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# Risk Perceptions and Risk Management Approaches of Chinese Overseas Investors: An Empirical Investigation

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# Risk Perceptions and Risk Management Approaches of Chinese Overseas Investors: An Empirical Investigation


## Abstract

This paper presents empirical evidence on how Chinese firms perceive and tackle risks associated with their overseas investments. Using a first-hand survey dataset of Chinese firms who invest abroad, we depict variations in (1) the levels of different types of perceived risk, and (2) the risk management approaches taken by these firms. These variations are assessed with respect to three prominent factors: firm ownership structure, investment motives, and the host country institutional quality. Our evidence uncovers a significant degree and pattern of heterogeneity in the strategic behaviour of Chinese investors in risky environments.



**Key Words:** Chinese overseas investment, risk management, ownership structure, investment motives, institutional quality

## 1. Introduction

Investing overseas is a risky business. This is particularly the case for investors from a transitional economy such as China which may be less familiar with overseas markets than their counterparts from industrialised economies. This paper attempts to investigate the perceptions of overseas investment risks by Chinese firms and the influencing factors behind the perceived risks. Specifically, this paper strives to provide answers to the following research question: *What are the different types of risk faced by Chinese firms in overseas markets, and how do these perceived risks, and management approaches to risk, differ across firm ownership, destination institutional quality and investment motives?*

In addressing this question, the concept of risk perception follows the common definition in the literature of risk management and other disciplines, i.e. judgments made by individuals or organisations when they are asked to characterise and evaluate hazardous activities and factors (Slovic 1987). Our focus on (subjective) risk reception as opposed to (objective) actual risks enables us to explore the heterogeneity in firms' evaluations of their overseas investment even when they are facing similar political and economic environment, thus shedding light on the underlying firm-level decision-making process.

The practical prominence of this question is evident in China's ever-growing interest in expanding its economic influence on a global scale. In particular, commencing from its Tenth Five-Year Plan (2001–2005), a legacy of Soviet-style national development agenda, China's "Go Global" policy emphasised a strengthening of the country's position in overseas direct investments (ODI), and was highlighted in its recent global-reaching economic ambition - mostly notably the "Belt and Road" Initiative.[1] With a strong supporting hand from the government, not too surprisingly, China's non-financial ODI has increased exponentially from US$6.9 billion in 2001 (Davies 2013) to a staggering US$118.02 billion in 2016 (MOFCOM 2016), placing the country at the head of the world foreign investment rankings (refer to, United Nations Conference on Trade and Development 2016, p. 6). Researchers and economic analysts

[1] The "Belt and Road" project was launched by President Xi Jinping in 2013 and focuses on exploring and improving new business opportunities and trading links between China and the rest of the world. The project includes six economic corridors passing through over 60 countries across Asia, Europe, the Middle East and Africa. These economic corridor are the: (1) New Eurasian Land Bridge; (2) China-Mongolia-Russia Corridor; (3) China-Central Asia-West Asia Corridor; (4) China-Indochina Peninsula Corridor; (5) China-Pakistan Corridor; and the (6) Bangladesh-China-India-Myanmar Corridor (Eurasia News Online, 2017).

also forecast that China will become the world's largest economy after 2020 (Batten & Szilagyi 2016).

Chinese firms have of course been subjected to a range of research on their ODI activities (Liu *et al.* 2008, Lu *et al.* 2014; Ramasamy *et al.* 2012; Liu *et al.* 2014). However, this paper develops a combined-factor risk perspective on the specific confluence of the role, interaction and influence of three key factors which underpin the market risk perceptions of overseas investors.

This study is facilitated via access to a survey dataset on Chinese firms. Significantly, the paper looks at the conjunction of risk factors (i.e. pertaining to ownership, institutional quality and investment motives) and the implications of this. It complements the extant literature in a range of ways. First, this study builds a link between ODI and risk management from the perspective of the *investing firms' perception about destination markets*. Despite the fact that ODI is subject to various ongoing types of risks in different markets, risk management in the process of internationalisation (particularly for Chinese ODI), is relatively underdeveloped in current international business literature. The existing body of literature, nevertheless, suggests that, in the context of ODI, political turmoil in the target region reduces the likelihood of internationalisation, and also the acquisition of political knowledge about the target market reduces uncertainty (Hilmersson *et al.* 2015). Liesch *et al.* (2011), recognising that risk factors can vary for differing firms in different markets, advocate further empirical insight into this issue as part of a move towards the adoption by the international business literature of a more holistic approach towards risk identification and management. The present study responds to this call. This approach is particularly pertinent, and indeed imperative, in the aftermath and ongoing consequences of the 2008 global financial crisis. Risk management has received increasing attention from academics and policy makers, with a heightened focus on particular categories of risk faced in the internationalisation process including: economic and political risks; cultural differences; and, changes in customer need. (Hilmersson *et al.* 2015). The prescience of these risk factors was responded to by regulatory changes in some developed countries, The UK Corporate Governance Code of 2014, for example, requires that: "directors should confirm in the annual report that they have carried out a robust assessment of the principal risks facing the company, including those that would threaten its business model, future performance, solvency or liquidity" (Financial Reporting Council 2014). Consequently, risk reporting in the annual reports of listed firms around the world has increased significantly

and firms now disclose information about the different types of risks, changes in their risk exposure, and how risks are managed or mitigated.

In the context of Chinese ODI, overseas investment risks also prompt new risk management mechanisms to safeguard overseas investment. At the macro-level, the Chinese government attempts to reduce potential risks associated with ODI through signing "mutual protection agreements" with other countries. At the micro-level, the China's People's Insurance Company provides personal accident insurance subsidies for overseas working expatriates (Luo *et al.* 2010, p.76). Furthermore, to facilitate ODI, the Chinese government regularly collects data on the problems that investors face in the overseas market and these are published in the "Obstacles Report Rules on Investment in Different Countries" (Luo *et al.* 2010). Together, these efforts work to provide a platform for potential Chinese investors in assessing their overseas investment destinations and making investment decisions according to their own risk preferences. Nevertheless, thus far, thorough empirical assessments of the risk exposure of Chinese ODI are scarce, with an exception being Buckley *et al.* (2007) and Han *et al.* (2018) who provide some valuable insights. They state that Chinese ODI is strongly associated with countries exhibiting higher political risk, and that much of the ODI in politically risky countries is partly driven by the close political ties between China and the host countries. Therefore, our exploration of the specific risks associated with Chinese investments as well as the influencing channels would build on and therefore significantly enrich this line of research.

Second, this paper looks explicitly at *firm ownership* and its effects on a firm's self-reported investment motives in the context of ODI risk perception, offering the first evidence on the conditionality of ODI risk perceptions and risk management approaches in respect of firm ownership background and ODI motives. This novel angle is pertinent given the observation that, hitherto, a significant amount of Chinese overseas investment has been, and is being developed, through government investment initiatives, namely: the China "Belt and Road" strategy (see Figure 1), overseas mergers and acquisitions (M&A), foreign contract projects – including projects initiated through built-operate-transfer (BOT), built-own-operate projects (BOO), and public-private partnerships (PPP) (MOFCOM 2016). The existing empirical research on Chinese ODI has established some general evidence on: the determinants and motivations of ODI (Buckley *et al.* 2007; Zhang & Daly 2011); the choice of ODI locations (Ramasamy *et al.* 2012); ODI in emerging markets (Chen *et al.* 2015); ODI in developed

countries (Chen & Tang 2014); ODI by Chinese public firms (Hu & Cui 2014); Chinese multinationals (Deng 2004); and, private enterprises (Huang & Renyong 2014). Our investigation focuses on the role of *ownership structure* and *investment motives in relation to risk* and points to the importance of stakeholders (in particular government background) and ODI drives for understanding ODI behaviour originating from a transitional economy.

[Figure 1 inserted here]

Third, our focus on *destination market institutional quality* (and its interacted effect with firm ownership) aligns closely with the notion of institutional environment in the academic literature. Within the international business commentary, in particular, the degrees and extremes of this issue have been signalled through, for example, the notion of *institutional voids*, namely the: "absence of specialized intermediaries, regulatory systems, and contract-enforcing mechanisms in emerging markets" (Khanna *et al.* 2005, p. 4). Institutional voids occur in an extensive range of varieties and contexts depending on the given national context under examination (Mair *et al.* 2012; Zhou *et al.* 2016). In the case of Chinese overseas investment, as firms go abroad, their business models with "Chinese characteristics" (that are uncommon for western firms) are often faced with unprecedented challenges in dynamic institutional environments (Fang, 1999; Gammeltoft *et al.* 2012), raising a host of challenges for conventional business models. Owing to the paucity of disaggregated data, the literature nevertheless offers a more holistic approach in understanding the relationship between country-level socio-economic factors and the pattern of Chinese ODI without offering much information about how the institutional environment interacts with firm-level characteristics. An investigation of how Chinese firms of different backgrounds perceive and respond to the risk factors in other markets would therefore fill this gap with evidence from a micro-level.

Finally, the design of our study allows identification of perceived market risks for individual firms. Prior research on Chinese ODI utilises both country-level macroeconomic indicators (Buckley *et al.* 2007) and firm-level data (Ramasamy *et al.* 2012; Chen & Tang 2014; Hu & Cui 2014; Huang & Renyong 2014; Chen *et al.* 2015) to explore the patterns and determinants of ODI. Discussing the prescient issues in the emerging market research, Kearney (2012) provides a succinct overview of the risks involved in the internationalisation process, which includes: complexity in contracts' enforcements; protection of patents; governances and compliance costs; higher degree of uncertainty relating to foreign exchange movements;

taxation policies, and political challenges in the overseas destinations. While these studies have extensively investigated how the local and overseas institutional environments determine and facilitate the flow of Chinese ODI, it is nevertheless not clear how risk factors play a role. However, the international business literature has employed risk indices to measure country-level risk. For instance, Brown *et al.* (2015) introduce the Robinson Country Risk Index (RCRI), a tool which incorporates four broad dimensions—Governance, Economics, Operations, and Society (GEOS). These risk-related indices provide a very generic overview about the risk profile of a country, and hence the potential risks associated with different countries are not further decomposed into sub-categories. This makes it difficult for ODI-seeking firms to understand what specific type of risk would be more pertinent to their investment should they decide to enter the international market. From a behavioural economics point of view, firms make investment decisions based on their own subjective perception of risks formed through the utilisation of both public and private information. This facilitates using "perception" instead of employing a homogenous measure of country-level risk, and enables the study to capture not only the heterogeneity in individual perception, but also to uncover the relationship between the macro-level politico-economic environment and the firm-level risk perception at the actual level where investment decisions are made. Thus, our analysis of firm heterogeneity in ownership and investment motives reveals a fuller picture and finer details of the links which are often masked in more aggregate level studies.

The rest of our paper is organised as follows. In Section 2, key hypotheses are developed as benchmark guidance for our empirical examination. Section 3 describes the survey data and the estimation strategy employed in this research. In Section 4, we analyse our findings drawn from our sample of surveyed Chinese ODI firms. Section 5 concludes the paper and offers some interpretation of the results in a broader context.

## 2. Conceptual development and hypotheses

Much of the mainstream ODI research on the determinants and motives of ODI has applied Dunning's Ownership-Location-Internationalisation framework, which suggests three general motives of foreign direct investment, namely: (a) market-seeking, resources-seeking (including strategic assets-seeking), and efficiency-seeking (Dunning 2006a). These theories are developed mainly in the Western context but have been widely used to examine ODI from the emerging economies, including China. Questioning the traditional theories relating to ODI, Buckley *et al.* (2007) argue that China has a unique regulatory and governance environment where capital market imperfections encourage the availability of capital on better terms and

conditions (for example, lower interest rates) for state-owned enterprises. We argue that an agency theory framework, originating from economics and finance, could also provide a useful theoretical lens with which to explore the nature of ODI for Chinese firms with different ownership structures (i.e. state-owned vs. private owned). The motives of ODI are important determinants in making decisions about ODI, but we argue that such decisions are affected by the governance arrangements (i.e. the ownership structures of firms). For example, in Chinese state-owned enterprises, the principal-agent issues are likely to be significant compared with the private enterprises, and hence, a potential conflict of interests between owners and managers may also have implications towards the risk-taking behaviour of a firm. We therefore combine the assumptions relating to the motives of ODI together with the assumptions of agency theory and we argue that different ownership structure may lead to different motives and risk initiatives.

The concepts of 'risk and uncertainty' are often used interchangeably in the international business literature **(**Buckley *et al.* 2016; Han *et al.* 2018). For the purpose of this research, we define risk as the possibility that events will turn out differently than anticipated (Miller & Lessard 2007). We argue that national culture influences risk-taking behaviour of individuals and firms (Schneider *et al.* 2017). Chinese firms engaging in international trade do use financial derivatives to cover against fluctuations in exchange rates (Fei 2012). In particular, after the launching of the 'Belt and Road' initiative and subsequent internationalisation of Chinese RMB, financial derivatives are now valued as one of the important risk management tools by both local and overseas firms trading in China. Empirical evidence shows that the use of derivatives reduces a firm's risk exposure and increase firm value (Bartram *et al.* 2011). After the liberalisation of the Chinese financial markets, state regulators, such as the China Securities and Regulatory Commission (CSRC) and the domestic stock exchanges have played an important role in facilitating the use of such derivatives (International Swaps and Derivatives Association 2017).

Similarly, regulatory bodies around the world also require public listed firms to use a robust internal control and risk management system. Enterprise Risk Management (ERM) is one of the risk management approaches that responds to the identification and management of corporate risk exposure. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines ERM as: *'...a process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its*

*risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.'*[2] The COSO framework is used in the international business literature in assessing ERM strategies for global megaprojects (Kardes *et al.* 2013). We use the fundamental ERM framework developed by COSO in identifying the perceived level of risks faced by the Chinese firms. We also argue that a single universal theory may not fully capture the complex issues involved in the internationalisation of firms and hence, this research employs these multiple theoretical perspectives in exploring the risk perceptions of Chinese firms. In the next section, we develop our hypotheses concerning the perceived level of risks for firms with different ownership structures and motives.

### 2.1. Ownership structure and ODI risks

Managers and shareholders are generally concerned about a number of risks and uncertainties in overseas destinations. ODI are conventionally required to "go through" a tough screening process in identifying and assessing any institutional voids (Khanna *et al.* 2005), potential risks and uncertainties relating to ODI. In the contemporary era, Chinese ODI are operated by: individuals; foreign financial institutions; private enterprises; and, state-owned enterprises (hereafter SOEs). Until 2003, the Chinese private sector was not allowed to participate in ODI, and owing to such restrictions, the share of private ODI in China accounted for only 1 per cent of total ODI between 2003 and 2008. In a recent exploratory study (Huang & Renyong, 2014) of ODI activity by privately-owned enterprise (hereafter POEs) in Zhejiang Province in China found that POEs are increasingly active in exploring overseas markets. This is due to the unfavourable local institutional environment which tends to support SOEs over their private counterparts. For example, it is relatively difficult for Chinese POEs to get financial support from Chinese banks because banks are largely owned by the state and lending to POEs is often considered too high risk (Morck *et al.* 2008). Moreover, SOEs are traditionally considered to be the fundamental pillars of the Chinese economy and corporate regulations in China are purposely developed to support the SOEs (Huang & Renyong 2014).

The degree to which shares in an organisation are majority-owned raises agency problems between majority shareholders and minority shareholders. According to recent statistics from the China Securities and Regulatory Commission, the total number of listed private firms on

[2] For further details about COSO risk management framework, refer to COSO's Enterprise Risk Management – Integrated Framework (2004) at http://www.coso.org/Publications/ERM/COSO_ERM_ExecutiveSummary.pdf

the Shanghai and Shenzhen Stock Exchange reached 2,613, with a market capitalisation of RMB 37.25 trillion and ranking it as the second largest in the world after the United States (China Securities and Regulatory Commission 2014). Around 30 per cent of shares in the listed firms are owned by the Chinese government (Chen *et al.* 2006). In the case of SOEs, the ownership is generally held by the central, provincial, city and local government (Morck *et al.* 2008). Shleifer and Vishny (1986) argue that large blockholders in a concentrated ownership structure could be valuable facilitators in effectively allocating corporate resources, as compared with a dispersed ownership structure with its frequent attendant free-rider issues. However, in the context of China, the concentrated ownership structure in SOEs creates particular agency problems which centre on a principal-principal conflict,[3] suggesting a conflict of interests between majority shareholders and minority shareholders (Clarke 2003). It can be argued that agency problems are likely to result in sub-optimal decision making, having economic implications for firms engaged in the international business. In contrast, POEs are considered to be relatively more efficient in the allocation of resources owing to less agency issues in such organisations.

However, Buckley *et al.* (2007) argue that Chinese SOEs are likely to access capital on better terms and conditions (i.e. below market interest rates) which allow them to invest in high risk projects. The significant influence of the Chinese government may also push SOEs to invest according to the objectives of the state and hence they may invest in countries which are politically affiliated, or considered to be the close ally, of the Chinese government. The international business literature also indicates that state ownership has a significant influence on the internationalisation of emerging market enterprises (EMEs) (Hong *et al.* 2015). On the other hand, POEs, which are likely to have a more limited availability of funds, are more likely to invest carefully when opting for ODI. A weaker legal and institutional environment, or indeed even the possibility of an institutional void, in the overseas markets exposes ODI to a number of unique risks, such as, for example: political risk; exchange rate volatility (Buckley *et al.* 2007); weak government efficiency (leading to corruption); complex tax systems; and, different labour laws and labour unions (Huang & Renyong 2014). Chen *et al.* (2015) found that Western ODI is largely allocated in countries with stronger regulatory environments

[3] The agency theory, which is one of the most cited theories in economics and finance (Jensen & Meckling 1976), raises the issue of principal(owner)-agent(manager) conflicts in modern corporations with dispersed ownership structures. In a concentrated ownership structure, in addition to the traditional principal-agent problems, a conflict of interests between principal (majority shareholders) and principal (minority shareholders) could also have adverse implications on corporate decision making.

(defined by the home countries' rule of law/proprietary rights), while Chinese ODI is equally allocated between strong and poor institutional governance environments. The extant empirical literature on Chinese ODI suggests that POEs are generally risk averse compared with their state-owned counterparts (Liu *et al.* 2008). As POEs are less exposed to the overseas markets, and, owing to their risk-averse nature, we expect that that the perceived level of ODI risk will be higher for SOEs compared to the POEs. We also argue that easy access to credit by SOEs, coupled with principal-agent problems, in SOEs may lead to a choice of high risk investment destinations. We therefore develop the following hypothesis:

***Hypothesis 1:*** POEs have a lower perceived risk, regarding ODI, than SOEs.

### 2.2. The perceived level of risks for different ODI motives

Dunning's paradigm explains that overseas investments from developed countries are driven by market-seeking, efficiency-seeking, and resources-seeking motives (Dunning 2006b). Chinese ODI, which is often both politically and economically-oriented (Wei 2010), potentially aims variously to achieve each of these objectives. The market-seeking motives involve expanding distribution networks and facilitating the exports of domestic producers (Buckley *et al.* 2007). This involves supplying an established line of products to the market of a particular country (Dunning 2008). Chinese firms achieve these objectives by establishing industrial parks and shopping malls in other countries – the industrial park approach tends to be used for large scale manufacturing, and the shopping mall approach is particularly used by small scale retailers (Huang & Renyong 2014). Indeed, the size of a domestic market plays a crucial role and rapidly growing emerging economies are more attractive for Chinese firms in terms of increasing their market shares and profit margins (Buckley *et al.* 2007). The liberalisation of Chinese domestic market has resulted in higher foreign direct investment and competition in certain industries, especially, in the textile sector. As a result of economies of scale arising from large scale production and owing to lower profit margins in the domestic markets, Chinese firms have started exploring overseas markets. The takeover and acquisition of foreign companies is another route by which to sustain existing market or seek new markets for Chinese firms (Dunning 2008).

On the other hand, efficiency-seeking (cost reduction) motives, which often do not describe the core objectives of Chinese ODI, seek to minimise the cost of production. However, a gradual increase in the production costs (particularly the costs of land, and labour) in China provides opportunities for Chinese investors to move their operations from relatively expensive

eastern regions of China to the western areas, and also to less developed neighbouring markets, such as Bangladesh and Cambodia (Huang & Renyong 2014).

In contrast to the above two types of motivation, resource-seeking/strategic asset-seeking is a more debated incentive and widely believed to be one of the fundamental objectives of Chinese ODI (Buckley *et al.* 2007; Ramasamy *et al.* 2012; Huang & Renyong 2014). This involves, for example, investments in countries with large reserves of natural resources (Zhang & Daly, 2011), including developed markets (Australia and Canada) and countries with high political risks (e.g. Democratic Republic of Congo, Sudan, Pakistan and Afghanistan).[4] Investment in such higher risk destinations which possess weaker legal, political regimes are more vulnerable to the different types of risks alluded to in the argument above. Indeed, only SOEs can generally afford to meet the larger capital requirements for such politically-driven investments in these risk-prone destinations. The Chinese investment in natural resources in Africa has been frequently criticised for not "being mutually beneficial", as many Chinese firms prefer to hire Chinese workers instead of employing the local residents, raising concerns among some local communities in relation to these firms resource extraction tendency (Alden & Alves 2009). As China is shifting its investment portfolio in overseas markets, oil and gas and the mining industries still remain the most attractive investment options for Chinese ODI (KPMG 2016). Frankel (2010, p. 34) argues that many less-developed countries endowed with natural resources (oil and minerals and some crops) are likely to have: "poor institutions, such as corruption, inequality, class structure, chronic power struggles, and absence of rule of law and property rights". Together, the empirical evidence on Chinese ODI shows a strong relationship between acceptance of political risk, a willingness to engage with institutional voids or weak environments, and natural resources extraction (Buckley *et al.* 2007; Kolstad & Wiig 2012), and in particular Ramasamy *et al.* (2012) argue that POEs are market seekers and SOEs are attracted to countries with large natural resources. We therefore hypothesize that:

***Hypothesis 2:*** *Firms that are engaged in resource-seeking and/or market-seeking ODI are more likely to report a higher perceived risk.*

### 2.3. Host country institutional quality and perceived level of risk

[4] A recent New York Times article, The World According to China, mapped Chinese investment in high risk political and legal regimes, namely, Afghanistan, Angola, Iraq, Pakistan, Syria, Sierra Leone and North Korea, which are mainly avoided by Western investor. See New York Times article at http://www.nytimes.com/interactive/2015/07/24/business/international/the-world-according-to-china-investment-maps.html

A country's legal system is an important institutional protector for investors' legitimate interests (Ullah *et al.* 2018; Adams *et al. 2018*). La Porta *et al.* (1998) argue that common law systems provide strongest protection for creditors and shareholders' compared with civil law systems. Poor legal protection and poor institutional fabric can lead to corruption, which further increases the cost of doing business and negatively affects the flow of foreign investments (Blonigen 2005). Empirical research on ODI generally shows a positive correlation between the quality of host country institutions and the flow of foreign investments (Gani 2007; Stoian 2013). However, empirical evidence is mixed about the location decision of Chinese ODI with respect to *destination institutional quality*. For example, Chen *et al.* (2015) document that Chinese investment is equally directed to strong and poor governance regimes, while Buckley *et al.* (2007) show that Chinese ODI is attracted to high risk destinations. Morck *et al.* (2008) argue that a considerable amount of Chinese ODI is located in Asian and African countries with "chronically weak institutions". They further assert that compared with their western counterparts in the overseas markets: "Chinese firm are more experienced with such institutional features, and as a result are probably far more capable of dealing with burdensome regulations and navigating around the opaque political constraints". Moreover, while the political ties between the Chinese state and SOEs cannot obviate the challenges of institutional voids and weak institutional settings, they may be useful for marshalling resources, mitigating challenges and creating stability in the environment. Generally, the trade deals between China and other countries are carried out at a high political level, involving the participation of large SOEs. In contrast, with less political backings from the home government POEs are required to carry the cost associated with market related research and management of disputes and conflicts, which can be a very expensive and daunting process (Huang & Renyong 2014). Consistent with the above arguments and prior ODI literature (Blonigen 2005), we develop the following hypothesis:

***Hypothesis 3:*** *The relationship between the institutional quality of the host country and the firms' perceived risk regarding ODI is negative and varies across firms' ownership types.*

### 2.4. Chinese ODI and risk management approaches

SOEs receive substantial government support, so it can be anticipated that any problems encountered in overseas markets would be assisted by the local representatives of the Chinese government (for example, Chinese embassies). Given the lack of encouragement and government support for POEs (Huang & Renyong 2014), it is expected that POEs will rely

more on alternative means, such as seeking protection through the host country legal system, commercial mechanisms (insurance etc.), and seeking informal support from the Chinese community. As the perceived level of risk is different for Chinese ODI in relation to resources-seeking and market-seeking motives, we argue that the risk management approaches would also differ accordingly. For example, the trade deals between China and less-developed countries in Asia and Africa are often politically driven and such agreements are signed and endorsed by the country's top leadership with political insurance of the continuity of such projects. We therefore develop the following hypotheses:

***Hypothesis 4:*** *In countries with strong institutional quality and legal systems, firms rely more on the quality of legal system and other commercial means (e.g., insurance) to manage the risks involved in their ODIs.*

***Hypothesis 5:*** *In countries with poor institutional quality, firms rely on support from the host country government and the Chinese embassies to manage the risks involved in their ODIs.*

Figure 2 diagrammatically summarises the conceptual framework of our research as elaborated above.

[Figure 2 inserted here]

## 3. Research design

### 3.1. Data and variables

Contrary to conventional empirical work on the Chinese ODI, which relies primarily on country-level aggregate statistics, we conducted a *micro-level survey* of firms in China in order to collect information on firm-investing behaviour at the individual level. The survey was conducted as part of a joint project of *China Council for the Promotion of International Trade* (CCPIT), the largest specialist trade promotion association in China, and Zhejiang University. The purpose of this survey was to collect information directly from firms which are members of CCPIT, so as to better understand the patterns and influencing factors of Chinese firms' overseas direct investment. Questionnaires were sent out to around 1,200 randomly selected CCPIT members located in 15 provinces or province-equivalent municipalities,[5] of which 1,090 questionnaires were returned. Out of these returned questionnaires, 289 respondents reported to have had investment abroad.

[5] The 15 provinces province-equivalent municipalities are: Guangdong, Sichuan, Ningxia, Shanghai, Tianjin, Shandong, Anhui, Zhejiang, Henan, Jiangxi, Hunan, Jiangsu, Fujian, Shanxi, and Xinjiang.

The survey included a wide range of questions relating to: firm-specific characteristics (such as ownership structure, firm size, and age); ODI motives; preferred destinations for investment; the perceived level of risks in the overseas markets; and, how these risks are minimised or mitigated. It also distinguished different types of risk a firm may face in ODI: those relating to trade and taxation policies; contract enforcements in overseas markets; security and political barriers; confiscation of assets in a foreign country; corruption; political turbulence and war; and labour relations. Following prior research (Kolstad & Wiig 2012; Stoian 2013; Lu *et al.* 2014; Chen *et al.* 2015), we combine this micro-level data with external measures for host country institutional quality extracted from the Worldwide Governance Indicators, which include control of corruption, government effectiveness, political stability, rule of law, regulator quality, and voice and accountability. In Figure 3, we report the geographical distribution of our sample firms' top three ODI destinations. We observe that developed markets (Australia, Canada, France, Germany, Japan and the United States of America) remain the most preferred destinations for Chinese investors, as evident by the highest number of firms (around 50 and 80) opting for these locations as their top three destinations. Other preferences include resource abundant countries, in particular, those with weak legal systems and those located in close proximity to China (Algeria, Congo, Egypt, Indonesia, Malaysia, Nigeria, Russia, Singapore, and South Africa), while the least preferred destinations include Eastern European and East African countries. The geographical distribution of Chinese ODI also offers preliminary insights into the perceived motives of Chinese ODI in different regions (refer to Hypothesis 2).

[Figure 3 inserted here]

### 3.2. Estimation strategy

The key outcome variables used in this research are the ratings of risk perceived by the firms surveyed. Respondents rated the perceived risk as one of the following five categories: "very low", "low", "modest", "high", or "very high". For the ease of quantitative analysis, we code these five categories as 1 to 5 respectively, with 1 indicating "very low" risk and 5 "very high" risk. It should be noted that the specific assigned value of these risk ratings are not *intrinsically* meaningful. Instead, the numeric values of the risk rating here indicate only the ordering of the degree of risk: i.e. a bigger number indicates a higher risk, however, a risk rating of 4 does not necessarily imply it is twice as risky as a risk coded 2. Therefore, given this ordinal nature of the risk variables, ordinary linear regression methods would lead to bias and are thus not

suitable here. Instead, we used ordered logit models for the estimation of the influencing factors of ODI risks:

$$\Pr(risk_j = i) = \Pr\left(c_{i-1} < \boldsymbol{X}_j + \mu_j \leq c_i\right),$$

where the probably that firm j perceives the risk to take the value of i (i=1,2,…5) is estimated as a linear function of a set of explanatory variables *X*, a random error term $\mu$. The cut points c are the estimated cut off values of the risk score that differentiate the different risk categories, where $c_0$ is $-\infty$, and $c_5$ is $+\infty$. Here the random error μ is assumed to be of a logistic distribution.

Table 1 reports summary statistics for factors relating to ODI risks for both SOEs and POEs. The mean values for the perceived risk factors indicate that the Chinese ODI risks are mainly related to macro-economic conditions of the overseas destinations (SOE=3.182, POE=2.949), trade and taxation policies (SOE=2.745, POE=2.715), contract enforcements (SOE=2.741, POE=2.462), security and political barriers (SOE=2.574, POE=2.481), confiscation of assets by the government (SOE=2.167 POE=2.095), corruption (SOE=2.519, POE=2.269), political stability (SOE=2.759, POE=2.536) and labour relations (SOE=2.800, POE=2.560). In terms of management of these risks, both SOEs and POEs prefer to seek (a) support from the Chinese embassies/Chinese government (SOE=0.800, POE=0.760), (b) managing risks through localisation (SOE=0.733, POE=0.616), and (c) relying on host country legal institutions to resolve their issues (SOE=0.450, POE=0.406).

## 4. Results

The key question of our enquiry was to examine the risks faced by Chinese firms in the overseas markets. To investigate this, we tested our hypotheses relating to the perceived level of ODI risks in respect of: (a) ownership structure; (b) ODI motives; and, (c) host country institutional quality. We also tested how these risks are managed or mitigated by investing firms. We carried out our initial analysis to test our first hypothesis regarding whether and how the perceived risks vary across firms of different ownership structures (SOEs and POEs). To interpret the results from the ordered logit models, the size of the coefficients tells us for a one-unit increase in the explanatory variable, how much the log odds would be changed for the risk to be rated in category *i* or above versus other (lower) categories combined. We control for firm size

category, proxied by a coarse indicator of revenue range, to address the concern that firm size could be correlated with their risk perception; in particular, larger firms may be more immune to risks.[6] To rule out any bias from unobserved industry-specific factors that could influence either, the key explanatory variables, or the dependent variable, industry fixed effects are controlled for throughout the regressions.

The results reported in Table 2 show that the perceived level of risks differ across SOEs and POEs. As expected, the universally negative and in some cases statistically significant coefficients indicate that most risk factors ODI market risks are rated lower by POEs than by SOEs. If we consider risk in the macro-economy for example, the log odds of giving a very high risk rating versus lower rating is nearly 0.5 lower for POEs than for SOEs. The same applies to host country corruption and labour relations.

The risk-averse nature of POEs could partly explain this finding (Liu *et al.* 2008). POEs are largely owned by Chinese families and hence their choices of overseas destinations are very carefully determined. Moreover, we offer two alternative perspectives about this changing attitude of SOEs and POEs. First, SOEs are pushed by the Chinese government to pursue their politically driven economic agreements in risky, institutionally weak and void destinations (Khanna *et al.* 2005). Second, capital market imperfections in China (Buckley *et al.* 2007), the special ownership advantage of SOEs, coupled with unconditional support from the Chinese government, provide more incentives for SOEs to undergo more riskier projects. The results in Table 2 support our first hypothesis that POEs perceived risks of ODI are lower compared with SOEs.

[Table 2 inserted here]

In Table 3, we investigate whether, and if, how perceived risks of all Chinese ODI firms vary according to their investments objectives. We find that market-seeking and resources-seeking firms perceive higher risks in overseas markets than firms of other investment motives. One obvious explanation could be that Chinese investments are generally directed to risky legal and political regimes, enriched with natural resources. The extraction of natural resources at lower

[6] Owing to the nature of the survey, firms were only asked to reveal the broad range of their annual sales revenue. This gives us a categorical indicator of firm revenues: 1 for revenues less than 1 million Yuan, 2 for revenue between 1 million Yuan and 10 million Yuan, 3 for between 10 million Yuan and 100 million Yuan, 4 for between 100 million and 1000 million Yuan, 5 for between 1000 and 10000 million Yuan, and 6 for revenue above 10000 million Yuan. Summary statistics in Table 1 shows that SOEs are on average larger than POEs, although firms are similarly dispersed within their ownership category.

costs, domestic politics and conflicts in less developed countries pose greater risks to Chinese installations and workers.[7] Among others, the significant coefficients in Table 3 indicate that for a one-unit increase in market-seeking motive in ODI, the log odds of perceiving high risk in security and political barriers is 0.72 higher than perceiving lower risk in these areas, suggesting that marketing-seeking investors from China are particularly concerned about political risks. For brand-seeking ODI, however, the log odds for perceiving higher risks is –0.62 lower than perceiving lower risks, suggesting that ODI driven by enhancing their brands in overseas markets are less concerned about security and political barriers, implying that the host country environment is relatively less hostile to such investments than to resources-seeking investment.[8] In contrast, for a one-unit increase in resources-seeking ODI, we see a 0.65 increase in the log odds of perceiving high versus low risk of host country corruption in overseas markets, suggesting that resources-seeking investors are more likely to perceive corruption as a risk factor. The findings in Table 3 lend support to our second hypothesis, indicating that resources-seeking and market-seeking ODI perceive higher risks compared to ODI seeking for more advanced technology and better institutions.

[Table 3 inserted here]

Our literature review highlights how different ownership structures may lead to different investments motives and different risks. In the same spirit, we examine in Table 4 the joint impact of ownership structure and ODI motives on the perceived level of ODI risks. Checking the ownership-specific coefficients of investment motives, the results are generally mixed. For brand-seeking ODI, which is defined as firms seeking to enhance their company or brand image in the international market through overseas investment, POEs perceive consistently lower risks in overseas markets. The finding indicates that brand-seeking investments by POEs are generally welcomed in the overseas markets. While investments from individuals and private enterprises are encouraged, politicians and governments in overseas regions often have nixed

[7] For example, Pakistan has recently deployed 15,000 special security personnel to protect a $46 billion Chinese sponsored economic corridor, including the Chinese workers involved in the execution of the project. Details can be accessed at http://www.dawn.com/news/1277182.

[8] Summary statistics show that ODI with brand-enhancing motives are mostly in high-income markets with good institutional quality. An example of brand-seeking ODI is the Chinese telecom giant, Huawei, which currently own 8.3 % market share in Europe. See for example, http://www.forbes.com/sites/wadeshepard/2016/05/25/chinas-huawei-growing-up-to-become-the-worlds-number-one-smartphone-brand/#dfdf214589a9

views about Chinese ODI, particularly those originating from SOEs with a significant stake of the Chinese government.

[Table 4 inserted here]

To see how host country intuitional quality plays a role in the perceived level of risks, we introduce a firm-specific ODI markets' institutional quality measure. In developing Hypothesis 4, we expect a negative relationship between host country institutional quality and the perceived level of risks for Chinese ODI. More precisely, first we employ a principle components analysis (PCA) approach by constructing a composite index in order to capture a host country's institutional quality, including a number of factors, such as: control of corruption; government effectiveness; political stability; rule of law; regulator quality, and voice and accountability. We then take simple average of the institutional quality measures across a firm's destination markets as an indicator of the average institutional quality a firm faces in its overseas invested markets.[9] According to the results, the models identify that host country institutional quality is negatively correlated with perceived level of risks relating to (a) host country's government corruption, and (b) host country's political turbulence and war. The findings in Table 5 are consistent with Hypothesis 4, implying that strong institutions in overseas markets signal an assurance to Chinese investors for the political security of their investments. The results also signify the mediating role of host country's institutions in dealing with corruption and bureaucracy in overseas markets (Han *et al.*, 2018).

[Table 5 inserted here]

In a similar spirit to Table 4, we test whether the relationship between institutional quality and perceived risks differs between SOEs and POEs. The results in Table 6 again do not in this particular instance produce any statistically significant evidence, implying that institutional quality of the destination market is equally relevant for both SOEs and POEs in contributing to higher perceived risks associated with political governance and stability. This finding however contradicts the general narrative that Chinese investors prefer risky destinations (Buckley *et al.* 2007), less developed countries and countries with weak legal systems (Frankel 2010). One

[9] We also use a weighted average version of this measure with the weight being the share of each market in the firm's ODI portfolio, and the regression results are qualitatively unaffected. See also some of the robustness checks in Appendix.

possible explanation could be that Chinese investment in overseas markets is often highly politically driven, and the close ties between the Chinese government and host countries government (often strengthened by bilateral trade agreement) put extra pressures on Chinese firms to invest in such regions. Our research thus shows that firm-level perception of country-level institution quality may not necessarily coincide with the perception of Chinese government.

[Table 6 inserted here]

We now examine whether the choice of risk management approaches varies according to the institutional quality of the host country.[10] Since firms are allowed to make multiple choices, multinomial logit regressions are not suitable here. Instead, we create binary dummies for each approach and run separate logit regressions with each dummy being the dependent variable. Not surprisingly, what is apparent in Table 7 is that stronger institutional environment (e.g. rule of law) reduces Chinese firms' (both SOEs and POEs) dependency on own security measures and host country government. For a one-standard-deviation increase in average institutional quality (about 2.1 from summary statistics Table 1), the log odds of relying on improving own security or host country government as risk management approaches reduces by around 0.4. This also accords well with the result for commercial means as a risk management approach: as a result of an increase in host countries' institutional quality, standard commercial means (e.g. insurance against potential losses) becomes more of common practice in countering risks. Together, these findings highlight the positive role played by host country's institutions in the risk assessments by Chinese firms, implying that good institutions could significantly save some risk-associated costs. These findings broadly confirm Hypotheses 4 and 5, implying that legal systems and standard commercial means are the popular risk management choices of Chinese ODI.

[Table 7 inserted here]

Naturally, it is interesting to see how risk management approaches do, or do not, differ between SOEs and POEs. To do so, we estimate the interacted effect of ownership type and destination

[10] Due to rather limited statistical power as a result of small subsample size for very finely defined risk management approaches and investment motives, the results for ODI motives are not reported but are available from the authors upon request.

market institutional quality. The findings from Table 8 show that, in terms of risk management, POEs and SOEs do not differ in a systematic way in the impact of institutional quality on the choice of risk management approaches. In other words, host country institution quality plays a consistent role for firms of different ownership types, implying that market institution is important in certain areas regardless of Chinese firms' political background. One reason for the insignificant results according to the ownership structure could be that risk management strategies and firm-level internal control mechanisms are globally converging, and Chinese firms are not an exception to this.

[Table 8 inserted here]

We carried out a number of robustness tests in order to determine whether the results still hold after including alternative measures for country-level institutional quality. Instead of using a simple measure of institutional quality, we calculated the average quality of invested countries' institutions weighted by each country weight in proportion to a firm's total investment. Reported in Tables A1 and A2 in Appendix, the signs and statistical significances of key variables are broadly stable after taking into account the share of each destination in the firm's investment portfolio when computing the firm-specific average destination institutional quality. These findings accord with Hypotheses 4 and 5, where we expect that in countries with strong legal systems (developed economies) Chinese investors rely more on the quality of legal system of the host country, and in countries with weak legal systems Chinese investors seek support more from the host government and Chinese embassies. We checked the robustness of our findings in Appendix tables A1 and A2. We included a weighted measure of institutional quality constructed as the average quality of invested countries' institutions weighted by each country's weight in firm's total investment. On the whole, our main findings relating to the risk management strategies of Chinese ODIs hold in the robustness tests.

## 5. Conclusions and Implications

This paper advances our understanding about the perceived risks faced by the Chinese ODI and the influencing factors. Risk assessment is an integral part of a firm's corporate strategy and firms around the world are increasingly reporting about their level of risk exposure and how these risks are managed or mitigated. While the international business literature provides some insights into the different types of risks that firms may face in an overseas market, our

study provides the first evidence on the specific investment risks perceived by Chinese investors, especially with respect to (a) their ownership structure, (b) ODI motives, and (c) the quality of host countries' institutions. First, our findings show that ownership structure plays a significant role in explaining the risk perception differences across Chinese firms. In general, POEs perceive lower risks compared to their state-owned counterparts. Second, it is found that resources-seeking and market-seeking Chinese ODI companies perceive higher risks in overseas destinations. Third, we also present evidence that quality of institutions in a host country is one of the key factors in shaping the perceived risk exposure of Chinese POEs and SOEs. Specifically, in regimes with strong legal environments, Chinese firms perceive a lower level of risks relating to security and host countries' government corruption. It is implied that the effectiveness of judicial institutions in developed countries (particularly those in the Western world) offers more incentive for Chinese firms to use standard commercial means to pursue their business objectives. Moreover, the sum of these findings also point at the 'realpolitik' of the contemporary China context wherein POEs, in essence, do not receive the same support and access to resources as SOEs. Therefore, as a form of necessity POEs are actually pushed towards ODI as a form of business expansion. They, view this, relatively speaking, is less risk prone than simply operating in the resource constrained environment of their China base. Indeed, it may often also be the case that the institutional quality of operational environment in the ODI context may also be more conducive to their business operations. These findings have practical implications for policy makers and particularly firms seeking to "go global". Currently, the Chinese government has a more prescriptive approach in advising firms in terms of choosing overseas investment destinations and the general risks associated with each region. However, firms with different ownership structure and investment motives perceive unique types of risks which are often not fully captured by national level risk registers maintained by the Chinese government in facilitating overseas investment. It is thus important to recognise the heterogeneity of Chinese firms in the above aspects when evaluating their overseas investment considerations, In particular, a firm-level study helps reveal some influential politico-economic powers that are often hidden in a country- or industry-level study. Together, these findings not only provide preliminary insights about the "Chinese way" of managing risks in the international markets, but also, importantly, uncover the interacted impact of the firm ownership background, investment motives and destination institutional quality in the risk perceptions of Chinese ODI firms, adding a detailed, micro perspective to the existing literature about the behaviour of Chinese overseas investment. In addition, a further implication concerns that as POEs are typically demonstrating less risk averse behaviour in

relation to ODI than SOEs it should be recognised that, by being pushed towards ODI, POEs are, in fact, accumulating significant learning and awareness in relation to these forms of activities. Policy makers should take note of this and find ways of accumulating and assimilating these developing forms of knowledge.

### 6. Future research

Future studies may explore how firm-level internal corporate governance mechanisms and boardroom quality (gender diversity, managerial ownership, independent directors' representation on corporate boards, and directors' political connectedness) would affect the degree of internationalisation and the level of risk exposure of Chinese firms. Finally, from a methodology perspective, a content analysis approach, for example, may provide useful insights about how the different type of risks faced by Chinese multinationals are disclosed in their annual reports. Moreover, development of, and engagement with, a wider range of additional methodological approaches (for example, qualitative vignettes and cases) would enrich and provide a broader range of insights on ODI and complement extant research. This may somehow overcome the limitations associated with traditional survey methods frequently used in the international business literature.

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**Figure 1.** The Six Economic Corridors that Connect China with the rest of the world. Source: Adapted from Eurasia News Online (2017).

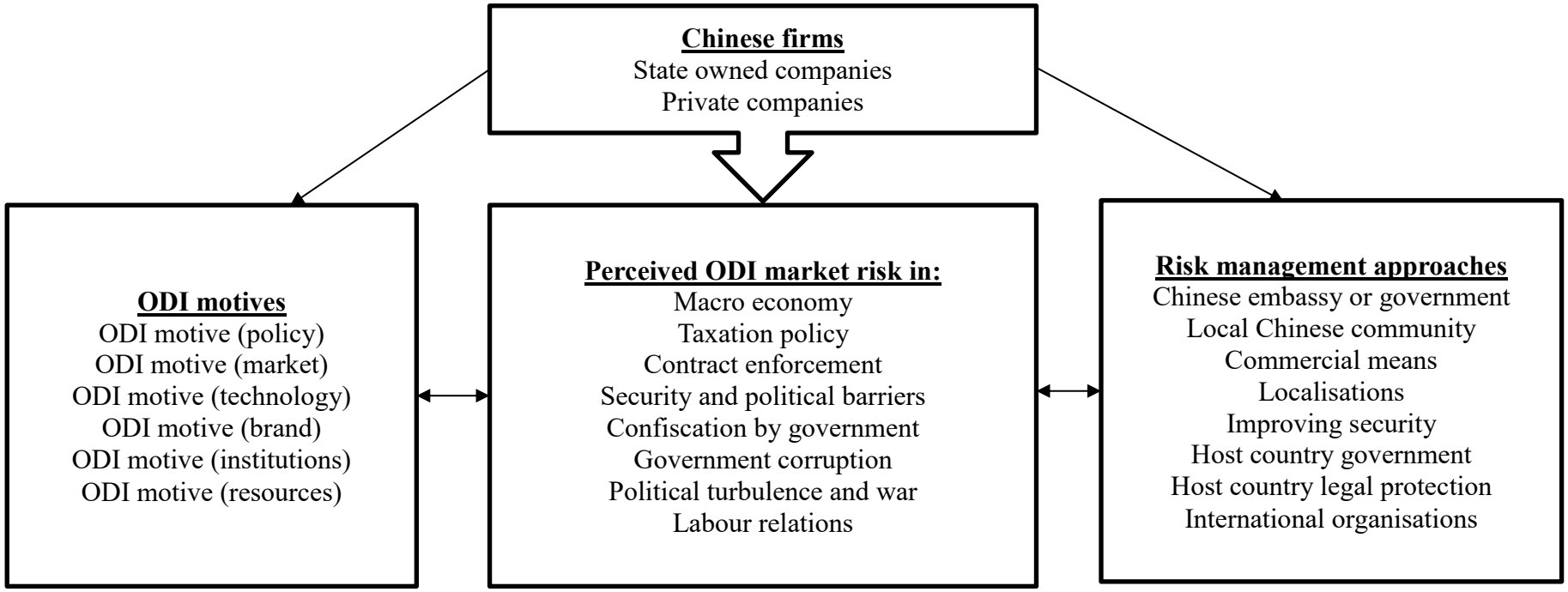


**Figure 2.** Conceptual framework.

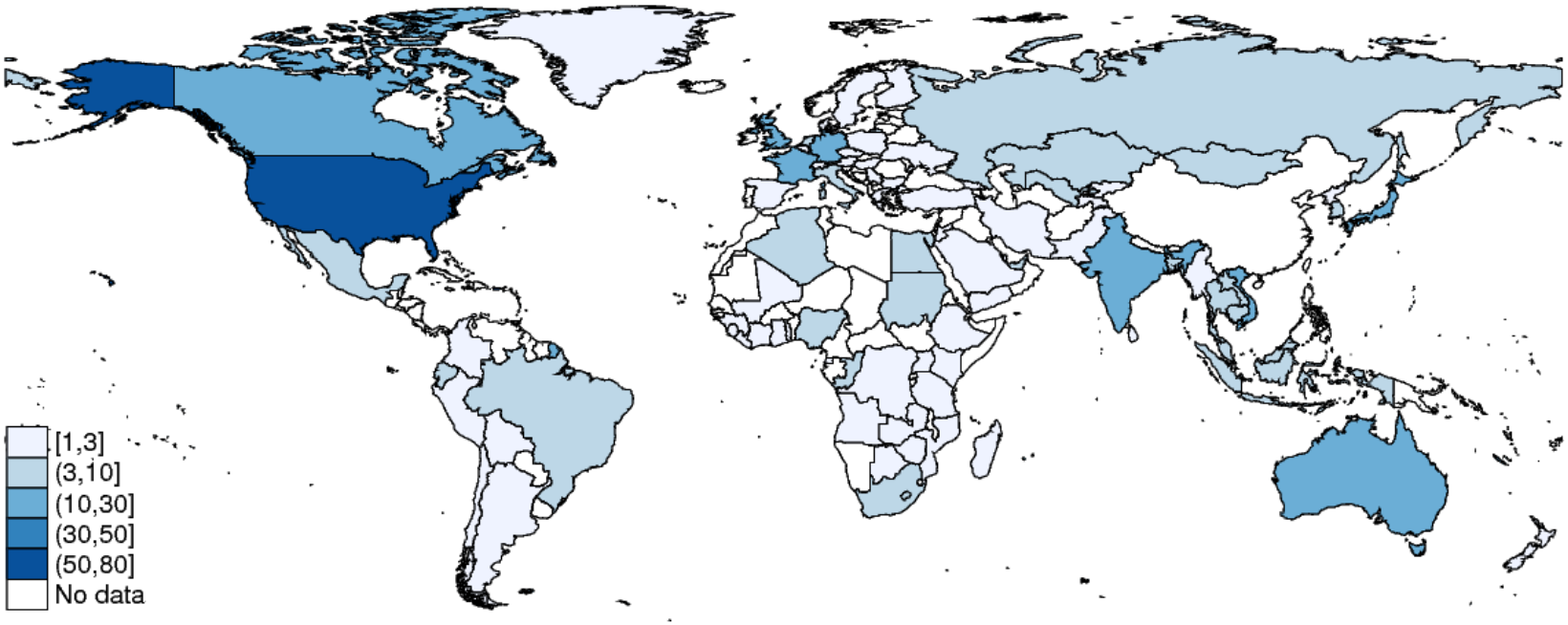


**Figure 3.** Geographical Distribution of Firms' Top Three ODI Destinations (*Numbers indicate the number of firms who selected the country as one of its top three ODI destinations*). Source: authors' own survey.

**Table 1**

Summary statistics of key variables.

| | SOEs | | | | | POEs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Obs. | Mean | SD | Min. | Max. | Obs. | Mean | SD | Min. | Max. |
| ***Perceived ODI market risk in:*** | | | | | | | | | | |
| Macro economy | 55 | 3.182 | 0.905 | 1 | 5 | 195 | 2.949 | 1.044 | 1 | 5 |
| Taxation policy | 55 | 2.745 | 1.075 | 1 | 5 | 186 | 2.715 | 1.029 | 1 | 5 |
| Contract enforcement | 54 | 2.741 | 1.136 | 1 | 5 | 182 | 2.462 | 1.111 | 1 | 5 |
| Security and political barriers | 54 | 2.574 | 0.964 | 1 | 5 | 181 | 2.481 | 1.093 | 1 | 5 |
| Confiscation by government | 54 | 2.167 | 0.966 | 1 | 5 | 179 | 2.095 | 1.074 | 1 | 5 |
| Government corruption | 54 | 2.519 | 0.885 | 1 | 5 | 182 | 2.269 | 1.066 | 1 | 5 |
| Political turbulence and war | 54 | 2.759 | 1.302 | 1 | 5 | 183 | 2.536 | 1.261 | 1 | 5 |
| Labour relations | 55 | 2.800 | 0.911 | 1 | 5 | 182 | 2.560 | 1.100 | 1 | 6 |
| ***Indicators of risk management approaches taken:*** | | | | | | | | | | |
| 1 if relying on Chinese embassy or gov | 60 | 0.800 | 0.403 | 0 | 1 | 229 | 0.760 | 0.428 | 0 | 1 |
| 1 if relying on local Chinese community | 60 | 0.300 | 0.462 | 0 | 1 | 229 | 0.279 | 0.450 | 0 | 1 |
| 1 if relying on commercial means | 60 | 0.400 | 0.494 | 0 | 1 | 229 | 0.376 | 0.485 | 0 | 1 |
| 1 if relying on localisation | 60 | 0.733 | 0.446 | 0 | 1 | 229 | 0.616 | 0.487 | 0 | 1 |
| 1 if relying on improving security | 60 | 0.250 | 0.437 | 0 | 1 | 229 | 0.175 | 0.381 | 0 | 1 |
| 1 if relying on host country gov | 60 | 0.317 | 0.469 | 0 | 1 | 229 | 0.293 | 0.456 | 0 | 1 |
| 1 if relying on host country legal protection | 60 | 0.450 | 0.502 | 0 | 1 | 229 | 0.406 | 0.492 | 0 | 1 |
| 1 if relying on international organisations | 60 | 0.083 | 0.279 | 0 | 1 | 229 | 0.052 | 0.223 | 0 | 1 |
| ***Other variables:*** | | | | | | | | | | |
| Institutional quality (average) | 55 | 0.032 | 2.103 | -3.766 | 2.815 | 218 | 0.035 | 2.165 | -4.761 | 2.885 |
| Firm size category | 60 | 4.500 | 1.214 | 1 | 6 | 220 | 3.568 | 1.282 | 1 | 6 |

Notes: this table reports summary statistics of key variables for SOEs and POEs separately. Source: authors' own survey.

**Table 2**
Perceived risks across investor ownership types.

| | Perceived risk of recent ODI in destination, macro economy | Perceived risk of ODI in destination, trade and taxation policies | Perceived risk of ODI in destination, contract enforcement | Perceived risk of ODI in destination, security and political barriers | Perceived risk of ODI in destination, confiscation by government | Perceived risk of ODI in destination, government corruption | Perceived risk of ODI in destination, political turbulence and war | Perceived risk of ODI in destination, labour relations |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| POE | -0.489* | 0.029 | -0.485 | -0.304 | -0.296 | -0.576** | -0.346 | -0.379 |
| | (0.295) | (0.330) | (0.325) | (0.287) | (0.297) | (0.291) | (0.326) | (0.304) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 243 | 234 | 230 | 230 | 228 | 231 | 232 | 231 |
| Pseudo R-squared | 0.012 | 0.014 | 0.020 | 0.012 | 0.010 | 0.013 | 0.016 | 0.010 |

Note: this table reports how POEs and SOEs have different perceived risks, using results from ordered logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size (revenue) category are controlled for in all models. Source: authors' own survey.

**Table 3** Perceived risks across investor ownership types and ODI motives.

| | Perceived risk of recent ODI in destination, macro economy | Perceived risk of ODI in destination, trade and taxation policies | Perceived risk of ODI in destination, contract enforcement | Perceived risk of ODI in destination, security and political barriers | Perceived risk of ODI in destination, confiscation by government | Perceived risk of ODI in destination, government corruption | Perceived risk of ODI in destination, political turbulence and war | Perceived risk of ODI in destination, labour relations |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| ODI motive (policy) | -0.095 | -0.103 | -0.048 | -0.058 | -0.280 | -0.052 | 0.242 | -0.236 |
| | (0.202) | (0.210) | (0.246) | (0.234) | (0.263) | (0.233) | (0.215) | (0.218) |
| ODI motive (market) | 0.559*** | 0.516** | 0.488** | 0.723*** | 0.440* | 0.302 | 0.465* | 0.129 |
| | (0.213) | (0.221) | (0.233) | (0.251) | (0.250) | (0.243) | (0.247) | (0.209) |
| ODI motive (technology) | 0.312* | -0.177 | -0.166 | 0.049 | -0.151 | -0.270* | -0.295 | 0.259 |
| | (0.184) | (0.165) | (0.164) | (0.182) | (0.170) | (0.156) | (0.193) | (0.172) |
| ODI motive (brand) | -0.227 | -0.434** | 0.099 | -0.615*** | -0.310 | -0.289 | -0.029 | -0.122 |
| | (0.196) | (0.211) | (0.208) | (0.237) | (0.243) | (0.219) | (0.231) | (0.211) |
| ODI motive (institutions) | -0.225 | 0.188 | -0.157 | -0.111 | 0.212 | 0.027 | -0.200 | 0.009 |
| | (0.171) | (0.179) | (0.177) | (0.183) | (0.204) | (0.161) | (0.222) | (0.173) |
| ODI motive (resources) | 0.269* | 0.406** | 0.398** | 0.530*** | 0.446** | 0.652*** | 0.511** | 0.255 |
| | (0.162) | (0.179) | (0.202) | (0.195) | (0.224) | (0.225) | (0.209) | (0.216) |
| POE | -0.655** | -0.006 | -0.420 | -0.361 | -0.315 | -0.527* | -0.330 | -0.500 |
| | (0.318) | (0.368) | (0.347) | (0.315) | (0.331) | (0.317) | (0.341) | (0.339) |
| Own. and ind. fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 229 | 223 | 220 | 219 | 217 | 219 | 221 | 221 |
| Pseudo R-squared | 0.053 | 0.053 | 0.051 | 0.068 | 0.047 | 0.051 | 0.057 | 0.029 |

Note: this table reports how perceived risks vary across investor ownership types and ODI motives, using results from ordered logit regressions. Estimated coefficients are in log odds ratios. Ownership fixed effects, industry fixed effects and firm size category are controlled for in all models. Source: authors' own survey.

**Table 4**
Perceived risks: the interacted role of investor ownership type and ODI motive.

| | Perceived risk of recent ODI in destination, macro economy | Perceived risk of ODI in destination, trade and taxation policies | Perceived risk of ODI in destination, contract enforcement | Perceived risk of ODI in destination, security and political barriers | Perceived risk of ODI in destination, confiscation by government | Perceived risk of ODI in destination, government corruption | Perceived risk of ODI in destination, political turbulence and war | Perceived risk of ODI in destination, labour relations |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| POE | 0.356 | -2.273 | -2.136 | 2.251 | 1.366 | 1.149 | 0.300 | -0.205 |
| | (1.777) | (2.242) | (2.201) | (1.599) | (1.833) | (1.633) | (1.854) | (1.854) |
| POE* ODI motive (policy) | 0.043 | 0.543 | 1.202* | -0.237 | -0.286 | 0.242 | -0.641 | -0.101 |
| | (0.567) | (0.482) | (0.647) | (0.526) | (0.768) | (0.479) | (0.502) | (0.518) |
| POE* ODI motive (market) | -0.465 | -0.507 | 0.466 | 0.370 | 0.406 | -0.580 | 0.054 | 0.445 |
| | (0.656) | (0.616) | (1.011) | (0.845) | (0.788) | (0.624) | (0.786) | (0.654) |
| POE* ODI motive (technology) | 0.316 | 0.398 | 0.599 | 0.574 | 0.347 | 0.117 | -0.058 | 0.655* |
| | (0.451) | (0.388) | (0.415) | (0.349) | (0.377) | (0.297) | (0.330) | (0.360) |
| POE* ODI motive (brand) | -0.362 | -0.531 | -0.872 | -0.902 | -1.086* | -0.521 | -0.022 | -1.427*** |
| | (0.710) | (0.548) | (0.673) | (0.609) | (0.659) | (0.557) | (0.800) | (0.554) |
| POE*ODI motive (institutions) | -0.130 | -0.202 | -0.260 | -0.442 | 0.140 | -0.568* | -0.999*** | 0.136 |
| | (0.351) | (0.402) | (0.511) | (0.342) | (0.370) | (0.317) | (0.385) | (0.365) |
| POE*ODI motive (resources) | 0.427 | 1.073** | -0.767 | 0.065 | 0.241 | 0.977** | 1.714*** | 0.548 |
| | (0.459) | (0.476) | (0.575) | (0.412) | (0.510) | (0.482) | (0.497) | (0.458) |
| ODI motive (policy) | -0.178 | -0.539 | -1.061* | 0.078 | -0.068 | -0.266 | 0.770* | -0.214 |
| | (0.521) | (0.399) | (0.591) | (0.456) | (0.712) | (0.381) | (0.441) | (0.437) |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ODI motive (market) | 0.925 | 0.911 | 0.106 | 0.379 | 0.020 | 0.750 | 0.464 | -0.341 |
| | (0.600) | (0.560) | (0.960) | (0.793) | (0.733) | (0.562) | (0.740) | (0.602) |
| ODI motive (technology) | 0.134 | -0.493 | -0.647* | -0.277 | -0.335 | -0.328 | -0.216 | -0.144 |
| | (0.368) | (0.340) | (0.382) | (0.246) | (0.298) | (0.217) | (0.246) | (0.276) |
| ODI motive (brand) | 0.031 | -0.009 | 0.910 | 0.075 | 0.574 | 0.110 | -0.056 | 1.032** |
| | (0.668) | (0.493) | (0.631) | (0.542) | (0.616) | (0.498) | (0.758) | (0.470) |
| ODI motive (institutions) | -0.152 | 0.321 | 0.009 | 0.180 | 0.081 | 0.406* | 0.427 | -0.156 |
| | (0.260) | (0.344) | (0.473) | (0.251) | (0.276) | (0.243) | (0.280) | (0.276) |
| ODI motive (resources) | -0.073 | -0.466 | 1.035* | 0.508 | 0.241 | -0.052 | -0.768* | -0.187 |
| | (0.413) | (0.423) | (0.530) | (0.337) | (0.445) | (0.395) | (0.424) | (0.363) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 229 | 223 | 220 | 219 | 217 | 219 | 221 | 221 |
| Pseudo R-squared | 0.057 | 0.069 | 0.068 | 0.080 | 0.055 | 0.066 | 0.085 | 0.045 |

Note: this table reports the interacted roles of investor ownership type and ODI motive in shaping perceived risks, using results from ordered logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size categories are controlled for in all models. Source: authors' own survey.

**Table 5**
Perceived risks by investor ownership type and host country institutional quality.

| | Perceived risk of recent ODI in destination, macro economy | Perceived risk of ODI in destination, trade and taxation policies | Perceived risk of ODI in destination, contract enforcement | Perceived risk of ODI in destination, security and political barriers | Perceived risk of ODI in destination, confiscation by government | Perceived risk of ODI in destination, government corruption | Perceived risk of ODI in destination, political turbulence and war | Perceived risk of ODI in destination, labour relations |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Institutional quality | 0.036 | -0.017 | -0.042 | 0.058 | -0.020 | -0.213*** | -0.201*** | 0.075 |
| | (0.065) | (0.060) | (0.062) | (0.060) | (0.055) | (0.058) | (0.061) | (0.059) |
| POE | -0.571* | 0.048 | -0.613* | -0.438 | -0.366 | -0.599** | -0.310 | -0.499 |
| | (0.301) | (0.348) | (0.358) | (0.304) | (0.316) | (0.301) | (0.337) | (0.323) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 234 | 225 | 221 | 222 | 220 | 223 | 224 | 223 |
| Pseudo R-squared | 0.013 | 0.015 | 0.024 | 0.015 | 0.013 | 0.034 | 0.034 | 0.014 |

Note: this table reports how perceived risks vary across investor ownership types and host country institutional quality, using results from ordered logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects are controlled for in all models. Source: authors' own survey.

**Table 6**

Perceived risks: the interacted role of investor ownership type and host country institutional quality.

| | Perceived risk of recent ODI in destination, macro economy | Perceived risk of ODI in destination, trade and taxation policies | Perceived risk of ODI in destination, contract enforcement | Perceived risk of ODI in destination, security and political barriers | Perceived risk of ODI in destination, confiscation by government | Perceived risk of ODI in destination, government corruption | Perceived risk of ODI in destination, political turbulence and war | Perceived risk of ODI in destination, labour relations |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| POE | -0.602* | 0.015 | -0.627* | -0.490 | -0.370 | -0.593* | -0.337 | -0.540* |
| | (0.309) | (0.353) | (0.366) | (0.311) | (0.313) | (0.305) | (0.338) | (0.328) |
| Institutional quality | -0.044 | -0.113 | -0.081 | -0.094 | -0.043 | -0.195** | -0.315** | -0.070 |
| | (0.120) | (0.115) | (0.151) | (0.117) | (0.104) | (0.098) | (0.134) | (0.126) |
| POE*Institutional quality | 0.103 | 0.124 | 0.049 | 0.198 | 0.030 | -0.023 | 0.143 | 0.186 |
| | (0.142) | (0.133) | (0.169) | (0.137) | (0.122) | (0.117) | (0.149) | (0.141) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 234 | 225 | 221 | 222 | 220 | 223 | 224 | 223 |
| Pseudo R-squared | 0.014 | 0.016 | 0.024 | 0.019 | 0.013 | 0.034 | 0.035 | 0.017 |

Note: this table reports the interacted roles of investor ownership type and host country institutional quality in shaping perceived risks, using results from ordered logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size categories are controlled for in all models. Source: authors' own survey.

**Table 7**
Risk management approaches by investor ownership type and host country institutional quality.

| | Managing risks by relying on | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Chinese embassy or government | Local Chinese community | Commercial means such as purchase of insurance | Localisation through employing local workers | Improving security facilities | Host country government | Host country legal protection | International organisations |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Institutional quality | -0.059 | -0.097 | 0.191*** | -0.041 | -0.211** | -0.216*** | 0.051 | 0.071 |
| | (0.073) | (0.071) | (0.067) | (0.064) | (0.083) | (0.070) | (0.065) | (0.137) |
| POE | -0.090 | -0.286 | 0.350 | -0.493 | -0.378 | 0.008 | -0.118 | -0.209 |
| | (0.372) | (0.359) | (0.387) | (0.363) | (0.369) | (0.381) | (0.350) | (0.579) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 248 |
| Pseudo R-squared | 0.038 | 0.051 | 0.100 | 0.048 | 0.068 | 0.086 | 0.044 | 0.113 |

Note: this table reports how risk management approaches vary across investor ownership types and host country institutional quality, using results from logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size category are controlled for in all models. Source: authors' own survey.

**Table 8**
Risk management approaches: the interacted roles of investor ownership type and host country institutional quality.

| | Managing risks by relying on | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Chinese embassy or government | Local Chinese community | Commercial means such as purchase of insurance | Localisation through employing local workers | Improving security facilities | Host country government | Host country legal protection | International organisations |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| POE | -0.078 | -0.276 | 0.356 | -0.487 | -0.347 | 0.018 | -0.131 | -0.249 |
| | (0.375) | (0.354) | (0.386) | (0.365) | (0.380) | (0.388) | (0.350) | (0.596) |
| Institutional quality | -0.024 | 0.005 | 0.207 | -0.002 | -0.294* | -0.263 | -0.009 | 0.008 |
| | (0.171) | (0.138) | (0.151) | (0.161) | (0.156) | (0.161) | (0.138) | (0.210) |
| POE*Institutional quality | -0.045 | -0.132 | -0.021 | -0.048 | 0.110 | 0.061 | 0.078 | 0.096 |
| | (0.192) | (0.160) | (0.167) | (0.178) | (0.182) | (0.180) | (0.155) | (0.278) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 264 | 264 | 264 | 264 | 264 | 264 | 264 | 248 |
| Pseudo R-squared | 0.038 | 0.054 | 0.100 | 0.048 | 0.069 | 0.086 | 0.045 | 0.114 |

Note: this table reports the interacted roles of investor ownership type and host country institutional quality in shaping risk management approaches, using results from logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size category are controlled for in all models. Source: authors' own survey.

# Appendices

**Table A1**
Robustness checks - risk management approaches by investor ownership type and country institutional quality, using alternative measure of institutional quality.

| | Managing risks by relying on | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Chinese embassy or government | Local Chinese community | Commercial means such as purchase of insurance | Localisation through employing local workers | Improving security facilities | Host country government | Host country legal protection | International organisations |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Institutional quality weighted | -0.065 | 0.118 | -0.062 | -0.258 | -0.059 | -0.576** | 0.002 | 0.878 |
| | (0.173) | (0.195) | (0.160) | (0.191) | (0.229) | (0.228) | (0.174) | (1.105) |
| POE | -0.662 | -2.856*** | 0.502 | -1.735** | -0.536 | -0.025 | 0.041 | -36.438 |
| | (0.748) | (1.027) | (0.687) | (0.838) | (0.894) | (0.796) | (0.718) | (28.235) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 58 | 37 | 58 | 58 | 40 | 58 | 51 | 32 |
| Pseudo R-squared | 0.119 | 0.292 | 0.051 | 0.168 | 0.236 | 0.298 | 0.026 | 0.571 |

Note: this table reports the association between institutional quality and risk management approaches, using results from logit regressions. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size category are controlled for in all models. Source: authors' own survey.

**Table A2**

Robustness checks - risk management approaches: the interacted roles of investor ownership type and host country institutional quality, using alternative measure of institutional quality.

| | Managing risks by relying on | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Chinese embassy or government | Local Chinese community | Commercial means such as purchase of insurance | Localisation through employing local workers | Improving security facilities | Host country government | Host country legal protection | International organisations |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| POE | -0.616 | -1.491* | 0.489 | -1.421* | -0.787 | 0.763 | 0.325 | -0.545 |
| | (0.792) | (0.768) | (0.639) | (0.849) | (0.766) | (0.679) | (0.653) | (1.110) |
| Institutional quality weighted | 0.198 | 0.240 | -0.315 | 0.056 | -0.073 | -1.384* | -0.205 | -0.701* |
| | (0.457) | (0.410) | (0.391) | (0.414) | (0.429) | (0.794) | (0.395) | (0.388) |
| POE*Institutional quality weighted | -0.317 | -0.020 | 0.264 | -0.262 | -0.065 | 1.125 | 0.328 | 0.721 |
| | (0.487) | (0.499) | (0.425) | (0.448) | (0.513) | (0.814) | (0.431) | (0.621) |
| Industry fixed effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Firm size category | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs. | 58 | 54 | 58 | 58 | 52 | 58 | 58 | 37 |
| Pseudo R-squared | 0.019 | 0.083 | 0.016 | 0.074 | 0.030 | 0.136 | 0.014 | 0.089 |

Note: this table reports how the relationship between institutional quality and risk management approaches differs between POEs and SOEs, using results from logit regressions. Institutional quality is the average quality of invested countries' institutions weighted by each country's weight in firm's total investment. Estimated coefficients are in log odds ratios. Industry fixed effects and firm size category are controlled for in all models. Source: authors' own survey.