performance-based’ institutional resources. Ownership-based resources are made available only to firms with government majority ownership, independent of their performance. They include access
to the best domestic mineral resources and diplomatic support abroad. Performance-based resources are provided based on firms’ performance abroad, such as branding power and financial performance, independent of a firm’s ownership structure. They include easier access to funding, talent and political support.

As the first dynamic (D1) we illustrated how the unequal access of firms to ownership-based institutional resources affects their initial but also subsequent internationalization motivations and decisions (see Figure 3). Those, in turn, affect international performance and learning as well as subsequent expansion decisions, constituting the second dynamic (D2). Combined, D1 and D2 demonstrate one way in which HCSAs may affect the development of FSAs. International performance and learning, in turn, may give firms competitive access to increasingly available performance-based institutional resources at home (D3), which demonstrates how FSAs may affect firms’ access to home institutional resources. As a fourth dynamic (D4), those performance-based institutional resources affect subsequent motivations to further expand internationally, thus demarcating a second way in which HCSAs may affect the development of FSAs. As a fifth and final dynamic (D5), we discussed how the mix and portfolio of available institutional resources at home may change over time, thus also changing opportunity structures for internationalizing firms.

Further, we argued that the provision of both ownership-based and performance-based resources is an important, differentiated and adaptive, institutional control mechanism from the perspective of the state. In the case of state-owned enterprises (SOEs), ownership-based resources serve as ‘conditional enablers’ in aiding SOE international expansion while aligning expansion decisions with national diplomatic and policy priorities. In the case of non-state-owned enterprises (NSOEs), performance-based resources serve as ‘selective compensation’ for initial disadvantages and ways to induce loyalty in particular among high-performing NSOEs, while also promoting competition among NSOEs. The parallel, adaptive availability
of both types of resources further allows the state to accomplish multiple objectives at the same
time – pursuing political and diplomatic objectives with certain countries through SOEs, and
establishing China in global competitive marketplaces through NSOEs. Also it aligns the home
institutional environment with the different – policy-driven vs. performance-driven – logics by
which SOEs and NSOEs conduct business abroad. This, in turn, further explains how the
continuous FSA-HCSA interplay is established and maintained.

Based on these general findings, we can formulate interesting propositions for future
research that extend our understanding of HCSA-FSA dynamics and the firms-institutions-
exus in the context of internationalization. First, we add specificity to the notion that the
unequal distribution of domestic resource endowments affects international expansion
decisions (Bass and Chakrabarty, 2014; Cui and Jiang, 2012; Liang et al., 2012; Rugman et al.,
2016). We argue that the combination of ownership-based and performance-based institutional
resources at home creates complex resource dependencies for both SOEs and NSOEs, which
affect the range of viable strategies these firms may apply.

The case of SOEs seems more straight-forward. Prior research has argued that, based
on ownership-based privileges, SOEs take an advantageous position abroad in being able to
‘exploit their political connections’ (He et al., 2016; Meyer et al., 2014) while benefitting from
complying with government expectations (Cuervo-Cazurra et al., 2014; Duanmu, 2014; Pan et
al., 2014). However we show that the privileges SOEs enjoy are both ‘conditional’ and to some
extent tentative. They are conditional in that SOEs are expected to focus on investing in higher-
risk countries mainly to help pursue specific national policies and priorities. At the same time,
they are tentative in that the overall institutional resource pool is re-negotiated and adapted
year by year, creating uncertainty as to whether privileges can be maintained. This uncertainty,
combined with the inability of most SOEs to compete with NSOEs based on their performance,
makes SOEs very compliant with the state, linking their internationalization strategies with
institutional expectations, including national policy agendas, thus allowing the state to maintain a relatively high level of institutional control.

In the case of NSOEs, our findings are in stark contrast to previous research. Prior studies have indicated that the internationalization of NSOEs is mainly an escape strategy in search for more favorable resource environments (see e.g. Luo and Wang, 2012; Witt and Lewin, 2007; Liang, et al., 2012; Rugman et al., 2016). While our own findings confirm that at least initially NSOEs react to disadvantages in being denied access to ownership-based resources, the introduction of performance-based resources, including access to capital and easer approval of further OFDI, mainly benefits NSOEs over time. Importantly, access to performance-based resources has not only allowed NSOEs to further expand abroad but also to gain a better competitive position vis-à-vis SOEs at home. This, in turn, implies that a pure ‘escape’ or other avoidance strategy has lost its appeal, and instead recurrent bargaining and renegotiating deals with the state – a strategy Oliver (1991) calls ‘compromise’ – has become a much more viable option for NSOEs in response to institutional conditions at home. Thus, the state has been able, by providing both ownership-based and performance-based resources, to maintain a considerable level of institutional control over both SOEs and NSOEs, linking even the international expansion strategies of NSOEs to larger policy agendas, such as building global brands and competing with international industry players.

Importantly in both cases industry context seems to play a key role in linking firm internationalization strategies to the home institutional environment. More specifically, the Chinese mining industry is very much focused on the domestic market even if their resource base is becoming more international (Ghub 2014). Relatedly, domestic competition remains a primary concern for both SOEs and NSOEs. This is why even for NSOEs getting easier access to performance-based resources at home is a potential asset they cannot substitute by
diversifying resource access abroad. Therefore, the following propositions are limited to industries with a strong home market focus. We propose:

P1a: Within highly home market-focused industries, availability of (state-) ownership-based institutional resources promotes an alignment of internationalization strategies of state-owned enterprises with home institutional expectations (e.g. national policies).

P1b: Within highly home market-focused industries, availability of performance-based institutional resources promotes an alignment of internationalization strategies of non-state-owned enterprises with home institutional expectations (e.g. national policies).

We also find that despite making performance-based resources available, ownership-based (i.e. performance-neutral) institutional resources continue to exist and affect why and how Chinese mining firms internationalize. In other words, rather than shifting from one institutional resource regime to another, China maintains a portfolio of ownership-based and performance-based institutional support structures. Above we argued that one driver behind maintaining a portfolio of performance-based and ownership-based resources, along with the discretion to change resource endowments over time, is that it grants continuous government control over business operations abroad (see also Cuervo-Cazurra et al., 2014; Duanmu, 2014; Pan et al., 2014). In so far, we agree with Lu et al. (2014: 242) that “government support in China is more than background conditions, but an active agent” (see also Bruton et al., 2015).

However, there is another interesting, less appreciated dimension to maintaining a portfolio of differentiated institutional resources. Above we argued that because of the different incentive structures, SOEs and NSOEs differ in their location choices and willingness to take financial risks (see also Cuervo-Cazurro et al., 2014; Bass and Chakrabarty, 2014; Rugman et al., 2016). From the perspective of the state, especially in industries, such as mining, that are strategically important to the domestic economy, providing incentives for different propensities to risk-taking may increase the state’s adaptive capacity, i.e. the capacity to cope with unknown future circumstances on a regular basis (Parsons, 1964; Staber and Sydow, 2002). More specifically, under conditions of relative political and economic stability in high-risk host
countries, incentivizing higher-risk investments may pay off in granting access to otherwise hard-to-get resources (e.g. minerals in conflict regions). In situations of greater instability, having alternative access to lower-risk territories may stabilize resource flows and promote resource security. Through a differentiated incentive structure that flexibly allocates capital and funding to high-risk and low-risk oriented firms, a state may increase overall resilience and capacity to adapt to changing political and economic climates. We propose:

P2: In the context of industries that are highly home market-focused and of strategic importance to the domestic economy, availability of a mix of performance-based and ownership-based institutional resources supporting internationalizing firms will allow a state to shift between prioritizing lower-risk and higher-risk foreign investments and increase the state’s adaptive capacity to changing foreign resource environments.

Finally, our findings help specify why for Chinese firms FSA and HCSA development are so tightly interlinked (see also Rugman et al., 2016). Prior studies have emphasized in particular how HCSAs, such as access to ownership-based support systems, have a significant effect on the development of international FSAs, both directly (in case of SOEs) and indirectly (in case of NSOEs) (Wei and Nguyen, 2017; Liang et al., 2012). We confirm this finding by showing that HCSA-FSA directed effects are even two-fold: triggered by both ownership-based and performance-based resources. We also argued that the growing population of internationalizing firms has led the Chinese government to reconsider their institutional support system, expanding the availability of performance-based resources. The emergence of international FSAs has thus changed the character of HCSAs.

However, there is another important dimension to this dynamic. Previous research shows that, in their specific ways, both SOEs and NSOEs engage in effective political management abroad. SOEs exploit diplomatic ties and political connections, whereas NSOEs effectively mobilize support to partly ‘compensate’ for lack of domestic resources (see e.g. Cuervo-Cazurra et al., 2014; Bass and Chakrabarty, 2014). Yet, where do the firm-level management capabilities underlying such exploitation and exploration strategies come from?
Our findings indicate that one driver behind the emergence of “institutional resource access capabilities” may be continuous resource ties of firms to the state combined with continuous changes in the home country institutional resource environment. Under such conditions, only those firms survive and grow that continuously adapt to changing institutional structures and incentive systems. Such a ‘dynamic capability’ (Teece et al., 1997; Oliver and Holzinger, 2008) is partly transferable to other countries, yet its development seems to be also linked to home country conditions. The development of institutional resource access capabilities thus represents a key outcome of the FSA-HCSA interplay – here: in the case of internationalizing Chinese firms in the context of mining. Such a capability may also become a source of sustainable competitive advantage compared to firms coming from less complex and/or more stable domestic institutional environments. We propose:

P3: Within highly home market-focused industries, dependence on and continuous changes of differentiated institutional resource environments at home combined with the need to access institutional resources abroad drive the development of dynamic institutional resource access capabilities of internationalizing firms.

7. Implications for future research

Our findings have important implications for international business research and the role of home country-specific institutional conditions in affecting internationalization, especially in the context of emerging economies. We thereby seek to develop a more dynamic understanding of the firms-institutions nexus (Peng et al., 2009) and the interplay of home country-specific assets (HCSAs) and firm-specific assets (FSAs) (Rugman et al., 2016). Also, our findings have interesting implications for our understanding of outward foreign direct investment (OFDI) of Chinese firms (Cui and Jiang, 2012; Liang et al., 2012).

First, our findings promote a shift from a rather deterministic understanding of how HCSAs affect (or compensate for) FSAs (see e.g. Rugman et al., 2016; Wei and Nguyen, 2017) to a more dynamic view that captures how HCSAs may affect FSA development, and how the
latter may affect the former. Our data suggests that a more nuanced treatment of institutional resource conditions is key to capturing that dynamic. Rather than thinking of home country institutional conditions as a coherent support system or constraint, we show that different types of institutional resources – here ‘ownership-based’ vs. ‘performance-based’ – may benefit firm populations differently over time. This differentiated treatment of home country institutional resources (see also Wang et al., 2012) invites scholarship to think of the linkage between HCSAs and FSAs as a dynamic, multi-faceted one, since access to different institutional resources may be a function of different or changing firm characteristics and time. In this respect, we also show that home institutional resource endowments may change over time, partly in response to resource needs and market performance of firms. This fuels a more continuous interplay of HSCAs and FSAs. We invite future research to study this dynamic interplay across various industries, in particular in industries of strategic importance to nation states, within the context of emerging economies and beyond.

Second, our dynamic treatment of the firms-institutions nexus adds a layer to ongoing research on strategic responses to institutional constraints and resource dependencies (Oliver, 1991). Prior studies have focused on how firms strategically react to institutional conditions, e.g. by complying or escaping (Kostova et al., 2008; Oliver, 1991), or how they attempt to change them in their strategic interests (see e.g. Manning et al., 2012; Patibandla and Petersen, 2002; Phillips et al., 2009). Similarly, in the context of emerging economies in particular, many scholars have framed international expansion as a way to reduce resource dependencies (see e.g. Choudhury and Khanna, 2014; Cuervo-Cazurra et al. 2014). In contrast, we discussed the idea that firm decisions may combine ‘reactive’ and ‘proactive’ dimensions, in the sense that firms may choose to actively ‘maintain’, ‘better’ or ‘adjust’ their position towards (changing) institutional contexts over time. Whereas SOEs in our study attempt to ‘maintain’ their institutional privileges, NSOEs are able to ‘improve’ their institutional position through
development of FSAs. Such processes seem particularly relevant in contexts where firms cannot simply ‘escape’ unfavorable institutional contexts (Rugman et al., 2016; Witt and Lewin, 2007), but where they face longer-term – and even changing – domestic resource dependencies (Pfeffer and Salancik, 1978), especially in contexts where the domestic market is of central importance to the survival of the firm, such as in mining. We expect similar firms-institutions dynamics in highly regulated and strategically important industries in emerging economies, such as infrastructure, telecommunication, pharmaceuticals, medical devices, and construction, which continue to depend for their survival on critical institutional resources. Not least in the context of Chinese overseas investment, multiple industries with mixed ownership models will become more and more important on an international scale (Forbes, 2016). In this regard, the ambitious ‘One Belt, One Road’ initiative is seen as the next accelerator for Chinese companies’ internationalization, including industries such as air transportation, aviation infrastructure and manufacturing, telecommunication, and high-speed trains (EY, 2016). Findings in mining may be very relevant to these contexts as well.

Third, and relatedly, our study extends our understanding of firm-level capability development especially in international contexts. Our findings imply that in order to navigate changing institutional environments, firms need to develop ‘institutional resource access capabilities’, i.e. the ability to tap into various types of institutional resources both domestically and abroad. Prior research argued that in particular large MNEs become good at identifying global opportunities thereby exploiting government support (Yiu et al., 2007; Wang et al., 2012). However, whereas this research focused mostly on host country contexts, we show that changing and ambiguous institutional conditions at home also require firms to develop specific capabilities. They add to the range of capabilities firms develop to adapt and remain competitive (see in general, Helfat and Peteraf, 2003; Sapienza et al., 2006; Teece, 2007). They also constitute an important, rather neglected, dimension of ‘political management capabilities’
Whereas the latter often focus on formal and informal mechanisms of engaging in various political contexts, e.g. adopting norms/standards, lobbying, establishing networks (see Oliver and Holzinger, 2008; Manning et al., 2012), we emphasize the need for firms to understand which institutional resources are or become available and which constraints may apply. Whereas lobbying and active change efforts may not be an option for SOEs and NSOEs in the Chinese context, developing short-term and long-term strategies for tapping into various, changing, institutional resource endowments very much is. We encourage future research to further look into adaptive capabilities firms develop in the face of such complex institutional constraints.

Fourth, our study may require revisiting the debate on how multinationals get embedded in (and adapt to) multiple institutional environments (Kostova et al., 2008; Manning et al., 2012; Phillips et al., 2009). Whereas, for example, Kostova et al. (2008: 999) proposed that isomorphic pressures may not apply as much to multinationals thanks to their exposure to diverse national and regional environments, which may give them “institutional freedom”, we show in our study that especially for SOEs isomorphic pressures do matter a lot in driving their internationalization decisions. By comparison, the notion of “institutional freedom” seems to apply to some extent to NSOEs, who, over time, tap into institutional resources both at home and abroad rather opportunistically. However, even in their case, access to domestic resources and legitimacy seem to remain important factors in the mining sector. This suggests that mechanisms such as isomorphism in multinational decision-making seem to interrelate with both industry structure and domestic institutional context.

Fifth, we add nuance to our understanding of drivers and process of OFDI of Chinese firms (Cui and Jiang, 2012; Liang et al., 2012), thus further adding to our knowledge of how home country conditions may affect internationalization strategies (Cuervo-Cazurra et al., 2014). By exploring access to institutional resources (or lack thereof) as both motivation and
result of internationalization decisions, we shed light on why certain firms (e.g. NSOEs) would be more successful internationally than others (e.g. SOEs) (see e.g. Bhaumik and Selarka, 2012; Cui and Jiang, 2012; Liang et al., 2012; Lu et al. 2011; Rugman et al., 2016). More specifically, our study suggests that Chinese SOEs may develop competitive advantages in exploiting resource endowments, government support, and technologies, but that NSOEs may equally develop competitive advantages in resource access, better funding positions, and reputation over time. This also suggests that in order to understand drivers or processes of Chinese OFDI, it may be insufficient to apply conventional categories, such as market- and resource-seeking FDI motives, or the notion of incremental learning as proposed e.g. by the Uppsala model (Johanson and Vahlne, 1977, 2009). Instead, internationalization decisions may be strongly interlinked with home country institutional decisions and national aspirations (see also Rugman et al., 2016). This has fundamental implications for understanding location decisions, governance models, and performance.

Our study also has several limitations, which need to be addressed in future research. First, while our interview design allowed us to reconstruct firm internationalization decisions and processes retrospectively, we lacked longitudinal data that would be needed to track the interplay of internationalization decisions, performance and institutional responses over time. To this day, however, getting access to such data in the Chinese context is extremely difficult. Second, while mining is an important industry to study, we acknowledge that the interplay between HSCAs and FSAs may differ across industries. However, theoretical generalization and differentiation are continuous processes (Yin, 2003; Tsang, 2013); we thus invite future studies to build on and refine our model based on observations in other sectors. Third, our dataset was limited to insights from Chinese managers operating out of China. To get a more nuanced understanding of international performance and learning processes, data from foreign subsidiaries would need to be included. However, the focus of this study was on capturing
differences between NSOEs and SOEs, in the context of which the Chinese resource environment was particularly important. Future research should incorporate foreign operational contexts to deepen our understanding of FSA-(H)CSA dynamics.

In conclusion, our study has developed a more dynamic understanding of the interplay between home country institutional conditions and firm internationalization. Our study has implications for both economic policy and strategic decision-making. We encourage future research to further investigate the interplay of firms’ international expansion and performance, and national policies and agendas, in sectors where firms rely on home country institutional support and which are of strategic importance to the national economy.

References


FIGURES AND TABLES

Figure 1. Proportions of SOEs and NSOEs in China's OFDI Stock, 2006-2014 (%) 

Source: MOFCOM (2015)

Figure 2. HCSAs available to Chinese mining SOEs and NSOEs over time

<table>
<thead>
<tr>
<th>HCSAs: Ownership-Based Resources vs. Performance-Based Resources</th>
<th>HCSAs available to SOEs</th>
<th>HCSAs available to NSOEs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership-based Resources</strong></td>
<td>Privileged access to mineral resources domestically</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cheap funds</td>
<td>Access to inferior mineral resources domestically</td>
</tr>
<tr>
<td></td>
<td>Human resources</td>
<td>(Lack of access to talent, funding and diplomatic support)</td>
</tr>
<tr>
<td></td>
<td>Diplomatic support abroad</td>
<td>More diplomatic support and funding</td>
</tr>
<tr>
<td></td>
<td>Supporting accountability system</td>
<td>Support with accountability system</td>
</tr>
<tr>
<td><strong>Performance-based Resources</strong></td>
<td>More diplomatic support and funding</td>
<td>Easier funding and access to talent</td>
</tr>
<tr>
<td>(after initial OFDI decision)</td>
<td>Supporting accountability system</td>
<td>More diplomatic support abroad</td>
</tr>
<tr>
<td></td>
<td>Easier approval of OFDI decisions</td>
<td></td>
</tr>
</tbody>
</table>

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Figure 3. The Dynamic Interplay of FSAs and HCSAs

Home CSAs

Unequal access to ownership-based institutional resources: e.g. capital, talent, diplomatic support

Unequal access to performance-based institutional resources: e.g. funding, talent, OFDI approval

International FSAs

Firm internationalization strategy: maintain domestic resource access vs. augment limited resource access

Firm international performance: learning, resource access, financial performance

Table 1. Industrial Distributions of China’s M&As (Top 5), 2014

<table>
<thead>
<tr>
<th>Rank</th>
<th>Industry</th>
<th>QTY</th>
<th>Actual Transaction Amount (Billions of Dollars)</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mining</td>
<td>40</td>
<td>17.91</td>
<td>31.4</td>
</tr>
<tr>
<td>2</td>
<td>Manufacturing</td>
<td>167</td>
<td>11.88</td>
<td>20.9</td>
</tr>
<tr>
<td>3</td>
<td>Production and Supply of Electricity/Heat/Gas and Water</td>
<td>18</td>
<td>9.31</td>
<td>16.4</td>
</tr>
<tr>
<td>4</td>
<td>Information Transmission/ Software and IT Services</td>
<td>36</td>
<td>3.57</td>
<td>6.3</td>
</tr>
<tr>
<td>5</td>
<td>Agriculture/ Forestry/ Animal Husbandry and Fishery</td>
<td>43</td>
<td>3.56</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Table 2. Overview of the six case firms’ profiles

<table>
<thead>
<tr>
<th>Code / Ownership model</th>
<th>Market position / Sales or Total assets in 2011 / No. staff</th>
<th>Host country destinations (in alphabetical order)</th>
<th>Types of business activities (in alphabetical order)</th>
<th>Years of overseas operations in the host countries; entry modes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOE 1 – Iron and Steel Provincial SOE</td>
<td>Fortune Global 500: Annual sales 36.12 billion USD; Staff: Over 110,000 globally</td>
<td>Australia, Belgium, Brazil, Denmark, Germany, Hong Kong, India, Japan, Luxembourg, New Zealand, Peru, Singapore, South Korea, UK, USA, Zimbabwe</td>
<td>Auto Tyre, Building materials, Electronics, Engineering, Financing, Food, Furniture/Lighting, Information centre, Instrumentation, Investment, Manufacturing, Mechanical, Mines, Agriculture, Technology, Textile, Trading (iron and steel products)</td>
<td>1979-2011 (Others); 1992-2011 (Mines) Exporting, Greenfield investments, Joint venture corporations (JVCs), M&amp;As</td>
</tr>
<tr>
<td>NSOE 1 – Iron and Steel Privately owned enterprise</td>
<td>China Fortune Top500: Total assets of 132 billion yuan (approx 22 billion USD); Staff: Over 35,000</td>
<td>Australia, Germany, Hong Kong, Indonesia, Japan, South Korea, Thailand, UAE, UK, USA, Vietnam</td>
<td>Financing, Mines (resources), Trading finished industrial iron and steel products, Trading iron ores, Venture capital</td>
<td>2002-2011 (mines and others); Exporting, JVCs, M&amp;As</td>
</tr>
<tr>
<td>SOE 2 – Gold Central SOE</td>
<td>China Fortune Top500: Total assets more than 653 billion Chinese yuan (approximately 108.8 billion USD); Staff: Over 48,000</td>
<td>Australia, Bolivia, Canada, Ethiopia, Ghana, Guinea, Hong Kong, Indonesia, Kazakhstan, Madagascar, Mauritania, Mongolia, Russia, Tajikistan, Uzbekistan</td>
<td>Exporting large-scale mining equipment, Geological prospecting, Mineral rights, Mines &amp; Resources, Trading (gold)</td>
<td>1984-2011 (Others); 1992-2011 (Mines) Exporting, JVCs, M&amp;As</td>
</tr>
<tr>
<td>NSOE 2 – Gold Privately owned enterprise</td>
<td>China Fortune Top500: Total assets more than 21 billion USD; Staff: Over 89,000</td>
<td>Canada, Hong Kong</td>
<td>Financing, Mines &amp; resources</td>
<td>2011 (Mines &amp; others); JVCs, M&amp;A</td>
</tr>
<tr>
<td>SOE 3 – Non-ferrous Provincial SOE</td>
<td>China Fortune Top500: Total assets more than 44.5 billion Chinese yuan; Staff: Over 20,000</td>
<td>Australia, Chile, Hong Kong, Laos, Myanmar, Thailand, Zambia</td>
<td>Geological prospecting, Mineral productions, Trading</td>
<td>2000-2011 (Mines and others); 1.M&amp;As 2.Joint venture corporations (JVCs)</td>
</tr>
<tr>
<td>NSOE 3 – Non-ferrous Privately owned enterprise</td>
<td>China’s Top 500 Private Enterprises: Total assets more than 1.51 billion USD in 2011; Annual sales 3.01 billion USD in 2011; Staff: &gt;6,000; incl 800 foreign</td>
<td>Guyana, Ghana, Japan, European countries, North American countries</td>
<td>Mineral productions, Mines &amp; resources, Trading</td>
<td>2006-2011 M&amp;As</td>
</tr>
<tr>
<td>Code</td>
<td>Position of Interviewee</td>
<td>Date</td>
<td>Location</td>
<td>Length (mins)</td>
</tr>
<tr>
<td>------</td>
<td>-------------------------</td>
<td>-----------------</td>
<td>-------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>S1-1</td>
<td>Chairman</td>
<td>14/04/2011</td>
<td>Beijing, China</td>
<td>120</td>
</tr>
<tr>
<td>S1-2</td>
<td>Chief Executive Officer (CEO)</td>
<td>15/04/2011</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S1-3</td>
<td>Investment Manager</td>
<td>8/09/2011</td>
<td>Beijing, China</td>
<td>60</td>
</tr>
<tr>
<td>S1-4</td>
<td>Hong Kong Subsidiary investment manager</td>
<td>12/07/2011</td>
<td>Hong Kong</td>
<td>60</td>
</tr>
<tr>
<td>S1-5</td>
<td>Hong Kong Subsidiary CEO</td>
<td>13/07/2011</td>
<td>Hong Kong</td>
<td>90</td>
</tr>
<tr>
<td>S1-6</td>
<td>Head of Administrative Officer</td>
<td>13/09/2011</td>
<td>Beijing, China</td>
<td>60</td>
</tr>
<tr>
<td>S2-1</td>
<td>Vice Principal - Investment</td>
<td>24/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S2-2</td>
<td>Former Vice CEO</td>
<td>23/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S2-3</td>
<td>Former Chief Engineer</td>
<td>22/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S2-4</td>
<td>Head of Investment Department</td>
<td>22/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S2-5</td>
<td>Head of Overseas Investment Department</td>
<td>26/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S2-6</td>
<td>Head of Marketing &amp; International Department</td>
<td>26/07/2010</td>
<td>Beijing, China</td>
<td>90</td>
</tr>
<tr>
<td>S3-1</td>
<td>Vice Principal – Parent group</td>
<td>1/07/2011</td>
<td>Kunming, China</td>
<td>90</td>
</tr>
<tr>
<td>S3-2</td>
<td>Chief Executive Officer (CEO) of Australian Subsidiary</td>
<td>24/05/2011</td>
<td>Sydney, Australia</td>
<td>90</td>
</tr>
<tr>
<td>S3-3</td>
<td>Investment Manager – Parent group</td>
<td>3/07/2011</td>
<td>Kunming, China</td>
<td>90</td>
</tr>
<tr>
<td>S3-4</td>
<td>Board Chairman of Australian Public Listed Company</td>
<td>25/07/2011</td>
<td>Sydney, Australia</td>
<td>90</td>
</tr>
<tr>
<td>S3-5</td>
<td>Divisional Assistant to CEO</td>
<td>17/06/2011</td>
<td>Sydney, Australia</td>
<td>90</td>
</tr>
<tr>
<td>S3-6</td>
<td>Investment Manager- Australian subsidiary</td>
<td>17/06/2011</td>
<td>Sydney, Australia</td>
<td>60</td>
</tr>
</tbody>
</table>
Table 4. List of interviewees of NSOEs

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