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2018

Lim, G., & Teo, J. K. (2018). Climbing the economic ladder : the role of outward foreign direct investment. Journal of Asian Public Policy, 1-18. doi:10.1080/17516234.2018.1449714

https://hdl.handle.net/10356/82512

https://doi.org/10.1080/17516234.2018.1449714

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Article *in* Journal of Asian Public Policy · March 2018
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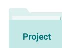

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Climbing the Economic Ladder: The Role of Outward Foreign Direct Investment

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Climbing the Economic Ladder: The Role of Outward Foreign Direct Investment

Abstract

This paper argues that, under certain political economic conditions, outward foreign direct investment (FDI) can promote economic development in the home economies from which the investment originates. To support its argument, the paper presents a conceptual framework that incorporates simultaneously the complex interrelationships between the three main tenets shaping the developmental outcomes of outward FDI – the home economy conditions that induce firms to invest abroad; the role of the state in linking outward investment to economic development back in the home economy; and the investment returns which stimulate catching-up. The framework helps researchers and policymakers assess particular characteristics of outward FDI and their positive impacts on the home economies. In other words, the framework aims to unpack the interconnection between outward FDI-promoting policies and firm-specific behaviour in investing abroad. Its relevance to developing economies is further illustrated through an assessment of state roles in forging an effective state-corporate nexus to embed expertise acquired from abroad.

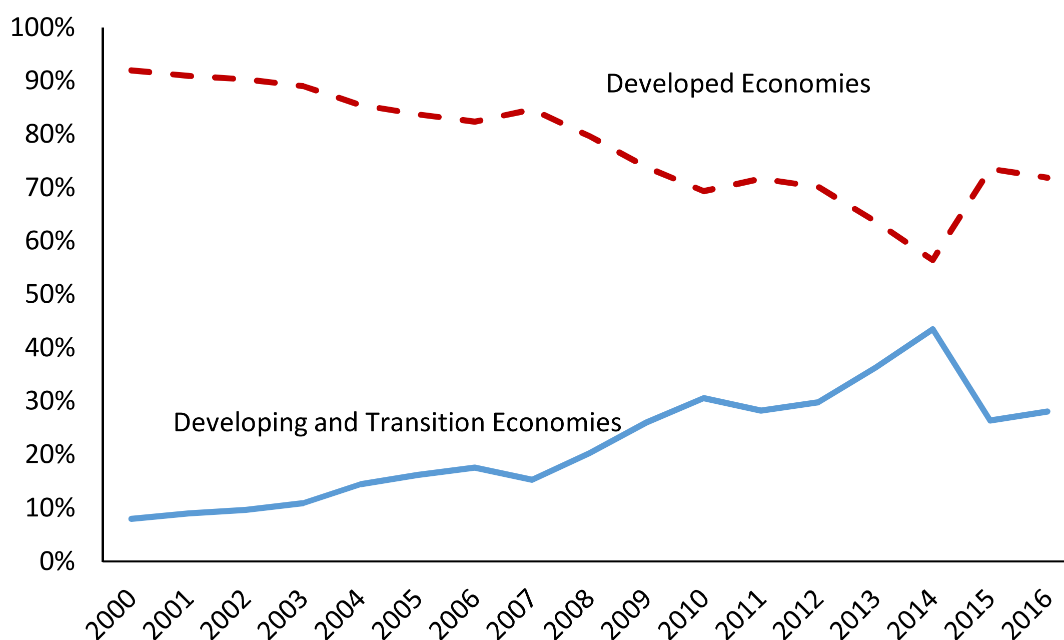
Key Words: Developing Country, Foreign Direct Investment, Industrialization, Late Development, Upgrading, East Asia

Introduction

For decades, policymakers and scholars have argued whether foreign direct investment (FDI) can bring about positive effects on a host country's development. While contemporary literature has underlined the usefulness of FDI in propelling economic growth (e.g. generating employment, bringing in capital, and instilling the relevant know-how and infrastructure) (see Chang, 2004; Goldthorpe, 2015; Lim, 2017a; World Bank, 1993), this position is not universally accepted. For example, Doner and Wad (2014) as well as Wonglimpiyarat (2016) illustrate that the predominantly foreign-owned Thai automobile industry has generated only a moderate degree of positive spillover effects for the indigenous-owned Thai firms although it has functioned as Southeast Asia's regional magnet for automobile FDI for a considerable period. Despite the differing opinions on this subject, almost all of the analytical focus has been trained on the effect of *inward FDI* on the host economies. On the contrary, considerably less analysis has been conducted on the role of *outward FDI*.

The lack of interest on outward FDI is understandable as investing abroad involves an outflow of capital, and at first glance there is little reason to think that a firm's activities in another country would generate significant development benefits for the countries from which the investment originates (the home economies). If anything, the firm's investment abroad is generally viewed negatively by the actors within the home economies for it reduces employment opportunities for the domestic populace in the short run, and could precipitate the hollowing out of the entire industry should the firm and its other associates (e.g. service providers and buyers) shutter their home operations too rapidly and the domestic populace fail to adjust to other higher value-added activities appropriately (see Rodrik, 2016). While some economies (such as Japan and Taiwan) have managed their outward FDI relatively well (see Hatch, 2010; Chu, Ye, & Hsu, 1999), the process is less coordinated in other mid-sized, relatively more liberal economies such as New Zealand (Stringer, Simmons, & Rees, 2011) and Malaysia (Lim, 2017b; Rasiah, 2011), resulting in premature deindustrialization (Rodrik, 2016). This shallow analysis on outward investment, especially those from developing countries, is no longer tenable as developing country firms are rapidly intensifying their cross-border activities (often times aggressively into the developed economies). For some of these developing country firms, their outward investment is strategically supported by the substantial levels of foreign exchange reserves accumulated by their respective national governments, particularly since the beginning of the millennium (Bazoobandi, 2013). Figure 1 shows that in 2016, developing and transition economies accounted for close to one-third of global FDI

outflow, compared with less than 10 per cent at the beginning of the 2000s. This growth has taken place following years of rapid growth in several major developing economies such as Brazil, China, and Vietnam. Despite a blip in 2014, UNCTAD (2017) expects outward FDI from the developing and transition economies to remain strong as it notes the continued proliferation of success-hungry firms from these economies among the top 100 transnational corporations (TNCs) of the world.



Source: UNCTAD Database.

Figure 1: Origins of Outward Flow of Foreign Direct Investment

With the above as a backdrop, this paper aims to bring together vital theoretical insights from the disciplines of international business and political economy, in addition to those from related disciplines such as public policy and economic geography. This paper examines how outward FDI benefits developing countries. More specifically, it analyses how firms (especially the *lead firms*) from developing countries build up their technological and managerial capacity through their overseas investment, simultaneously facilitating value capture for themselves and other firms from their home economies. It also unpacks the developmental dimension of *outward FDI* and the *role of the state* in creating a conducive environment to first nurture the firms, then encourage them to invest abroad, and finally link their outward investment to economic development back in the home economy. The paper offers a useful framework to analyse the phenomenon of outward FDI from developing country firms, and how these firms

contribute to the catching-up of their respective home economies. Furthermore, the paper operationalizes this framework by identifying a number of roles and associated public policies that states can respectively undertake and disburse to facilitate value capture for their lead firms and other subordinate firms (e.g. suppliers and contractors). The overall theme is to argue that, under certain political economic conditions, outward FDI can promote economic development in the home country.[1] Using the examples of some of the most successful firms from the developing world, the paper illustrates that outward FDI is not only a consequence of economic development, but also a booster of development. The basic ambition is to conceptualize and assess the role of outward FDI (in tandem with the role of the state) in contributing to economic development of the country of origin of an investment. In other words, the paper aims to unravel the interconnection between outward FDI-promoting policies and firm-specific behaviour in investing abroad – to first acquire assets, then to transfer these catch-up inducing assets back to the home economy. Like Knoerich (2017), "development" is defined along two dimensions – quantitative expansion (e.g. increases in revenue of firms and economic output of a country) and qualitative betterment (e.g. improvement in firm productivity and command of technology in specific industrial sectors). The paper also envisages that the variety and sophistication of technologies in an advanced economy are greater than those in a developing country, providing a window of opportunity for developing country firms (in concert with their state) to take advantage of their backwardness. The application of innovative catch-up strategies and institutionalization of a collaborative, pro-growth state-corporate nexus can compensate for the developing country's inadequate factors of production such as technology and skilled labour, helping them close the gap vis-à-vis their more sophisticated rivals (see Amsden, 2003; Amsden and Chu, 2003; Sato and Sato, 2016; Wong and Cheong, 2014).

The remainder of this paper begins with a critique on the international business and political economy literature, outlining the knowledge gap within these two bodies of literature on the subject of outward FDI. It then bridges the knowledge gap by discussing a conceptual framework that incorporates simultaneously the complex interrelationships between the three main tenets shaping the developmental outcomes of outward FDI – the conditions in the home economy that act as inducements for the lead firms to invest abroad; the role of the state in

[1] This paper acknowledges that some firms adopt a reckless and even predatory approach when they invest abroad. In extreme cases, outward FDI has served as a conduit through which well-connected executives receive huge kickbacks from their collaborators (Yeung and Liu, 2008). Nevertheless, the subsequent portions of the paper will illustrate how outward FDI can be properly managed to reduce inefficiencies, intensifying economic catching-up.

linking their outward investment to economic development back in the home economy; and the returns of outward FDI which stimulate catching-up for the developing country firms and their home economies. Taken together, the framework proposed in this paper helps researchers and policymakers assess particular characteristics of outward FDI and their broader relationship to economic development back at the countries from which the investment originates. Subsequently, the paper considers the roles that states can play in forging an effective state-corporate nexus to embed the technical and managerial expertise acquired from abroad. It sheds light on this issue by analysing the different policy approaches taken by China and Brazil, two of the developing world's more prominent investors, in managing their outward FDI. The paper concludes with a summary of the main arguments, along with an analysis of their policy implications.

Literature Survey

Conventional understanding of FDI in the field of international business broadly harbours the view that firm-specific advantages already possessed by the TNCs are the sole driving force undergirding their outward investment (Caves, 1974; Hymer, 1976; Vernon, 1966). One of its most well-received theories is Dunning's (2001) OLI (ownership, location, internalisation) model. In the OLI model, FDI is conceptualized as an activity to exploit the competitive advantage of a firm's proprietary assets (e.g. advanced production methods and an abundance of capital) (see also Caves, 1974). Therefore, firms must be relatively sophisticated, at least in relation to firms operating in the host economies, when they invest abroad. The implicit understanding undergirding such research is that outward investment is a *consequence* of economic development in the home economy. In other words, only when a country has reached a relatively advanced stage of development do their firms invest abroad, exploiting their competitiveness (Dunning and Narula, 1996; Gorynia, Nowak, & Wolniak, 2012). It is perhaps no coincidence that research inspired by this school of thought has focused primarily on the experience of Western (and Japanese, to a smaller extent) firms (e.g. Cantwell and Narula, 2003; Doh, 2005; Oxelheim, Randøy, & Stonehill, 2001).

However, the above paradigm was conceptualized in the immediate decades after World War Two, when economic globalization was markedly less intense. Cross-border investment was also less frequent, spearheaded primarily by capital- and technology-intensive TNCs from the advanced economies. Coupled with the increasingly liberalized global investment and financial regime since the mid-1980s "Big Bang" deregulation of the European

financial markets, the aggressive manner in which developing country firms invest abroad in recent years has definitively challenged such a position. Indeed, more updated research has sought to overcome the inadequacy of traditional theories in explaining outward FDI from developing countries (see Buckley et al., 2007; Deng, 2009; Holtbrügge and Kreppel, 2012). According to Knoerich (2017), firms, especially from developing countries, also seek assets when they invest abroad, often in parallel with asset exploitation activities. Dunning and Lundan (2008) and Nguyen (2014) show that investors generally seek factors (natural resources, efficiency, and strategic asset) and/or markets, depending on their needs as well as deficiencies (see Filippov, 2011; Narula and Dunning, 2000; Tham, Teo, & Kam, 2015). For example, natural resources seekers tend to invest abroad to acquire certain resources at a comparatively lower cost vis-à-vis their home country. They usually seek physical resources of one kind or another, supplies of cheap labour, and/or technological and managerial expertise (see Lim, 2017b). Meanwhile, efficiency seekers rationalize the structure of their investment so that they could gain from the common governance of geographically dispersed activities. They take advantage of different factor endowments, cultures, institutional arrangements, economic systems and policies, and market structures by concentrating production in a few specialized locales to supply multiple markets (Dunning and Lundan, 2008). For strategic asset seeking firms, they tend to lack capabilities such as branding and technological sophistication. Therefore, they engage in outward FDI to promote their long term strategic objectives, usually to sustain or advance their international competitiveness. Their motivation is less to exploit specific cost or marketing advantages than to add to the investing firms' existing portfolio of assets with the long term goal of sustaining or strengthening their own competitiveness vis-à-vis that of their competitors (Filippov, 2011). Lastly, market seeking firms are attracted by the host country's market size (in terms of population and purchasing power) and the potential of market growth. In many cases, a saturation of the domestic market also results in the need to expand commerce by entering foreign markets (Tham, et al., 2015). Analysing the rationale of Malaysian firms investing into Vietnam, Lim (2017b) argues that these firms are mainly interested in tapping into Vietnam's large and growing domestic market, natural resources, and strategic assets (in the form of political connections). He also observes that only a minority of Malaysian firms are efficiency seekers, reflecting the low organizational and technical abilities of Malaysia's manufacturing sector. In his study of Russian medium-technology manufacturing firms, Filippov (2011) argues that they tend to invest in more advanced economies to acquire strategic assets in the form of technology (e.g. factories and logistics

centre). These firms seek to bolster their existing technological foundation, which are often obsolete, complementing them with knowledge and capabilities purchased from their foreign competitors. Nevertheless, he notes that only firms which possess good research and development (R&D) departments can internalize the new technologies effectively, highlighting the importance of a firm's absorptive capacity.

The depiction of FDI as a pursuit of multidimensional goals is more suitable than the asset exploitation narrative, in which firms are assumed to invest abroad only when they have attained a relatively high degree of sophistication, to explain the cross-border expansion of developing country firms. This is because it sheds more light on how developing country firms, despite a weaker competitive position, climb the technological ladder by gaining access to valuable factors which are available on better terms at foreign markets vis-à-vis what is available in their home economies (Knoerich, 2012). It is particularly useful if the acquired assets enhance their competitiveness and promote industrial upgrading, which then generate substantial value-added for them and the broader economy. Put another way, factor seeking outward FDI allows developing country firms to catch-up with their rivals as it helps them overcome their initial disadvantages (Becker-Ritterspach and Bruche, 2012; Caseiro and Masiero, 2014; Knoerich, 2017). The upgrading process, if executed consistently well, will lead to the positive structural transformation of the home economy's dynamic comparative advantage over the medium to long term (see Lin and Chang, 2009).

Despite the increasing awareness of the above perspective, there is still a lack of understanding on the processes in which firms seek assets and advantages abroad, and how spillover effects generated by their outward FDI benefit their home economies. Perhaps because of the international business scholars' interest on firm-specific corporate strategies and competitive advantages, the wider institutional context from which the developing country firms have emerged is not often analysed in detail. To address this shortfall, there is a need to integrate the perspectives of the political economy researchers, especially those studying the role of the state in cultivating "national champions". Several studies within the discipline of political economy have highlighted the role of the state in grooming relatively backward developing country firms which, over time, became highly successful TNCs. To this end, the role of the developmental state (especially those from Northeast Asia) in pursuing industrial policies in their respective national economies is a well-received paradigm. This perspective is particularly relevant in the technological and economic catching-up of Japan and the first-tier Asian tiger economies i.e. Hong Kong, Singapore, South Korea, and Taiwan (see Amsden,

2003; Amsden and Chu, 2003; Johnson, 1982; S.-Y. Kim, 2013; Wade, 2003; Wong and Cheong, 2014; Wong, Hu, & Shiu, 2015; Woo, 2017). These five economies have successfully attained high income status in the decades after the conclusion of World War Two. Among other things, the developmental states of these economies have crafted economic policies with varying levels of openness towards inward FDI. More specifically, although the attitude of the state towards inward FDI has been well-documented in the political economy literature, there is comparatively fewer insights generated on how the state has supported the outward investment of firms. This does not mean that there is no research analysing the outward investment of firms and the political forces undergirding it. Indeed, there is a growing pool of literature on this topic (e.g. Dent, 2003; Kalinowski and Cho, 2012; Lee, Lee, & Yeo, 2016). One of the most influential works is Hatch's (2010) depiction of the manners in which Japanese bureaucratic and business elites came together to regionalize Japan's manufacturing industries into Southeast Asia in the aftermath of the 1985 Plaza Accord, which considerably strengthened the Yen against other major currencies.[2] Nevertheless, the subcontinent's relatively weak grasp of technology implies that Japan was in effect conforming to and even solidifying its comparative advantage vis-à-vis Southeast Asia, in addition to taking advantage of a strong Yen.[3] Furthermore, there is a general shortage of research documenting the *exact mechanism* in which state policies support the firms (particularly the lead firms) in climbing the technological ladder through outward FDI. In short, the interconnection between outward FDI-promoting policies, and firm-specific behaviour in investing abroad (to first acquire assets; then to transfer these catch-up inducing assets back to the home economy) is not well-understood.

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[2] Hatch (2010) enriches and updates Akamatsu's (1962) "Flying Geese Model". This model depicts Japan as the driving force for economic innovation in Asia. As such, when labour and other manufacturing costs rose in Japan, the imperative is to relocate the more labour-intensive activities to the less developed parts of Asia, mainly the first- and second-tier economies (Thailand, Malaysia, Indonesia, and the Philippines). This will allow Japanese firms to focus on more sophisticated activities such as R&D while the less developed economies on relatively primitive and labour-intensive activities. Despite its popularity, the Flying Geese Model has been critiqued and reinterpreted by several scholars (e.g. Wong and Cheong, 2014; Bernard and Ravenhill, 1995; Whittaker, Zhu, Sturgeon, Tsai, & Okita, 2010). Their critique emphasizes two main issues – the supposedly stable development hierarchy between Japan and the less developed economies as well as the failure to recognize the possible existence of impediments to latecomer upgrading. For the former, a cohort of latecomer firms from South Korea (e.g. Samsung in consumer electronics) and Taiwan (e.g. Giant in bicycle manufacturing) has caught up with and even usurped the once-superior Japanese lead firms. For the latter, the failure to uplift labour quality in many of the second-tier economies since the late 1990s has locked them in a de facto low wage-cum-low productivity competition with economies boasting even lower wages (such as Vietnam and Cambodia) (see Wong and Cheong, 2014).

[3] To some extent, Taiwan's investment into Southeast Asia from the 1980s to the early 2000s also furthered its comparative advantage vis-à-vis the subcontinent (Chu et al., 1999; Dent 2003).

Related to the point raised above is the observation that political economy scholars have examined the role of the developmental state using predominantly the experience of Japan and the first-tier Asian tiger economies. As a result, there is relatively little work done on how states outside of these economies approach the issue of technological upgrading, and how their domestic lead firms participate in these catch-up efforts. This is despite the combative manner in which some developing country firms, buttressed by state support programs (e.g. concessionary financing in overseas trade development and intergovernmental agreement to mandate the compulsory purchase of goods and services from the official development assistance donor countries), invest across the globe. One of the most obvious examples of this state-corporate nexus is seen in the overseas investment of Chinese firms (see also Andrews-Speed, Qiu, & Len, 2016; Caseiro and Masiero, 2014; I. Kim, 2016; Lim, 2014; Taylor, 2014). Although China has produced some highly competitive private firms since its 1979 economic reform, the Chinese economy is still largely driven by the state-owned enterprises (SOEs). The dominance of the SOEs is in turn reflected in the country's outward FDI, especially in natural resources (Amighini, Rabellotti, & Sanfilippo, 2013).

More recently, Horner (2017) identifies a number of state roles – facilitator, regulator, buyer, and producer – to make sense of this state-corporate nexus. The facilitator is the most common role as it influences firm behaviour through relatively indirect policy tools such as fiscal incentives, pro-business legislature, and infrastructure support. Facilitative activities are long practised by various investment promotion agencies and are regularly advocated by international organizations such as the World Bank. The state can also act as regulator, limiting as well as promoting economic activity within its borders. Common policy measures include standards implementation and trade tariffs. The state can take on the role of a buyer as large-scale purchases (e.g. military equipment and health products) can significantly alter firm behaviour, especially in large economies. Lastly, the state can become a producer by operating its own SOEs. This is especially relevant in transition economies such as China and Vietnam (see also Dicken, 2015; Lim, 2017a). While this typology has enriched our understanding on the relationship between state initiatives and firm participation in the relevant production networks, the *developmental dimension* of outward FDI remains an underexplored area. This is because Horner's (2017) emphasis is on inward FDI rather than outward FDI (the focus of this paper). Nevertheless, this typology – especially the roles of facilitator and producer – can still shed some light on how states and their national firms can tap into a broad range of

spillover and linkages from their investment abroad. This perspective shall be explored in the subsequent sections.

Conceptual Framework

A conceptual framework analysing the developmental dimension of outward FDI is illustrated in Figure 2. This framework has three mutually reinforcing tenets. The first tenet refers to conditions in the home economy (in this case, it is the developing countries) that act as inducements for the lead firms to invest abroad. As illustrated in the previous section, firms are motivated by natural resources, efficiency, strategic asset, and/or markets. Nevertheless, the factor and/or market seeking strategy are not mutually exclusive. In practice, some factor seekers are also market seekers, and vice versa. To illustrate such a scenario, this paper draws upon the 2008 acquisition of Jaguar Land Rover by India's Tata Motors. According to Becker-Ritterspach and Bruche (2012), Tata Motors internationalized its market share with the purchase of the British premium car maker almost instantaneously. Shedding its hitherto India-heavy revenue base, the firm gained immediate access to foreign markets (especially Western Europe and US) which it had only a marginal presence in through this acquisition. It also sought strategic assets, primarily in the form of engineering capabilities related to the manufacture of luxury vehicles as well as the prestige and goodwill related to Jaguar Land Rover. Prior to the acquisition, Tata Motors' activities are largely limited to the production and sales of trucks and relatively small cars despite a decades-long experience in the automobile market. In other words, this acquisition has effectively shortened Tata Motors' learning curve in a rather niche domain of the automobile sector, providing it with a considerable thrust in terms of technological and managerial catch-up (see also Bruche and Wäldchen, 2013). The exposure to foreign markets and critical engineering know-how in turn pushes Tata Motors (the lead firm in the industry) and its immediate suppliers to enhance their competitiveness e.g. by upgrading their products and processes and ameliorating methods of management and organization. This learning process is amplified when they are transferred back to the home economy (see also Mani, 2013).

The second tenet describes the role played by the state. The home base imprint of the state is especially vital in creating a conducive environment to first nurture the firms, then encourage them to invest abroad, and finally link their outward investment to economic development back in the home economy. For oil-rich Abu Dhabi, the main emirate and capital of the United Arab Emirates (UAE), it has long harboured the ambition to reduce its reliance

on hydrocarbons. With a mandate to facilitate the diversification of Abu Dhabi's economy, the state-owned Mubadala Development Company was established in 2002 through income derived from crude oil exports. Mubadala focuses on long term investments that deliver tangible social benefits to its citizenry by partnering leading TNCs and tapping into their know-how (Bazoobandi, 2013). In several instances, Mubadala has ventured into industries which Abu Dhabi does not have an expertise in. Its journey into the technologically complex business of semiconductor manufacturing is signified by two key events in 2009 – a joint venture with US-based Advanced Micro Devices to form Global Foundries followed almost immediately by the purchase of Singapore's Chartered Semiconductor. Both Global Foundries and Chartered Semiconductor were soon merged to achieve synergistic outcomes. To this end, significant financial capital was expended. Yet, these bold moves have helped elevate Abu Dhabi (and the rest of the UAE) from a technologically backward region into the world's second-largest independent semiconductor manufacturer (Rudy, et al., 2016). Although it will still take some years for Mubadala and the people of Abu Dhabi to fully internalize the skills involved in operating a business as complex as semiconductor manufacturing, it is difficult to imagine an alternative scenario for a developing country (even resource-abundant ones) to attain such rapid progress. While the Mubadala model remains an experiment-in-progress, and is very much dependent on the Abu Dhabi state's patient financial support as well as determination to diversify its hydrocarbon-centred economy, it serves as a reference point for other developing countries seeking to deepen their technological command (and move away from natural resources) (see Mahroum and Al-Saleh, 2016). On the opposite side of Abu Dhabi is China, a rapidly industrializing economy needing a continued supply of energy to fuel its growth. To this end, its low natural endowment of hydrocarbons, especially crude oil, necessitates it to secure energy from abroad.[4] This has in turn brought about a close working relationship between the state and its cohort of state-owned energy firms in the latter's outward investment into the three strategic locations (Russia-Central Asia, Middle East-North Africa, and South America) earmarked for their expansion efforts (Taylor, 2014). This "oil diplomacy" is driven not only by the government's strategic concerns with respect to national and economic security,

[4] China became a net oil importer in 1993. While China has partially offset its dependence on oil by developing alternative energy sources (with coal at the forefront), it must be stressed that coal is utilized almost entirely to generate electricity for households and factories. Oil remains difficult to substitute because it is a raw material for several major manufactured products (e.g. plastic components), in addition to an almost indispensable fuel to power vehicles. BP (2017) illustrates this situation well, showing that oil continues to contribute close to 20% of China's total energy portfolio. Trailing only coal (63% of total portfolio), it is the second most consumed energy source in China.

social stability, and foreign strategy, but also by the energy SOEs' strong commercial motives to "go abroad" and the personal incentive of their management (Andrews-Speed, et al., 2016). Despite the occasional misalignment of goals between the state and the energy SOEs, the latter has definitely benefited from the state's various support measures – ranging from policy support, diplomatic support, and financial support – in their investment (see also Liou, 2009). For I. Kim (2016), Beijing's strategy has yielded tangible success. Cooperating with the national oil companies of states that challenge US hegemony (such as Venezuela and Iran), Chinese energy SOEs have, since the early 2000s, built up a steady stream of supply to power the Chinese economy. In tandem with their move to secure foreign energy supply, these firms have also enhanced their domestic capacity through state-backed upgrading and expansion in core refining and onshore exploration and production technology. This two-pronged development has bolstered China's resilience against supply shocks, at least in the near to medium term.

The third tenet of Figure 2 shows the potential returns of outward FDI, a point alluded to in the previous two tenets. The returns take various forms e.g. natural resources which reduce raw material shortages in the home economy, technologies and operating skills that are not available in the home economy, popular brand names that have been established by foreign firms over a considerable period of time (and would quite possibly take just as much, if not more, effort and time to cultivate organically), and financial returns which benefit the investors. The overarching logic is that there exists a hierarchy of different types of returns, which varies significantly in terms of their contribution to the catch-up of the home economy (Knoerich, 2017). The closer the returns from the pursuit of overseas investment match developmental needs in the home economy, the more effective would the contribution of the outward FDI be. Using China as a further example, the rapid transformation of Huawei (one of the country's lead firms in the telecommunications industry which enjoys ties to the Chinese military) from a manufacturer of low end, low margin telecommunications equipment to a key player in the industry's technological frontier deserves special attention here. A product of China's industrial policy, Huawei has aggressively invested into the telecommunications sector of both the developing as well as developed countries (see Nolan, 2014). In the field of advanced technology acquisition, Huawei's double acquisition of US-based Cognigine and Optimite in 2003 have offered Huawei the opportunity to dominate the global optical communication technologies market through Cognigine's innovative network processor, and Optimite's Super Dense Wavelength Division Multiplexing (SWDWM) technologies. They also complement

Huawei's strategic partnership with LightPointe (another US firm) on free space optic technology, thus providing Huawei access to the high profit margin, high end fibre optic market (Low, 2007). In addition, Huawei has established R&D centres in highly selective telecommunications technology and software development hubs e.g. Silicon Valley, Dallas, Bangalore, and Stockholm (Fan, 2011; Fitzgerald and Rui, 2016). Despite a steeper operating cost in these high wage (vis-à-vis China) global innovation centres, such investment has provided Huawei with the knowledge of foreign talents with advanced technological skills and deep industry contacts. These foreign units also function as "listening posts" for the parent firm (see Knoerich, 2012), monitoring the market abroad and the moves of competitors, including technological standards and new products. The engineering and managerial experience gained from these outward investment has in turn enabled Huawei to upgrade its technological know-how in a relatively short period of time – it is currently the world's largest vendor of telecommunications equipment (overtaking Sweden's Ericsson) (see Liu and Zheng, 2013).

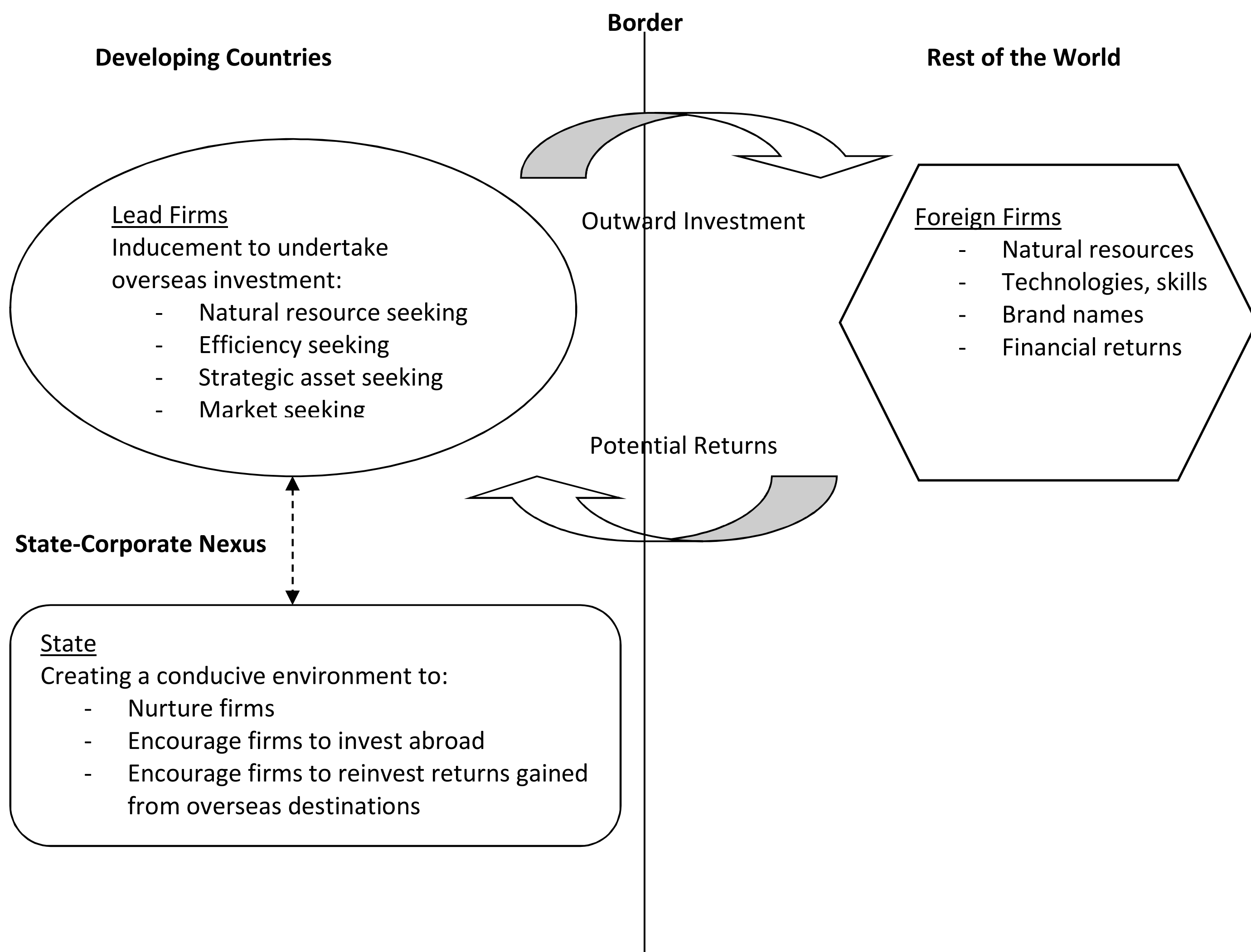

Figure 2: Conceptual Framework on the Developmental Dimension of Outward Foreign Direct Investment

Forging an Effective State-Corporate Nexus: Rethinking the Role of the State

The previous section has described the ways in which outward FDI can support developing country firms and their home economies pursue tangible forms of economic progress. Some of the more emphatic outcomes include enhancing production capabilities, securing access to raw material, and overcoming knowledge deficiencies. Carefully targeting the most relevant foreign assets and utilizing effective means to acquire the former, developing country firms, in partnership with the state, are in a good position to help themselves and their network of affiliates move up the value chain. Nevertheless, the potential gains from outward FDI hinges substantially on the conditions of the home economies. One of which is the absorptive capacity of the domestic lead firms and its cohort of supporting firms. Foreign

know-how is unlikely to be effectively absorbed without a relatively functional set of business groups and institutions (such as public research institutions and transport network) in the home economies, both of which require solid state support, at least in the early phases. As detailed previously, the state's importance is illustrated by two main roles: facilitator and producer (Horner, 2017).

Table 1 shows some economic indicators of China and Brazil – two large, influential developing economies – and the markedly different roles they take in governing their outward FDI policies. At a macroeconomic level, both possess gross domestic product (GDP) per capita of an upper middle income economy, with Brazil (USD 8,650) slightly ahead of China (USD 8,123). However, China, between 2000 and 2016, has invested abroad more significantly than Brazil, with a cumulative outward flow of FDI valued at USD 951 billion. This is close to five times that of Brazil. While it is true that the large pool of external reserves China has accumulated since its 1979 economic reform has rendered the cost disadvantage less important and erroneous investment less damaging when it acquires assets abroad, it must be stressed that China, in comparison to Brazil, has approached outward FDI in a more aggressive and multimodal manner (Cheong, Wong, & Goh, 2016).

Table 1: Role of the State in Aligning Outward Investment with Needs of Home Economy

	China	Brazil
Flow of Outward Foreign Direct Investment (Current USD; Billion)	951 (2000-2016)	198 (2000-2016)
Gross Domestic Product Per Capita (USD)	8,123 (2016)	8,650 (2016)
Gross Domestic Expenditure on Research and Development (% of Gross Domestic Product)	1.69 (Average of 2005-2015)	1.11 (Average of 2005-2014)
Role of State	Hybrid	Facilitator
Main Policy Instruments	State-owned enterprises (e.g. disciplining executives and exercising corporate veto	Partial liberalization of capital account; Reduced approval processes from economic regulatory

	power as and when necessary); Diplomatic support for Chinese firms investing in US-sanctioned economies (e.g. Venezuela); Financing support for key overseas projects; Partial liberalization of capital account; and Investment in public research institutions	bodies for outward investment; and Financing support for key overseas projects
Main Industries Targeted	Energy (oil and gas); and Medium- to high-technology manufacturing	Meat processing; and Engineering services
Impacts on Home Economy	Firms invest into industries that home economy is not (yet) highly competitive at	Firms invest into industries that home economy is already highly competitive at
Potential for Spillover to Home Economy	Moderate to high	Low to moderate

Source: Caseiro and Masiero (2014); CEIC Database; Ding and Meng (2018); Holtbrügge and Kreppel (2012); KPMG (2008); UNCTAD (2017); United Nations Educational, Scientific and Cultural Organization Database; World Bank Data Base.

As a facilitating state, Brazil adopts a rather hands-off approach, utilizing primarily indirect policy tools (primarily pro-outward FDI legislature) to incentivize its national firms (see Table 1). Two of the more prominent measures are the partial liberalization of capital account as well as the reduced approval processes from economic regulatory bodies (mainly the central bank) for outward investment. Conforming to the spirit of Washington Consensus, Brazil attempts to "make markets work", without intervening directly in its outward FDI. It only takes on a somewhat interventionist stance, by channelling financial support through the state-owned Brazilian Development Bank (BNDES), when key overseas projects are involved. It does not align its outward FDI with broader industrialization goals, failing to target returns

(e.g. R&D expertise and coveted brand names) that relatively low-technology Brazilian firms are most in need of. Consequently, Brazilian outward FDI has mostly benefited the already large and profitable meat processing and engineering services firms, curtailing potential to generate positive spillover to the domestic economy (Caseiro and Masiero, 2014). Another factor limiting spillover is Brazil's meagre gross domestic expenditure on R&D. Investing an average of only 1.11% of its GDP on R&D (from 2005 to 2014), it is difficult for Brazilian firms to internalize and enhance technology purchased from abroad, dampening the likelihood of breaking the knowledge stranglehold of Western and Japanese TNCs. To put this figure into perspective, the average gross domestic expenditure on R&D of the upper middle income economies is 1.15% of their GDP over the same period. Although the Brazilian political leadership has repeatedly stressed the need to support "national champions" in their internationalization efforts, Brazilian firms are inherently more autonomous and less subservient to state directives compared to their Chinese counterparts, disrupting the formulation of a sustainable, collaborative state-corporate nexus. Unlike Beijing, Brasilia's leverage on its domestic firms is more tenuous as the state must often contend with majority owners, often wealthy families (Hennart, Sheng, & Carrera, 2017). Its democratic political system also implies that the state is regularly checked by electoral pressure, especially the influential and affluent business class that dominates the Brazilian economy.

By contrast, Table 1 shows that China adopts a hybrid role in stimulating and directing outward FDI, encouraging firms (especially the SOEs) to acquire assets that are scarce in the country, altering its dynamic comparative advantage (Caseiro and Masiero, 2014). It does so through a combination of direct (e.g. deploying SOEs and providing diplomatic support to firms willing to enter critical US-sanctioned economies) as well as indirect policy measures (e.g. partial liberalization of the Chinese capital account). Partly attributable to its socialist political regime and long history of officialdom, China enjoys a fairly robust administrative capacity and considerable influence in the economy. Through an adaptive process of experimentation and restructuring, the Chinese state has managed to rein in the excesses of the SOEs, ensuring that they perform goals that are beneficial to the country's progress (Li, 2015). Such factors have helped Beijing sway firms to undertake outward FDI which fits the national development agenda. As illustrated in the previous section, Chinese firms have gained access to much-needed returns such as natural resources (e.g. oil from Sudan) and medium- to high-technology manufacturing know-how from the US telecommunications industry. These are industries that China is not yet competitive at, but is attempting (with some degree of success)

to gain expertise in. In the energy industry, one witnesses a collaborative state-corporate nexus, underwritten by a close (albeit opaque) relationship between Beijing and its energy SOEs. The deployment of SOEs and other direct policy instruments (such as financial support for key overseas projects and cordial government-to-government ties between China and some US-sanctioned economies) allows Beijing to take on a more hands-on role in the internationalization of China's energy firms (Taylor, 2014). Furthermore, the Chinese state plays a facilitator role by consistently investing in engineering-focused public research institutions, enhancing spilllover effects for the domestic economy. Investing an average of 1.69% of GDP per year on R& D (from 2005 to 2015), Chinese spending significantly outstrips the average of its fellow upper middle income economies (1.20% of GDP). More significantly, it trails that of the European Union by a mere 0.2% of GDP within the same period (see Wong and Cheong, 2014). That China's expenditure on R&D has managed to keep pace with its rapid GDP growth over 10 years is nothing less than impressive. Some of these institutions have deepened the know-how of previously backward Chinese energy firms, especially in refining and onshore exploration and production (I. Kim, 2016).

Overall, the tentative outcome is that China's facilitator-cum-producer role in promoting outward FDI is more likely to stimulate domestic catching-up than Brazil's primarily facilitator role. Relative to Brazil, China deploys a wide range of strategies to acquire and absorb foreign assets, with the ultimate goal of uplifting its domestic industrial ecosystem. Its unorthodox pursuit of long term, non-business objectives challenges the oft-invoked dichotomy of firm versus state. Yet, judging from China's increasing proficiency in industries such as energy and medium- to high-technology manufacturing, one can reasonably conclude that, if executed well, this form of outward FDI management can yield tremendous outcomes for technologically backward developing countries.

Conclusion

This paper has presented a framework to account for the importance of outward FDI to the home country's development process, drawing upon insights from primarily the disciplines of international business (i.e. theories of asset exploitation and factor seeking) and political economy (i.e. theories of state intervention), in addition to those from related fields. Analysing the recent catching-up experience of some of the most successful firms from the developing world (e.g. Huawei and Tata Motors), the paper has explored how outward FDI can be an important channel of interaction and exchange with the rest of the world (especially the

developed countries). Nevertheless, it is only under certain political economic conditions that outward FDI can generate positive developmental outcomes in the country of origin of the investment. More crucially, one needs to adopt a framework which considers simultaneously the complex interrelationships between three main tenets (illustrated in Figure 2) – the conditions in the home economy that act as inducements for the lead firms to invest abroad; the role of the state in nurturing the firms, encouraging them to invest abroad, and linking their outward investment to economic development back in the home economy; and the returns of outward FDI which help developing country firms and their home economies catch-up to the rest of the world. It is hoped that the framework can shed light on how carefully-targeted outward FDI facilitates value capture for the lead firms and other subordinate firms (e.g. suppliers and contractors) from their respective home economies, distinguishing between more "beneficial" types of outward FDI and less "beneficial" ones. Drawing on the experiences of China and Brazil, the paper has further delineated the different roles that states can undertake in crafting an effective outward FDI environment to more effectively acquire foreign know-how and embed them into the domestic economy. China's hybrid approach has yielded more concrete results than Brazil's predominantly facilitator role. As a result, China is acquiring expertise in industries that it aims to be globally competitive at, defying its present comparative advantage. Brazil's more passive outward FDI strategy implies that its firms largely invest into industries that the country is already highly competitive at, without radically transforming Brazilian industrial capacity.

Although this paper can certainly benefit from more in-depth studies tackling outward FDI and economic progress, the postulation forwarded here has vital policy implications for the developing countries. It has demonstrated the continued relevance of the state, notwithstanding the clout of TNCs amidst an era of accelerated globalization. More importantly, the paper offers guidelines for policymakers and business executives to "take advantage" of the external pressure brought about by the ever increasing degree of economic openness and intensifying knowledge-based competition. The two-way dynamic between the state and its national firms is central to understanding the possibilities for state roles – facilitator and producer – and associated policies to expedite economic and technological progress. For the developing countries, this is a critical consideration as many of them are poised to forge closer ties with far more powerful, wealthy economies through impending multilateral arrangements such as the Regional Comprehensive Economic Partnership. They cannot afford to get this wrong.

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