Outward FDI and profitability of emerging economy firms: Diversifying from home resource dependence in early stage internationalization

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ABSTRACT

We investigate the effect of conducting FDI on the profitability of emerging economy firms in early stage internationalization. We argue that FDI can be an effective strategy to alleviate liabilities of emergingness, thus generating positive performance outcomes. We hypothesize that, contingent on factors altering motivation and capability of firms to diversify from home resource dependence, emerging economy firms can benefit from conducting FDI, resulting in a greater rate of intangible assets growth and enhanced profitability. Using panel data of Chinese firms prior to the global financial crisis, and through combining matching techniques with difference-in-difference analysis, we find empirical support for our arguments.

1. Introduction

An important line of inquiry in international business research seeks to understand the impact of internationalization on firm performance (Abdi & Aulakh, 2018; Hennart, 2011; Lu & Beamish, 2004). There is in a substantial body of scholarly work investigating the mechanisms through which firms benefit from foreign direct investment (FDI). Evidence from advanced economy firms suggests a path-dependent approach of internationalization (Johanson & Vahlne, 2009), whereby experiential learning and network building allow firms to profitably exploit firm-specific advantages through FDI (Delios & Beamish, 2001; Dunning, 1998) while managing the risks and costs arising from “liabilities of foreignness” (Zaheer, 1995).

Emerging economy multinational enterprises (EMNE), however, often deviate from this path-dependent approach to internationalization. Recent studies highlight EMNEs’ high risk tolerance and exploratory orientation in FDI as opposed to advantage exploitation (Buckley, Chen, Clegg, & Voss, 2018; Cui, Meyer, & Hu, 2014; Luo & Tung, 2007); and argue that EMNEs often conduct FDI to redress their disadvantaged home country conditions characterized by “liabilities of emergingness” (Boisot & Meyer, 2008; Madhok & Keyhani, 2012), rather than minimizing liabilities of foreignness. The performance implications of these distinct characteristics of EMNEs’ FDI remain unclear.

This study aims to advance our understanding of EMNEs’ FDI performance effect, especially the effect of FDI on investing firm’s

profitability. Existing studies of EMNEs’ FDI outcomes have so far focused on mode-specific or process-based outcomes. The most commonly examined is foreign acquisition outcomes measured by short-term stock market reaction (e.g. Aybar & Ficici, 2009; Gubbi, Aulakh, Ray, Sarkar, & Chittoor, 2010) or target/acquired firm performance (e.g. Buckley, Elia, & Kafouris, 2014; He, Khan, & Shenkar, 2018). Other studies have evaluated process-based outcomes such as reverse knowledge transfer and productivity spillover (e.g. Li, Li, Lyles, & Liu, 2016; Li, Liu, Yuan, & Yu, 2017; Zhao, Liu, & Zhao, 2010). Notwithstanding the valuable insights from these existing studies, we lack a theoretical framework and empirical evidence of the effect of FDI on EMNEs’ profitability (Deng, 2012). The current study addresses this knowledge gap by asking: *what is the effect of conducting FDI on the profitability of EMNEs, and what are the contingencies of this performance effect?*

We approach this research question from a theoretical basis that highlights the strategic context of EMNEs’ FDI. The role of context is central to international business research in general (Teagarden, Von Glinow, & Mellahi, 2018), and the study of EMNE phenomenon in particular (Luo & Bu, 2018; Meyer & Peng, 2016). We focus on the home country context of EMNEs as it strongly influences firms’ internationalization effort and subsequently their international performance (e.g. Cuervo-Cazurra, Luo, Ramamurti, & Ang, 2018; Marano, Arregle, Hitt, Spadafora, & Essen, 2016; Wu & Chen, 2014; Zhu, Ma, Sauerwald, & Peng, 2017). The home country context is particularly important for firms in an early stage of internationalization (Luo & Wang, 2012), because their initial firm-specific assets are mostly constrained by the

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location-specific conditions of the home country (Narula, 2012). Owing to institutional deficiencies in the home country (Khanna & Palepu, 1997), EMNEs tend to lack resources, know-how, and market legitimacy necessary for international success. These home-country-based disadvantages of EMNEs are incorporated into the notion of liabilities of emergingness by Madhok and Keyhani (2012), which subject EMNEs to high resource dependency on external entities. Specifically, they are highly dependent on home country government for institutional resources such as funding, supply of production inputs (land, raw materials, operating license), and access to business and innovation infrastructure. They are also highly dependent on foreign firms for competitive resources such as advantaged technology, brands, international market information, and managerial know-how. Research shows that, facing such liabilities of emergingness, EMNEs conduct FDI as a strategic response to diversify from power-disadvantaged resource dependence in their home countries (Choudhury & Khanna, 2014; Gaffney, Kedia, & Clampit, 2013; Xia, Ma, Lu, & Yiu, 2014).

Accordingly, we adopt the resource dependence theory (RDT) as a theoretical framework to examine EMNEs' FDI performance effect in the early stage of their internationalization. Our baseline argument is that, conducting FDI enables EMNEs to diversify sources of resource supplies and thus reduce power-disadvantaged resource dependence on the home state (Choudhury & Khanna, 2014) and foreign firms operating in the EMNEs' home market (Xia et al., 2014). Consequently, this diversification tactic is expected to stabilize and enhance the critical resource supplies of EMNEs and improve their strategic autonomy, and in doing so, this will positively influence their profitability. We further argue that this baseline effect is contingent on the motivation and capability of EMNEs to diversify from multi-sourced home resource dependence.

To test our arguments, we use archival data of Chinese public listed firms during 2002–2009. This sample period covers the early stage of Chinese firms' internationalization – Chinese government's policies toward outward FDI was liberalized after the country's World Trade Organization (WTO) accession in 2001; and consequently, there was a significant increase in Chinese FDI outflow from 2002, both in monetary volume and in the number of project (Buckley, Cross, Tan, Xin, & Voss, 2008). This sample period matches our theoretical boundary as the home country conditions are more relevant to the early stage internationalization of firms than the matured stage. Analytically, we employed matching techniques in combination with a difference-in-difference (DID) approach to circumvent endogeneity when testing the effect of FDI on organizational outcomes (Chang, Chung, & Moon, 2013; Semadeni, Withers, & Certo, 2014). Our findings, based on a panel of 973 publicly listed Chinese firms during 2002–2009, provide strong support for the RDT argument as an explanation for the positive effects of FDI on the profitability and intangible assets growth of EMNEs in the short-to-medium term. The findings also show that these positive performance effects are contingent on factors regarding the motivation and capability of EMNEs to diversify from resource dependence on the home state and foreign firms located in the home market.

This study makes novel contributions to the study of FDI performance of EMNEs. The strategic context of EMNEs in the early stage of their internationalization challenges the conventional wisdom from existing FDI-performance research. Instead of focusing on advantage exploitation and liabilities of foreignness, EMNEs in the early stage of their internationalization face liabilities of emergingness and conduct FDI to diversify home resource dependence. Our study supports the RDT logic which suggests that EMNEs can achieve a profitability gain from conducting FDI to diversify from resource dependence on the home state and foreign firms located in the home market. We discuss contributions and practical implications in detail at the last section of the paper.

2. Literature review

2.1. Performance of EMNEs' FDI

The rising phenomenon of EMNEs has attracted scholarly attention to re-evaluate existing theoretical insights on firm internationalization (Cuervo-Cazurra, 2012; Hennart, 2012). While early studies of EMNEs focus on their unconventional motives and strategic approaches to FDI (e.g. Luo & Tung, 2007; Makino, Lau, & Yeh, 2002), recent studies attempt to reveal their performance implications (Buckley & Tian, 2017; Wu, Wang, Hong, Piperopoulos, & Zhuo, 2016). We conduct a systematic review of EMNEs' FDI performance outcomes based on 64 articles published in premier business and management journals in the past 15 years.¹

Our review shows that researchers draw on a wide range of theoretical perspectives when studying EMNEs' FDI performance outcomes. For instance, an institutional perspective highlights the unique institutional context of EMNEs' home country and the challenges associated with institutional distance that may compromise EMNEs' FDI performance (Du & Boateng, 2015; Liou & Rao-Nicholson, 2017). An organizational learning perspective suggests that EMNEs' motivation and capability of utilizing FDI as a channel of learning to compensate for competitive disadvantages at home strongly influence their FDI performance (Liu, Gao, Lu, & Lioliou, 2016; Lyles, Li, & Yan, 2014). A signaling perspective is adopted by researchers to investigate the information asymmetry between EMNEs and other market participants which may distort the market valuation of EMNEs' FDI (Cho & Ahn, 2017; Tao, Liu, Gao, & Xia, 2017).

Despite these different theoretical perspectives, a common theme centers on the disadvantages EMNEs inherit from their home country context. Essentially, the fact that EMNEs originate from home countries where institution, infrastructure, and factor market are underdeveloped (Khanna & Palepu, 1997), induces liabilities of emergingness for EMNEs' internationalization (Madhok & Keyhani, 2012). As argued by Madhok and Keyhani (2012), imprinted by their founding conditions in such home country environments, EMNEs tend to lack the organizational structure and capabilities required to effectively compete overseas. As a result, they suffer credibility and legitimacy deficit in the eyes of host country stakeholders, which create extra costs for EMNEs' internationalization. Scholars also argue that such home country induced constraints are particularly salient in the early stage of firms' internationalization, as the initial set of firm-specific assets are based on home country conditions (Narula, 2012).

This literature has so far focused on the motives and strategies of EMNEs facing home induced liabilities of emergingness. Motivated to redress their liabilities of emergingness, EMNEs may use FDI as a mechanism to escape from home country institutional constraints (Boisot & Meyer, 2008; Witt & Lewin, 2007), to escape power dependence on foreign firms (Xia et al., 2014), or to springboard into foreign markets where they can acquire knowledge-based assets not available at home (Luo & Tung, 2007). To do so, despite in an early stage of internationalization, EMNEs tend to be aggressive in seeking strategic assets overseas, typically using acquisition as mode of entry (Gubbi et al., 2010; Mathews & Zander, 2007) while targeting advanced host economies (Lu, Liu, Wright, & Filatotchev, 2014).

The literature has, however, not directly addressed the performance implications of these motivations and strategies of EMNEs in the early stage of internationalization. The viability of EMNEs' aggressive approach to alleviate liabilities of emergingness cannot be assumed (Guo, Clougherty, & Duso, 2016; Luo & Tung, 2007). Moreover, the general characterization of EMNEs' FDI motivations and strategies cannot account for firm-level heterogeneity. In other words, EMNEs' FDI

¹ A detailed description of the review scope, summary of all 64 papers, as well as a full reference list are provided in Appendix 1.

motivations and strategies may vary even when they are conditioned by the same home country context (Narula, 2012). The lack of theoretical understanding is also mirrored by the shortage of direct empirical evidence on the FDI performance effect of EMNEs. Researchers have so far examined some preliminary performance indicators such as subsidiary survival (Miller, Thomas, Eden, & Hitt, 2008; Thomas, Eden, Hitt, & Miller, 2007), short-term market valuation of cross-border acquisition event (Aybar & Ficici, 2009; Gubbi et al., 2010), or intermediate learning outcomes (Li et al., 2016; Zhao et al., 2010). Evidence of FDI effect on investing firm's core performance indicator, such as profitability, remains scarce. Overall, the literature on EMNE's FDI presents a knowledge gap – we lack theoretical understanding and empirical evidence of the mechanism by which EMNEs can profit from conducting FDI in the early stage of internationalization. We propose below that the RDT perspective offers a theoretical framework to identify this mechanism and its contingencies.

2.2. Using RDT framework to study EMNEs' FDI performance

EMNEs can alleviate liabilities of emergingness if they reduce their dependence on the source of such liabilities, namely their home country. Recent studies of EMNEs have examined outward FDI as a tactic used by EMNEs to restructure their external dependencies, whereby they diversify the supplies of critical resources and thus redress the power imbalance resulting from a high degree of resource dependence in their home countries (Choudhury & Khanna, 2014; Gaffney et al., 2013; Huang, Xie, Li, & Reddy, 2017; Xia et al., 2014). It follows that the extent to which EMNEs can escape resource dependence at home will determine the level of profitability gain from FDI. Accordingly, we develop an RDT framework to study EMNEs' FDI performance.

The premise of RDT is that organizations rarely possess all of the resources required for their survival and development, and are therefore dependent on other organizations in the external environment for the supplies of critical resources (Pfeffer & Salancik, 1978). On this basis, the RDT offers a unified theory of power at the organizational level of analysis (Casciaro & Piskorski, 2005), and in this respect power comes from the control of vital resources (Ulrich & Barney, 1984). Organizations can restructure their external dependencies to redress power imbalances using a variety of tactics (Casciaro & Piskorski, 2005; Hillman, Withers, & Collins, 2009), including constraint absorption (through merger and acquisition, long-term contracts, or other inter-organizational relationships), cooptation (by forming either equity or non-equity ties), political actions, and cultivating alternative sources of supplies (e.g. through a board of directors) (Casciaro & Piskorski, 2005; Drees & Heugens, 2013; Hillman & Dalziel, 2003; Hillman et al., 2009; Wry, Cobb, & Aldrich, 2013).

From the RDT perspective, prior studies have highlighted two major types of home resource dependence faced by EMNEs which could motivate them to conduct FDI as a diversification tactic. The first is resource dependence on the home-country state, especially given that many EMNEs are state-owned and/or have political ties with the government for critical resource supplies (Cuervo-Cazurra, Inkpen, Musacchio, & Ramaswamy, 2014; Cui & Jiang, 2012; Zheng, Singh, & Mitchell, 2015). The second is resource dependence on foreign firms in the EMNE's home market. Xia et al. (2014) identify three forms of interdependence between EMNEs and foreign firms in their home market – symbiotic, competitive, and partner interdependence. EMNEs are power-disadvantaged vis-à-vis foreign firms in all these interdependence relationships as foreign firms often possess the advanced and critical resources needed by local firms in the EMNEs' home market. Consequently, EMNEs facing a high degree of external dependence on foreign firms at home are motivated to diversify the supplies of critical resources by conducting FDI (Xia et al., 2014).

In summary, recent studies suggest that EMNEs are exposed to multi-sourced resource dependence at home. EMNEs can use outward

FDI as a diversification tactic to reduce their home resource dependence, but there are contingencies related to their motivations and capabilities to redress such power imbalances. Prior studies are limited in that they focus on single-sourced resource dependence, which does not reflect the complexity within the external environment of many EMNEs. They also do not distinguish between motivation and capability contingencies. Moreover, while implying the effect of FDI on stabilizing and enhancing critical resource supplies for EMNEs, prior studies remain silent on the actual performance outcomes resulting from EMNEs using FDI as a diversification tactic. Below we extend the RDT's diversification logic of reducing power imbalances to study the FDI performance effect of EMNEs, while considering a range of contingency factors associated with environmental complexity.

3. Hypotheses

We set the boundary of our theory development within the early stage internationalization of EMNEs. In developing our hypotheses, our key assumptions are that (1) EMNEs in their early stage of internationalization suffer liabilities of emergingness from their home country institutional and market environments, which result in their high resource dependence on home-country state and foreign firms, and that (2) power imbalances from high resource dependence at home suppresses EMNEs from fully realizing their profitability potential. As such, our hypotheses are contextualized and may not be generalized outside the context of early stage internationalization of EMNEs.

Building on prior studies (e.g. Choudhury & Khanna, 2014; Xia et al., 2014), we argue that conducting FDI positively influences the profitability of the investing firm through the mechanism of diversifying the supplies of critical resources. These critical resources include institutional resources – e.g. funding, supply of production inputs (land, raw materials, operating license) and access to business and innovation infrastructure – and foreign firms' competitive resources – e.g. advanced technology, brands, international market information, and managerial know-how. Conducting FDI can enable EMNEs to diversify the supply of such resources by actively and strategically sourcing from foreign financial, equity, and factor markets. In other words, conducting FDI reduces EMNEs' resource dependence on their home country state and foreign firms in their home markets.

The state often plays a critical role in the economic coordination of many emerging economies. State capitalism is prevalent across many emerging economies with a variety of political systems (e.g. autocratic in China, democratic in India) (Hu, Cui, & Aulakh, 2018; Musacchio, Lazzarini, & Aguilera, 2015; Nee & Oppen, 2007). As a result of the active participation and intervention of the state in the domestic economy, many business organizations in emerging economies are resource-dependent on their home-country state. In particular, they are dependent on the state for the resources that are under the state's institutional control, such as capital, land, operating licenses, R&D resources, and access to markets (Musacchio et al., 2015; Zhou, Gao, & Zhao, 2017). To obtain such institutional resources, firms need to gain legitimacy from the state by performing tasks aligned with the state's objectives, which may divert firm resources and managerial attention from achieving their own commercial success (Cuervo-Cazurra et al., 2014; Nee, Oppen, & Wong, 2007). Firms with political ties (e.g. through state ownership), while enjoying some of the privileges from state support, often have compromised autonomy and efficiency in pursuing profit-seeking activities (Musacchio et al., 2015; Zhou et al., 2017). To overcome these negative influences of the home-country state on firm profitability, emerging economy firms can conduct FDI as a diversification tactic. By doing so, EMNEs can cultivate alternative sources of cash flow (Choudhury & Khanna, 2014), thus reducing dependence on government funds and support (Cuervo-Cazurra et al., 2014), and they can benefit from "institutional arbitrage" to overcome the constraints in accessing the supplies of competitive resources and market growth at home (Boisot & Meyer, 2008: 350). This will

positively influence the profitability of those EMNEs.

Economic liberalization across emerging economies has embraced free-market principles which has attracted foreign competition. By owning more advanced resources and know-how than local firms, foreign firms on average enjoy an upper hand when in competition with local firms in emerging economies (Inkpen & Beamish, 1997). Based on industrial organization economics (Porter, 2008), firms face various competitive forces in their supply chain and market environments which will determine the profitability of firms. In the context of emerging economies, foreign firms often possess the advanced and critical resources needed by local firms, which afford them greater power over the local firms in supply chain relationships, market competition, and partnerships (Xia et al., 2014). Foreign firms can dictate the terms of their exchanges with local firms, which can squeeze the profit margins of the local firms. By conducting FDI, local firms from emerging economies can directly access foreign strategic factor and consumer markets, effectively diversifying the sources of supplies of their critical resources, and enhancing their power positions against foreign firms. This strategy can stabilize the supplies of critical resources for EMNEs, and potentially provide more favorable exchange terms due to a greater bargaining power, which will positively influence the profitability of EMNEs.

Hypothesis 1. For EMNEs, with other factors being equal, conducting FDI has a positive effect on profit growth.

Not all EMNEs are equally motivated or capable to engage in FDI as a tactic for diversifying from home resource dependence (Cui et al., 2014; Cuervo-Cazurra et al., 2014; Li, Yi, & Cui, 2017). We argue that the diversification mechanism of the resource dependence logic is subject to a range of contingency factors. We identify these contingency factors in a comprehensive framework that reflects the complexity of the resource dependence of EMNEs at home (see Table 1).

As shown in Table 1, the horizontal dimension reflects the multiplicity of the resource dependence relationships of EMNEs in their home countries. As argued above, EMNEs are resource-dependent on two powerful external entities for critical resource supplies – the home country state who controls the allocation of institutional resources (Choudhury & Khanna, 2014; Cuervo-Cazurra et al., 2014) and foreign firms in home market who possess superior competitive resources (Xia et al., 2014). The vertical dimension of the contingency framework addresses the variation in the actions of EMNEs toward home resource dependence. Organizational actions are driven by motivation and bounded by capability (Chen, Su, & Tsai, 2007). Scholars note that a salient RDT approach to understanding organizational actions must distinguish the focal firm's motivation from its capability to increase its power in external dependencies (Casciari & Piskorski, 2005; Xia & Li, 2013). Motivation is a function of the severity of power imbalances from resource dependence on external entities. The more power-disadvantaged, the greater the incentive for a firm to diversify from such resource dependence in order to increase its power. Organizations cannot be completely free from external dependencies (Hillman et al., 2009; Pfeffer & Salancik, 1978). Therefore, capability is also an important contingency as it determines the quality of new external

dependencies formed by the focal firm to diversify from the existing, power-disadvantaged, external dependencies.

Overall, the diversification mechanism of the resource dependence logic underlying the positive effect of FDI EMNEs' profit growth is stronger when the EMNEs are more highly motivated by power imbalances and more highly capable to form high-quality new external dependencies, with regard to resource dependence on both home state and foreign firms located in the home market. Based on this comprehensive contingency framework (Table 1), we identify the salient contingency factors that will moderate the baseline effect (see Hypothesis 1) of FDI on the profitability of EMNEs.

Motivation to escape resource dependence on home state. In an emerging economy context, state ownership is closely associated with the degree of firms' resource dependence on the home state (Benito, Rygh, & Lunnan, 2016; Xia et al., 2014). Political and administrative connections are important channels to access critical resources by emerging economy firms to enhance their competitive positions against existing and potential rivals (Narula, 2012; Zheng et al., 2015). A prominent form of such connections is state capitalism, namely state ownership in firms (Musacchio et al., 2015; Nee et al., 2007). State as shareholder has a financial incentive to grant state-owned firms privileged access to institutional resources. Moreover, governments of some emerging economies may maintain ownership control in certain strategic and sensitive industries such as defense, telecommunication, aviation, etc. In such industries, state-owned firms, as policy vehicles, are expected to produce positive externalities for the economy and society (Doh, Teegen, & Mudambi, 2004), and also to lead economic reforms such as industry restructuring (Li, Cui, & Lu, 2014), which provides strategic incentives to the state to afford state-owned firms with additional resource support. Therefore, in the domestic context of an emerging economy, we expect that, on average, state-owned firms are more resource-dependent on the home state than are private firms. Moreover, although state-owned firms can be important policy vehicles for the home state, they are generally power-disadvantaged in their exchange relationships with the state. This is because the state can vacillate between state-owned and private sectors to achieve its goals (Hu et al., 2018; Musacchio et al., 2015), whereas businesses are rarely powerful enough to change government. Also, while private firms have the option to engage in cooptation with political actors, this option is not available to state-owned firms as they are already influenced by political actors to pursue non-commercial objectives (Cuervo-Cazurra et al., 2014). As state-owned firms suffer from greater power imbalances in their resource dependence with the home state, from a motivational standpoint, there is a greater incentive for them to diversify from such resource dependence. Hence, we predict that:

Hypothesis 2. For EMNEs, the positive effect of FDI on profit growth is greater for state-owned firms than for private firms.

Capability to escape resource dependence on home state. Autonomy is an important condition of the power escape argument of RDT concerning home state dependence (Choudhury & Khanna, 2014), where a lack of autonomy disables power escape through FDI due to political liabilities (Huang et al., 2017). EMNEs' strategic autonomy can

Table 1

A contingency framework of FDI as a tactic of diversifying from home resource dependence.

		Multiplicity of EMNEs' resource dependence at home	
		Dependence on home state for institutional resources	Dependence on foreign firms for competitive resources
EMNEs' actions toward home resource dependence	Motivation to diversify	State-owned firms are heavily resource-dependent on the home state and power-disadvantaged in its relationship with the state	Marketization in the home base exposes emerging economy firms to greater foreign firm competition and reduces the relative value of local firm resources
	Capability to diversify	Organizational slack allows emerging economy firms to avoid excessive regulatory constraints and increases their autonomy of carrying out FDI for non-state objectives	Advanced economy FDI location provide access to better developed strategic factor market of complementary resources

be compromised if they are subject to regulatory constraints when pursuing outward FDI, regardless of their ownership status and political connections. When the enforcement of law is weak, as is the case of many emerging economies, the state has to rely primarily on an administrative governance structure built around its international investment strategies (Pistor & Xu, 2005). In the Chinese context for example, since 2001, the government's screening and approval of outward FDI aim at safeguarding national interests by tightening credit control and investment risk assessment of outward investing firms (Cui & Jiang, 2012; Luo, Xue, & Han, 2010). As a result, firms – state-owned or private – that need to rely on the state's supply of foreign exchange and/or lack financial buffer to manage risks of FDI, are likely to be subject to more stringent and strenuous screening and approval procedures, which compromise their strategic autonomy of conducting FDI. Accordingly, EMNEs with low levels of organizational slack will face greater constraints from the home state and suffer greater autonomy loss, because they will have to secure capital input from the state by forming and enhancing political ties (Katila, Rosenberger, & Eisenhardt, 2008), and have to justify the risk profile of their FDI projects by aligning their strategic choices with the state's coordination and guidance (Cui & Jiang, 2012; Luo et al., 2010). In contrast, firms with sufficient organizational slack can avoid excessive home-country regulatory constraints when conducting FDI, which allows for greater strategic autonomy. Not only does organizational slack allow EMNEs to fund their FDI projects internally and thus avoiding credit approval from the state or state-controlled banks, as a readily deployable financial resource, it can also buffer risks associated with exploratory activities with uncertain return (Hambrick, Cho, & Chen, 1996; Lin, Cheng, & Liu, 2009). In summary, organizational slack affords EMNEs greater autonomy to conduct FDI as a strategy of escaping home state dependence, strengthening the mechanism underlying the baseline effect (see Hypothesis 1) of FDI on the profitability of EMNEs.

Hypothesis 3. For EMNEs, the positive effect of FDI on profit growth is stronger for firms with a higher, rather than a lower, level of organizational slack.

Motivation to escape resource dependence on foreign firms. Emerging economy firms are motivated to diversify from resource dependence on foreign firms when they are power-disadvantaged against foreign firms in their home markets. Business success in emerging economies often requires bundling local and foreign firm assets (Hennart, 2009), which makes local and foreign firms mutually dependent. The power imbalance of this mutual dependency is determined by the relative value of local and foreign firm resources. The resource advantages of local firms are typically location-bound, which are valuable to foreign firms because they cannot readily access such local resources due to high transaction costs in emerging economies (Hennart, 2009; Narula, 2012). However, given that such resource advantages are location-bound, significant changes in the “rules of the game” in that location may cause the erosion of the value of such resources. Emerging economy research suggests that, while pro-market reform enhances the macro-level efficiency of emerging economies, at the micro-level it poses a major threat to the sustainability of the traditional advantages possessed by local firms (Peng, 2003). The growing dominance of market logic reduces the power of local firms against foreign firms, as the latter become less embedded with and committed to their relationship with the former (Gulati & Sytch, 2007). In the meantime, pro-market reform provides better protection of property rights, and enhances the value of competitive resources relative to relational resources (Peng, 2003), which gives greater bargaining power to foreign firms in their exchanges with local firms. In line with these arguments, Xia et al. (2014) found that EMNEs originating from home-country locations with high levels of marketization are more motivated to diversify from their resource dependence on foreign firms in the home market.

In addition to the symbiotic and partnering interdependence

discussed above, local and foreign firms in emerging economies also demonstrate high levels of competitive interdependence (Xia et al., 2014). Local and foreign firms are involved in competitive relationships in local product market when they provide similar products or services, and in local factor market when they require similar input. The rules by which they compete evolve as local institutional environment shifts (Meyer & Peng, 2016). Higher levels of marketization drive competition toward market terms rather than relationships (Peng, 2003). This suggests that the home market profitability of local firms resulted from location-bound advantages are squeezed by the presence of foreign firms who are better positioned in locations with high levels of marketization. With such disadvantages in the home market, EMNEs will be highly motivated to diversify their product and factor markets by internationalization. Xia et al. (2014: 1348) argue that conducting FDI enables EMNEs to “increase their relative market power by accessing distribution channels or end-product markets in foreign countries or by controlling sources of supplies that are either costly or unavailable at home”. Other researchers suggest that EMNEs can engage in market-seeking and asset-seeking FDI ambidextrously to compensate for their competitive disadvantages in their home country product and factor markets (Hsu, Lien, & Chen, 2013; Luo & Rui, 2009). The greater the home-based disadvantages due to high levels of marketization, the higher the motivation of EMNEs to engage in FDI as a diversification tactic, and subsequently the stronger the performance effect based on the diversification mechanism of the resource dependence logic. Hence, we propose:

Hypothesis 4. For EMNEs, the positive effect of FDI on profit growth is stronger for firms originating from a home-country location with a higher, rather than a lower, level of marketization.

Capability to escape resource dependence on foreign firms. A strategic factor market refers to a resource market where firms acquire the resources necessary to implement their strategies (Barney, 1986; Kim, Hoskisson, & Lee, 2015). For EMNEs, to implement their diversification strategy that redresses power imbalances from their resource dependence on foreign firms at home, they need to acquire resources related to the core competencies of foreign firms (Zahra, Ireland, & Hitt, 2000), typically intangible assets such as advanced technology, knowhow, and brands (Awate, Larsen, & Mudambi, 2015; Luo & Tung, 2007). Despite productivity spillover of foreign firms, inward FDI is unlikely to be an effective channel for emerging economy firms to catch up with global market leaders² (Cui et al., 2014). Given that EMNEs are power-disadvantaged vis-à-vis foreign firms in their home markets, and that foreign firms are reluctant to share their core competencies (Rui & Yip, 2008), EMNEs need to acquire such resources from foreign strategic factor markets where the availability and cost of such resources are more favorable. Naturally, not all foreign strategic factor markets are with favorable conditions for EMNEs' resource needs. The conditions of strategic factor market are more favorable in advanced host economies, because of lower transaction costs and higher quality assets, than in emerging economies. Strategic factor markets include markets for services of assets (intermediaries), the assets themselves, and the firms that own the assets (Hennart, 2009), all of which are better developed in advanced host economies, enabling access to a large range of alternative sources of supplies. Moreover, Tsang and Yip (2007) show that the economic distance between home and host countries is positively associated with the exploratory benefits of FDI. Similarly, in the context of the FDI activities of EMNEs, prior studies show that emerging

² As a case in point, China has been among the largest recipients of world FDI in the past two decades; yet the prevalent asset-seeking activities of Chinese MNEs are well documented in prior studies (e.g. Buckley, Clegg et al., 2018b; Child & Rodrigues, 2005; Cui & Jiang, 2009; Cui et al., 2014; Zhang et al., 2018). This would not have been the case if inward FDI could largely satisfy the resource needs of Chinese firms.

economy firms can access novel and complementary resources if they target foreign markets that are institutionally (Boisot & Meyer, 2008) and economically (Cui, Fan, Liu, & Li, 2017) distant from their home markets. As a result, while not all international acquisitions by EMNEs are value-creating (Aybar & Ficici, 2009), the ones that involve targets in advanced host economies tend to deliver more benefits to the investing firms, than those that target other emerging economies (Gubbi et al., 2010; Makino et al., 2002). Accordingly, the ability of EMNEs to diversify from resource dependence on foreign firms at home hinges on their FDI location choice. Therefore, we propose:

Hypothesis 5. For EMNEs, the positive effect of FDI on profit growth is stronger for firms investing in advanced host economies than for those investing in other emerging economies.

4. Research design

4.1. Sample and data

We used Chinese outward FDI as the empirical setting for this study. China has emerged as an important source of FDI and a popular context for studying the internationalization of EMNEs (Lu et al., 2014; Xia et al., 2014). Two important institutional arrangements marked the start of the acceleration of Chinese outward FDI. The first is China's entry into the World Trade Organization (WTO) in 2001, which demonstrated the country's commitment to economic globalization (Buckley et al., 2008). The second is the go-abroad strategy initiated by the Chinese government in 2001 to promote Chinese investments abroad. Accordingly, we used 2002 as the base year to study the FDI performance effect of Chinese firms. We compiled a comprehensive dataset from all Chinese firms that were publicly listed during the period 2002–2009. Such a time window serves our purpose of investigating the short-to-medium term performance effects of FDI on EMNEs.

The choice of this time window of Chinese outward FDI also fits the boundary of our theory development, namely early stage internationalization of EMNEs. On the one hand, China's WTO accession in 2001 and the government's go-abroad strategy exposed Chinese firms to increasing global competition along with the enhanced strategic autonomy to explore international opportunities (Buckley et al., 2007). On the other hand, despite intensifying pro-market reform, state logic still dominated Chinese economy in the early 2000s which hampered firms' ability to access various resources on the market (Zhou et al., 2017), and consequently the ability to develop firm-specific advantages to bargain and/or compete with foreign firms originating from advanced economies. As such, we anticipate that the 2000s is a period when Chinese firms most intensively engaged in FDI as a strategy to diversify home resource dependence. Comparatively, both the pre-2002 and post-2009 time periods are less suitable for our theoretical purpose. Chinese outward FDI before 2002 was very limited and severely constrained by the government (Buckley et al., 2008). This time period is unlikely to present meaningful variation of autonomous strategic decisions of firms. Regarding the post-2009 era, with accumulated internationalization experience and domestic industry upgrading, this time period may challenge the key assumptions defining the theoretical boundary of this study, as firm-specific assets evolve over time (Narula, 2012). For example, in the 2010s, a growing number of Chinese firms, especially those with substantial international presence, have established firm specific advantages from indigenous innovation in areas such as advanced manufacturing, consumer electronics, e-commerce and logistics, among others.

Accordingly, we collected longitudinal archival data on the sample firms from the OSIRIS database,³ which sources information from

company annual reports. After excluding firms that were either listed after 2002 or delisted before 2009, and those with substantial missing data on our key variables, we obtained a balanced panel of 973 firms, among which 248 had conducted FDI. A description of sample firms is provided in Table 2.

4.2. Dependent variables and analytical approach

Our research question concerns profitability growth of EMNEs. We capture this by the **net profit (NP)** growth rate of firms. We used ROA ratio as an alternative measure of firm profitability in our robustness tests and found consistent results. We used consolidated accounting data to capture the effect of FDI on the investing firm as a whole.

We have argued that the positive effect of FDI on EMNEs' profitability is underlined by the mechanisms of diversifying and thus stabilizing and enhancing critical resource supplies. To substantiate this mechanism, following the suggestion of Miller and Tsang (2011), we examined an observable effect that is logically attributable to the argued mechanism of intangible assets growth of the investing firm. This is because, compared with tangible assets such as land and raw materials, EMNEs diversifying from home resource dependence are more likely to target intangible assets which are unavailable or hard-to-acquire from home markets (Cui et al., 2014; Luo & Tung, 2007). Therefore, if we observe a concurrent effect of FDI on the intangible assets and profit growth of EMNEs, we can more confidently attribute this effect to the argued mechanism than by simply studying the profitability effect alone. To measure **intangible assets** growth, we followed the current People's Republic of China Generally Accepted Accounting Principles (PRC GAAP), which regulate the reporting of intangible assets. The PRC GAAP is largely convergent with the International Financial Reporting Standards (IFRS) (KPMG, 2014). The value of intangible assets is the sum of goodwill capital and the costs of separately acquired and identifiable intangible assets, including patents, licenses, permits, exclusive rights, trademarks, and brand names.

An initial assessment of the data suggested that firms with five or more years of FDI operations (the treatment group) out-performed firms which had not had any FDI operations (the control group) on profit and intangible assets growth. However, due to the possibility of endogeneity (Semadeni et al., 2014; Shaver, 1998), this outcome differential may not be attributable to the effect of FDI. One source of endogeneity is reverse causality, which in our context refers to the possibility that the FDI decisions of EMNEs may be influenced by their prior performance levels, and therefore any unobserved firm heterogeneity related to prior performance may bias the estimates of the effects of FDI on future firm performance. Although our research question concerns the effects of FDI on future firm performance, we did not theoretically preempt the potential casual effect of prior performance on FDI propensity, and, accordingly, we empirically accounted for this possibility when testing our theory. We addressed the potential endogeneity problem by employing a treatment effect approach with the nearest-neighbor matching (NNM) technique (Abadie, Drukker, Herr, & Imbens, 2004; Abadie & Imbens, 2006). The treatment effect with the NNM method builds on a potential outcome model, which specifies the potential outcomes that an individual firm would obtain under each treatment level. Consider firm i that does not undertake FDI and we observe that outcome Y_{i0} . Y_{i1} is a potential outcome for the same firm should it engage in FDI. Algebraically, the potential outcome model is:

$$Y_i = (1 - T_i)Y_{i0} + T_i Y_{i1} \quad (1)$$

(footnote continued)

records of a listed company's foreign subsidiary information, we could determine the year in which a foreign subsidiary was established or divested. The dataset can be accessed at <https://osiris.bvdinfo.com> (a paid subscription is required).

³ OSIRIS captures listed companies worldwide. By comparing historical

Table 2
Description of sample firms.

	Firms with FDI during 2002–2009 (treatment pool)			Firms without FDI during 2002–2009 (control pool)	Full sample
	Invested in advanced economies	Invested in other host economies	Treatment pool total		
Total	129	119	248	725	973
By sector:					
Resource sector	9	9	18	67	85
Manufacturing sector	77	81	158	448	606
Service sector	43	29	72	210	282
By state control:					
State-controlled	103	93	196	609	805
Non-state-controlled	26	26	52	116	168
By technological intensity					
High-tech	41	37	78	199	277
Non-high-tech	88	82	170	526	696

Because we only observe each firm as either undertaking FDI or not, but not both, we cannot estimate the firm-level treatment effect due to the selection bias in the observational data. The NNM method addresses this issue by comparing performance between firms that are comparable on given characteristics (observed covariates, W_i). Given that two firms share the most similar characteristics, if one firm had FDI, $T_i = 1$, while the other did not, $T_j = 0$, then the difference in performance between the two would be attributable to the FDI activities, namely, the treatment effect.

The NNM method calculates the missing potential outcome for each firm by using an average of the outcomes of similar firms that receive the other treatment. Similarity between firms is defined as the shortest Mahalanobis distance between a focal firm and its nearest neighbor, based on a weighted function of the covariates W , where the weights are based on the inverse of the variance-covariance matrix of the covariates. When there are more than two continuous variables in W , which is the case in this study, bias-adjusted NNM estimators are used in accordance with Abadie and Imbens (2006, 2011). Finally, the average treatment effect on the treated (ATET) was computed by taking the average of the difference between the outcomes of the firms in the treatment group (FDI firms) and the outcomes of the firms in the control group (non-FDI firms) (Eq. (2)). Therefore, the ATET is the effect of FDI on firm performance among FDI firms.

$$ATE \equiv E\{Y_{1i} - Y_{0i} | T_i = 1\} = E\{E\{Y_{1i} | T_i = 1, p(W_i)\} - E\{Y_{0i} | T_i = 0, p(W_i)\} | T_i = 1\} \quad (2)$$

The panel dataset also allowed us to use the DID approach together with the NNM analysis (Blundell & Costa Dias, 2000). This combination had at least two advantages. First, it produced results on growth using performance measures and enabled us to capture the performance gain across increasing time intervals. Second, by considering the difference, the effects of unobserved within-firm characteristics were canceled out which further reduced selection bias. Using profitability measures as an example, the ATET of NP growth integrating the DID approach, was calculated as,

$$ATE_{NP}^{DID} = \frac{1}{n} \sum_1^n (NP_t^{FDI} - NP_t^{nonFDI}) - \frac{1}{n} \sum_1^n (NP_{t-1}^{FDI} - NP_{t-1}^{nonFDI}) \quad (3)$$

The panel data also allowed us to examine FDI performance effect with different time spans (e.g. $t + 1, t + 2, \dots, t + 7$). When calculating the ATET of FDI with different time spans, the treatment group includes all firms that had FDI throughout the focal time period, while the control group includes all firms that had no FDI throughout the same period. For example, when calculating ATET of a five-year time span (i.e. $t + 5$), we matched firms that had FDI throughout 2002–2007 with firms that had no foreign subsidiary during this 5-year period, using the NNM method. Firms that had FDI during part (but not all) of the 5-year period, either due to divestment or late establishment of FDI, were not

included in the treatment nor the control group for the analysis of ATET of $t + 5$.

4.3. Selection of the NNM covariates (W_i)

One constraint of the NNM, as with all matching methods, is the issue of any omitted variables that may directly affect the appropriate selection of treatment and control groups. Based on this constraint, conditional-independence (CI) is a key assumption of the NNM method. The CI assumption, also known as confoundedness and selection-on-observables, states that, conditioning on covariates, assignment to treatment is independent of the outcomes. If we denote the binary treatment variable as T_i , $T_i = (0,1)$, observed outcome variable as Y_i , and covariates that both affect treatment assignment and outcome as W_i , then this assumption is mathematically summarized as $Y \perp T | W$. It implies that there should not be any unobserved factors not included in W_i that affect both the treatment assignment and the potential outcome. In our study, to satisfy the CI assumption, we carefully selected W_i based on the existing FDI literature, and tested their effects on both short-term and long-term FDI decisions (treatment assignment) and firm performance (outcome) in a series of probit and regression models using cross-sectional and panel observations.

To account for the overall firm resource effect that contributes to a firm's capability to conduct FDI, we measured *firm size* using the logarithm of total assets. We also accounted for *firm age* using the logarithm of number of years since establishment. Firm age reflects the overall experiential knowledge a firm accumulates throughout its history of operation. The overall firm capability and experience indicated by size and age have typically been controlled in prior studies which examined the performance outcome of FDI (Chang et al., 2013). The *international experience* of firms, prior to conducting FDI, was measured by the ratio of export sales to total revenue. Export-intensive firms have greater experiential knowledge regarding international business, which can further enhance their internationalization when undertaking a high commitment entry mode such as FDI (Cui, Li, & Li, 2013). Recent studies of the internationalization of emerging economy firms suggests that *foreign ownership* can be an important source of firm capability in engaging in foreign operations (Elango & Pattnaik, 2007), and therefore we accounted for the ratio of foreign ownership in the firm in the NNM procedure. Research has also highlighted the influence of the home institutional environment on the internationalization of EE firms. Although our empirical setting focuses on a single country, research suggests that there may be diversity in subnational institutional environments (Meyer & Nguyen, 2005), especially in large economies such as China (Li, Zhou, & Zajac, 2009). Following Li et al. (2009), we used the dummy variable *coast* to separate firms located in the coastal areas (value of 1) from firms located in the inland areas (value of 0) of China to control for home institutional effects and their influence on the

access firms in these two areas have to quality infrastructure and market opportunities.

4.4. The ATET analysis variables

To test the RDT contingencies of the FDI performance effect, we used the four moderating variables discussed in our Hypotheses 2–5. These variables allowed us to partition the sample and compare the ATET of FDI on the outcome variables of interest.

State-owned firm. Following prior studies (Firth, Fung, & Rui, 2007), we measured the state-owned status of Chinese firms using a dummy variable with a value of 1 if the state is the controlling shareholder and/or ultimate owner of the firm, and a value of 0 if otherwise. Additionally, we used the percentage of state ownership in the firm in a robustness test.

Organizational slack. Organizational slack has been broadly conceptualized along at least two dimensions – absorbed and unabsorbed (Tan & Peng, 2003). Absorbed slack is tied up with current operations and is therefore not easy to redeploy. Unabsorbed slack corresponds to currently uncommitted resources, which is “more easily redeployed elsewhere, allowing for greater managerial discretion” (Tan & Peng, 2003: 1251). Scholars argue that unabsorbed slack is more directly relevant to initiating asset acquisition activities than absorbed slack is (Iyer & Miller, 2008). Hence, we follow the measurement of unabsorbed slack in prior studies (e.g. Hambrick et al., 1996; Iyer & Miller, 2008) using current ratio, namely the ratio of current assets to current liabilities, which represents the level of financial slack currently available to the firm.

Marketization. We measured this variable based on the marketization index of Chinese provinces developed by Fan and colleagues (Fan, Wang, & Zhu, 2011), which has been widely adopted by researchers examining the variation and dynamics of local institutional environment in China (e.g. Banalieva, Eddleston, & Zellweger, 2015). The calculation of marketization utilizes 16 indices that represent the intervention of provincial Chinese governments in the market economy (reversed), provincial state sector development (reversed), provincial commodity market development, and provincial factor market development (see Table S1 of Banalieva et al., 2015). A high composite score of marketization indicates a great dominance of market logic and high level of development of market-supporting institutions in the given subnational region.

Advanced host economy. We used a dummy variable with a value of 1 if the firm conducted FDI in advanced host economies, and a value of 0 if the firm only targeted emerging economies. We adopted Hoskisson et al.'s (2000) classification of emerging economies for coding this dummy variable. Alternatively, we obtained the economic distance indices constructed by Berry, Guillén, and Zhou (2010) using a Mahalanobis distance calculation. Our dummy variable had a correlation of 0.78 ($p = 0.000$) with the Mahalanobis distance measure, indicating a high consistency between these two measures. Since we needed to conduct split sample ATET tests for our moderating hypotheses, we used the dummy variable as our primary measure, and used a medium split of the Mahalanobis distance measure in a robustness test. All variables are summarized in Table 3.

5. Results

5.1. NNM assumption tests

The NNM method addresses the potential omitted variable bias by meeting the CI assumption and the overlap assumption (Abadie et al., 2004; Abadie & Imbens, 2006). By satisfying these assumptions, the NNM method allows for a close as possible replication of a randomized experiment by obtaining treated and control groups with similar covariates, so that unbiased causal effects can be estimated using observational data.

To satisfy the first assumption, namely the CI assumption, we tested the effects of the theoretically informed covariates (W_i) on both FDI decision and firm profitability. Table 4 reports the results of the estimating probit models of FDI decisions on a longer-term horizon (column 1) and random-effect probit models of FDI decisions on a shorter-term horizon (column 3). With the base year set at 2002, the longer-term investment horizon was observed when firms engaged in FDI activities for at least five years across the entire observation period (2002–2009), while the shorter-term investment horizon was observed when firms made a decision to undertake FDI only within the following year. Firm size, foreign ownership, and firm location (e.g. in a coastal or inland area) constituted the three key factors in explaining the tendency of firms to conduct FDI. Consistent with prior studies, the expansion of firm operations internationally was positively associated with the overall resources of firms as reflected in the amount of the total assets of firms (Hitt, Tihanyi, Miller, & Connelly, 2006), internal influence from foreign shareholders (Bhaumik, Driffield, & Pal, 2010), and institutional and economic development in the home-country location (Wan & Hoskisson, 2003).

We then tested firm profitability changes against the same set of firm characteristics. Columns 2 and 4 in Table 4 report the results of short-term and long-term firm profitability. Firm age and size were significant and dominant determinants of firm profitability in terms of the NP growth rate. In addition, export intensity and firm location also affected the short-term profitability of firms. Overall, the treatment and outcome models (Table 4) show that the theoretically selected NNM covariates had significant effects on both FDI decisions and firm performance, thus qualifying the CI assumption of NNM.

The second assumption, namely the overlap assumption, requires each firm to have a positive probability of investing internationally. We needed to have “overlap” to estimate the counterfactual firm performance in order to accurately assess the impact of treatment using the treatment effect of the NNM method. To predict the FDI activities of firms, we used the same probit model as in Table 4, by obtaining the estimated density of the predicted probability that a non-FDI firm would become a FDI firm, and vice versa. The two estimated densities had most of their respective masses overlap each other (see Fig. 1), and so there was no evidence for violation of the overlap assumption. To summarize, our data and model met the key assumptions of the NNM method, which justified its adoption in our study.

5.2. Hypothesis tests

The test of the main effect hypothesis (H1), namely the overall effect of FDI on a firm's growth of profit (ΔNP), substantiated by intangible assets increase ($\Delta \text{Intangible assets}$), returned supportive results as shown in Table 5. The ATET of FDI throughout the seven-year observation period is provided in Table 5, which enables the comparison of the ATET of FDI on various outcome variables at various intervals over time. Given the same sample was tested over the observation period with the same treatment and control groups for respective outcome variables, the coefficients among these cumulative time intervals are comparable. The results demonstrate that the ATETs of FDI on ΔNP and $\Delta \text{Intangible assets}$ increased over time. As the global financial crisis (GFC) introduced severe turbulence in the global market place, which might have set back some of the positive effects of FDI on the performance of our sample firms in 2008 and 2009, we used the five-year ATET (2002–2007) results for a conservative interpretation of the FDI effects in the short-to-medium term. Specifically, the ($t + 5$) ATET of FDI on firm profitability, measured by the NP growth rate from 2002 to 2007, was positive ($t + 5$ ATET $\Delta NP = 0.02$, $p = 0.005$), which indicated that FDI firms recorded, on average, a two percent higher growth rate in NP than did non-FDI firms during the same period. The ($t + 5$) ATET of FDI on firm intangible assets growth was also positive ($t + 5$ ATET $\Delta \text{Intangible assets} = 1.15$, $p = 0.026$). This suggests that FDI firms achieved a 115.2 percent higher growth in intangible assets

Table 3
Summary statistics and correlations^a.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 FDI (treatment dummy)	0.17	0.37															
2 Firm size	6.82	45.99	0.04														
3 Firm age	11.06	4.39	0.15	0.03													
4 International experience	0.05	0.16	0.11	−0.02	−0.01												
5 Foreign ownership	0.03	0.10	0.24	0.10	0.05	0.10											
6 Coast	0.57	0.50	0.23	0.06	0.13	0.05	0.12										
7 NP growth	−0.07	6.34	−0.03	−0.01	−0.01	0.00	−0.04	−0.01									
8 Intangible assets growth	5.40	401.42	−0.01	0.00	0.00	0.00	0.07	−0.01	0.00								
9 International sales growth	3.54	89.57	0.01	0.08	0.06	−0.02	−0.01	0.02	0.00	0.04							
10 Total revenue growth	0.33	5.46	−0.01	0.00	0.00	−0.01	−0.01	0.01	0.00	0.00	0.35						
11 Labor productivity growth	0.22	2.18	−0.01	0.00	0.01	−0.02	−0.01	0.00	0.00	0.00	0.05	0.03					
12 Tobin's Q growth	0.00	0.04	0.00	0.00	0.00	0.00	0.08	−0.01	0.00	0.00	0.01	0.00	0.01				
13 Organizational slack	1.46	7.03	−0.01	−0.02	−0.03	0.01	0.00	0.02	0.00	0.00	−0.02	−0.01	−0.01	0.00			
14 State-owned firm	0.77	0.42	−0.04	0.00	−0.14	0.02	−0.09	−0.05	−0.01	−0.02	0.02	−0.04	−0.01	−0.01	0.02		
15 Advanced host economy	0.13	0.34	0.77	0.03	0.13	0.09	0.27	0.21	−0.03	0.00	0.02	−0.01	−0.01	0.00	−0.01	−0.02	
16 Marketization	7.66	1.92	0.26	0.08	0.22	0.06	0.15	0.85	0.06	0.06	−0.02	0.05	0.04	0.01	0.00	−0.08	0.22

N = 7784 (firm-year observations).

^a $|r| > 0.023$ is significant at 5% level.

Table 4
Treatment (FDI decision) and outcome (firm profitability) models.

	Long-term (LT) effect – cross-sectional analysis				Short-term (ST) effect – panel data analysis		
	FDI ≥ 5 years (1)	02'–09' ΔIntangible (2)	02'–09' ΔNP (3)		FDI = 1 (4)	ΔIntangible (5)	ΔNP (6)
Firm size	4.56*** (1.31)	−28.02*** (9.13)	−0.83*** (0.22)	L.firm size	11.93*** (2.99)	92.81 (216.94)	−0.09*** (0.01)
Firm size squared	−0.10*** (0.03)	0.69*** (0.22)	0.02*** (0.01)	L.firm size squared	−0.23*** (0.07)	−2.07 (5.05)	0.00*** (0.00)
Firm age	−0.11*** (0.00)	−0.29*** (0.10)	−0.00 (0.00)	L.firm age	0.38*** (0.13)	9.69 (7.47)	−0.00*** (0.00)
Firm age squared	0.01*** (0.00)	0.02*** (0.01)	0.00 (0.00)	L.firm age squared	−0.01 (0.01)	−0.38 (0.32)	0.00*** (0.00)
Export intensity	0.76*** (0.18)	0.43 (0.31)	0.00 (0.00)	L.export intensity	−0.34 (0.49)	−43.47 (45.31)	0.00 (0.00)
Foreign ownership	2.53*** (0.50)	−0.51 (1.23)	−0.00 (0.02)	L.foreign ownership	10.41*** (1.86)	570.12*** (99.72)	0.01 (0.00)
Coast	0.71*** (0.13)	−0.19 (0.21)	0.00 (0.00)	Coast	3.17*** (0.41)	−30.25 (15.79)	−0.00 (0.00)
Industry	Yes	Yes	Yes	Industry	Yes	Yes	Yes
_cons	−54.74*** (15.04)	287.56*** (95.67)	8.68*** (2.27)	Year	Yes	Yes	Yes
<i>N</i>	853	759	972	_cons	−167.90*** (34.57)	36.90*** (13.57)	0.99*** (0.06)
Chi-squared	135.56			<i>N</i>	4850	4054	4860
<i>P</i>	0.000			Wald chi-squared		40.73	839.10
Pseudo <i>R</i> ²	0.23			<i>P</i>		0.000	0.000
<i>F</i>		4.02	6.34				
<i>P</i>		0.00	0.00				
<i>R</i> -squared		0.04	0.52				

Note: (1) standard errors in parentheses. (2) † $p < 0.10$; ** $p < 0.01$.

* $p < 0.05$.

*** $p < 0.001$.

value during the same period than did non-FDI firms. These results supported our H1.

The treatment group can be further divided into firms that had a single foreign subsidiary throughout the analysis period (e.g. 2002–2007 for $t + 5$ ATET analysis), and firms that had multiple foreign subsidiaries. We conducted an additional analysis to compare the ATET of FDI on NP and intangible assets growth between these two sub-

groups. We found that the five-year (i.e. $t + 5$) ATET was significantly higher for multiple-FDI firms ($\Delta NP = 3.40$; Δ Intangible assets = 1.93) than for single-FDI firms ($\Delta NP = 0.58$; Δ Intangible assets = 0.41). This finding is consistent with the diversification logic—firms conducting multiple FDIs have more diversified sources of critical resource supply and thus are better able to overcome home resource dependence than those with a single FDI.

Fig. 1. Testing the overlap assumption. *Note:* this figure shows the estimated density of the predicted probability that a non-FDI firm is an FDI investor for at least 5 years cumulatively and the estimated density of the predicted probability that an FDI firm is not a maximum 5-year FDI investor. The same probit model as reported in Table 3 were used.

After testing the main effect H1, we further examined the RDT contingencies highlighted in our moderating hypotheses (H2–H5). We conducted split sample ATET analyses to test the contingencies related to state ownership (H2), organizational slack (H3), home location marketization (H4), and FDI location (H5). We obtained a five-year accumulative ATET of FDI on both profit growth (Δ NP) and assets growth (Δ Intangible assets) to reflect the cumulative nature of the FDI performance effect (Chang et al., 2013), while preempting potentially unexplained discord during the GFC period. In addition, a one (time) point comparison on outcome is preferred to a multiple-point comparison for each moderator because our moderators are time-variant and are not accounted for in W . The results of the moderating hypotheses tests are presented in Table 6.

As discussed in H2, we expected that state-owned EMNEs would achieve asset and profit growth from conducting FDI more readily than would private firms. As shown in Table 6, the ATET of FDI on both Δ NP and Δ Intangible assets was positive for state-owned firms, which contrasted with private firms where no significant effect was found, even with a maximum allowance of a ten percent margin of a type I error. On average, FDI allowed a state-owned firm to achieve a 2.3 ($p = 0.011$) percent higher growth in NP and a 106.4 ($p = 0.006$) percent higher growth in intangible assets than did non-FDI firms. No FDI effects were evident for private firms. Hence, we conclude that the positive effects of FDI on the intangible assets and NP growth of firms were conditional on the investing firm having a home-country government affiliation in the form of state ownership. Therefore, our H2 was supported.

Our H3 concerns the moderating effect of discretionary financial resources of EMNEs that support their FDI strategic autonomy. We

expected that firms with a higher level of organizational slack would acquire more intangible assets through, and profit more from conducting, FDI than would firms with a lower level of organizational slack. By splitting our sample by the median value of this moderator, the NNM results show a 1.4 percent ($p = 0.055$) higher growth in NP and a 75.5 percent ($p = 0.005$) higher growth in intangible assets by FDI firms with above-median organizational slack in comparison to non-FDI firms. FDI firms with below-median organizational slack, however, did not show any significant FDI effects on either intangible assets ($p = 0.278$) or profit ($p = 0.167$) growth. These findings supported our prediction that the positive effects of FDI on the intangible assets and NP growth of firms were conditional on the firms having sufficient discretionary financial resources. This supported our H3.

H4 states that the motivation to diversify from resource dependence on foreign firms at home is stronger for EMNEs originating from home locations with high levels of marketization. To test this argument, we conducted a split sample test to contrast the FDI effects for firms originating from home-country locations with high levels of marketization with those with low levels of marketization during the 2002–2007 period. The NNM results show that firms from home locations with high levels of marketization, on average, achieved an extra 113.2 percent ($p = 0.011$) intangible assets growth and a 2.2 percent ($p = 0.010$) NP growth by conducting FDI, while firms from home locations with low levels of marketization did not show any significant FDI effect on either intangible assets ($p = 0.107$) or profit ($p = 0.866$) growth. These results support our prediction in H4.

H5 considers FDI location choice as a contingency for EMNEs to achieve intangible assets and profit growth concurrently. We split the treatment group (i.e., FDI firms) based on the economic status of their FDI destinations, namely, advanced vs. emerging economy host countries. As shown in Table 5, firms conducting FDIs in advanced host economies achieved a 97.7 percent ($p = 0.007$) higher growth in intangible assets than non-FDI firms, while no such FDI effect was found ($p = 0.390$) for firms investing in emerging economies. FDI firms located in advanced host economies also achieved, on average, a 1.6 percent higher NP growth ($p = 0.075$) than non-FDI firms. However, no significant NP growth was observed for FDI firms over non-FDI firms ($p = 0.140$) when the FDI firms invested in emerging economies. H5 was therefore also supported.

5.3. Robustness checks

We tested if our results were sensitive to model estimation and variable measurement. Specifically, prior studies have used propensity score (PS) matching to circumvent endogeneity when examining the FDI performance effect (Chang et al., 2013). We maintain that NNM is more appropriate in our study than PS, as the latter requires the assumption of the correct specification of the treatment assignment model. Nonetheless, it is of interest to check if in general the PS method

Table 5
Testing the main effect of FDI using nearest-neighbor matching (NNM).

(base year t : 2002)	Pre-GFC					GFC		Matched N
	$t + 1$	$t + 2$	$t + 3$	$t + 4$	$t + 5$	$t + 6$	$t + 7$	
Δ NP	0.00	0.01	0.02**	0.01†	0.02***	0.02	−0.00	807
ATET	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	
	<i>0.316</i>	<i>0.473</i>	<i>0.015</i>	<i>0.054</i>	<i>0.005</i>	<i>0.151</i>	<i>0.854</i>	
Δ Intangible assets	0.01	0.25†	0.35**	0.45**	1.15**	1.36	1.40	613
ATET	(0.04)	(0.14)	(0.14)	(0.22)	(0.52)	(0.84)	(0.87)	
	<i>0.895</i>	<i>0.082</i>	<i>0.014</i>	<i>0.037</i>	<i>0.026</i>	<i>0.106</i>	<i>0.106</i>	

Notes: (1) standard errors in parentheses, p -values italicized. (2) * $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

† $p < 0.10$.

Table 6
Testing the moderating effect hypotheses.

NNM estimators	H2: State-owned firm		H3: Organizational slack		H4: Marketization		H5: Advanced host economy	
	Yes	No	High	Low	High	Low	Yes	No
Δ Intangible assets								
ATET ($t + 5$)	1.06** (0.39) <i>0.006</i>	0.41 (0.34) <i>0.234</i>	0.76** (0.27) <i>0.005</i>	0.63 (0.58) <i>0.278</i>	1.13** (0.45) <i>0.011</i>	0.69 (0.43) <i>0.107</i>	0.98** (0.36) <i>0.007</i>	0.29 (0.34) <i>0.390</i>
Matched N	565	114	444	235	292	479	664	579
Δ NP								
ATET ($t + 5$)	0.02* (0.01) <i>0.030</i>	0.01 (0.01) <i>0.091</i>	0.01† (0.01) <i>0.055</i>	0.02 (0.02) <i>0.167</i>	0.02** (0.01) <i>0.028</i>	0.01 (0.03) <i>0.866</i>	0.02† (0.01) <i>0.075</i>	0.01 (0.01) <i>0.140</i>
Matched N	724	144	570	298	382	486	851	740

Notes: (1) standard errors in parentheses, p -values italicized. (2) *** $p < 0.001$.

* $p < 0.05$.

** $p < 0.01$.

† $p < 0.10$.

Table 7
Robustness tests using propensity score (PS) matching method.

PS estimators	H1: Main effect of FDI	H2: State-owned firm		H3: Organizational slack		H4: Marketization		H5: FDI location	
	Full sample	Yes	No	High	Low	High	Low	Advanced	Emerging
Δ Intangible assets									
ATET ($t + 5$)	1.43 (0.58) <i>0.008</i>	1.13 (0.43) <i>0.004</i>	0.05 (0.56) <i>0.464</i>	0.96 (0.33) <i>0.002</i>	1.07 (0.68) <i>0.059</i>	1.58 (0.46) <i>0.005</i>	1.09 (0.41) <i>0.085</i>	1.31 (0.39) <i>0.000</i>	0.15 (0.31) <i>0.312</i>
Matched N	613	565	114	444	235	292	387	664	532
Δ ROA									
ATET ($t + 5$)	2.47 (1.15) <i>0.002</i>	2.78 (1.22) <i>0.010</i>	1.25 (4.40) <i>0.271</i>	2.29 (1.39) <i>0.011</i>	2.89 (2.17) <i>0.528</i>	2.77 (1.43) <i>0.006</i>	2.55 (2.01) <i>0.319</i>	2.36 (1.26) <i>0.014</i>	2.70 (1.85) <i>0.070</i>
Matched N	833	694	139	550	283	364	469	816	642

Notes: (1) standard errors in parentheses; (2) p -values italicized.

delivers consistent results. Accordingly, we repeated our ATET tests using PS matching. We also used ROA as an alternative to NP to measure firm profitability. The detailed robustness tests results are presented in Table 7.

The robustness test results in Table 7 showed that a five-year ATET on ROA growth was positive and significant (Δ ROA = 2.47; $p = 0.002$), and consistent with our NNM results. The PS result on intangible assets growth was also consistent with our NNM results (Δ Intangible assets = 1.43; $p = 0.008$). Therefore, our H1 was consistently supported.

For H2, using the PS method, state-owned firms reported positive and significant FDI effects on intangible assets (Δ Intangible assets = 1.13; $p = 0.004$) and profitability (Δ ROA = 2.78; $p = 0.010$) growth, while no FDI effect on intangible assets ($p = 0.464$) and ROA ($p = 0.271$) was found for private firms. The moderating effect of state ownership was therefore consistently supported.

For H3, using the PS method, firms with high levels of organizational slack reported positive and significant FDI effects on intangible assets (Δ Intangible assets = 0.96; $p = 0.002$) and profitability growth (Δ ROA = 2.29; $p = 0.011$). However, a marginal FDI effect on intangible assets (Δ Intangible assets = 1.07, $p = 0.059$), and no effect on ROA ($p = 0.528$), was found for firms with low levels of organizational slack. These results were generally consistent with our original test results in supporting the positive moderating effect of organizational slack on the performance effects of FDI for EMNEs.

For H4, the PS results showed that firms from home locations with high levels of marketization reported positive and significant FDI effects on intangible assets (Δ Intangible assets = 1.58; $p = 0.005$) and profitability growth (Δ ROA = 2.77; $p = 0.006$). However, a marginal FDI effect on intangible assets (Δ Intangible assets = 1.09, $p = 0.085$), and

no effect on ROA ($p = 0.319$), was found for firms from home locations with low levels of marketization. These results were largely consistent with our NNM results, suggesting that home location marketization strengthens the motivation of EMNEs to diversify from resource dependence on foreign firms in the home market.

Lastly, for H5, PS test results showed that firms investing in advanced host economies reported positive and significant FDI effects on intangible assets (Δ Intangible assets = 1.31; $p = 0.000$) and profitability growth (Δ ROA = 2.36; $p = 0.014$), while no FDI effect on intangible assets ($p = 0.312$) and a marginal FDI effect on ROA (Δ ROA = 2.70; $p = 0.070$) was found for firms investing in emerging host economies. These results were consistent with our original tests.

5.4. Exploratory analyses

In addition to testing our hypotheses, we performed two sets of post hoc exploratory analyses. The first set concerns other potential outcomes from conducting FDI. Motivated by competing theories on FDI performance effect, such as internalization of assets exploitation (Buckley & Casson, 1998; Rugman, 1980), reverse productivity spillover (Belderbos, Lokshin, & Sadowski, 2015; Bertrand & Capron, 2015), and signaling effect (Aybar & Fici, 2009; Gubbi et al., 2010), we conducted ATET tests on firms' (1) international sales, (2) total revenue, (3) labor productivity, and (4) Tobin's Q. The ATET of FDI on these alternative outcome variables were all inconclusive, as evidenced by large margin of type I error (all greater than 5%).⁴ We did not find

⁴ Detailed information is included in Appendix 2. In summary, there was no

empirical evidence to support any of the competing theories of the FDI performance effect.

In the second set of exploratory analyses, we ran our analyses using data collected from the time windows of 2010 to 2015.⁵ We anticipate that the diversification mechanism is less applicable to Chinese firms' outward FDI in this period than in the 2000s, as Chinese firms have evolved beyond the early stage of internationalization and have developed some firm-specific assets less constrained by home country conditions. Consistent with this expectation, we did not find significant ATET of FDI on Chinese firms' intangible assets growth between 2010 and 2015. There was some evidence of positive effect of FDI on profitability in the short-term (ATET of $t + 1$, $t + 2$, and $t + 3$ significant at $p < 0.05$), but not in the medium-term (ATET of $t + 4$ and $t + 5$ nonsignificant at $p < 0.05$).⁶ One possible explanation for this quick profitability could be industry-specific product-cash conversion cycle. In high-tech and high velocity industries, product life cycle is short and market reaction to innovation is prompt. As such, firms may realize profit quickly, even only one year after entering a foreign market through FDI, but their profitability is hard to sustain over three years as technological advancement in the industry will likely make the firms' existing advantage obsolete.

6. Discussion

6.1. Contributions of the study

This study explicates the performance mechanism that enables EMNEs to enhance short-to-medium term profitability by conducting FDI. From the RDT perspective, this study contributes to the EMNE literature by highlighting FDI as a tactic to diversify from resource dependence at home in the context of early stage internationalization. It builds on and reinforces the core argument of existing studies that see FDI as a diversification tactic to restructure the external dependencies of EMNEs (e.g. Choudhury & Khanna, 2014; Gaffney et al., 2013; Xia et al., 2014). It further advances this stream of research by investigating the performance consequence and contingencies of FDI as a diversification tactic. Theoretically, we developed a comprehensive contingency framework that takes into account the multi-sourced resource dependence at home of EMNEs and the heterogeneities in their motivation and capability to engage in diversification actions. Empirically, we found support for the hypothesized positive effects of FDI on profit growth, substantiated by intangible assets growth, as well as the contingencies related to the complexities in the resource dependence relationships of EMNEs. Overall, this study makes two main contributes:

First, by applying RDT as a theory of organizational performance (Drees & Heugens, 2013), this study provides a novel explanation of the FDI performance effects of EMNEs. Prior studies on EMNEs have focused on characterizing EMNEs in comparison with traditional MNEs (Narula, 2012; Ramamurti, 2012), especially by contrasting the asset augmentation focus of EMNEs to the asset exploitation strategy of traditional MNEs (Cui et al., 2014; Luo & Tung, 2007). However, it remains unclear whether exploratory FDI by EMNEs can be profitable. Existing studies of exploratory FDI (which is also labeled as “knowledge seeking”, “asset augmenting”, or “resource augmenting” FDI, see Meyer, 2015:64) highlight the role of organizational learning whereby externally acquired knowledge-based resources need to be absorbed

(footnote continued)

difference in total revenue growth or Tobin's Q between FDI and non-FDI firms throughout the sample period. Also, FDI firms did not show greater expansion of international sales than non-FDI firms before the GFC; but had a marginal advantage ($p = 0.052$, 0.053) during 2008–2009. Lastly, FDI had a negative effect on labor productivity (ATET = -0.13 , $p = 0.022$) only in 2003 ($t + 1$), but not in all other years.

⁵ We thank an anonymous reviewer for this suggestion.

⁶ Detailed results are included in Appendix 3.

and integrated within the firm to enhance productivity (Belderbos et al., 2015; Bertrand & Capron, 2015) or to upgrade core competencies (Awate et al., 2015; Cui et al., 2014). However, Luo and Tung (2018) emphasize that such a springboard strategy by EMNEs must be viewed as a long-term plan, as the processes of knowledge transfer and resource integration may occur incrementally over time. Accordingly, although the learning logic may be applicable to EMNEs in the long-term, it may not apply in the short-to-medium term due to the learning challenges faced by EMNEs (Luo & Tung, 2007, 2018). Our application of the RDT as a theory of organizational performance reveals an alternative performance mechanism of the FDI of EMNEs based on the diversification logic of RDT. Our findings show that through the mechanism of diversifying from home resource dependence and thus stabilizing and enhancing the supplies of critical resources (substantiated by the significant effect on intangible assets growth), EMNEs can realize profitability gain from conducting FDI. This is because conducting FDI reduces EMNEs' resource dependence on their home country state and foreign firms in their home markets. These high external dependencies suppress EMNEs' profit potential as they need to sacrifice strategic autonomy to maintain institutional legitimacy with the home country state and are less competitive than foreign firms who can dictate terms of exchange with EMNEs. Escaping from these external dependencies allows EMNEs to better align their strategies with profitability objectives and to actively acquire critical resources from more cost-effective sources such as foreign strategic factor market with lower transaction costs. Empirically, we find that the RDT-based argument provides a stronger explanation for the FDI performance effects of EMNE, especially in the short-to-medium term, than does the learning-based argument.

Second, utilizing the context of the internationalization of EMNEs, this study contributes to the RDT research agenda of reviving a focus on environmental complexity (Wry et al., 2013). In particular, emerging economy firms suffer from a multitude of liabilities of emergingness, as their structures, practices, and resource development are imprinted by old non-market institutional logics (Madhok & Keyhani, 2012). Once exposed to the shifting of the “rules of the game” toward market logics following economic liberalization and pro-market reform in the home institutional environment, emerging economy firms find themselves power-disadvantaged in, and constrained by, multiple external dependencies for critical resources to survive and develop in global competition. They are simultaneously dependent on the home state to maintain access to institutionally embedded local resources and on foreign firms to obtain advanced non-location-bound competitive resources (Hennart, 2009). In other words, institutional transition in emerging economies creates environmental complexity for local firms in the form of multi-sourced resource dependence at home. While existing RDT research has revealed a repertoire of organizational tactics for managing resource dependence in a dyadic exchange relationship, we have shown that EMNEs can conduct FDI as a diversification tactic to simultaneously manage multi-source resource dependence.

6.2. Implications for research

This study offers theoretical and methodological implications for research. Theoretically, revealing the performance mechanism underlying the FDI of EMNEs has important implications for research on the internationalization of EMNEs. While EMNEs may be more exploratory in their FDI strategic orientation than traditional MNEs (Cui et al., 2014; Luo & Tung, 2007), this characteristic alone does not distinguish EMNEs, as assets augmentation is also pursued by established MNEs (Dunning, 1993). However, the reasons behind the assets exploration FDI of EMNEs is likely to reflect the complex home resource dependence of emerging economy firms, which is specific to the institutional transition context of emerging economies. Consequently, the underlying mechanism of the FDI performance effect is likely to differ for EMNEs (RDT-based argument) and advanced MNEs (learning-based

argument). Accordingly, some key contingency factors associated with the mechanism (e.g. state ownership, home location marketization) are also context-specific to emerging economies. In general, this study demonstrates that RDT offers a novel theoretical lens through which to study the internationalization of EMNEs.

Methodologically, this study offers an empirical strategy of isolating theoretical mechanisms and countering endogeneity challenges in the study of the performance outcomes of strategies. Specifically, we implemented Miller and Tsang's (2011) approach of identifying causal mechanisms using intermediate outcome variables. This is particularly useful when a causal effect may be based on multiple theoretical mechanisms, such as in the case of the FDI effect on firm performance. In terms of overcoming endogeneity, we built on prior studies (e.g. Chang et al., 2013) by implementing treatment effect approaches combined with a DID approach. We also highlighted the NNM technique (Abadie et al., 2004; Abadie & Imbens, 2006). NNM offers the advantage of relaxing the assumption of correct specification of the treatment assignment model, which is useful when the strategy under examination is a relatively newly emerging phenomenon and a consensus of its determination has not been reached in the literature. We also demonstrated the use of alternative matching techniques, especially NNM and PS matching, to evaluate the robustness of the treatment effect analyses. These empirical strategies could be of value for future research in strategy and international business.

6.3. Implications for practice

The findings of this study have practical implications for managerial decision-making. First, our analyses based on matching FDI and non-FDI firms suggest that EMNEs equally capable of conducting FDI typically gained superior performance if they actually engaged in FDI activities. In particular, our findings showed that, while assets augmentation through FDI could be costly with indeterminate returns from a learning perspective, by redressing power imbalances in home resource dependence from a RDT perspective, EMNEs could achieve the objectives of stabilizing and enhancing critical resource supplies, and at the same time, reap profit returns from such diversification behavior in a relatively short-to-medium time frame, namely three-five years. These findings are consistent with prior studies which have also suggested that the performance effect of FDI typically became observable within a time-span of three years or more (e.g. Chang et al., 2013). This has implications on the decisions of EMNEs to finance foreign investments.

Second, and perhaps more importantly, our contingency framework and analyses reveal several critical conditions required to grow intangible assets and to profit from conducting FDI. Specifically, firms need to carefully evaluate their resource conditions, such as external dependence on home state resource backing and internal possession of discretionary financial resources, as these resource endowments influence the necessity and feasibility of conducting FDI as a diversification tactic. Moreover, examination of the external environment, especially the dynamism in home-country institutional environments, as well as the home-host economic distance, can help EMNEs to better evaluate the performance potentials of their FDI activities.

6.4. Limitations and future research

This study has several limitations which indicate potential directions for future research. First, the empirical base of this study is a single FDI home country, namely China. While the Chinese setting has great significance and enables comparability with prior studies (e.g. Lu et al., 2014; Xia et al., 2014), studies limited to China do not allow for identification of country-level boundary conditions for the FDI performance effect. Future studies could employ a multi-country design to specifically examine the implications of country differences on the performance outcomes of the internationalization of emerging economy firms.

The time-span of our empirical study presents a further limitation. While we were able to observe the performance outcomes of FDI in the short-to-medium term, longer-term assessment of the performance dynamics of FDI was beyond the scope of this study. Our exploratory analyses presented preliminary evidence that the relative efficacy of the different performance mechanisms of FDI may shift over time. That is to say, the diversification mechanism underlying the FDI performance effect, argued and supported in the context of early stage internationalization, is not a long-term substitute for organizational learning and internal innovation. While EMNEs may access foreign strategic factor markets as a solution to external dependency in the short term, fundamentally firms need to enhance their core competencies internally to become truly competitive in the global market.

Moreover, significant external environmental turbulence may also complicate the performance effect of FDI. For instance, results reported in Table 4 indicate that the cumulative benefits of FDI on the profit and intangible assets growth of EMNEs were set back during the GFC (2008–2009). Hence, there is preliminary evidence of external environmental shock as a boundary condition for the FDI performance effect. Future research could identify the long-term dynamics and boundary conditions for the FDI performance effect.

As an extension of this study, future research can also investigate, not only the amount, but also the type of strategic assets EMNEs acquire through conducting FDI. This effort may help us explain some interesting findings such as why state-owned EMNEs gain a higher growth of intangible assets and not private firms. It could be due to the intensity of assets acquisition activities, or due to the valuation of different types of strategic assets, such as patents, goodwill capital, or tacit technology.

Finally, any matching technique to replicate a randomized experiment is subject to the limitations of omitted variables. The selection of matching criteria is enabled and, at the same time, constrained by the current theoretical understanding of the treatment assignment. Specifically, in this study, we minimized omitted variable bias by selecting probit model covariates (*W*) as informed by the FDI literature. As theories regarding the FDI determinants develop, future research may need to consider additional matching covariates and combine them with techniques, such as Coarsened Exact Matching, which are better suited to a large number of covariates.

7. Conclusion

Can EMNEs in early stage of internationalization achieve profit growth from conducting FDI? Our study suggests that the answer is yes, in general, but depends on specific conditions that will motivate and enable EMNEs to engage in FDI as a tactic of diversifying from resource dependence at home. Our findings contribute novel insights into the understanding of the internationalization performance of EMNEs, and highlight RDT as a theory of environmental complexity and organizational performance. This study provides much needed empirical evidence on the FDI performance of EMNEs, while demonstrating a range of empirical strategies that circumvent endogeneity and distinguish multiple causal mechanisms.

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Appendices 1 to 3

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.jwb.2019.04.002>.

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