Sub-National Market-Supporting Institutions and Outward FDI:

Evidence of Emerging-Market MNEs into Developed Markets

Victor Zitian Chen[1]
Assistant Professor of International Management
The Belk College of Business
University of North Carolina at Charlotte
and
Global Coordinator, Emerging Market Global Players (EMGP)
Vale Columbia Center on Sustainable International Investment
Columbia Law School – The Earth Institute
Columbia University
EMGP.Editor@gmail.com

Jing Li
Associate Professor of International Business
Beedie School of Business
Simon Fraser University
jingli@sfu.ca

Daniel M. Shapiro
Dean and Lohn Foundation Professor of Strategy
Beedie School of Business
Simon Fraser University
dshapiro@sfu.ca

---

[1] Corresponding author.

Sub-National Market-Supporting Institutions and Outward FDI: Evidence of Emerging-Market MNEs into Developed Markets

Abstract: We propose a twofold institutional effect of home market-supporting institutional development on emerging-market (EM) firms' propensity of entry into a developed market (DM). First, there is a direct effect, as home institutional development of a sub-national region reduces the uncertainty facing EM firms as a result of institutional differences between the EM and DMs, and thus encourages these firms to invest into DMs. Second, there is an indirect effect through the mediation of market-related firm capability; that is, home market-supporting institutional development provides the conditions that induce local firms to create market-related firm capabilities in, for example, technology, branding and marketing, and managerial skills. Using a 2010 firm-level survey of 553 Chinese firms headquartered in 68 different cities and measures of home institutional quality at the city level (and, as a robustness check, at the provincial level), and adopting a causal mediation analysis method, we find very supportive empirical results for the arguments outlined.

Keywords: internationalization; foreign direct investment; emerging market; institutions

Introduction

An institution-based view has evolved as one of the leading perspectives for theorizing international business (IB) and global strategy questions such as why and how firms conduct foreign direct investment (FDI) (Peng, Wang, and Jiang, 2008; Xu and Meyer, 2012). This view captures the complex and rapidly changing relationships between organizations and their surrounding environmental context with respect to institutions, both formal ones, such as laws and regulations, and informal ones, such as norms, cultures, and ethics (Peng et al., 2008).

Two groups of literature dominate the application of the institution-based view in studying FDI issues. The first group, focusing on host-region institutions, argues that more efficient institutions generally reduce uncertainties of doing business in the region, and thus encourage inward FDI and entry by multinational enterprises (MNEs) (e.g., Bevan, Estrin, and Meyer, 2004; Globerman and Shapiro, 2002; Holbum and Zelner, 2010; Meyer and Nguyen, 2005; Mishra and Daly, 2007). The second group focuses on the relationship between the distance or similarity in regulatory, normative, and cognitive institutions between home and host regions, on the one hand, and the legitimacy of an operation under multiple (home and host) institutional pressures, on the other (e.g., Bénassy-Quéré, Coupet, and Mayer, 2007; Kostova and Zaheer, 1999). This literature suggests that larger institutional differences between two regions may discourage FDI between them by creating greater liability of foreignness through potential conflicts between local adaption and internal consistency (e.g., Bénassy-Quéré et al., 2007). Neither group of studies, however, has paid much attention to how home-region institutions influence outward FDI (OFDI) decisions.

The neglect of home-region institutions in these studies is unfortunate, because the studies thus fail to provide valuable insights into how particular characteristics of the home country affect a firm's foreign expansion (e.g., Aharoni, 2011; Cuervo-Cazurra, 2011; Ramamurti, 2008). Cuervo-Cazurra (2011), for example, indicates that a firm's global strategy may be influenced by the home country in two ways: a direct influence whereby the home country serves as an asset or liability through its image as perceived by people in the host country, and an indirect influence whereby the home country induces the firm to create particular adaptive resources and capabilities, which in turn affect the firm's global strategy.

However, we do not want to exaggerate the overlooking of home-region institutions. First, some papers have investigated the home government political supports such as provision of incentives and resources, using the term "institutions" to describe them (e.g., Lin and Jiang, 2010; Lu, Liu, and Wang, 2011; Luo, Xue, and Han, 2010). However, the protectionist-, ad-hoc-, and short-term based natures of these supports limit their possibilities of becoming long-term fundamental institutions – governments may not support domestic firms forever. Second, some other studies have examined the impact of cultural dimensions of institutions on outward FDI (e.g., Makino and Neupert, 2000; Wu, Liu, and Huang, 2011). Both groups of studies, however, have not examined the market-supporting functions of institutions or at the sub-national levels.

This paper aims to fill the gap by examining whether and how home market-supporting institutional development, at sub-national levels, affects OFDI decisions from emerging markets (EMs) into developed markets (DMs). We choose this particular empirical context not only because it is an under-explored area in FDI literatures (Bertoni, Elia, and Rabbiosi, 2008; Buckley, Elia, and Kafouros, 2010; Xu and Meyer, 2012; Yamakawa, Peng, and Deeds, 2008) but also, and more importantly, because it is a way in which the effects of home institutions can be theorized in a more rigorous way. By excluding other EMs and including only DMs as a host region, it is possible to control a relatively stable and similar market-supporting institutional framework of host markets (McMillan, 2007; Peng et al., 2008), ensuring that investing MNEs are mainly concerned with variations in home-region institutions and relatively unexposed to those of host-region institutions in terms of a strong market economy.

We focus on market-supporting institutional development because it is one of the major characteristics of EMs. Literatures have identified two major characteristics of EMs: first, relatively low income with rapid growth; and, second, the development of market-supporting institutions (Arnold and Quelch, 1998; Hoskisson, Eden, Lau, and Wright, 2000). EMs include two broad groups of economies: "developing countries in Asia, Latin America, Africa, and the Middle East and transition economies in the former Soviet Union and China" (Hoskisson et al., 2000: 249).

Markets, to work effectively, need institutions to support them. Market-supporting institutions are rules of the game that "serve to limit transaction costs: the time and money spent locating trading partners, comparing their prices, evaluating the quality of the goods

for sale, negotiating agreements, monitoring performance and settling disputes" (McMillan, 2007: 1). As the second characteristic implies, EMs have adopted a number of measures for developing market-supporting institutions. In China, for example, since the planned economy was abandoned in 1979, a market system has expanded massively: in only about a decade, the number of planned commodities was reduced from 256 categories to 19 categories; industrial production subject to planning declined from 95% to less than 10%; and market pricing replaced administered pricing for 90% of retail products, 80% of agricultural products, and 70% of resource products (Chen and Yang, 2012). In Mexico, between 1982 and 1992, the government privatized 361 of its roughly 1200 state-owned enterprises (SOEs), and the need for policy subsidies was virtually eliminated (La Porta and Lopez-de-Silanes, 1999).

A focus on market-supporting institutions is a new, yet important, way to qualify institutions –not by dimensions, but by functions. No matter how institutions are dimensionalized --political, economic, or cultural, the overall atmosphere of a business ecological environment is shaped by what major functions institutions are structured to support. In the empirical context of EMs, because of the two major characteristics of EMs as mentioned earlier, economic growth through developing the markets tops the list of national strategic priorities, and therefore institutions are structured to support and sustain a market economy.

Specifically, we theorize a twofold effect of the development of home market-supporting institutions in a sub-national region on an EM firm's propensity for OFDI into DMs. First, there is a direct effect, as the development of market-supporting institutions at home reduces the institutional differences between home and host regions, encouraging EM firms to invest overseas into DMs. Second, there is an indirect effect through the mediation of market-related firm capabilities: home institutional development creates the conditions that induce an EM firm to build skills in technology, branding and marketing, and management, which in turn enable the firm to invest into DMs. Empirically, we test our hypotheses in the context of the largest EM, China. Our analyses are based on a firm-level survey of 553 Chinese firms from 68 different Chinese cities. Using causal mediation analysis (Hicks and Tingley, 2011; Imai, Keele, and Tingley, 2010; Imai, Keele, Tingley, and Yamamoto, 2010), we find strong support for our hypotheses.

This study contributes to IB and global strategy research in three important ways.

First, it is among the first attempts to build a conceptual framework to explain the roles played by home-region institutions (focusing on market-supporting institutional development) in OFDI decision making. Prior institutional studies on FDI merely focus on host regions (e.g., Bevan et al., 2004; Meyer and Nguyen, 2005) and institutional distance between home and host regions (e.g., Xu and Shenkar, 2002), while discussions on home-market institutions have been very limited, as suggested by Aharoni, (2011), Ramamurti (2008), and Voss, Buckley, and Cross. (2010) (for a review, see Globerman and Chen, 2010). Whereas previous studies have usually assumed a direct relationship between institutions and FDI (e.g., Globerman and Shapiro, 2002; Mishra and Daly, 2007), our study argues that part of this relationship is mediated through market-related firm capabilities.

Second, in line with some scholars' observations of sub-national institutional heterogeneity in EMs (e.g., Chan, Makino, and Isobe, 2010; Meyer, Mudambi, and Narula, 2011), this study is among the very few attempts to explain the reasons for the existence of sub-national institutional heterogeneity and to analyze its impacts on global strategies in terms of entry decision. It suggests that the conventional way of using nations as boundaries for institutions may be inappropriate for studying EMs (Chen, 2012). Our empirical results in both Papers 1 and 2 suggest very significant effects of sub-national variations in institutional quality. Previous research studying institutions at the national level (e.g., Bénassy-Quéré et al., 2007; Globerman and Shapiro, 2002; Holbum and Zelner, 2010; Mishra and Daly, 2007) disguises the possibility that changes in institutions within the same country over time affect local business activities, and therefore underestimates heterogeneity among firms from the same country when choosing their global strategies (e.g., Aldashev, 2009). Revisiting locational factors at the sub-national level is in line with suggestions by some of the leading IB and global strategy journals. Although traditional literature has tended to view locational factors, including institutions, in terms of national borders, more and more scholars have suggested that the country is not always an appropriate unit of analysis (e.g., Anderson, Beugelsdijk, Mudambi, and Zaheer, 2011; Meyer and Nguyen, 2005). In a recent call for papers for the *Journal of International Business Studies (JIBS)*, for instance, Anderson et al. (2011: 1) suggest that "at the most fundamental level, this [revisiting locational factors at the sub-national level] involves incorporating the impact of sub-national locations on decision-making and performance of multinational enterprises (MNEs)."

Third, this study also adds valuable insights for a better understanding of global expansion of EM MNEs or EMNEs. Previous studies, building on the literature relating to the liability of foreignness (e.g., Eden and Miller, 2004), suggest that large institutional differences between home and host regions discourage FDI between them (e.g., Kostova and Zaheer, 1999). Unlike DM MNEs, EMNEs usually do not possess superior resources and capabilities, such as leading-edge technology and global brands, that would allow them to overcome their liability of foreignness arising from institutional differences (e.g., Eden and Miller, 2004). Therefore, these studies would not have predicted the current large increase in OFDI by EMNEs into DMs.

Some research attempts to explain this phenomenon by arguing that EMNEs are entrepreneurially geared toward exploring strategic assets, such as brands and technology, in a DM, an approach formally termed "asset seeking" (Ivarsson and Jonsson, 2003), "asset sourcing" (Shan and Song, 1997), or "asset augmentation" (Mathews, 2006a, 2006b). Mathews (2006a: 18), for instance, argues that an EMNE "is focused not on its own advantages, but on the advantages which can be acquired externally, i.e. on resources which can be accessed outside of itself." However, these studies ignore the fact that in order to absorb these strategic assets found abroad and therefore stay sustainable, EMNEs may still need to have existing relevant capacity and experience in advance; that is, there may be a mediating role of relevant firm resources and capabilities (Chen, 2012; Narula and Nguyen, 2011). Our study offers another, more nuanced explanation for the rise in EM OFDI to DMs. We argue that sub-national heterogeneity in market institutional development in an EM may lead firms from different regions of the same country to make their decisions about entry into DMs differently. Active EMNEs investing into DMs are those that come from relatively stronger market-supporting sub-national regions and that possess greater market-related firm capabilities such as technology and global brands.

The rest of the paper proceeds as follows: Section 2 reviews the literature and develops hypotheses; Section 3 discusses methods and analyzes the results; and Section 4 concludes by discussing the implications of our findings and suggesting potential extensions.

Theory Development

Institutions and Sub-National Heterogeneity

North (1990: 3-4) defines institutions as the "rules of the game" of a society, including "any form of constraint that human beings devise to shape human interaction." Unlike some earlier work (e.g., Selznick, 1957), North (1990) emphasizes a crucial distinction between an institution and an organization, which, as Polski and Ostrom (1999) explain, can be thought of as a set of institutional arrangements and participants with a common set of goals and purposes (e.g., a government, trade union, church, or university). North (1990) explains that institutions include formal rules, such as constitutions, laws, and regulations; informal constraints, such as culture, social norms, and custom, which extend, elaborate, and qualify formal rules; and enforcement characteristics carried by institutional agents such as lawyers and government administrators. Similarly, Scott (1995) explains that institutions may be regulative, normative, or cultural-cognitive, defining *regulative institutions* as regulative-rule-based orders subject to legal sanctions; *normative institutions* as binding-expectation-based orders subject to moral governance; and *cultural-cognitive institutions* as constitutive-scheme-based orders subject to comprehensible recognition and cultural support. Both North (1990) and Scott (1995) argue that the combination of formal and informal institutions and their enforcement structures the choice set and results in economic and social outcomes.

Countries with a large geographic area and multiple administrative regions are likely to have heterogeneous institutions across sub-national regions. There are three major causes for this heterogeneity. First, according to the resource-based view (RBV) (e.g., Baron, 1995; Barney, 1991; Penrose, 1959) and the environmental contingency argument in biology (Ostrom, 2010; Pfennig and Ledón-Rettig, 2009), organizing systems, like organisms, are initially structured and developed partially as a way to adapt to the available resource endowment of a region. Even when certain formal rules are intentionally designed to be common nationally, the initial institutional framework of informal institutions (e.g., measurement and standards) and enforcement characteristics diverges as different local institutional carriers (e.g., local administrators) confront different problems with different geographic assets (e.g., proximity to raw materials and seaports), with different human capital, and in different climates (North, 1990). A large geographic

area will exaggerate the regional differences in these resources. In China, for instance, although development of export capacity and competitiveness was introduced as a nation-wide policy by the central government in the early 1980s, immediate implementation of the policy occurred only in several populous eastern coastal areas through the building of large-scale export processing zones, because they are closer to labour pool and to the seaports (Wang and Fan, 2004). Second, according to the path-dependence theory of institutional change (North, 1990), once an initial institutional framework is chosen by local administrators, increasing returns characteristic of initial institutionalization will tend to maintain the directions of their divergent paths. Third, because of the imperfect nature of markets (e.g., incomplete information), local administrators tend to have varying perceptions of common formal rules set by a higher hierarchical body, as their decision choice models and the resulting enforcement characteristics are influenced by their local historical experiences and their cultures and beliefs (Ostrom, 1998, 2005).

The sub-national institutional heterogeneity is of greater relevance to firms doing business in large-scaled EMs than in DMs. With a developed national network of physical infrastructures in large-scale DMs such as US, it is relatively easy for companies there to engage in national competition and, if necessary, to relocate their legal headquarters where institutional quality becomes more favourable while maintaining access to timely information through good telecommunications infrastructures and an efficient national supply-chain system of transport and logistics. Such ease of headquarters mobility and national competition will encourage local administrations to pursue market institutions (e.g., taxes and fees, efficiency in starting and closing a business, contract enforcement, etc.) of as good quality as their domestic counterparts, so as to attract inbound investment and retain business headquarters, leading to convergence of market-oriented institutions.

In contrast, in large-scale EMs such as China, India, and Mexico, most domestic firms compete regionally, because their domestic economies are relatively disconnected and disintegrated across sub-national regions, a context much different from DMs (e.g., Chang and Xu, 2008). As a consequence, local sub-national institutional environments create pivotal conditions that shape firm-specific resources and capabilities and, in turn, firms' business behaviours (Meyer and Nguyen, 2005). Therefore, it is important to investigate the impacts of home environment of EMs at sub-national levels on local firms' strategies, such as entry decision and entry mode of OFDI.

Market-Supporting Institutional Development and Sub-National Variations

Markets, to work effectively, need institutions to support them. Market-supporting institutions are rules of the game that "serve to limit transaction costs: the time and money spent locating trading partners, comparing their prices, evaluating the quality of the goods for sale, negotiating agreements, monitoring performance and settling disputes" (McMillan, 2007: 1). Market-supporting institutions are important because they are a fundamental cause of long-term growth in a country (Acemoglu, Johnson, and Robinson, 2005; Rodrik, 2000): they ensure that property rights are respected and protected, promises are trusted and enforced, that competition is fostered, and that information flows smoothly (McMillan, 2007; Peng, 2002; Tan, 2002). As noted above, development of market-supporting institutions is a major characteristic of EMs (Hoskisson et al., 2000; Wright, Filatotchev, Hoskisson, and Peng, 2005) and continually fuels rapid economic growth in these markets (Beck and Levine, 2005; Dunning and Lundan, 2008; Globerman and Shapiro, 2003; Llewellyn, 1925; Seyoum, 2009). Tan (2002), for example, conducted a quasi-experimental design to isolate the role of cultural and national differences among mainland Chinese, Chinese Americans, and Caucasian Americans, and found that it is the development of market-supporting institutions that has freed the growth of entrepreneurship in China.

Although there has yet to be a conclusive list of all detailed dimensions of market institutions, existing studies have provided evidence as to which market institutions are most important for economic and business activities (e.g., Acemoglu and Johnson, 2003; Bevan et al., 2004; McMillan, 2007). They generally include three key components: respect for and protection of private property rights, notably control and ownership (e.g., Acemoglu and Johnson, 2003; Rodrik, 2000); an effective and stable regulatory system (e.g., Rodrik, 2000); and the liberalization of domestic and international markets (e.g., Bevan et al., 2004). First, respect for and protection of private property rights supports markets by providing adequate private control over return on assets and thus inducing entrepreneurs to accumulate and innovate. In EMs, strong protection of private property rights is usually reflected (and proxied) by the strong presence of a private-sector economy (Bevan et al., 2004). Second, an effective and stable regulatory system supports markets by preventing fraudulent or anti-competitive behaviours and formalizing procedures to reduce transaction uncertainty (Rodrik, 2000). Third, the liberalization of domestic and international economies supports markets by reducing

government-imposed transaction costs and ensures competition (Bevan et al., 2004). In practice, these institutional qualities are interdependent and correlated (e.g., Aldashev, 2009). Aldashev (2009), for example, suggests that countries that score high on property-rights protection usually also score high on legal enforcement of contracts. Largely because of such general correlations, this study does not try to disentangle market-supporting institutions into specific independent and uncorrelated domains. Instead, we study the joint effects of all the three components.

As we have argued above, sub-national variations in market-supporting and other institutions exist in large EMs. For example, in China, the largest EM, since the adoption of market-oriented institutional reform in 1979, different regions have developed market-supporting institutions to varying degrees (e.g., Boisot and Meyer, 2008; Li and Yao, 2011; Lu et al., 2011). First, the national strategy of market liberalization, a formal rule, initially favoured selective coastal regions such as Shenzhen, Zhuhai, Xiamen, Shantou, and Hainan by setting up special economic zones (SEZs) in these regions to promote export processing (Fujita and Hu, 2001; Sauvant, Zhao, and Huo, 2012). Second, governments at different sub-national levels have considerable authority to formulate their own follow-up formal rules, such as reform policies in the areas of fiscal systems (Jin and Zou, 2005), education, health, agriculture, and social welfare (Caulfield, 2006). Third, informal constraints such as customs for doing business are historically and culturally different across regions in China (Du, Lu, and Tao, 2008), which has led to different degrees of support for a legal and market system. Du et al. (2008), for instance, find that in Beijing and Tianjin regions, which historically have had a higher social respect for and trust in authorities, people facing business disputes are more likely to resort to local government officials for intervention, as opposed to independent market arbitrators, than are those in Shanghai and Guangdong, although all these cities are at about the same level of economic development. Fourth, although some formal rules, such as business laws and regulations, are enacted nationally, it is the local administrators – usually at the provincial level – who enforce or circumvent them (Amit, Ding, Villalonga, and Zhang, 2010; Cole, Elliott, and Zhang, 2009; Qian and Stiglitz, 1996; for China's levels of administration, see Figure 3). Cole et al. (2009), for instance, found that during the period 1998-2003, the rate of investigation of economic corruption cases such as bribery was about two times as high in Tianjin and Heilongjiang as in western provinces such as Gansu and Sichuan.

Insert Figure 1 here

Direct Institutional Effect

Home institutions are important because headquarters play an important role for managing MNEs (e.g., Andersson and Holm, 2010). Scholars observe that most MNEs from EMs such as China adopt a global strategy with high integration with home markets, as opposed to a multi-domestic strategy; that is, they largely concentrate their production and management in their home location while expanding abroad (Luo and Tung, 2007; Wei, 2010). Luo and Tung (2007), for instance, argue that OFDI activities by EMNEs are recursive, involving both recurrent activities (acquisitions of foreign assets to overcome disadvantages in brand awareness and international reputation, followed by acquisition of a foreign logistics or distribution company to overcome disadvantages in accessing a foreign market) and revolving activities (outward investments are strongly integrated with activities back home). Wei (2010: 79) adds that "particularly in terms of revolving activities, home countries *of Chinese* MNEs still serve as the manufacturing centres (component, semi-products, and products) for their worldwide operations" (italics added).

Building on the literature on the liability of foreignness (e.g., Hymer, 1976; Kindleberger, 1969; Zaheer, 1995; for a review, see Eden and Miller, 2004) and an organizational legitimacy perspective (Dowling and Pfeffer, 1975; Scott, 1987, 1995), scholars argue that MNEs are discouraged from entering an institutionally different host region (Kostova, 1999; Xu and Shenkar, 2002; Boisot and Meyer, 2008; Yeung, 2006). The reason for this is that in a different institutional environment, it is difficult for firms to achieve organizational legitimacy, defined as "the acceptance of the organization by its environment" (Kostova and Zaheer, 1999: 64). Foreign affiliates highly integrated with MNEs' home business are largely "subject to institutional pressures from the parent firms" (Xu and Shenkar, 2002: 611). Meanwhile, MNEs doing business abroad face costs arising from unfamiliarity with a host market's institutional profile (Ionascu, Meyer, and Estrin, 2004; Gaur and Lu, 2007; Phillips, Tracey, and Karra, 2009; Xu, Pan, and Beamish, 2004), which in turn challenge the viability of their foreign subsidiaries because of "conflicting demands for external legitimacy (or local responsiveness) in the host country and international consistency (or global integration) within the MNE system" (Xu and Shenkar, 2002: 210). Therefore, more environmental differences between home and host regions, in terms of institutions, will lead to less OFDI. This notion is consistent with some empirical

findings based on country-level observations. Using a panel sample of annual bilateral FDI among 123 countries from 1985 through 2000, for example, Bénassy-Quéré et al. (2007) measure institutional difference as the absolute difference between home and host countries in the first principal component index of nine institutional measures (1. political institutions; 2. safety, law and order, control of violence; 3. functioning of public administrations; 3. free operation of markets; 5. condition of actors, strategic vision, innovation; 6. security of transactions and contracts; 7. market regulations, social dialogue; 8. openness to the outside world; 9. social cohesion and mobility), and find that institutional difference has a negative effect on bilateral FDI.

Specifically, from a parent firm's perspective, differences in market-supporting institutions between home and host regions create difficulty in understanding and correctly interpreting market-related requirements, as well as the extent of adjustment required, which results in high external environmental uncertainties. We explain this following the three key components of market-supporting institutions, as identified earlier. First, strong protection of private property punishes business misconduct such as piracy of intellectual property, which may be prevalent and even socially legitimate in many regions of EMs (Chow, 2005; Swike, Thompson, and Vasquez, 2008). Swike et al. (2008), for instance, in a study of intellectual property rights protection (IPR) in China, suggest that true IPR protection requires that companies rely on local courts and officials to enforce IPR laws. However, these laws are not always taken seriously by local officials (at least, not in all regions), as local governments often have connections with and receive lucrative tax revenues from counterfeiters. In contrast, in DMs such as the United States, companies have to follow strict rules and procedures to register and protect their property rights, and protection of these rights is effectively enforced. This suggests that firms from a region with weak property-rights protection will face at least two kinds of difficulty when entering into a DM, where property-rights-protection institutions are strong. First, they face the difficulty of understanding and interpreting codes and procedures for registering and maintaining their property rights, such as trademarks, patents, and copyrights; second, they face the difficulty of adjusting to not relying on counterfeit goods to make profits.

Second, an effective and stable regulatory system requires that participants possess tacit knowledge of local applicable laws and regulations and a good understanding of the rule of law in general (e.g., Inkpen and Beamish, 1997). In the absence of an effective and stable regulatory system in many regions in EMs, firms may

not seriously resort to lawyers and courts to resolve conflicts, but must instead interact with and lobby local bureaucrats, who have privileged powers to interpret and act on certain regulations, for political support (Swike et al. 2008). Their trust in courts and lawyers and their understanding of the rule of law are relatively lacking. All these factors will create difficulty for these firms in adapting to DMs, where corporate affairs and conflicts are governed by the rule of law and by strong regulatory mechanisms.

Third, the degree of economic liberalization suggests how much a local legitimating environment supports competition. Firms from sub-national regions in EMs where local economies are protected, and where local firms are generally supported by local governments with special incentives, are less well adapted to a legitimating environment in which production and transactions are directed by market signals such as competitive price, high quality, and differentiation. Firms from sub-national regions already exposed to competition are more likely to be able to follow market signals.

In summary, firms from different sub-national regions of an EM may face different degrees of difficulty in understanding and interpreting market requirements and in adjusting to a market-supporting environment. Firms from generally more market-supporting sub-national regions are more likely to be able to understand, interpret, and adjust to the environment of DMs, where market-supporting institutions are strong (Brouthers, O'Donnell, and Hadjimarcou, 2005; Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2002).

One might draw a contradictory conclusion following the institutional escapism view, which argues for OFDI as a means of escape from weak institutions at home (e.g., Witt and Lewin, 2007). Following this view, EM firms' internationalization into DMs might be seen as pushed by inefficient institutions such as corruption, regulatory slack, ineffective government, and underdeveloped property-rights protection, which create significant opportunity losses (Yamakawa et al., 2008; Yeung, 2006). If these opportunity losses exceed the liability of foreignness in a DM, where transaction costs are relatively low (Boisot and Meyer, 2008), EM capital may be driven to relocate into DMs (Boisot and Meyer, 2008; Yeung, 2006).

This institutional escapism view seems to indicate that market-supporting institutional development at the home region will gradually solve the problems that

14

otherwise drive the escape of capital into DMs, and thus retain capital at home. We argue, however, that such escapist motivations are relatively irrelevant in the context of OFDI into DMs. First, over the long term, firms which want to and are able to relocate their financial resources only because of suffering from poor market-supporting institutions might have already relocated. Second, firms escaping due to high socio-political costs in the home region, with no other strategic motivations (e.g., market seeking, resource seeking, etc.), can choose to relocate their corporate headquarters in another domestic sub-national region where institutions are strong, or in a tax haven such as the Cayman Islands or the British Virgin Islands, where legal systems are sound and financial markets are free and well developed (e.g., Giovannini and Hines, 1990; McLure, 1988). Third, international institutional escapes do not have to take the form of OFDI, which incurs a sunk cost, but may take other forms, such as listing overseas (Yamakawa et al., 2008). In some EMs (including China), for example, financial markets favour government-connected companies, such as large-scale state-owned enterprises (SOEs), and thus drive a few private firms to list themselves in DM exchanges, where they are not discriminated against (Yamakawa et al., 2008).

To summarize, we propose the following hypothesis:

Hypothesis 1: Ceteris paribus, the stronger the development of market-supporting institutions in a given sub-national location, the stronger the propensity of emerging-market firms from that location to invest overseas in developed markets.

Indirect Institutional Effect

Market-supporting institutions and market-related firm capabilities

A firm's capabilities may be shaped by the characteristics of its home environment (Dunning, 1980; Porter, 1990; Tan and Meyer, 2010). Dunning (1980: 10), for example, notes that "the ability of enterprises to acquire ownership endowments is clearly not unrelated to the endowments specific to the countries in which they operate – and particularly their country of origin." Porter (1990) argues that firm capabilities are created by the interaction of firm factors with the home market's resource endowments and industry characteristics. Tan and Meyer (2010) add that EMNEs develop home-contextual resources, such as business groups, that internalize market failures and thus enable domestic growth. The argument that firm capabilities are contingent on home resources

and industry characteristics has been supported by many empirical studies (e.g., Giddy and Young, 1982; Lecraw, 1993; for a review, see Erramilli, Agarwal, and Kim, 1997). For example, Giddy and Young (1982) and Lecraw (1993) find that Third World MNEs possess unique advantages, such as small-scale and labour-intensive technology and low costs, all resulting from the particular characteristics of home markets and customers.

However, very few of these efforts have emphasized the role of home institutions,[2] an important characteristic of the home market that may determine a domestic firm's resources and capabilities, and their relevance to a foreign location. Following the resource-based view (Penrose, 1959), one can classify a firm's resources into market-related and non-market-related types (Baron, 1995; Barney, 1991; Cuervo-Cazurra and Genc, 2011; Porter, 1987). A region's institutions form the conditions for doing business in that region and how resources are allocated (e.g., North, 1990; Globerman and Chen, 2010; Globerman and Shapiro, 2002), and in turn shape the ways in which firms develop their capabilities (Cuervo-Cazurra and Genc, 2008, 2009; Henisz, 2003; Holburn, 2001; Holburn and Zelner, 2010; Rugman, 2007). In weak market-supporting institutions (Tan and Peng, 2003), doing business depends largely on non-market mechanisms such as political orders and social relationships (Li and Zhang, 2007; Luo and Park, 2004; Luo and Tung, 2007; Rajan and Zingales, 1998). Domestically, EMNEs compete partially by developing non-market-related firm capabilities, such as political and social capabilities to manage weak institutions at home (Cuervo-Cazurra, 2006; Cuervo-Cazurra and Genc, 2008, 2009; Henisz, 2003; Holburn, 2001; Holburn and Zelner, 2010; Khanna and Palepu, 2006). For example, Henisz and Zelner (2005) and Holburn and Zelner (2010) find that firms from politically risky environments (e.g., EMs) tend to develop political resources, both to safeguard sunk investments against the potentially adverse policy consequences of rival groups' political rent-seeking efforts and to shape the policy environment to their own benefit. In addition, firms develop social capabilities – for example, the ability to better identify common ground among stakeholder groups to which the firm has developed ties, and the ability to organize these groups into coalitions capable of exerting sufficient pressure on government officials to initiate or maintain favourable public policies (Aggarwal and Agmon, 1990; Henisz and Zelner, 2005; Holburn and Zelner, 2010).

---

[2] Some notable exceptions are Erramilli et al. (1997) and Cuervo-Cazurra and Genc (2011). Neither of them however focuses on market-supporting institutions.

However, these non-market-related capabilities may be less important or even irrelevant in DMs (e.g., Tan and Meyer, 2010), where opportunities for most industries are controlled by markets and, as a result, requirements for market-related capabilities are high (Baron, 1995). MNEs from EMs characterized by weak market-supporting institutions are usually less sophisticated in dealing with strong market-supporting institutions, and have fewer market-related firm capabilities, such as innovation and marketing skills, than DM local competitors (Cazurra and Genc, 2008, 2009; Holburn and Zelner, 2010). When entering the different (stronger market-based) institutional context of a DM, EMNEs need to explore market-related firm capabilities to survive in competition with local companies that have already established those capabilities (e.g., Ivarsson and Jonsson, 2003; Makino, Lau, and Yeh, 2002). As the existing literature suggests, a notable example of these market-related firm capabilities is technological capability (Baron, 2001; Ramaswami, Srivastava, Bhargava, 2009), a knowledge-based asset that ultimately enables firms to produce differentiated, cost-efficient, and customer-friendly products and services to win market share in a competitive market (Srivastava, Fahey, and Christensen, 2001). Among others, marketing and branding skills, local client loyalty (Barney, 1991; Porter, 1987, 1998; Srivastava et al., 2001), managerial capacity, and logistics and distribution channels (Srivastava, Shervani, and Fahey, 1998) are also important market-related firm capabilities that can help firms gain better market position.

These market-related firm capabilities are largely embedded within a strong market-supporting institutional setting (Meyer and Peng, 2005; Holburn and Zelner, 2010; Khanna and Palepu, 2006). As an example, Figure 2 shows that national industry leaders in DMs generally have high R&D intensity (a proxy for technological capability) but low state ownership (a proxy for political capability), while national industry leaders in EMs have relatively low R&D intensity but high state ownership. At sub-national levels, firms from regions where local institutions are more market-supporting are likely to possess greater market-related firm capabilities.

We elaborate on why home market-supporting institutions would induce EM firms to create market-related capabilities following the three key components of market-supporting institutions identified earlier. First, effectively enforced property-rights protection will stimulate innovation activities and induce local firms to build technological capabilities. Products of the intellect, such as technology, are typically non-rival, and registration and protection of property rights in these products can ensure that once such

a product has been created, only its inventors can use it, and thus profit from inventing (Gould and Gruben, 1996). Therefore, there is a positive relationship between property-rights protection and innovation. Scholars have found supportive empirical evidence of this relationship in both DMs (e.g., Mansfield, 1986) and EMs (e.g., Chen and Puttitanun, 2005; Sherwood, 1990).

Second, strengthening of EM regulatory systems will ensure stable and fair market competition among local companies by, for instance, lowering transaction costs due to uncertainty and easing business barriers (Hill, 1995), and thus forcing local firms to build their competitive market-related capabilities, such as technology and brands, in order to seize market share (Rodrik, Subramanian, and Trebbi, 2004; Scully, 1988). Strong legal enforcement of contracts can also reduce the market risks of hold-ups, and thus encourage local companies to invest in specialization and differentiation, a firm capability that usually requires asset-specific sunk costs in R&D and branding (Klein, Crawford, and Alchain, 1978; Williamson, 1985).

Third, the liberalization of EM economies will intensify the degree of competition by allowing products and services made by established foreign MNEs, most of which come from DMs, to freely penetrate into the local market (e.g., Bevan et al., 2004). Local firms must develop both technological and branding competence to compete for clients with these foreign MNEs, which usually possess cutting-edge technology and popular global brands (e.g., Luo and Tung, 2007). In addition, a competitive and open market system will lead to more international disputes, and therefore require local firms to build managerial skills to deal with international markets and laws by, for example, hiring managers with relevant professional (e.g., international law, global accounting standards, etc.) and international expertise (Dawar and Frost, 1999; Khanna, Palepu, and Sinha, 2005).

These mechanisms, however, are not independent. For example, only when property-rights protection and economic liberalization co-exist will firms be motivated to engage in R&D (Braga and Willmore, 1991; Gould and Gruben, 1996; Rivera-Batiz and Romer, 1991). Gould and Gruben (1996), for instance, suggest that when open trade opens local markets to competition from foreign producers that use the latest technology both in their production processes and in their products, weak local protection of property rights will discourage licensing, transfer, and joint production of competitive technologies by local producers. As another example, strong anti-trust regulations would ensure the

motivating role of property-rights protection by preventing technology leaders from becoming monopolists and thus building barriers for other inventors and innovators.

Market-related firm capabilities and OFDI into DMs

Traditional FDI theories explain that MNEs are able to invest abroad because they possess competitive firm capabilities that can be utilized in a foreign location (e.g., Buckley and Casson, 1976; Dunning, 1988; Erramilli, Agarwal, and Kim, 1997; Hennart, 1982; Hymer, 1960; Rugman, 1981, 1985). Buckley and Casson (1976) and Rugman (1981, 1985), for example, suggest that MNEs possess efficiency-based resources, such as technology and managerial know-how, that are embodied within the organization of the firm. Similarly, Hymer (1960) and Dunning (1988) argue that MNEs have exclusive, privileged possession of or access to monopoly-type assets such as an internationally popular brand. This firm-asset-exploiting view is widely supported by extensive empirical literature (Agarwal and Ramaswami, 1992; Erramilli et al., 1997; Sethi, Guisinger, Phelan, and Berg, 2003; Terpstra and Yu, 1988; Trevino and Grosse, 2002; Kimura, 1989). Trevino and Grosse (2002), for example, studied 56 non-US subsidiaries in the US during the period from 1977 to 1996; they found that innovation, measured as the ratio of R&D expenditures to total sales, and international management skills, measured as number of senior US affiliate managers of foreign origin, positively determine a firm's total assets in the US.

While some researchers argue that EM firms can accelerate their internationalization process by investing in a foreign country to explore firm capabilities such as knowledge and brands, a perspective formally framed as asset-seeking (Ivarsson and Jonsson, 2003; Makino et al., 2002), asset-sourcing (Shan and Song, 1997), or asset-augmentation (Mathews, 2006a, 2006b), the literature has emphasized that this stream of arguments (i.e., exploring firm capabilities) does not contradict traditional theories (e.g., Makino and Inkpen, 2003; Makino et al., 2002; Mathews and Zander, 2007; Narula and Nguyen, 2011). To engage in firm capability-seeking OFDI, EMNEs still need to possess some degree of relevant firm capability that can be leveraged and exploited in a host market, so that they can absorb the new resources they find and thus stay sustainable. Makino and Inkpen (2003), for example, argue that firms engage in knowledge-seeking FDI when they possess absorptive capacity that involves related business activities and know-how. Similarly, Narula and Nguyen (2011) suggest that

MNEs with greater initial relevant ownership advantages have the greater absorptive capacity needed to benefit from new resources found in foreign countries. Therefore, development of market-related firm capabilities such as technological, branding and marketing, and managerial capabilities will equip local firms to invest into a DM, where a new firm's survival and growth are based primarily on these kinds of capabilities (Anand and Delios, 1997, 2002; Erramilli et al., 1997).

In summary, we propose the following hypothesis:

Hypothesis 2: Ceteris paribus, the stronger the development of market-supporting institutions in a given sub-national location, the stronger the propensity of emerging-market firms from that location to invest overseas in developed markets, with the market-related firm capabilities mediating the relationship.

Figure 4 depicts both hypotheses as an institutional effect framework.

Insert Figure 2 here

Method

Data

Our sample combines two surveys. First, we retrieved measures of Chinese sub-national institutional quality from the World Bank's (2006) report *China, Governance, Investment Climate, and Harmonious Society: Competitiveness Enhancements for 120 Cities in China* (hereafter "WB survey"). To our knowledge, this is the latest official composite measure of China's institutional quality at the city level.

Second, following prior studies which suggest that survey is a widely used method of obtaining information on FDI intentions (e.g., Hood and Taggart, 1997; Kuo and Li, 2003), we obtained data on Chinese companies' intentions to engage in OFDI in DMs from Woo et al.'s (2011) China Goes Global 2010 Survey, conducted jointly by the Asia Pacific Foundation (APF) of Canada and the China Council for the Promotion of International Trade (CCPIT) (hereafter "APF survey"). The questionnaire was distributed in 2009 by CCPIT, one of the largest Chinese IB associations, to its 3,000 Chinese member firms. In total, 1,377 firms responded with endorsement and signature by C-level officers or other senior management equivalents. Techniques such as randomly repeated questions were

deliberately designed into the questionnaire to ensure that respondents were carefully reading and answering the questions. The data were collected and coded by APF in 2010.

Data from the two surveys were merged by matching a firm's city of operation on one survey with that on the other (i.e., legal headquarters). According to the APF survey, all Chinese respondents reported that all operations related to, for example, legal and compliance issues were concentrated in their headquarters cities, although sourcing and sales activities were more diffused within their provinces of operation. We therefore used city-level institutional measures for the main estimation. After removal of missing observations, the final sample consists of 553 firms located in 68 different cities, with a relative concentration in Jining, Shenzhen, Jinan, and Zhengzhou (totaling 32.37%). Of these 553 firms, 81.56% were in the manufacturing sector; 13.92% in the finance, trade, or services sectors; and 4.52% in the transport, utility, or infrastructure sectors. These firms have a good representation in terms of firm size: 41.1% are small-scale (firm assets <RMB 40 million), 39.2% are medium-scale (firm assets RMB 40 million to 400 million), and 19.7% are large-scale (firm assets >RMB 400 million).[3] None of the responding firms is in the resource sector (e.g., energy and mining), which suggests that the sample is not much exposed to the natural-resource-seeking motivation.

Variables and Measurement

Dependent variable

Propensity for OFDI into DMs (hereafter OFDI-DM) is taken directly from the APF survey and recorded as 1 if yes and 0 otherwise. This variable measures responding firms' intention to engage in OFDI, as opposed to actual OFDI. This measure is consistent with our needs, as our theoretical argument focuses on an investing firm's managerial decision on OFDI-DM, whereas actual OFDI is an after-equilibrium measure that can be affected not only by such decisions but, more importantly, by such uncontrolled factors in a host market as protectionism and local contract default (Nordal, 2001). For example, after careful environmental, industry, and firm evaluations, China Minmetals Corporation announced a takeover of Canadian-based Noranda Inc. in 2006, but the deal was eventually blocked by Canadian government (Litvak, 2006).

Independent variable

---

[3] Based on National Bureau of Statistics of China classification.

Institutional quality is derived from the WB survey. This is a composite measure of sub-national institutional quality for 120 cities in China based on indices for taxes and fees, business entertainment costs, bureaucratic interaction, expected informal payment for loans, confidence in courts, percentage of private firms, and percentage of private small- and medium-sized enterprises (SMEs) with bank loans (for a detailed description of these indices, see Appendix 1). Although both cities and provinces have a certain amount of administrative autonomy in certain avenues, We use city-level measures for our main estimations because a more disaggregated measure can capture sub-national variations more precisely (Linnemann and van Beers, 1988); in other words, provincial averages will disguise intra-provincial locational variations.

These components comprehensively measure all three parts of market-supporting institutional development in EMs, as discussed earlier: a strong presence of private economy, as approximated by percentage of private firms and percentage of private SMEs with bank loans; an effective and stable regulatory system, as approximated by confidence in courts; and liberalization of domestic and international markets, as approximated by all else. As the original values of the first four sub-indices (taxes and fees, business entertainment costs, bureaucratic interaction, and expected informal payment for loans) actually measure the inefficiency (as opposed to efficiency) of local institutions, We first converted their values using the following formula: maximum value of the sub-index minus a local region's original value. Another technical issue is that these sub-indices are highly correlated (see Appendix 1), and thus cannot be included simultaneously in regressions (Greene, 2008). To address this issue, We first divided all indices by their standard deviations to make them scale free, and thus inter-comparable, and then created a single index of institutional quality (WB survey, city-level) based on the normalized values using first principal component analysis.[4]

Mediation variable

The proposed mediating variable, market-related firm capability, is based on a company's responses to three questions in the APF survey: "Does your firm possess any international technologies?"; "Does your firm possess any internationally recognized

---

[4] Principal component analysis (PCA) analyzes a data table representing observations described by several dependent variables, which are, in general, inter-correlated. Its goal is to extract the important information from the data table and to express this information as a set of new orthogonal variables called principal components. The new index is a linear combination of the first principal components from the PCA (Abdi and Williams, 2010)

brands?"; and "Does your firm possess any international management talents?" A follow-up discussion with the survey's joint providers, APF of Canada and CCIPT, regarding how these questions were explained to the respondents indicated that the question "Does your firm possess any international technologies?" asked whether a firm had at least one patent registered under its name at the US, Japan, or EU patent and trademark offices at the time of the survey;[5] "Does your firm possess any internationally recognized brands?" asked whether a firm had at least one product exported under its own brand into a DM; and "Does your firm possess any international management talents?" asked whether a firm had at least one senior management officer with prior working experience in a DM. A dummy variable was created to quantify the answer to each question (1 for yes, 0 for no). All these dummy variables adequately capture a firm's market-related firm capability in accordance with our theoretical definition and discussions. Because these three dummies are closely correlated (see Appendix 2) and thus cannot be included simultaneously in a regression, we calculate market-related firm capability as a single index using the first principal component method.

Control variables

      At the regional level, following prior studies suggesting that FDI is largely a function of home-market factor endowments and level of economic development (e.g., Blonigen, 2005), we first control home market size of the home region, measured as the logarithm of provincial gross domestic product (GDP), and home income level, measured as the logarithm of provincial GDP per capita. In addition, following studies suggesting that the home region's economic openness to trade and foreign investment also determines OFDI (e.g., Globerman and Chen, 2010), we control two economic openness variables: provincial trade-to-GDP ratio and provincial ratio of foreign assets to total assets. Physical infrastructure (e.g., utilities and transport) also plays a large role in shaping commercial activities by determining the locational transaction costs of doing business (Globerman and Chen, 2010; Globerman and Shapiro, 2002, 2003); therefore, we further control physical infrastructure quality, measured as 1 minus the value of "percentage (%) of output losses from power or transport" of a city on the WB survey.

      At the firm level, research suggests that several firm-specific characteristics such

---

[5] This was confirmed by tracking each firm's registration record between 2006 and 2010 in the patent and trademark registration offices in the United States, Japan, and the European Union using English firm names.

as size (Pradhan, 2004), relevant prior experience (Globerman and Chen, 2010), existing degree of internationalization (Ramaswamy, Kroeck, and Renforth, 1996; Sullivan, 1994), and ownership type (Voss et al., 2010) are explanatory factors in OFDI. Accordingly, we further control firm size, measured as the logarithm of gross revenue, and relevant prior experience as a dummy variable suggesting prior OFDI in a DM (1 for yes, 0 otherwise). Following Ramaswamy et al. (1996) and Sullivan (1994), we construct two measures to control for a firm's existing degree of internationalization: overseas assets as a percentage of total assets and exports as a percentage of sales. We also control state ownership, measured as 1 if the ultimate controlling shareholder is the government and 0 otherwise, to control for potential effects of ownership type. Lastly, we control a series of dummy variables for industry-specific heterogeneity, following China's broad industry classification (NBSC, 2003).

Regression Strategy

The first issue is that our dependent variable, OFDI-DM, is binary (0 or 1). Following Greene (2008), two non-linear econometric estimations– the Probit and Logit methods – are widely adopted to address this issue. Both methods are based on maximum likelihood estimation (MLE), and both allow dependent variables to be binary, albeit assuming different distribution functions: Probit assumes a probability function, while Logit assumes a logistic function. By adopting both methods and comparing their results, we are able to test whether the estimation results are robust and consistent if the distribution assumptions change.

To test for both direct and mediation effects, we used causal mediation analysis, newly developed by Hicks and Tingley (2011) and Imai et al. (2010). This method builds on Baron and Kenny's (1986) mediation analysis method, which is widely used in social sciences research (Kline, 2010). Both methods estimate the role of causal mechanisms when the effect of an independent variable on an outcome is transmitted through a mediating variable, and both provide results for both direct and indirect effects (Hicks and Tingley, 2011). The advancement made by Hick and Tingley (2011) and Imai et al. (2010) is that their method allows non-linear estimations such as Probit and Logit, whereas Baron and Kenny's (1986) method can be applied only to continuous dependent variables.

In the first step, we adopted ordinary least squares (OLS) to regress the mediating

variable market-related firm capability, which is continuous, on the independent variable institutional quality. In the second step, we adopted both Probit and Logit estimations to regress the dependent variable OFDI-DM, which is binary, on both the independent variable institutional quality and the mediating variable market-related firm capability. Results also show the distribution of the total effects of the independent variable on the dependent variable between indirect effects transmitted by the mediating variable and direct effects (MacKinnon and Dwyer, 1993; MacKinnon, Warsi, and Dwyer, 1995; Preacher and Hayes, 2004).

Results

Insert Table 1 here

Table 1 reports the summary statistics and correlation matrix for all variables, which suggest that our data do not have a severe multi-collinearity issue. Tables 2 and 3 present results for the first and second steps of our causal mediation analysis. Results suggest that both H1 and H2 are supported. Specifically, Table 2 reports that institutional quality, measured at the city level, has a significantly positive relationship with market-related firm capability (significant at the 99% level of confidence). As Table 3 shows, both market-related firm capability and institutional quality present significantly positive relationships with a firm's OFDI-DM (significant at the 90% and 99% levels of confidence respectively). Lastly, as indicated in Table 3, about 58% (reported by Probit) or 52% (reported by Logit) of institutional quality's effects on OFDI-DM are estimated to be transferred through the mediation of market-related firm capability, while about 42% (reported by Logit) or 48% (reported by Probit) are direct. Overall, both models are very robust (p=0.0000 for both F-test (step 1) and chi-square test (step 2)).

Insert Table 2 here

Insert Table 3 here

Indeed, these findings are in line with prior empirical attempts to determine the effect of home institutions on OFDI using national-level measures (e.g., Globerman and Shapiro, 2002; Mishra and Daly, 2007). Globerman and Shapiro (2002) and Mishra and Daly (2007), for instance, using the Worldwide Governance Index (WGI), produced by Kaufman, Kraay, and Zoido-Lobatón (1999a, 1999b), and the International Country Risk

Guide (ICRG), produced by PRS Group, as national average institutional measures, found that, in principle, higher institutional quality is positively related to a country's aggregate level of OFDI flows and stocks. However, both studies failed to find potential mediation transmission by firm capability, as they did not use firm-level measures of OFDI, an activity that is indeed decided at the firm level.

Some significant results for control variables are worth noting. As Table 2 shows, our results suggest that a firm's market-related capability is positively related to a few home-market indicators. In line with prior studies (e.g., Erramilli et al., 1997; Baron, 1995; Narula, 2011; Narula and Nguyen, 2011), a firm's market-related firm capability is fostered by domestic market size, economic development, and physical infrastructure as well as by the home region's openness to global trade. These findings lend empirical support to the view that market-related firm capabilities of EMNEs are home-market based (Rugman, 2007; Rugman and Li, 2007; Rugman and Oh, 2008) and home-market embedded (Buckley et al., 2007; Luo and Tung, 2007; Wei, 2010).

As Table 3 shows, first, a few domestic market condition variables have significant effects on OFDI (see, e.g., Buckley, Clegg, and Wang, 2002). Physical infrastructure quality is positively related to OFDI, which suggests that MNEs in locations with good utility and transport conditions are more likely to internationalize into a DM. However, provincial ratio of foreign assets to total assets negatively affects a firm's OFDI-DM. A potential explanation for this finding is the competition effect of the presence of foreign entrants; that is, indigenous firms suffer more, and are therefore less able to invest abroad, as foreign MNEs depress OFDI through, for instance, market stealing and labour stealing (Gu and Lu, 2011). Second, at the firm level, a firm's exports as a percentage of sales have a significant positive impact on OFDI-DM; a potential explanation for this finding is that more foreign-trade-intensive firms are more likely to choose OFDI to internalize transaction costs (e.g., Rugman, 1980). Prior OFDI in a DM also has a significant positive effect, which suggests that relevant prior experience is positively related to OFDI activities (e.g., Chen and Chen, 1998; Lecraw, 1993). However, a firm's overseas assets as a percentage of total assets are negatively related to its OFDI-DM; a potential explanation for this finding is that an already large expansion overseas reduces marginal willingness to expand further. Other regional and firm-specific factors do not show significant effects.

The dummy control variable state ownership does not show any significant effects,

which suggests that when all other factors are controlled, firms of different ownership types do not differ significantly in terms of OFDI-DM. This finding is in line with those of prior research (e.g., Wei, 2010; Deng, 2009; Rui and Yip, 2008; Schuller and Turner, 2005; Zhou and Schuller, 2009) arguing that "Chinese acquiring firms differ in ownership, but they all were supported by the state in their acquisition efforts" (Wei, 2010: 90). Lastly, dummy variables for sectors show no significant effects, which suggests that when all other factors are controlled, Chinese firms outside the resource sector do not tend to differ across sectors in with respect to OFDI-DM.

Robustness Check

We use the International Finance Corporation's (IFC) Doing Business in China 2008 Report, which provides indices of ease of doing business (hereafter "indices") for 30 Chinese provinces, as an alternative sub-national institutional measure to check the robustness of our results. These indices consist of three broad measures – starting a business, registering property, and enforcing contracts – each of which has two to four sub-dimensions (for a detailed description, see Appendix 3). They are very similar to the WB survey in terms of criteria, and can appropriately quantify the level of market-supporting institutional development at the provincial level (Berg and Cazes, 2007; Ménard and du Marais, 2008).

As the original values of these indices measure the inefficiency (as opposed to efficiency) of local institutions, we first converted their values using the following formula: maximum value of the sub-index minus a local region's original value. As was true of city-level institutional measures from the WB survey, there is significant multi-collinearity among different sub-dimensions in the IFC indices (see Appendix 3). Therefore, it is not appropriate to include all measures simultaneously in the regression (Berg and Cazes, 2007; Greene, 2008). Instead, we divided all sub-indices by standard deviations to make them scale free and thus inter-comparable, and create a single index labeled "institutional quality (IFC survey, provincial-level)" using the first principal component method based on normalized values. As reported in Table 4 and Table 5, the results are consistent with our main findings, shown in Tables 2 and 3: institutional quality has an essentially positive effect on local firms' OFDI-DM, both directly and indirectly through the mediation of market-related firm capability.

Insert Table 4 here

Insert Table 5 here

Conclusion and Discussion

General Conclusions

Focusing on Chinese firms' entry decisions about OFDI in DMs, this study is among the first to examine the roles played by home institutions, particularly at sub-national levels, on a firm's entry decision on outward FDI, which is a gap in the existing IB and global strategy literature (Aharoni, 2011; Cuervo-Cazurra, 2011; Globerman and Chen, 2010; Ramamurti, 2008). Specifically, we have argued for a twofold institutional effect. First, there is a direct effect, because development of market-supporting institutions in a sub-national region at home reduces institutional differences between home (EM) and host (DM) markets, encouraging EM firms to invest overseas in DMs. Second, there is an indirect effect through the mediation of market-related firm capabilities; that is, domestic market-supporting institutional development creates the conditions for building market-related firm capabilities such as technological, branding and marketing, and managerial skills.

Another important emphasis in the present study is the recognition of the importance of sub-national institutional heterogeneity in EMs, where domestic market segments are disconnected across sub-national regions and most domestic firms compete sub-nationally. We first discussed theoretical explanations of institutional heterogeneity at the sub-national level, following the RBV (Baron, 1995; Barney, 1991; Penrose, 1959), the path-dependence theory of institutional change (North, 1990), market imperfection (e.g., North, 1998; 2005), and specific examples of administrative decentralization in China (e.g., Boisot and Meyer, 2008; Li and Yao, 2011; Lu, Liu, and Wang, 2011).

Our empirical results, using a firm-level survey of 553 Chinese firms from 68 different cities, support the argument that sub-national institutional heterogeneity is an important and significant explanatory factor with respect to both firms' resources (market-related firm capability, in this study) and firms' international activities (OFDI

28

intention, in this study). Our findings with respect to Chinese firms significantly support the twofold institutional effect, suggesting that at the city level, direct and indirect effects each contribute about half of the total effect. Our arguments and findings challenge the conventional wisdom that sees institutions such as rules and cultures as a nationally bounded and common factor, and highlight the need to develop new measures of different dimensions of institutions at sub-national levels.

Generalization

Our arguments in this study can be generalized to other countries of certain characteristics. First, because a major shared characteristic of EMs is the adoption of market-supporting institutional development, the arguments for a twofold institutional effect on OFDI into DMs are applicable to other EMs that are undertaking market reforms. Second, the existence and importance of sub-national institutional heterogeneity is applicable to some other large-scale EMs, where local markets are relatively disconnected and disintegrated. Compared to China, where local law-making and elections are virtually nonexistent (Qian and Stiglitz, 1996), other large-scale and administratively divided EMs such as Mexico, Brazil, Russia, and India may present greater institutional variations across domestic sub-national regions, since local authorities in these countries have not only enforcement and administration powers (as is the case in China) but also law-making independence and local elections (e.g., Grindle, 2007; Rao, 2003). Firms from different sub-national regions of these countries, therefore, must have different propensities with respect to OFDI strategies.

Future Research Directions

However, this study is not without its limitations, and requires a few extensions for improvement. First, the present study has focused on how market institutions affect Chinese MNEs' decisions about entry into a DM. Because of data limitations, we have not looked at sub-national variations in non-market institutions – that is, other possible functions that local institutions are supporting – such as political consolidation, military expansion, social welfare, and so on. A valuable extension, therefore, is to discuss and test whether and how home non-market institutions and the interplay of market and non-market institutions affect local firms' capabilities and their OFDI behaviours. For example, it is interesting to explore whether non-market supporting institutions (e.g.,

29

political consolidation) will induce local firms to develop certain non-market related firm capabilities (e.g., political ties). In addition, Ostrom (1998) emphasizes that some informal, non-market institutions, such as trust, are crucial in facilitating the effectiveness of formal institutions, and thus in governing societies' collective actions. Although these informal, non-market institutions are relatively impervious to changing policies (North, 1990), and thus are less affected by sub-national heterogeneity in policy design and enforcement, they may also present significant sub-national differences for, for example, ethnic and historical reasons, particularly in large-scale, ethnically segmented nations such as China, India, and some Central and Eastern European countries (Becker and Woessmann, 2011; Hardgrave and Kochanek, 2008). However, it will require more thinking as to how to qualify and quantify measures for non-market institutions.

Another valuable extension is to identify firm-specific moderating variables. For example, firms with state ownership or politically tied management are usually argued to be less negatively affected by, and sometimes even to benefit from, underdeveloped market institutions (e.g., Alon, 2010; Boadman and Vining, 1989; Wang, Wong, and Xia, 2008). Alon (2010: 1), for instance, argues that "institutional discrimination creates relative advantages for state-owned firms at a cost to private enterprise." In addition, politically tied owners or CEOs may have privileged access to domestic financial resources under conditions of market dysfunction (Li, Yang, and Yue, 2007). As a consequence, these politically tied firms may behave differently from firms with no political ties in an environment of institutional development. However, because economic policies can be designed and enforced by local governments rather than by the central government (e.g., Amit et al., 2010), such an extension will require deliberate development of data indicating firms' connections to local governments (and to the central government). Using proxy measures such as state ownership (e.g., the APF survey data used in this study) or political ties to the central government will be ineffective and produce misleading results. This also partially explains why the coefficient for state ownership is insignificant in Tables 2 to 5.

Last but not least, it will be very valuable to use alternative samples to test the theory outlined in this study. One approach is to find longitudinal data, which can better control for causal direction by allowing longer and varying time lags between the independent and dependent variables (Greene, 2008). For instance, it may take many years for local firms to respond to a new local competition policy and to build adaptive

competitive market-related capabilities. Secondly, it will be very valuable to develop consistent and standard measures for sub-national institutions across countries. A cross-country study can control for country-specific factors, and thus make the arguments and findings more robust. A third valuable approach would be to revisit the widely discussed concepts of cultural distance (e.g., Agarwal, 1994; Brouthers and Brouthers, 2001; Kogut and Singh, 1988; Morosini, Shane, and Singh, 1998; Shenkar, 2001) and other institutional distance (e.g., Kostova, 1996, 1999; Kostova and Zaheer, 1999; Kostova and Roth, 2002; Ionascu et al., 2004; Xu and Shenkar, 2002), all of which assume that distance operates *between* nations and that intra-national distance virtually does not matter. Andersson et al. (2011: 1) point out that, "for example, the international cultural distance between two Scandinavian countries like Denmark and Sweden may well be smaller than that between two Indians, one from the Hindi-speaking North and the other from the Tamil-speaking South." Therefore, it would be valuable to explore new measures of distance based on sub-national units.

Reference

Acemoglu, D., and Johnson, S. 2005. Unbundling Institutions. *Journal of Political Economy*, 113(5), 949-995.

Acemoglu, D., Johnson, S., and Robinson, J.A. 2005. Institutions as a fundamental cause of long-run growth. In A. Philippe and N. D. Steven (Eds.), *Handbook of Economic Growth (Vol. 1):* Elsevier; 385-472.

Agarwal, S. 1994. Socio-cultural distance and the choice of joint ventures: A contingency perspective. *Journal of International Marketing, 2(2),* 63-80.

Agarwal, S., and Ramaswami, S.N. 1992. Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of International Business Studies, 23(1),* 1-27.

Aharoni, Y. 2011. Insights into the future of international business. *Academy of International Business Insights, 11(2),* 3-7.

Aldashev, G. 2009. Legal institutions, political economy, and development. *Oxford Review of Economic Policy, 25(2),* 257-270.

Alon, T.M. 2010. Institutional analysis and the determinants of Chinese FDI. *Multinational Business Review*, 18(3), 1-24.

Amit, R., Ding, Y., Villalonga, B., and Zhang, H. 2010. *The role of institutional development in the prevalence and value of family firms*, Harvard Business School Finance Working Paper No. 1507823.

Anand, J., and Delios, A. 1997. Location specificity and the transferability of downstream assets to foreign subsidiaries. *Journal of International Business Studies, 28(3),* 579-603.

Anand, J., and Delios, A. 2002. Absolute and relative resources as determinants of international acquisitions. *Strategic Management Journal, 23(2),* 119-134.

Andersson, U., and Holm, U. 2010. *Managing the contemporary multinational: The role of headquarters.* Cheltenham, UK: Edward Elgar Publishing Limited.

Andersson, U., Beugelsdijk, S., Mudambi, R., and Zaheer, S. 2011. Call for papers: The multinational in geographic space. *Journal of International Business Studies*, forthcoming.

Arnold, D.J., and Quelch, J.A. 1998. New strategies in emerging markets. *Sloan Management Review, 40(1),* 7-20.

Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management, 17(1),* 99-120.

Baron, D.P. 1995. Integrated strategy: Market and nonmarket components. *California Management Review, 37(2),* 47-65.

Baron, D.P. 2001. Integrated market and nonmarket strategies in client and interest group politics. *Business and Politics, 3(2),* 89-96.

Baron, R.M., and Kenny, D.A. 1986. The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51(6),* 1173-1182.

Beck, T., and Levine, R. 2005. Legal institutions and financial development. In C. Ménard and M. M. Shirley (Eds.), *Handbook of New Institutional Economics*. Dordrecht, The Netherlands: Springer; 251-278.

Becker, S., and Woessmann, L. 2011. *How the long-gone Habsburg Empire is still visible in Eastern European bureaucracies today.* Vox.

Bénassy-Quéré, A., Coupet, M., and Mayer, T. 2007. Institutional determinants of foreign direct investment. *World Economy*, 30(5), 765-782.

Berg, J., and Cazes, S. 2007. *The doing business indicators: Measuring issues and*

political implications. Economic and Labour Market Paper 2007/6.

Bertoni, F., Elia, S., and Rabbiosi, L. 2008. *Driver of acquisitions from BRICs to advanced countries: Firm-level evidence*, DIG - Politecnico di Milano Working Paper.

Bevan, A., Estrin, S., and Meyer, K. 2004. Foreign investment location and institutional development in transition economies. *International Business Review*, 13(1), 43-64.

Blonigen, B.A. 2005. A review of the empirical literature on FDI determinants. *Atlantic Economic Journal*, 33: 383-403.

Boadman, A.E., and Vining, A.R. 1989. Ownership and performance in competitive environments: A comparison of the performance of private, mixed, and state-owned enterprises. *Journal of Law and Economics*, 32(1), 1-33.

Boisot, M., and Meyer, M.W. 2008. Which way through the open door? Reflections on the internationalization of Chinese firms. *Management and Organization Review*, 4(3), 349-365.

Braga, H. and Willmore, L. 1991. Technological imports and technological effort: An analysis of their determinants in Brazilian firms. *Journal of Industrial Economics, 39(4),* 421-432.

Brouthers, K.D., and Brouthers, L.E. 2001. Explaining the national cultural distance paradox. *Journal of International Business Studies, 32(1),* 177-189.

Brouthers, L.E., O'Donnell, E., and Hadjimarcou, J. 2005. Generic product strategies for emerging market exports into Triad nation markets: A mimetic isomorphism approach. *Journal of Management Studies*, 42, 225-245.

Buckley, P.J., and Casson, M. 1979. *The future of the multinational enterprise.* Holmes and Meier Publishers, New York.

Buckley, P.J., Clegg, L.J., and Wang, C. 2002. The impact of inward FDI on the performance of Chinese manufacturing firms. *Journal of International Business Studies*, 33(4), 637-655.

Buckley, P.J., Clegg, L.J., Cross, A.R., Liu, X., Voss, H., and Zheng, P. 2007. The determinants of Chinese outward foreign direct investment. *Journal of International Business Studies*, 38(4), 499-518.

Buckley, P.J., Elia, S., and Kafouros, M. 2010. Acquisitions from emerging countries: What factors influence the performance of target firms in advanced countries. *European Journal of International Management, 4(1-2),* 30-47.

Chan, C.M., Makino, S., and Isobe, T. 2010. Does sub-national region matter? Foreign affiliate performance in the United States and China. *Strategic Management Journal, 31,* 1226-1243.

Chang, S.J., and Xu, D. 2008. Spillovers and competition among foreign and local firms in China. *Strategic Management Journal, 29(5),* 495-467.

Chen, H., and Chen, T-J. 1998. Network linkages and location choice in foreign direct investment. *Journal of International Business Studies*, 29(3), 445-467.

Chen, V.Z. 2012. Puzzles and truths about Indian outward FDI: Toward a more relevant and nuanced research agenda on emerging-market multinational enterprises. *AIB Insights, forthcoming.*

Chen, V.Z., and Yang, J. 2012. *Chinese international hybrid enterprises.* Working paper.

Chen, Y., and Puttitannu, T. 2005. Intellectual property rights and innovation in developing countries. *Journal of Development Economics, 78,* 474-493.

Chow, D.C.K. 2005. *Intellectual property protection as economy policy: Will China ever enforce its IP laws?* Retrieved April 20, 2012, from http://www.cecc.gov/pages/roundtables/051605/Chow.php?PHPSESSID=64fdba537 66d2c1ae1bc3a4c738dcbb3.

Cole, M.A., Elliott, R.J.R., and Zhang, J. 2009. Corruption, governance and FDI location in China: A province-level analysis. *Journal of Development Studies*, 45(9), 1494-1512.

Cuervo-Cazurra, A. 2011. Global strategy and global business environment: The direct and indirect influences of the home country on a firm's global strategy. *Global Strategy Journal, 1,* 382-386.

Cuervo-Cazurra, A., 2006. Who cares about corruption? *Journal of International Business Studies, 37(6),* 807-822.

Cuervo-Cazurra, A., and Genc, M.E. 2008. Transforming disadvantages into advantages: Developing country MNEs in the least developed countries. *Journal of International Business Studies, 39,* 957-979.

Cuervo-Cazurra, A., and Genc, M.E. 2009. *How context matters: Non-market advantages of developing-country multinational companies.* Working paper.

Cuervo-Cazurra, A., and Genc, M.E. 2011. Obligating, pressuring, and supporting dimensions of the environment and the non-market advantages of developing-country multinational companies. *Journal of Management Studies, 48(2),* 441-455.

Cui, L., and Jiang, F. 2010. Behind ownership decision of Chinese outward FDI: Resources and institutions. *Asia Pacific Journal of Management, 27(4),* 751-774.

Dawar, N., and Frost, T. 1999. Competing with giants: Survival strategies for local companies in emerging markets. *Harvard Business Review, 77(2),* 119-129.

Deng, P. 2009. Why do Chinese firms tend to acquire strategic assets in international expansion? *Journal of World Business*, 44(1), 74-84.

Djankov, S., La Porta, R., Lopez-De-Silanes, F., and Shleifer, A. 2002. The regulation of entry. *Quarterly Journal of Economics*, 117, 1–37.

Dowling, J., and Pfeffer, J. 1975. Organizational legitimacy: Social values and organizational behavior. *The Pacific Sociological Review, 18(1),* 122-136.

Du, J., Lu, Y., and Tao, Z. 2008. Economic institutions and FDI location choice: Evidence from US multinationals in China. *Journal of Comparative Economics, 36(3),* 412-429.

Dunning, J.H. 1980. Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies, 11(1),* 9-31.

Dunning, J.H. 1988. The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19(1), 1-31.

Dunning, J.H., and Lundan, S. 2008. Institutions and the OLI paradigm of the multinational enterprise. *Asia Pacific Journal of Management*, 25(4), 573-593.

Eden, L., and Miller, S.R. 2004. Distance matters: Liability of foreignness, institutional distance and ownership strategy. *Volume Advances in International Management, 16,* 187-221.

Erramilli, M.K., Agarwal, S., and Kim, S-S. 1997. Are firm-specific advantages location-specific too? *Journal of International Business Studies, 28(4),* 737-757.

Fujita, M., and Hu., D. 2001. Regional disparity in China 1985-1994: The effects of globalization and economic liberalization. *Annals of Regional Science*, 35, 3-37.

Gaur, A.S., and Lu, J.W. 2007. Ownership strategies and survival of foreign subsidiaries: Institutional distance and experience. *Journal of Management, 33(1),* 84-110.

Giddy, I., and Young, S. 1982. Conventional theory and unconcentional multinationals. In Rugman, A.M. (Ed.), *New theories of the multinational enterprise*. New York, NY: St. Martin's Press.

Giovannini, A., and Hines, Jr., J.R. 1990. *Capital flight and tax competition: Are there viable solutions to both problems?* NBER working paper no. 3333.

Globerman, S. and Chen, V.Z. 2010. *Best policy practices for promoting inward and outward foreign direct investment.* The Conference Board of Canada Report: Ottawa, Canada.

Globerman, S., and Shapiro, D.M. 2002. Global foreign direct investment flows: The role of governance infrastructure. *World Development*, 30(11), 1899-1919.

Globerman, S., and Shapiro, D.M. 2003. Governance infrastructure and US foreign direct

investment. *Journal of International Business Studies*, 34(1), 19-39.

Gould, D.M., and Gruben, W.C. 1996. The role of intellectual property rights in economic growth. *Journal of Development Economics, 48,* 323-350.

Greene, W.H. 2008. *Econometric analysis.* Upper Saddle River, NJ: Pearson Prentice Hall.

Grindle, M.S. 2007. *Going local: Decentralization, democratization, and the promise of good governance.* Princeton, NJ: Princeton University Press.

Gu, Q., and Lu, J.W. 2011. Effects of inward investment on outward investment: The venture capital industry worldwide 1985-2007. *Journal of International Business Studies, 42,* 263-284.

Hardgrave, R.L., and Kochanek, S.A. 2008. *India: Government and politics in a developing nation (7th ed.).* Boston, MA: Thomson Higher Education.

Henisz, W.J. 2003. The power of the Buckley and Casson thesis: The ability to manage institutional idiosyncrasies. *Journal of International Business Studies, 34(2),* 173-184.

Henisz, W.J., and Zelner, B.A. 2005. Legitimacy, interest group pressures, and change in emergent institutions: The case of foreign investors and host country governments. *Academy of Management Review, 30(2),* 361-382.

Hennart, J-F. 1982. *A theory of multinational enterprise.* University of Michigan Press, Ann Arbor.

Hicks, R., and Tingley, D. 2011. Causal mediation analysis. *The Stata Journal, forthcoming.*

Hill, C.W. 1995. National institutional structures, transaction cost economizing and competitive advantage: The case of Japan. *Organization Science, 6(1),* 119-131.

Holburn, G.L.F. 2001. *Political risk, political capabilities and international investment strategy: Evidence from the power generation industry.* Working paper.

Holburn, G.L.F., and Zelner, B.A. 2010. Political capabilities, policy risk, and international investment strategy: Evidence from the global electric power generation industry. *Strategic Management Journal, 31(12),* 1290-1315.

Hood, N., and Taggart, J.H. 1997. German foreign direct investment in the UK and Ireland: Survey evidence. *Regional Studies*, 31(2), 139-150.

Hoskisson, R.E., Eden, L., Lau, C.M., and Wright, M. 2000. Strategy in emerging economies. *Academy of Management Journal, 43(3),* 249-267.

Hymer, S.H. 1960. *The international operations of national firms: A study of direct foreign investment.* PhD thesis, MIT.

Hymer, S.H. 1976. *The international operations of national firms: A study of direct investment.* Cambridge, MA: MIT Press.

Imai, K., Keele, L., and Tingley, D. 2010. A general approach to causal mediation analysis. *Psychological methods, 15(4),* 309-334.

Imai, K., Keele, L., Tingley, D., and Yamamoto, T. 2010. Causal mediation analysis using R. *Lecture Notes in Statistics: Advances in Social Science Research Using R. 196,* 129-154.

Inkpen, A.C., and Beamish, P.W. 1997. Knowledge, bargaining power, and the instability of international joint ventures. *Academy of Management Review, 22(1),* 177-202.

Ionascu, D., Meyer, K.E., and Estrin, S. 2004. *Institutional distance and international business strategies in emerging economies.* William Davidson Institute (WDI) - Working Papers Series No. 728.

Ivarsson, I., and Jonsson, T. 2003. Local technological competence and asset-seeking FDI: An empirical study of manufacturing and wholesale affiliates in Sweden. *International Business Review, 12(3*), 369-386.

Jin, J., and Zou, H-F. 2005. Fiscal decentralization, revenue and expenditure assignments, and growth in China. *Journal of Asian Economics, 16,* 1047-1064.

Kaufman, D., Kraay, A., and Zoido-Lobatón, P. 1999a. *Aggregating governance indicators.* World Bank Policy Research Working Paper No. 2195, Washington, D.C.

Kaufman, D., Kraay, A., and Zoido-Lobatón, P. 1999b. *Governance matters.* World Bank Policy Research Working Paper No. 2196, Washington, DC.

Khanna, T., and Palepu, K.G. 2006. Emerging giants. *Harvard Business Review, 84(10),* 60-69.

Khanna, T., Palepu, K.G., and Sinha, J. 2005. Strategies that fit emerging markets. *Harvard Business Review, 83(6),* 63-74.

Kimura, Y. 1989. Firm-specific strategic advantages and foreign direct investment behavior of firms: The case of Japanese semiconductor firms. *Journal of International Business Studies, 20(2),* 296-314.

Kindleberger, C.P. 1969. American business abroad. *Thunderbird International Business Review, 11(2),* 11-12.

Klein, B., Crawford, R.G., and Alchain, A.A. 1978. Vertical integration, appropriable rents, and the competitive contracting process. *Journal of Law and Economics, 21(2),* 297-326.

Kline, R.B. 2010. *Principles and practice of structural equation modeling (3rd ed.).* New York, NY: The Guilford Press.

Kogut, B., and Singh, H. 1988. The effect of national culture on the choice of entry mode. *Journal of International Business Studies, 19(3),* 411-432.

Kostova, T. 1996. *Success of the transactional transfer of organizational practices within multinational companies.* Unpublished doctoral dissertation, University of Minnesota.

Kostova, T. 1999. Transnational transfer of strategic organizational practices: A contextual perspective. *Academy of Management Review, 24,* 308-324.

Kostova, T., and Zaheer, S. 1999. Organizational legitimacy under conditions of complexity: The case of the multinational enterprise. *Academy of Management Review, 24,* 64-81.

Kuo, H-C. and Li, Y. 2003. A dynamic decision model of SMEs' FDI. *Small Business Economics*, 20(3), 219-231.

Kwon, Y-C., and Konopa, L.J. 1993. Impact of host country market characteristics on the choice of foreign market entry mode. *International Marketing Review, 10(2),* 60-76.

La Porta, R., and López-de-Silanes, F. 1999. The benefits of privatization: Evidence from Mexico. *The Quarterly Journal of Economics, 114(4),* 1193-1242.

Lecraw, D.J. 1993. Outward direct investment by Indonesia firms: Motivations and effects. *Journal of International Business Studies*, 24(3), 589-600.

Li, H., and Zhang, Y. 2007. The role of managers' political networking and functional experience in new venture performance: Evidence from China's transition economy. *Strategic Management Journal, 28(8),* 791-804.

Li, J., and Yao, F.K. 2010. The role of reference groups in international investment decisions by firms from emerging economies. *Journal of International Management, 16(2),* 143-153.

Li, J., Yang, J.Y., and Yue, D.R. 2007. Identity, community, and audience: How wholly owned foreign subsidiaries gain legitimacy in China. *Academy of Management Journal, 50(1),* 175-190.

Linnemann, H., and van Beers, C. 1988. Measures of export-import similarity, and the linder hypothesis once again. *Review of World Economics, 124(3),* 445-457.

Litvak, I. A. (2006). *China Minmetals Corporation and Noranda Inc.* Case Study 906M13, Richard Ivey School of Business, The University of Western Ontario.

Llewellyn, K.N. 1925. The effect of legal institutions upon economics. *American Economic Review, 15(4),* 665-683.

Lu, J., Liu, X., and Wang, H. 2011. Motives for outward FDI of Chinese private firms: Firm

resources, industry dynamics, and government policies. *Management and Organization Review, 7(2),* 223-248.

Luo, Y., and Park, S.H. 2004. Multiparty cooperation and performance in international equity joint ventures. *Journal of International Business Studies, 35,* 142-160.

Luo, Y., and Tung, R.L. 2007. International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies, 38(4),* 481-498.

Luo, Y., Xue, Q., and Han, B. 2010. How emerging market governments promote outward FDI: Experience from China. *Journal of World Business, 45(1),* 68-79.

MacKinnon, D.P., and Dwyer, J.H. 1993. Estimating mediated effects in prevention studies. *Evaluation Review, 17(2),* 144-158.

MacKinnon, D.P., Warsi, G., and Dwyer, J.H. 1995. A simulation study of mediated effect measures. *Multivariate Behavioral Research, 30(1),* 41-62.

Makino, S., and Inkpen, A.C. 2003. Knowledge seeking FDI and learning across borders. In Easterby-Smith, M., and Lyles, M.A. (Eds.). *The Blackwell handbook of organizational learning and knowledge management.* Malden, MA: Blackwell Publishing Ltd.

Makino, S., Lau, C-M., and Yeh, R-S. 2002. Asset-exploitation versus asset-seeking: Implications for location choice of foreign direct investment from newly industrialized economies. *Journal of International Business Studies, 33(3),* 403-421.

Makino, S., and Neupert, K.E. 2000. National culture, transaction costs, and the choice between joint venture and wholly owned subsidiary. *Journal of International Business Studies, 31(4),* 705-713.

Mansfield, E. 1986. Patents and innovation: An empirical study. *Management Science, 32(2),* 173-181.

Mathews, J.A. 2006a. Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, 23(1), 5-27.

Mathews, J.A. 2006b. Response to Professors Dunning and Narula. *Asia Pacific Journal of Management*, 23(2), 153-155.

Mathews, J.A., and Zander, I. 2007. The international entrepreneurial dynamics of accelerated internationalisation. *Journal of International Business Studies*, 38(3), 387-403.

McLure, Jr., C.E. 1988. *U.S. tax laws and capital flight from Latin America.* NBER working paper no. 2687.

McMillan, J. 2007. Market institutions. In L. Blume and S. Durlauf (Eds.), *The new palgrave Dictionary of Economics.* New York: Palgrave Macmillan.

Ménard, C., and du Marais, B. 2008. Can we rank legal systems according to their economic efficiency? *Washington University Journal of Law and Policy, 26,* 55-80.

Meyer, K.E., and Nguyen, H.V. 2005. Foreign investment strategies and sub-national institutions in emerging markets: Evidence from Vietnam. *Journal of Management Studies*, 42(1), 63-93.

Meyer, K.E., and Peng, M.W. 2005. Probing theoretically into central and eastern Europe: Transactions, resources, and institutions. *Journal of International Business Studies, 36(6),* 600-621.

Meyer, K.E., Mudambi, R., and Narula, R. 2011. Multinational enterprises and local context: The opportunities and challenges of multiple embeddedness. *Journal of Management Studies, 48(2),* 235-252.

Mishra, A., and Daly, K. 2007. Effect of quality of institutions on outward foreign direct investment. *Journal of International Trade and Economic Development*, 16(2), 231-244.

Morosini, P., Shane, S., and Singh, H. 1998. National cultural distance and cross-border acquisition performance. *Journal of International Business Studies, 29(1),* 137-158.

Narula, R. 2011. *Do we need different frameworks to explain infant MNEs from developing countries?* UNU-MERIT working paper #2011-073.

Narula, R., and Nguyen, Q.T.K. 2011. *Emerging country MNEs and the role of home countries: Separating fact from irrational expectations.* Henley Business School, University of Reading Working Paper.

Nordal, K.B. 2001. Country risk, country risk indices and valuation of FDI: A real options approach. *Emerging Markets Review, 2(3),* 197-217.

North, D.C. 1990. *Institutions, institutional change and economic performance.* Cambridge, United Kingdom: Cambridge University Press.

Ostrom, E. 1998. A behavioural approach to the rational choice theory of collective action. *American Political Science Review*, 92(1), 1-22.

Ostrom, E. 2010. Beyond markets and states: Polycentric governance of complex economic systems. *Transnational Corporations Review, 2(2),* 1-12.

Peng, M.W. 2002. Towards an institution-based view of business strategy. *Asia Pacific Journal of Management, 19,* 251-267.

Peng, M.W., Wang, D.Y.L., and Jiang, Y. 2008. An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, 39(5), 920-936.

Penrose, E.T. 1959. *The theory of the growth of the firm.* New York, NY: John Wiley.

Pfennig, D.W., and Ledón-Rettig, C. 2009. The flexible organism. *Science, 325:* 268-269.

Phillips, N., Tracey, P., and Karra, N. 2009. Rethinking institutional distance: Strengthening the tie between new institutional theory and international management. *Strategic Organization, 7(3),* 339-348.

Polski, M.M., and Ostrom, E. 1999. *An institutional framework for policy analysis and design.* Workshop in political theory and policy analysis, Indiana University Working paper W98-27.

Porter, M.E. 1987. From competitive advantage to corporate strategy. *Harvard Business Review, 65(3),* 43-59.

Porter, M.E. 1990. *Competitive advantage of nations.* New York: The Free Press.

Porter, M.E. 1998. *Competitive advantage: Creating and sustaining superior performance.* New York, NY: The Free Press.

Pradhan, J.P. 2004. The determinants of outward foreign direct investment: A firm-level analysis of Indian manufacturing. *Oxford Development Studies,* 32(4), 619-639.

Preacher, K.J., and Hayes, A.F. 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, 36(4),* 717-731.

Qian, Y., and Stiglitz, J. 1996. Institutional innovations and the role of local government in transition economies: The case of Guangdong Rrovince of China. In J. McMillan, and B. Naughton (Eds.), *Reforming Asia socialism: The growth of market institutions.* Ann Arbor: The University of Michigan Press; 175-194.

Rajan, R.G., and Zingales, L. 1998. Which capitalism? Lessons from the East Asian crisis. *Journal of Applied Corporate Finance, 11(3),* 40-48.

Ramamurti, R. 2008. What have we learned about MNEs?, in R. Ramamurti and J. Singh (Ed.) *Emerging multinationals from emerging markets,* Cambridge, UK: Cambridge University Press.

Ramaswami, S.N., Srivastava, R.K., and Bhargava, M. 2009. Market-based capabilities and financial performance of firms: Insights into marketing's contribution to firm value. *Journal of The Academy of Marketing Science, 37(2),* 97-116.

Ramaswamy, K., Kroeck, K.G., and Renforth, W. 1996. Measuring the degree of internationalization of a firm: A comment. *Journal of International Business Studies*, 27(1), 167-177.

Rao, M.G. 2003. Fiscal decentralization in China and India: A comparative perspective.

Asia-Pacific Development Journal, 10(1), 25-46.

Rivera-Batiz, L.A., and Romer, P.M. 1991. International trade with endogenous technological change. *European Economic Review, 35,* 971-1004.

Rodrik, D. 2000. Institutions for high-quality growth: What they are and how to acquire them. *Studies in Comparative International Development, 35(3),* 3-31.

Rodrik, D., Subramanian, A., and Trebbi, F. 2004. Institutions rule: The primacy of institutions over geography and integration in economic development. *Journal of Economic Growth*, 9(2), 131-165.

Rugman, A.M. 1980. Internalization as a general theory of foreign direct investment: A re-appraisal of the literature. *Review of World Economics*, 116(2), 365-379.

Rugman, A.M. 1981. *Inside the multinationals: The economics of internal markets.* New York: Columbia University Press.

Rugman, A.M. 1985. Internalization is still a general theory of foreign direct investment. *Review of World Economics*, 121(3), 570-575.

Rugman, A.M. 2007. *Multinational enterprises from emerging markets.* Paper presented at the Berlin Roundtable meeting on the Role of the G8 in an Endangered Global Economic and Political Climate, June 1-2, 2007, Berlin, Germany.

Rugman, A.M., and Li, J. 2007. Will China's multinationals succeed globally or regionally? *European Management Journal*, 25(5), 333-343.

Rugman, A.M., and Oh, C.H. 2008. The international competitiveness of Asian firms. *Journal of Strategy and Management*, 1(1), 57-71.

Rui, H., and Yip, G.S. 2008. Foreign acquisitions by Chinese firms: A strategic intent perspective. *Journal of World Business*, 43(2), 213-226.

Sauvant, K.P., Zhao, C., and Huo, X. 2012. The unbalanced dragon: China's uneven provincial and regional FDI performance. *Columbia FDI Perspectives No. 62*.

Schuller, M., and Turner, A. 2005. Global ambitions: Chinese companies spread their wings. *Journal of Current Chinese Affairs*, 34(4), 3-14.

Scott, W. R. 1987. The adolescence of institutional theory. *Administrative Science Quarterly, 32,* 493-511.

Scott, W.R. 1995. *Institutions and organizations.* Thousand Oaks, CA: Sage Publications.

Selznick, P. 1957. *Leadership in administration.* New York, US: Harper and Row.

Sethi, D., Guisinger, S.E., Phelan, S.E., and Berg, D.M. 2003. Trends in foreign direct investment flows: A theoretical and empirical analysis. *Journal of International Business Studies, 34(4),* 315-326.

Shan, W., and Song, J. 1997. Foreign direct investment and the sourcing of technological advantage: Evidence from the biotechnology industry. *Journal of International Business Studies, 28(2),* 267-284.

Shenkar, O. 2001. Cultural distance revisited: Towards a more rigorous conceptualization and measurement of cultural differences. *Journal of International Business Studies, 32(3),* 519-535.

Sherwood, R.M. 1990. *Intellectual property and economic development.* Boulder, CO: Westview Press.

Srivastava, R.K., Fahey, L., and Christensen, H.K. 2001. The resource-based view and marketing: The role of market-based assets in gaining competitive advantage. *Journal of Management, 27(2),* 777-802.

Sullivan, D. 1994. Measuring the degree of internationalization of a firm. *Journal of International Business Studies*, 25(2), 325-342.

Swike, E., Thompson, S., and Vasquez, C. 2008. Piracy in China. *Business Horizons, 51,* 493-500.

Tan, D., and Meyer, K.E. 2010. Business groups' outward FDI: A managerial resources perspective. *Journal of International Management, 16(2),* 154-164.

Tan, J. 2002. Culture, nation, and entrepreneurial strategic orientations: Implications for an emerging economy. *Entrepreneurship: Theory and Practice, 26(4),* 95-111.

Tan, J., and Peng, M.W. 2003. Organizational slack and firm performance during economic transitions: Two studies from an emerging economy. *Strategic Management Journal, 24(13),* 1249-1263.

Terpstra, V., and Yu, C-M. 1988. Determinants of foreign investment of U.S. advertising agencies. *Journal of International Business Studies, 19(1),* 33-46.

Trevino, L.J., and Grosse, R. 2002. An analysis of firm-specific resources and foreign direct investment in the United States. *International Business Review, 11(4),* 431-452.

Voss, H., Buckley, P.J., and Cross, A.R. 2010. The impact of home country institutional effects on the internationalization strategy of Chinese firms. *Multinational Business Review, 18(3),* 25-48.

Wang, Q., Wong, T.J., and Xia, L. 2008. State ownership, the institutional environment, and auditor choice: Evidence from China. *Journal of Accounting and Economics*, 46(1), 112-134.

Wang, X., and Fan, G. 2004. Analysis on the regional disparity in China and the influential factors. *Economic Research Journal, 1,* 5-10.

Wei, Z. 2010. The literature on Chinese outward FDI. *Multinational Business Review*, 18(3), 73-112.

Williamson, O.E. 1985. *The economic institutions of capitalism*. New York: Free Press.

Witt, M.A., and Lewin, A.Y. 2007. Outward foreign direct investment as escape response to home country institutional constraints. *Journal of International Business Studies*, 38, 579-594.

Woo, Y.P., Zhao, X., Yu, H., Zhang, K., Eaton, S., Chen, V., Li, S., and Gao, X. 2011. *China goes global 2010*. Joint report by Asia-Pacific Foundation of Canada and China Council for the Promotion of International Trade.

World Bank 2006. *China, governance, investment climate, and harmonious society: Competitiveness enhancements for 120 cities in China*. World Bank Report No. 37759-CN.

Wright, M., Filatotchev, I., Hoskisson, R.E., and Peng, M.W. 2005. Strategy research in emerging economies: Challenging the conventional wisdom. *Journal of Management Studies*, 42(1), 1-33.

Wu, X., Liu, X., and Huang, Q. 2011. Impact of institutional environment on the choice of entry mode: Evidence from Chinese enterprises. *Transnational Corporations Review, 3(4),* 32-53.

Xu, D., and Meyer, K.E. 2012. *Linking theory and context: "Strategic research in emerging economies" after Wright et al. (2005)*. CEIBS working paper, Shanghai, China.

Xu, D., and Shenkar, O. 2002. Institutional distance and the multinational enterprise. *Academy of Management Review, 27(4),* 608-618.

Xu, D., Pan, Y., and Beamish, P.W. 2004. The effect of regulative and normative distances on MNE ownership and expatriate strategies. *Management International Review, 44(3),* 285-307.

Yamakawa, Y., Peng, M.W., and Deeds, D.L. 2008. What drives new ventures to internationalize from emerging to developed economies? *Entrepreneurship Theory and Practice, 32(1),* 59-82.

Yeung, H.W. 2006. Change and continuity in Southeast Asian ethnic Chinese business. *Asia Pacific Journal of Management*, 23, 229–254.

Zaheer, S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal, 38(2),* 341-363.

Zhou, Y.S., and Schuller, M. 2009. The internationalization of Chinese companies: What do official statistics tell us about Chinese outward foreign direct investment? *Chinese*

Management Studies, 3(1), 25-42.

Table 1.   Correlation Matrix and Summary Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) OFDI-DM	1.00															
(2) Market-related Firm capability	0.15	1.00														
(3) Institutional quality (WB survey, city level)	0.12	0.08	1.00													
(4) Firm size	0.05	0.04	-0.05	1.00												
(5) Overseas assets as % of total assets	-0.13	0.12	-0.05	-0.21	1.00											
(6) Exports as % of sales	0.04	-0.03	-0.18	-0.05	0.41	1.00										
(7) Whether having prior OFDI in a DM	0.31	0.04	0.09	0.10	-0.06	-0.16	1.00									
(8) Whether state-owned	-0.03	0.01	-0.27	0.28	-0.12	-0.01	0.03	1.00								
(9) Physical infrastructure quality	0.08	0.13	-0.11	0.01	-0.04	0.18	-0.14	0.00	1.00							
(10) Home market size	0.09	0.01	0.54	-0.08	0.02	0.01	-0.01	-0.13	-0.04	1.00						
(11) Home income level	0.00	0.27	0.41	-0.05	0.13	-0.01	0.00	-0.07	-0.09	0.49	1.00					
(12) Provincial ratio of foreign assets to total assets	-0.05	-0.15	0.51	-0.06	0.14	-0.16	0.07	-0.12	-0.33	0.43	0.70	1.00				
(13) Provincial ratio of trade-to-GDP ratio	0.06	0.07	0.62	-0.05	-0.07	-0.24	0.13	-0.08	-0.30	0.55	0.44	0.70	1.00			
(14) Sector dummy for manufacturing	0.06	0.19	0.06	-0.02	-0.14	0.06	-0.06	-0.06	-0.03	0.10	-0.14	-0.09	0.07	1.00		
(15) Sector dummy for finance, trade, and services	-0.05	-0.14	-0.08	0.02	0.22	0.06	-0.04	0.10	0.04	-0.11	0.14	0.08	-0.13	-0.85	1.00	
(16) Sector dummy for transport, utility, and infrastructure	-0.04	-0.13	0.01	0.01	-0.10	-0.21	0.17	-0.05	-0.02	0.00	0.02	0.02	0.08	-0.46	-0.09	1.00
Statistics																
Mean	0.14	0.44	0.52	19.55	0.50	0.73	0.06	0.11	-1.37	5.97	4.20	25.17	8.35	0.82	0.14	0.05
Standard deviation	0.35	0.07	0.90	1.43	0.36	0.37	0.24	0.32	1.95	0.32	0.20	17.94	7.55	0.39	0.35	0.21
Number of observations	553	553	553	553	553	553	553	553	553	553	553	553	553	553	553	553

Table 2.   Step 1 OLS Estimation Results for Causal Mediation Analysis
Regressing Market-related Firm capability on Institutional Quality (WB Survey)

	Coef.	Std. Err.	t	P>t	
Institutional quality (WB survey, city level)	0.0223	0.0046	4.8900	0.0000	***
Control Variables					
Firm size	0.0001	0.0022	0.0600	0.9500	
Overseas assets as % of total assets	-0.0163	0.0095	-1.7200	0.0860	*
Exports as % of sales	0.0037	0.0094	0.3900	0.6930	
Whether having prior OFDI in a DM	0.0108	0.0127	0.8500	0.3950	
Whether state-owned	0.0120	0.0100	1.1900	0.2340	
Physical infrastructure quality	0.0072	0.0016	4.3700	0.0000	***
Home market size	0.0266	0.0126	2.1200	0.0350	**
Home income level	0.1298	0.0227	5.7100	0.0000	***
Provincial ratio of foreign assets to total assets	0.0001	0.0003	0.2400	0.8090	
Provincial ratio of trade-to-GDP ratio	0.0021	0.0007	3.1700	0.0020	***
Sector dummy for finance, trade, and services	-0.0156	0.0090	-1.7400	0.0830	*
Sector dummy for transport, utility, and infrastructure	-0.0461	0.0145	-3.1900	0.0020	***
Constant	0.8276	0.1070	7.7400	0.0000	***
Statistics					
Number of observations	553				
F	9.5800				
Probability > F	0.0000	***			
R-squared	0.1876				
Adjusted R-squared	0.1680				
Root mean squared error (MSE)	0.0677				

Note.   *p<0.1, **p<0.05, ***p<0.01

Table 3. ***Step 2 Logit and Probit Estimation Results for Causal Mediation Analysis***
Regressing OFDI-DM on Market-related Firm capability and Institutional Quality (WB Survey)

	Logit				Probit			
	Coef.	**Std. Err.**	**z**	**P>z**	**Coef.**	**Std. Err.**	**z**	**P>z**
Institutional quality (WB survey, city level)	0.4619	0.2513	1.8400	0.0660*	0.2310	0.1326	1.7400	0.0820*
Market-related Firm capability	27.7865	8.2081	3.3900	0.0010***	10.7805	2.5215	4.2800	0.0000***
Control Variables								
Firm size	0.0379	0.1107	0.3400	0.7320	0.0309	0.0583	0.5300	0.5960
Overseas assets as % of total assets	-1.1683	0.4954	-2.3600	0.0180**	-0.6659	0.2630	-2.5300	0.0110**
Exports as % of sales	1.0368	0.4912	2.1100	0.0350**	0.6351	0.2577	2.4600	0.0140**
Whether having prior OFDI in a DM	3.0463	0.4928	6.1800	0.0000***	1.7528	0.2766	6.3400	0.0000***
Whether state-owned	-0.5785	0.5627	-1.0300	0.3040	-0.3156	0.2894	-1.0900	0.2750
Physical infrastructure quality	0.1855	0.0977	1.9000	0.0580*	0.0958	0.0498	1.9300	0.0540*
Home market size	0.3801	0.7191	0.5300	0.5970	0.0892	0.3564	0.2500	0.8020
Home income level	0.5765	1.4491	0.4000	0.6910	0.6345	0.6838	0.9300	0.3530
Provincial ratio of foreign assets to total assets	-0.0451	0.0217	-2.0800	0.0370**	-0.0183	0.0098	-1.8700	0.0610*
Provincial ratio of trade-to-GDP ratio	0.0770	0.0536	1.4400	0.1510	0.0261	0.0239	1.0900	0.2740
Sector dummy for finance, trade, and services	0.3466	0.4793	0.7200	0.4700	0.2062	0.2473	0.8300	0.4040
Sector dummy for transport, utility, and infrastructure	-1.2341	0.9035	-1.3700	0.1720	-0.6189	0.4577	-1.3500	0.1760
Constant	-20.1991	6.9425	-2.9100	0.0040***	-9.9333	3.2213	-3.0800	0.0020***
Statistics								
Number of observations	553				553			
LR chi-square	109.2600				106.3800			
Probability > chi-square	0.0000***				0.0000***			
Pseudo R-squared	0.2390				0.2327			
Log likelihood	-173.9472				-175.3877			
Direct- and indirect effects								
Average causal mediation effect (ACME)	0.0238	58.09%***			0.0202	51.57%***		
Direct effect	0.0172	41.91%*			0.0190	48.43%*		
Total effect	0.0410	*			0.0392	*		

Note. *p<0.1, **p<0.05, ***p<0.01

Table 4.   Step 1 OLS Estimation Results for Robustness Check
Regressing Market-related Firm capability on Institutional Quality (IFC Survey)

	Coef.	Std. Err.	t	P>t	
Institutional quality (IFC survey, provincial level)	0.1110	0.0467	2.3800	0.0180	**
Control Variables					
Firm size	0.0007	0.0022	0.3400	0.7330	
Overseas assets as % of total assets	-0.0176	0.0096	-1.8300	0.0680	*
Exports as % of sales	0.0002	0.0095	0.0200	0.9860	
Whether having prior OFDI in a DM	0.0120	0.0129	0.9300	0.3520	
Whether state-owned	0.0024	0.0100	0.2400	0.8080	
Physical infrastructure quality	0.0064	0.0017	3.8300	0.0000	***
Home market size	0.0308	0.0133	2.3100	0.0210	**
Home income level	0.1276	0.0231	5.5100	0.0000	***
Provincial ratio of foreign assets to total assets	0.0001	0.0003	0.2900	0.7710	
Provincial ratio of trade-to-GDP ratio	-0.0019	0.0007	-2.6200	0.0090	***
Sector dummy for finance, trade, and services	-0.0157	0.0092	-1.7100	0.0870	*
Sector dummy for transport, utility, and infrastructure	-0.0499	0.0147	-3.4000	0.0010	***
Constant	0.7481	0.1074	6.9700	0.0000	***
Statistics					
Number of observations	553				
F	7.9200				
Probability > F	0.0000	***			
R-squared	0.1603				
Adjusted R-squared	0.1401				
Root mean squared error (MSE)	0.0688				

Note.   *p<0.1, **p<0.05, ***p<0.01

Table 5.   Step 2 Logit and Probit Estimation Results for Robustness Check
Regressing OFDI-DM on Market-related Firm capability and Institutional Quality (IFC Survey)

|	Logit				Probit			
	Coef.	**Std. Err.**	**z**	**P>z**	**Coef.**	**Std. Err.**	**z**	**P>z**
Institutional quality (IFC survey, provincial level)	10.7177	3.6947	2.9000	0.0040***	5.3123	1.7986	2.9500	0.0030***
Market-related Firm capability	30.1720	7.9331	3.8000	0.0000***	13.9816	2.8730	4.8700	0.0000***
Control Variables								
Firm size	0.0757	0.1161	0.6500	0.5140	0.0348	0.0602	0.5800	0.5630
Overseas assets as % of total assets	-1.1962	0.5046	-2.3700	0.0180**	-0.6911	0.2694	-2.5700	0.0100**
Exports as % of sales	0.9474	0.4883	1.9400	0.0520*	0.6171	0.2599	2.3700	0.0180**
Whether having prior OFDI in a DM	2.9827	0.4940	6.0400	0.0000***	1.7309	0.2783	6.2200	0.0000***
Whether state-owned	-0.6893	0.5543	-1.2400	0.2140	-0.3610	0.2872	-1.2600	0.2090
Physical infrastructure quality	0.2438	0.0984	2.4800	0.0130**	0.1303	0.0519	2.5100	0.0120**
Home market size	-0.0194	0.7687	-0.0300	0.9800	-0.1186	0.3808	-0.3100	0.7550
Home income level	-0.2397	1.5271	-0.1600	0.8750	0.4523	0.7035	0.6400	0.5200
Provincial ratio of foreign assets to total assets	-0.0588	0.0244	-2.4100	0.0160**	-0.0212	0.0103	-2.0500	0.0400**
Provincial ratio of trade-to-GDP ratio	0.0491	0.0583	0.8400	0.3990	0.0008	0.0269	0.0300	0.9760
Sector dummy for finance, trade, and services	0.3800	0.4806	0.7900	0.4290	0.2383	0.2492	0.9600	0.3390
Sector dummy for transport, utility, and infrastructure	-1.2427	0.8978	-1.3800	0.1660	-0.6125	0.4590	-1.3300	0.1820
Constant	-20.0528	6.6994	-2.9900	0.0030***	-11.3668	3.1651	-3.5900	0.0000***
Statistics								
Number of observations	553				553			
LR chi-square	115.9600				113.5900			
Probability > chi-square	0.0000***				0.0000***			
Pseudo R-squared	0.2537				0.2485			
Log likelihood	-170.5981				-171.7841			
Direct- and indirect effects								
Average causal mediation effect (ACME)	0.1014	22.11%**			0.1013	21.37%**		
Direct effect	0.3574	77.89%***			0.3728	78.63%***		
Total effect	0.4589	**			0.4740	**		

Note.   *p<0.1, **p<0.05, ***p<0.01
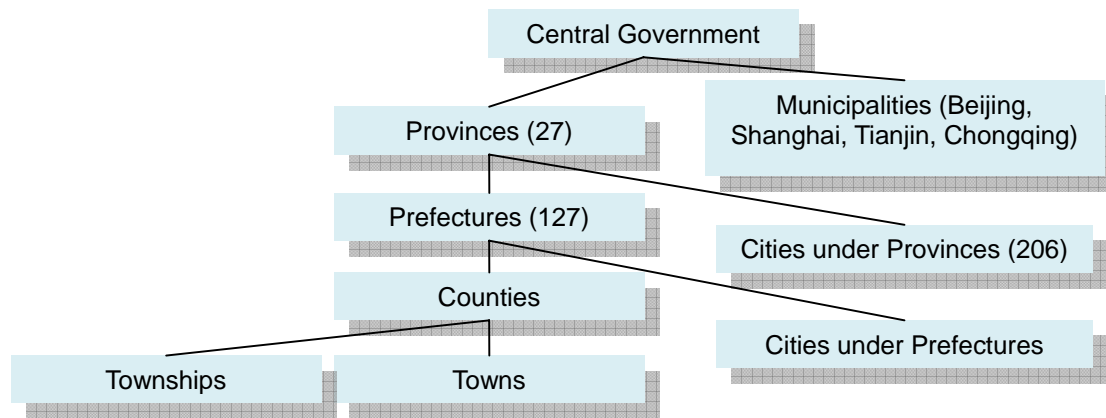
Figure 1.   Level of Administration in China
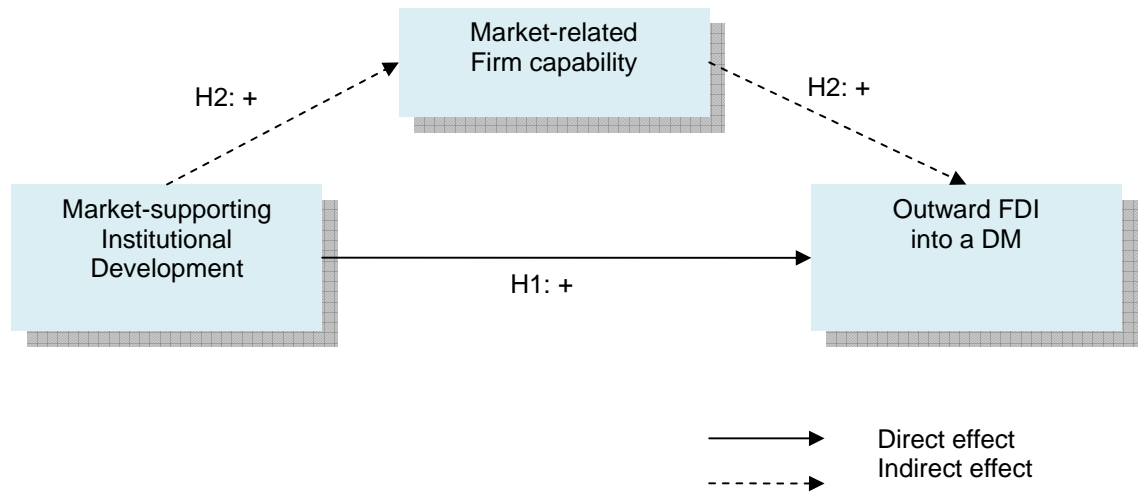*Note.*   Adapted from Rao (2003).

Figure 2.   A Proposed Institutional Effect Framework of OFDI

Appendix 1.   Descriptive Summary and Correlation Matrix of Sub-Indices of Institutional Quality from WB Survey

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	taxes and fees	1.0000						
(2)	business entertainment costs	0.5506*	1.0000					
(3)	bureaucratic interaction	0.2537*	0.0856	1.0000				
(4)	expected informal payment for loans	0.1531	0.3222*	0.1229	1.0000			
(5)	confidence in courts	-0.4462*	-0.4468*	-0.3925*	-0.3003*	1.0000		
(6)	percentage of private firms	-0.4555*	-0.3244*	-0.3346*	-0.1994	0.3413*	1.0000	
(7)	percentage of private SMEs with bank loans	-0.0936	-0.3219*	-0.1359	-0.0449	0.3104*	0.2098	1.0000
	Mean	4.9400	1.1250	60.5350	7.2167	63.7500	82.8500	45.3294
	Standard deviation	1.3975	0.4519	21.3859	4.7202	16.8120	10.4533	17.1409
	Number of observations	120	120	120	120	120	120	119

Note.   (1) * $p < 0.01$
(2) Descriptions of sub-indices:
 Taxes and fees: average percentage of total taxes and fees over sales revenue
 Business entertainment costs: average percentage of firm expenditures on business entertainment and travel over sales revenue
 Bureaucratic interaction: average days per year firms spend with major bureaucracies (e.g., tax administration, public security, environment protection, labour and social security)
 Expected informal payment for loans: percentage of survey respondents who perceive a need for informal payments to obtain loans
 Confidence in courts: percentage of survey respondents who expect that courts will protect legitimate property and contract rights
 Percentage of private firms: percentage of private (i.e., non-state) enterprises
 Percentage of private SMEs with bank loans: average percentage of private SMEs that have access to bank loans

Appendix 2.   ***Descriptive Summary and Correlation Matrix of Sub-Indices of Market-related Firm capability***

		(1)	(2)	(3)
(1)	Question 1	1.000		
(2)	Question 2	0.7989*	1.000	
(3)	Question 3	0.8034*	0.8199*	1.000
	Mean	0.393	0.369	0.351
	Standard deviation	0.489	0.483	0.477
	Number of Observations	1080	1080	1080

Note.   * $p<0.01$

Appendix 3. Descriptive Summary and Correlation Matrix of Sub-Indices of Institutional Quality from IFC Survey

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) starting a business - number of procedures	1.0000								
(2) starting a business - time (days)	0.5728*	1.0000							
(3) starting a business - cost (% of income per capita)	0.2806	0.3969*	1.0000						
(4) starting a business - paid-in minimum capital (% of income per capita)	0.3012	0.4438*	0.8955*	1.0000					
(5) property right registration - number of procedures	0.1465	0.3582*	0.3883*	0.2634	1.0000				
(6) property right registration - time (days)	0.3347*	0.5631*	0.4893*	0.5620*	0.4808*	1.0000			
(7) property right registration - cost (% of property value)	0.3144*	0.4307*	0.7499*	0.8131*	0.1008	0.4865*	1.0000		
(8) contract enforcement - time (days)	0.4440*	0.4631*	0.3166*	0.3275*	0.2216	0.5455*	0.3267*	1.0000	
(9) contract enforcement - cost (% of claim)	0.3144*	0.4307*	0.7499*	0.8131*	0.1008	0.4865*	1.0000*	0.3267*	1.0000
Mean	13.5667	41.0667	11.0167	2.7375	9.0333	52.4000	5.2382	319.0667	5.2382
Standard deviation	0.6789	6.6381	5.2614	0.8988	1.8843	13.8405	1.8339	89.3308	1.8339
Number of observations	30	30	30	30	30	30	30	30	30

*Note .   * p<0.01*