A Comparative Analysis of Location and Non-Location-Bounded Strategic Asset Seeking in Emerging and Developed Market MNEs: An Application of New Internalization Theory

ABSTRACT

Do emerging market (E)MNEs have a stronger strategic asset seeking FDI orientation than developed market (D)MNEs? If so, what are the properties of the strategic assets they actually seek and are they similar or dissimilar to those of DMNEs? Drawing from new internalization theory, we show that lying concealed within some mainstream EMNE models are important predictions regarding differences in the location-boundedness properties of the strategic assets sought by EMNEs compared with DMNEs. Using multinomial logit modelling on 2,414 international M&A deals, we explore how acquirer characteristics shape location-bounded (trademark) and non-location bounded (patent) strategic asset seeking choices. In general, we find evidence that EMNEs have a comparatively stronger patent but weaker trademark seeking orientation than DMNEs. We discuss implications for EMNE related theory, focusing on the qualitative differences in asset seeking orientation between EMNEs and DMNEs.

Key words: new internalization theory; emerging market MNEs; location and non-location boundedness; strategic asset seeking; FDI

Introduction

An extensive conceptual and empirical literature has emerged exploring strategic asset seeking (SAS) in emerging market MNEs (EMNEs) (Luo & Tung, 2018; Meyer, 2015). A couple of questions, however, remain under researched. Firstly, do EMNEs have a stronger tendency to engage in SAS related FDI than developed market MNEs (DMNEs)? Secondly, and perhaps more interestingly, what are the *properties* of the strategic assets EMNEs actually seek and how do their location-boundedness properties influence EMNE SAS behaviors? While the first question has received considerable conceptual interest, comparative empirical testing of EMNE SAS intensity with respect to DMNEs remains under-researched, with a few notable exceptions (Estrin, Meyer, & Pelletier, 2018; Jindra, Hassan, & Cantner, 2016). As regards the second question, we still know comparatively little about the *properties* of the strategic assets sought, or whether and how these may differ between EMNEs and DMNEs.

This is a potentially important question, as SAS related concepts have recently become central to debate surrounding rise of EMNEs. The acquisition of such assets is strongly associated with the notion of exploratory and asset augmenting internationalization catch-up strategies in late comer MNEs. In this regard, a potentially important and distinguishing property of strategic assets sought by EMNEs relates to their portability and non-location bounded properties (Meyer, 2015: Hennart, 2012; Luo & Tung, 2018). In this view, strategic assets are acquired by EMNEs not with a view to necessarily being used in the original host country in which they are acquired, but rather they are acquired with a view to becoming employed throughout the EMNE network – to spur global competitiveness within the MNE. This particularly includes improved performance in the acquirer's *home* base (Hennart, 2012; Luo & Tung, 2018). Indeed, strategic assets have been thought of as possessing non-location bounded properties in recent conceptualizations (Meyer et al. 2015).[1] Despite the potential importance of the location boundedness properties of such assets to understanding FDI related SAS acquisition strategies in EMNEs, few empirical studies, to our knowledge, have explored their impacts.

New internalization theory, with its focus on the nature and characteristics of firm-specific advantages (FSAs) and their diffusion within MNEs, provides potentially useful insights into the above questions (Jing Li & Oh, 2016). New internalization theory was developed with the specific purpose of better explaining subsidiary specific advantages and their reverse diffusion to parent companies within the MNE network (Verbeke & Rugman, 1992). The "critical extension" made to new internalization theory (vis-à-vis "conventional" internalization theory) was its distinction between the different types of FSAs that MNEs may possess, specifically focusing on their properties with regards to intra-MNE

[1] An idea not originally specified in Dunning's original formulation of SAS but later incorporated by him and commonly implicit in many others that makes use of the concept (Meyer, 2015).

transferability (Verbeke & Kano, 2015). FSA location boundedness thus became a major focus of new internalization theory (Rugman &Verbeke, 2001; Rugman & Verbeke, 2003; Verbeke & Rugman, 1992). According to one recent commentary, this distinction signified 'a quantum leap in the development of modern IB research' (Narula & Verbeke, 2015, p. 615). Despite this leap, and the conceptual notion of SAS involving portability (Meyer, 2015), new internalization theory's focus on FSA location boundedness has yet to be extensively applied to research on EMNEs. Indeed, the tendency of EMNEs to engage in SAS in their FDI orientation with a view to capability creation via intra-MNE (often reverse) knowledge flows is increasingly identified as one of their distinctive characteristics (Buckley et al., 2018). As the multidimensionality of FSA diffusion is central to new internalization theory, it would appear well suited to the analysis of SAS in EMNEs.

How does exploring the location boundedness of assets acquired via SAS and comparing them with DMNE strategies provide further insights into understanding EMNEs? We argue, following Meyer's (2015) insight regarding appropriate conceptualizations of SAS, that concealed within a number of mainstream theoretical approaches to explaining EMNEs, such as Luo and Tung's (2018) 'upward spiral' springboard theory and Hennart's (2012) imperfect locational advantages argument, are important predictions regarding the location boundedness properties of the intangible assets sought during SAS related FDI. Specifically, some of these models place emphasis on the strong gravitational pull of the domestic market as a driver of outward FDI strategies in EMNEs, as well as asymmetries in market access (which recently have risen up the agenda as major geopolitical issues: witness the current trade and investment disputes between the US and China). These asymmetries favor EMNEs. Differences, therefore, are predicted between EMNEs and DMNEs with regards to the intensity of the location and non-location-bounded strategic assets they pursue. Further exploring differences with regards to the location boundedness of SAS orientation in EMNEs and DMNEs may thus provide insights into MNE theory and deepen our understanding of whether (and how) EMNEs are different to DMNEs. From a policy perspective, moreover, EMNE SAS intensity and orientation have become major geopolitical issues. By comparing how strategic assets shape acquisition choices we may shed more light on these issues.

First, we outline the debate regarding the SAS orientation of EMNEs and then explain the relevance of new internalization theory for understanding EMNEs, particularly exploring its key insight related to the location boundedness properties of FSAs and their impact on internationalization strategy. Second, we explain how some of the mainstream EMNE literature, in assuming the home and other third country markets (i.e. not that of the target) are where strategic assets are employed, makes some important predictions regarding the location-boundedness properties of the strategic assets sought by EMNEs (*vis-à-vis* DMNEs). Third, we explain our methodology. We use comparative static multinomial logit analysis to model the LB and NLB SAS choices of acquirers in international M&As of MNEs originating from Brazil, Russia, India and China (i.e. the BRIC markets) and the US and UK

(between 2012 and 2016). Incorporating acquirer characteristics we test and compare the choice decisions of DMNEs and EMNEs in acquiring location bounded (LB) and non-location bounded (NLB) strategic assets. After reporting the results we reflect further upon the insights that new internalization theory can bring to understanding EMNEs, particularly its focus on the properties of strategic assets acquired via FDI.

Literature review

Mainstream International Business theory, such as internalization theory, has argued MNEs invest abroad in order to exploit pre-existing FSAs in new markets. The rise of EMNEs, however, has brought this received wisdom into question. This is because EMNEs are sometimes considered not to possess traditional FSAs, yet still undertake FDI (Luo & Tung, 2018; Mathews, 2006). Their outward FDI strategies, moreover, are thought to be more strongly motivated by SAS than DMNEs, involving processes that augment areas of perceived competitive disadvantage, rather than exploitation of preexisting FSAs. This is done through the acquisition of a variety of assets which are often intangible in nature, such as technologies and brands. Given the proliferation of studies on EMNE SAS behaviors, it is unsurprising that numerous SAS related definitions have emerged (Meyer, 2015). They have recently been defined, for example, as 'know-how, technologies, brands, equipment, buildings and sites acquired or leased abroad with the aim of creating or extending advantages in the future' (Petersen & Seifert, 2014, p. 381). These assets 'may reflect a functional, production-related proprietary asset, typically technological, manufacturing or marketing knowhow…. [or] it may refer to an organizational capability to efficiently coordinate and control the MNE's asset base' (Rugman & Verbeke, 2001: 238). EMNE SAS strategies, therefore, are thought to be driven by their comparatively low levels (i.e. absence) of FSAs and their need to 'catch-up' with DMNE counterparts.

SAS may be facilitated and aided at times by state support (Luo, Xue, & Han, 2010), including favorable domestic home market conditions such as: access to complementary local resources (Hennart, 2012); asymmetries in liabilities of foreignness (Petersen & Seifert, 2014); business group affiliation (Chari, 2013); and the ability to learn from foreign rivals (Mathews, 2006). Much research has thus highlighted EMNEs' FDI behavior as being characterized by comparatively rapid, high risk SAS investments, often to psychically distant developed markets, for the purposes of firm-level catch-up (Luo & Tung, 2018). This "asset augmentation" approach of EMNEs is considered distinct from traditional "exploitation" strategies in DMNEs and poorly explained by existing theory, prompting calls for new or revised theoretical contributions to explain their behaviors (Ramamurti, 2012).

If EMNEs do actively acquire strategic assets, a further logical question follows: are there any particular types of strategic assets that they are predisposed towards and do these assets have specific properties? And does this further distinguish them from their DMNE counterparts? There are reasons for suspecting there may be differences in the properties of the strategic assets sought by EMNEs when compared with DMNEs. Specifically, drawing from new internalization theory, we argue EMNE related theories, such as the 'upward spiral' springboard process (Luo & Tung, 2018) imply a stronger attraction towards NLB as opposed to LB assets. We now outline the difference between NLB and LB assets and then explain the predictions of some mainstream EMNE related theories regarding the SAS intensity towards both NLB and LB assets, considering EMNE and DMNE differences.

New internalization theory and NLB/LB properties of strategic assets

New internalization theory was specifically proposed by Rugman and Verbeke (1992) as a refinement to internalization theory that could account for the potential of FSAs being developed in subsidiaries. Thus new internalization theory was considered a "critical extension" to internalization theory, as it was considered to better account for the real-life complexity of MNE operations (Verbeke & Kano, 2015). It moved away from the "stylized", unidirectional version of FSA creation and diffusion (i.e. from parent to subsidiaries) to one more in line with the observed workings of MNEs (subsidiary to parent, or intra-subsidiary diffusion, among one of numerous FSA diffusion patterns) (Rugman & Verbeke, 2001).[2] Rugman and Verbeke (1992, 2001) thus introduced the idea of LB and NLB FSAs. Some FSAs, they argued, might be more easily diffused within the MNE than others, which remained "sticky" and bounded to certain locations. The key improvement of this approach, in their view, related to its ability to now better explain how subsidiaries might develop FSAs for intra-MNE diffusion: 'NLB-FSAs need not necessarily originate within the parent company, but may also be created by a subsidiary or by joint efforts of the firm's different operations located abroad' (Verbeke & Rugman, 1992, p. 763). They further argued that the location bounded nature of many FSAs could explain why many MNEs expanded regionally rather than globally, as in reality many FSAs were LB in nature and transferred more easily to similar environments.[3]

Rugman and Verbeke's (1992,2001) contributions in this area, unfortunately, do not provide much empirical guidance as to how one might outline 'the precise nature of non-location-bounded FSAs or

[2] They note: 'too much emphasis was put on both the importance of cost optimization and the danger of FSA dissipation, rather than capability creation. In this context, the dominating FDI pattern was one whereby key non location-bounded FSAs needed to be transferred from the home country center to host country subsidiaries, and where subsidiary roles were determined by the parent company' (Rugman & Verbeke, 2001, p. 457).

[3] They questioned whether FSAs, particularly intangible, production-related assets might be easily transferred 'across borders within the firm without too much attention to adaptation or codification problems' (Rugman & Verbeke, 2001, p. 238-239).

fully explain what ties them to specific locations' (Collinson & Rugman, 2008, p. 7). According to one of their early definitions, however, NLB FSAs can be 'exploited globally and lead to benefits of scale, scope, or exploitation of national differences… and can be transferred abroad at low marginal costs and used effectively in foreign operations without substantial adaptation' (Rugman & Verbeke, 2001: 271). By contrast, LB FSAs may benefit firms 'only in a particular location (or set of locations), and lead to benefits of national responsiveness….these location-bounded FSAs cannot easily be transferred [via FDI] as an intermediate good and require significant adaptation in order to be used in other locations' (Rugman & Verbeke, 2001: 271). LB assets, it should be noted, include such things as "local reputation" (Verbeke & Kano, 2015).

Do EMNEs have a greater SAS orientation towards NLB or LB assets?

We now explain our hypotheses, firstly employing arguments from the EMNE literature implying EMNEs have a stronger NLB orientation. Our second hypothesis, by contrast, predicts EMNEs have a weaker attraction to location bounded assets.

NLB strategic assets, EMNEs and SAS intensity

A variety of explanations have been suggested to explain the observed SAS orientation of EMNEs. As Petersen and Seifert (2014) argue, these may be ordered into two general groups. One group, considers the role of specific, often institution related factors, in driving SAS. In the EMNE case, for example, the intervention of state policy-makers (at central and local levels) and their impacts on EMNEs is sometimes singled out (Luo et al., 2010; Wang, Hong, Kafouros, & Wright, 2012). State support, for example, may afford certain firms (like China's preferred national champion business groups) low cost capital (Buckley et al., 2007). Alternatively, business group affiliation may facilitate SAS, again possibly via low cost financing (Chari, 2013; Yiu, 2011).

Petersen and Seifert (2014) argue, however, that an issue with these approaches is that they do not accord with observed patterns in SAS, which extends above and beyond specific cases of state supported businesses or large business groups and beyond economies where such interventions are common (i.e. China). Rather, SAS is observed as a more general phenomenon in EMNEs. Thus, explanations should extend beyond these "special case" arguments and provide a more general explanation for SAS in EMNEs. A second group of explanations therefore proposes that a set of general forces predisposes EMNEs towards SAS more strongly than DMNEs. In particular, the impact of the domestic market stands out as being a strong driver of SAS outward (O)FDI in these models (Hennart, 2012; Luo & Tung, 2007, 2018; Petersen & Seifert, 2014). The logic of this perspective relates, in part, to Rugman and Li's (2007) early assertion that FSAs are, to a large extent, determined by domestic country specific advantages (CSAs). The growth of EMNEs, it is correctly observed, is a direct result of their outstanding domestic market performance (Rugman & Li, 2007). The large domestic BRIC markets, for example, have grown strongly over a number of decades. Numerous

BRIC EMNEs have experienced exceptional growth on the back of their domestic market successes. For such firms the domestic base provides the mainstay of their revenues (most BRIC MNEs, for example, still have very low transnationality indexes and earn very low shares of total revenues from foreign subsidiaries) (Anderson, Sutherland, & Severe, 2015). As such, many argue that EMNE outward FDI is often undertaken as an important means of strengthening domestic market positions, sometimes in the face of intensifying foreign competition. Luo and Tung's (2007) 'springboard perspective', for example, and their updated upward spiral process argument (Luo & Tung, 2018), emphasizes the central importance of the domestic market as a driver of outward FDI. Springboard (S)EMNEs, they argue, may acquire 'critical resources needed to compete more effectively against their global rivals at *home* and abroad…. Springboard links a firm's international expansion with its *home base… Viewed in this manner, the global success of such EMNEs is still highly dependent on their performance at home*' (Luo & Tung, 2007, p. 484) (emphasis added).

According to the springboard view, springboard (S)EMNEs 'systematically and recursively use international expansion to better equip themselves to compete against global rivals, reduce vulnerability to home institutions, and *fortify their home base* to further catapult, domestically and internationally' (Luo & Tung, 2018) (emphasis added). Indeed, the early stages of the springboard process involve SEMNEs repatriating acquired strategic assets back to their domestic market. In this regard, Luo and Tung (2018) acknowledge their argument 'realizes the importance of internalization, but it interprets internalization mainly as transferring acquired foreign strategic assets back home' (Luo & Tung, 2018). Other scholars have also highlighted the importance of the domestic arena as a motivator of SAS related FDI: 'EMNEs go abroad to obtain technologies and brands primarily for exploitation in their *home* markets, not abroad' (Ramamurti, 2012, p. 43). Implicit in much of the SAS related EMNE literature is the notion of NLB properties, particularly in acquired target firms undertaken via M&A (Meyer, 2015).

This observed dependence on the domestic market, has raised a further question: why do DMNEs not try and exploit these markets themselves, with their own often superior FSAs (Hennart, 2012; Petersen & Seifert, 2014)? Two complementary arguments have been put forward to explain this phenomenon, the so-called 'bundling model' and 'asymmetric liability of foreignness' arguments. First, Hennart's (2012) bundling model argues there are imperfect 'locational' advantages (the 'L' from the 'OLI' model) blocking non-domestic market businesses (i.e. DMNEs) from market entry. Hennart (2012) asks the question: why do DMNEs willingly choose to sell their intangible FSAs (i.e. strategic assets) to EMNE competitors? It may be true, for example, that acquired strategic assets create synergies for EMNEs, which often compete primarily on the basis of mass-manufacturing cost advantages. It is not clear, however, why DMNEs would not choose to exploit their NLB FSAs and look to avail of (emerging market) host market country specific advantages (i.e. low costs, etc.) to compete with emerging market firms in their home market. The answer, he argues, is that not all firms

can equally access emerging market CSAs. This is because the NLB FSAs of DMNEs must also be 'bundled' at the local level with emerging market CSAs in order to become profitable (in the emerging market). Preferential access to local resources for domestic EMNEs, however, allows them preferred access to these advantages. Access to complementary local resources (assets which allow for the effective deployment of knowledge (i.e. FSAs)) in a given market, such as distribution channels, after-sales services or complementary technology thus gives EMNEs vital domestic market advantages.[4] Elsewhere these have been referred to as 'home court' advantages (Luo & Tung, 2007).

Second, Petersen and Seifert (2014) using a logic related to that of Hennart (2012) (as it predicts stronger pervasive forces driving SAS in all EMNEs *vis-à-vis* DMNEs) arrive at a somewhat similar conclusion, albeit from a different route. They argue that DMNEs and EMNEs face asymmetric liabilities of foreignness. More specifically, they focus on the structural, relational and institutional costs of doing foreign business, with an emphasis on institutional costs. Emerging markets, such as the BRIC markets, are typically considered to suffer from institutional voids, which domestic firms become accustomed to dealing with (via, for example, formation of business groups which may lower transaction costs (Khanna & Palepu, 1997)). The informal rules and conventions prevalent in such institutional contexts are harder for DMNEs to become accustomed to. This contrasts with the more formal systems found in developed markets, which EMNEs can learn relatively easily. Their argument thus invokes the idea that liability of foreignness is contingent upon the direction of investment and not, therefore, symmetric. As a result, EMNEs in general find it easier to navigate the institutions, language and culture of developed markets than DMNEs find navigating those of emerging markets. Petersen and Siefert (2014) therefore argue that *all* EMNEs have advantages in terms of business practices, culture and language in their domestic market. Furthermore, because of asymmetries in liabilities of foreignness between DMNEs and EMNEs when investing in each other's markets, 'all else equal, it is easier for EMNEs to succeed in developed markets than it is for MNEs to succeed in emerging markets' (Petersen & Seifert, 2014, p. 378).

The bundling model, asymmetric liability of foreignness and springboard upward spiral arguments all explore why there may be a set of general forces at play across emerging markets that motivate SAS. They argue that EMNEs often look to use acquired strategic assets domestically, at least in the first instance, in part owing to the rents appropriable to NLB intangible assets transferred to their sheltered (i.e. DMNEs struggle to enter) domestic markets. DMNEs, by contrast to EMNEs, do not have sheltered domestic markets and other barriers such as institutional asymmetries, also are not present. Following this logic, we hypothesize:

[4] Complementary local resources can be achieved via, for example, participation in domestic business groups and strong state-business relationships, those that may be deemed rent-appropriable also include 'the knowledge of how to incorporate these intangibles into products that meet the needs and tastes of local consumers, the logistics necessary to put products within their reach, and all the other inputs necessary for local production' (Hennart, 2012).

Hypothesis 1. EMNEs are *more* strongly attracted to non-location-bounded strategic assets than DMNEs when undertaking FDI.

Location bounded strategic assets and SAS intensity: EMNE v DMNE differences?

There is considerably less theoretical support to suggest a stronger orientation towards LB assets in EMNEs when compared with DMNEs. LB assets cannot be transferred at low cost for potential exploitation in the profitable domestic market, or easily elsewhere (Verbeke & Rugman, 1992). As such, the value of acquired LB assets cannot very easily be leveraged (to use Mathews' (2006) terminology in his LLL model) throughout the EMNE's operations (but particularly domestically).

Building upon the NLB/LB distinction, Lo et al. (2011) have noted three factors which influence the location-boundedness of an FSA and may thus potentially act as a deterrent for EMNE related SAS. First, research on knowledge transfer has identified 'tacitness' as a factor influencing FSA portability. FSA tacitness refers to the 'non-codifiability, non-teachability and complexity' of an advantage (Lo, Mahoney, & Tan, 2011: 283). Second, the degree of organizational embeddedness and thus the extent to which an advantage must be complemented with other elements found within the organization, affects FSA transferability (Lo, 2015). The greater the number of complementary elements, the more necessary it becomes to transfer the entire organizations' sub-systems. Lo et al. (2011) provide the example of an FSA related to quality control which sits within and cannot be disassociated from an entire complex production system. One cannot be transferred in isolation. Third, the 'environmental embeddedness' refers to the extent to which the FSA is tied to and embedded within the domestic environment. For example, the FSAs of Japanese MNEs are closely tied to the human resource management practices and *keiretsu* networks highly embedded in Japan's unique socio-political and cultural environment (i.e. lifetime employment and associated recruitment practices, career paths, job rotation systems, training, mentoring and rewards mechanisms are important location-bounded FSAs (Collinson & Rugman, 2008)). Similarly, local reputation is embedded in the domestic environment.

A location bounded asset, like local reputation or brand, for example, may have elements of both tacitness and environmental embeddedness. The ability to manage such location bounded assets, given their distinctive characteristics, may also require an additional FSA, namely 'locational capability' (Zaheer & Nachum, 2011). Locational capability refers to the idea that not all markets are equally accessible to all MNEs, and that one of the capabilities an MNE must develop is its ability to exploit CSAs in particular markets. Locational capability thus refers to the idea that not all CSAs are readily available to all firms – and in this sense the ability to exploit a CSA is contingent upon a certain level of proficiency in managing certain firm specific location bounded assets, namely certain locational capabilities. The ability of EMNEs, however, to harness LB strategic assets like local reputation and brands may be weaker than that of DMNEs, owing to more limited locational capabilities. Brand management, advertising, public relations and consumer relationships are highly

important in high income developed, markets. EMNEs, however, with limited previous exposure to their management, may have limited capabilities to understand and deal with consumers in high income markets. It is thus no coincidence that they 'generally have competitive disadvantages in global brands', as high income markets are more foreign to them (Luo & Tung, 2018, p.140). Developing the locational capabilities to exploit brand value in developed markets may pose particularly significant challenges for EMNEs given their tacit nature and high degree of environmental embeddedness. Arguably, therefore, the value of certain strategic assets that are locally bounded, like domestic brands, may only be fully realized when the acquirer has attained a certain level of locational capabilities.

Many LB assets, like local brands, may be more easily exploited between MNEs from geographic areas that exhibit greater similarities and lower psychic distances, as well as from MNEs with greater locational capabilities. This argument follows the reasoning of Rugman and Verbeke (1992, 2001) that the relative location boundedness of assets can explain the tendency towards regional MNE expansion. As EMNEs are prone to undertake aggressive deals to comparatively distant developed markets (Deng, 2009), LB assets of psychically distant DMNE businesses may be difficult to fully exploit, owing to large psychic distances between home and host markets. By contrast, such challenges may be less acute for DMNE acquisitions, which are likely to be clustered more closely within similar regions, where better appreciation of similar markets may exist and stronger DMNE locational capabilities can be utilized, like that of local reputation.

Implicit in much of the EMNE literature, like the springboard perspective (Luo & Tung, 2018) and bundling model (Hennart, 2012) is the idea that EMNEs are more strongly attracted to NLB assets. This is because their portability is required if they are to be utilized in their often large and comparatively fast growing domestic markets (Luo & Tung, 2018). At the same time, EMNEs may have weaker locational capabilities to manage assets with location bounded properties. Given these arguments, we might predict EMNEs to be less strongly attracted to NLB assets than DMNEs.

> **Hypothesis 2.** EMNEs are *less* strongly attracted to location bounded strategic assets than DMNEs when undertaking FDI.

Methods

Data and sample

We explore potential differences in LB and NLB SAS M&A intensity and orientation using a sample of 2,414 international M&A deals undertaken between the beginning of 2012 and end of 2016. We focus on deals from MNEs from Brazil, Russia, India and China (i.e. the BRIC emerging markets) as

well as the United States (US) and the United Kingdom (UK). If there are differences between DMNEs and EMNEs in SAS orientation, the BRIC countries would seem likely to exhibit them, in part owing to their very large and generally fast growing domestic markets. As regards DMNE comparators, we use MNEs from the US and UK. These countries are host to many well-established, mature DMNEs. We focus on M&A as opposed to greenfield FDI because: (i) acquisitions are typically highlighted as a key means of SAS (Jing Li, Li, & Shapiro, 2012); and (ii) acquisitions allows us to identify measurable proxies for NLB (patents) and LB (trademarks) strategic assets. Most acquisitions in the sample are from DMNEs (around 86%), as expected. China is the largest EMNE acquirer (6.7% of total), followed by India (3%), Russia, (2.1%) and Brazil (1.4%) (see Table 2).

We first use the Thomson One database to collate all international M&A deals in our selected countries. Mathews (2006) argues that many EMNEs may initially take minority ownership shares in order to link, leverage and learn. We thus use all M&A deals that qualify as FDI following the OECD/IMF guideline of a 10% ownership share. We identify the parent firm's country of origin by ultimate ownership. We record both parent and target firms of the M&A transactions in our sample countries. As Thomson One provides no firm-level financial or other company data, we match the target (to ascertain patents and trademarks owned at the time of acquisition) and acquirer firm names from Thomson One to the Orbis database (Bureau Van Dijk). Orbis provides data on over 140 million companies worldwide. It is increasingly used in International Busines research, owing to its wide and rich international coverage (Estrin et al., 2018; Jones & Temouri, 2016). We rely upon it extensively to gather firm-level details of the acquiring firms which we use for our main control variables.

Model specification

The purpose of our model is to explore the SAS related choices that MNE acquirers make when making international acquisitions and how acquirer' characteristics influence these decisions. A multinomial logit model is suitable for this purpose. We specify four different choices for the acquiring MNE firm concerned, namely: to acquire a target firm that holds no strategic assets (choice 1), acquire a target with only trademarks (i.e. LB assets) (choice 2), acquire a firm with only patents (NLB) (choice 3), acquire a firm owning both trademarks and patents (both LB and NLB)(choice 4. The SAS choice is driven by country of origin as well as a range of acquirer' firm-level factors:

Choice of Strategic Asset Acquisition Type (i.e. No Trademarks/Patents, Trademarks, Patents, Patents and Trademarks) $_t$ = f (Dummy variables for EMNEs, incorporating China/Russia/Brazil/India, β_1 Acquirer Patents$_a$, β_2Acquirer Trademarks, β_3Acquirer Experience, β_4AcquirerBusinessGroupSize$_a$, β_5Acquirer Group Domestic Diversification, β_6, β_7Industry relatedness between acquirer/target, β_8 Total Assets, β_9 Geographical diversification, Industry and year Dummies)

Variables and measurement

Dependent variable: presence of patents/trademarks in the target firm

As noted, there are various definitions of strategic assets (Meyer, 2015). In general, however, the EMNE literature near universally considers brands as strategic assets. One recent example of an SAS definition, for example, is 'know-how, technologies, *brands*, equipment buildings and sites acquired or leased abroad with the aim of creating or extending advantages in the future' (Petersen & Seifert, 2014, p. 381)(emphasis added). NLB strategic assets, it is suggested, 'can take two main forms. First, it may reflect a functional, production-related proprietary asset, typically technological, manufacturing or marketing knowhow. Second, it may refer to an organizational capability to efficiently coordinate and control the MNE's asset base' (Rugman & Verbeke, 2001: 238). The FSA concept is therefore very broad in coverage and difficult to capture empirically. Previous studies, moreover, have 'failed to identify empirically or explain precisely the difference' between NLB and LB strategic assets (Collinson & Rugman, 2008, p. 221). Here we use the ownership of at least one patent in the target firm to proxy for a choice of NLB strategic asset seeking by the acquirer. For better or worse, patents are the most commonly used proxy for SAS activity in the extant EMNE literature (Alon, 2010; Buckley et al., 2007; Chen, Li, & Shapiro, 2012; Jing Li et al., 2012). As discussed, NLB FSAs are typically considered to incorporate high levels of codified knowledge. Patents therefore fit this description well, as patenting involves explicit description of the intellectual property being registered. Such codified knowledge, moreover, contrasted with tacit knowledge, is more easily transferred between distinct national spaces (Cuervo-Cazurra, Maloney, & Manrakhan, 2007).

Local reputation, by contrast, is non-transferable. It qualifies, therefore, as a LB FSA (Verbeke & Kano, 2015). Brands, moreover, come to embody firm reputation by acting as an identifiable signaling mechanism, allowing products or services to be distinguished in the markets that they serve. Most brands of any value are typically registered as trademarks for the purposes of intellectual property rights protection. Potentially, therefore, if trademarks are owned by a target firm they may proxy for LB FSAs. Using the existence of at least one trademark as a choice option, however, has several possible limitations. First, it may be that some brands are already recognized in the acquiring firms' home market (i.e. their reputation has spread beyond the local market, giving them NLB properties). This is more likely to be the case in those target firms that have already developed a widespread presence in foreign markets. In order to discount the possibility of including these types of internationally recognized brands, we do not include the trademarks of any target firm that has undertaken FDI in the acquiring firms' home country (i.e. it has a foreign subsidiary in the acquiring firms domestic market). An evident limitation of using the presence of both trademarks and patents as choices for LB and NLB SAS respectively is that they do not account for trademark/patent volumes or values.

Independent and control variables

We use a dummy variable for EMNEs as a group as well as by individual EMNE countries to capture the impact of individual country of origin on choice of SAS target, so providing for a more detailed understanding of which MNEs may be driving the results. Some MNEs, such as those from China, for example, have been singled out as more aggressive asset seekers than others (Hertenstein, Sutherland, & Anderson, 2015).

We incorporate additional acquirer related control variables. Firstly, existing acquirer' intangible assets, commonly used to reflect the degree of absorptive capacity, could influence propensity for SAS related deal-making (Makri, 2010). We thus incorporate patent and trademark count as a proxy for firm level acquirer absorptive capacity and intangible assets (Table 1). The size and extent of domestic diversification of an acquirer's corporate group may influence deal-making. This is particularly thought to be the case for emerging market firms, in which large diversified business groups are commonly involved in outward FDI activities, particularly SAS related deals. Such groups facilitate access to domestic internal capital product and labor markets and share group wide resources, including those related to 'project execution capability' facilitating absorption of foreign strategic assets (Amsden & Hikino, 1994; Chari, 2013; Yiu, 2011). We therefore incorporate group size (number of firms) and an entropy measure of domestic group industrial diversification (Palepu, 1985), based around the count of subsidiaries in different two digit SIC industry codes (owing to the relative dearth of sales and assets figures) (Delios, Xu, & Beamish, 2008). Acquirer firm age is included as one proxy for experience (Table 1) and subsidiary count of the acquirer is included to capture size at the level of the acquiring firm and its ability to manage multiple operations. Geographic diversification, again based on a two digit entropy count of both foreign and domestic subsidiaries provides a comprehensive measure of how internationally diversified the corporate group is. This again indicates experience and capabilities of managing international operations in the corporate group. Such measures of experience are important control variables, as a reason why many EMNEs are different relates to their relative levels of maturity and experience in managing international operations. The industrial relatedness of the target and acquirer may influence asset seeking orientation (i.e. it may be harder to digest unrelated deals) and we control for industry relatedness by including a dummy variable for similar target and acquirer NACE codes (at the four digit level), as well entirely unrelated deal-making (i.e. NACE code dissimilarity at the two digit level).

******* Table 1 about here *******

Results

Multicollinearity issues are not a major consideration in our models (see Table 2). Correlation coefficients between our key explanatory variables (i.e. country of origin) and other explanatory variables are generally low, limiting the possible impacts upon significance testing of these variables. Results for the multinomial logistic regression are reported in Table 3 (the base group being target firms with no patents or trademarks) and average marginal effects estimations for country/group (i.e. EMNE grouping) of origin in Table 4.

******* Tables 2, 3 and 4 about here *******

Table 3 includes a base model without the main EMNE explanatory variable (model A), one including it (i.e. the EMNE dummy, model B) as well as a model including the EMNE dummy decomposed further by individual country (i.e. China, Russia, India and Brazil, Model C). Looking at model fit statistics, the base model passes the likelihood ratio (LR) model fit test ($p<0.001$, Max. Likelihood $R^2 = 0.073$) as does model B ($p<0.001$, Max. Likelihood $R^2 = 0.079$). A subset of the predictors at very least, therefore, has non-zero effects in both models. More importantly, addition of the country of origin dummy in model B exhibits a significant increase in χ^2 and an increase in the R^2 ($p<0.001$). Thus model B, including the EMNE dummy grouping, increases the model's explanatory power. This is also reflected in the fall of the Akaike Information Criterion, a sign that the model fit is improved enough to compensate for its increased complexity (Wulff, 2015). The country of origin dummy variables in model C similarly exhibits a significant increase in the χ^2 and an increase in the R^2 ($p<0.001$), again reflected in the fall of the Akaike Information Criterion. In the case of individual country level reporting (Table 3, model C) Chinese MNEs appear more likely to acquire target firms that own patents (significant at the 1% level) as do Russian MNEs (10%) (both *vis* a *vis* the rest of sample group, i.e. including DMNEs originating from the UK and US). Chinese MNEs are also significantly and positively attracted towards targets simultaneously owning patents and trademarks (column 9). As regards trademark orientation, the EMNE coefficient in model B is negative but insignificant and in model C is negative for three of the four EMNE countries (China, Brazil, Russia) and is significant at the 5% significance level in the Russian case, indicating Russian MNEs are less likely to acquire a target with trademarks than their DMNE counterparts.

Wulff (2015) notes that caution is required in using coefficients alone in determining the direction and scale of the relationship between independent variables and the likelihood of choosing specific alternatives. Instead, to be able to reach conclusions concerning such relationships, marginal effects

can be used. Table 4 estimates average marginal effects for the country and EMNE group dummy variables and computes these for models B and C from Table 3. Table 4 indicates hypothesis 1 is supported in the case of all EMNE (i.e. as a single group) but only at the 10% level of significance. The size of the marginal effects coefficient, however, is large (0.35), suggesting that if an EMNE target has patents the likelihood of an acquisition increases by 35% for an EMNE *vis* a *vis* the base case (no patents/trademarks) – a considerable shift in the likelihood of undertaking a deal. The results additionally provide evidence to show that it is Chinese MNEs in particular that can be singled out as having a stronger patent seeking orientation than those from Russia, Brazil and India. The coefficient on patents (NLB strategic assets) is positive and significant at the 5% significance level. Existence of patents in the target increases the likelihood of an acquisition by a Chinese MNE by 8.9% and existence of patents and trademarks together increases it by 7.1% (at 10% significance level). Hypothesis 2, that EMNEs have a weaker LB asset seeking orientation, is supported only in the case of Russian MNEs. The coefficient on 'target owns trademarks' is significant at the 1% level in the Russian case, however, which reduces the likelihood of an acquisition by a Russian MNE by 8.3%.

Taken collectively, based on both the significance and size of the effects, our results are not entirely straightforward to interpret. There cannot be said to be overwhelming empirical evidence to support either of our hypotheses. Rather, mixed strands of supporting evidence exist, depending at what level and how one interprets them. Our preferred interpretation, however, is that they provide partial support for both hypotheses, albeit stronger support for hypothesis 1. As regards this hypothesis, the coefficient on the EMNE dummy, as noted, is significant at the 10% level for EMNE patent seeking choices. While this result appears strongly driven by Chinese MNEs, there is also additional support from Russian MNEs. In Table 3, for example, the coefficient on Russian MNEs patent choice is significant at the 10% level). In the marginal effects calculations, moreover, the sign is in the right direction (i.e. positive) and the p-value approaches the 10% significance level (Table 4). Individual Wald tests on the impact of dropping the origin country explanatory variables confirm it is primarily China and Russia which improves the overall model fit. Taken together these results suggest a considerable EMNE orientation towards NLB strategic assets when compared to DMNEs.

Compared to hypothesis 1, there is relatively less support for hypothesis 2, namely EMNEs are less likely to engage in an M&A when the target firm has more LB (trademark) assets (compared with DMNEs). The EMNE sample grouped as a whole (Table 4), shows no negative coefficient for EMNEs in the trademark category, as predicted (Model B, column 4). Looking at individual cases, however, Russian acquirer choices show a negative and highly significant impact towards targets that hold trademarks (Table 4), decreasing their likelihood of an acquisition by 8.3%. In addition, the coefficient on the marginal effects for trademark seeking for Chinese acquirers is negative (i.e. they are less likely to acquire a firm with trademarks) and also approaches a p-value of 0.1 (i.e. stands just

above the 10% significance level, at 0.12). We get this result, however, only when the Chinese sample is compared directly with the DMNE sample (i.e. excluding Brazilian, Russian and Indian MNEs and thus further decomposing our sample).This involves comparing 162 Chinese acquisitions with 2,242 DMNE observations using the Chinese MNE dummy variable. Taken together, therefore, the general direction in signs and significance, particularly in the Chinese and Russian MNE cases, tends towards those hypothesized at the outset. Finally, it is worth noting that although the multinomial logit modelling and marginal effects show no signs of significance for Indian or Brazilian MNEs, these two samples are comparatively small compared to the others.

Robustness tests

Our reported results use a parsimonious model. In additional tests we incorporated a broader range of acquirer firm-level explanatory variables to test the robustness of our results. This included acquirer profitability, net income, turnover, employees and the like. Owing to the availability of matched target and acquirer, however, our sample size was considerably reduced (to around 1,000 observations) when employing these variables. Despite this, it is important to note our basic results remained unchanged, with significant positive coefficients on Chinese and Russian MNEs seeking NLB assets and a negative coefficient on LB assets for Russian MNEs in all cases. The statistical significance of our results appears to be highly robust to different model specifications and sub-samples.

Discussion

New internalization theory, strategic asset seeking and EMNEs

We used new internalization theory's distinction between LB and NLB FSAs to explore how NLB and LB strategic assets influence choice of M&A targets in EMNE and DMNE international M&A deals. By using the distinction between LB and NLB assets we looked to further explore current EMNE related theories. Some of these have argued the domestic market is an important driver of EMNE related SAS (Hennart, 2012; Luo & Tung, 2007, 2018; Petersen & Seifert, 2014). These approaches *imply* (but do not formally propose) that its strong gravitational pull, in part owing to asymmetric market access, may explain why EMNEs have a stronger SAS intensity towards NLB SAS than DMNEs but weaker attraction to LB assets. While our results are not entirely straightforward to interpret, our preferred interpretation is broadly in line with our, that EMNEs are more strongly attracted to NLB strategic assets (i.e. patents) but discouraged from acquisitions (compared with DMNEs) by LB strategic assets (i.e. trademarks).

If this interpretation is correct, it is worth briefly reflecting on the implications for the many studies that have to date that remarked upon the strong SAS orientation of EMNEs. Among these studies there are actually very few DMNE/EMNE comparisons, with several notable exceptions (Estrin et al.,

2018; Jindra et al., 2016; Sutherland, Anderson, & Hertenstein, 2017). Jindra et. al. (2016), summarizing extant literature, argue EMNEs start from a relatively disadvantageous competitive position which causes them to seek to enhance 'their technological and commercial capabilities by following a learning-based knowledge-seeking OFDI strategies aimed at catching-up' (Jindra et al., 2016, p. 1168). Focusing on firm-level data including greenfield investments, they find that the location choices of EMNEs are positively affected by agglomeration economies and knowledge externalities. Their evidence supports the view that EMNEs 'use outward foreign direct investment to augment ownership specific assets' (Jindra et al., 2016, p. 1168). Similarly, Estrin et al. (2018) in their econometric modelling find EMNEs have greater 'sensitivity to IPR protection' and they thus conclude from this they may also be pursuing SAS inspired catch-up strategies (Estrin et al., 2018, p. 524). Our findings, however, do suggest a degree of caution is required in asserting EMNEs are different to DMNEs because they have a stronger SAS orientation. First, while this may be true for EMNEs from some countries (i.e. China and Russia) it may not necessarily be true for all. This finding is somewhat supported by the aforementioned comparative studies. Second, and arguably of greater interest, our findings suggest a greater SAS orientation in international acquisitions, considered among the most important form of EMNE catching-up strategy, is *only* the case for NLB assets (i.e. patents). By contrast, however, in the case of LB assets (i.e. trademarks) the reverse is actually true: their SAS orientation is weaker. This finding contrasts quite firmly with the general line of argument and perception found in the literature on EMNEs. Usually brands are mentioned as being among the key strategic assets sought by EMNEs. Yet, according to our findings and reasoning, the ability of EMNEs to effectively exploit value from such brands actually weakens their interest in acquiring them in a comparative sense (i.e. *vis* a *vis* DMNE as a comparator group).

New internalization theory, with its focus on different types of FSAs, coupled with insights from the EMNE literature regarding the role of the domestic market as a potential driver of SAS orientation, is potentially useful with regards to better understanding these EMNE SAS behaviors. In particular, it draws our attention to the fact that not all strategic assets have the same properties. Thus grouping strategic assets into a general category of assets that help augment the FSAs of MNEs (be that at home or abroad), as many EMNE related studies have done to date, does not do full justice to the wide range of different foreign intangible assets that EMNEs (and DMNEs) may seek or, more importantly, where they may use them. In this regard, Meyer (2015) has argued that the definition of SAS should be widened from the original definition suggested by Dunning (and used extensively afterwards). Dunning's definition, 'to create or gain access to resources and capabilities that complement their existing core competencies'(Dunning, 1991, p.135 quoted in Meyer, 2015, p.23) , includes no mention of where the 'strategic assets' are to be deployed. According to Meyer (2015), however, a strategic asset should also incorporate the notion that the assets are to be used outside the country in which they are acquired. In other words, a strategic asset is one that can be used for

building global competitiveness and by definition is one with NLB properties. We are sympathetic to this concept of strategic assets and our findings may lend support to the idea that EMNEs do indeed seek these types of strategic assets – namely non-location-bounded assets.

Are EMNEs still in the early 'upward spiral' stages of the 'springboard act'?

While the longer term objective of many EMNEs may be to develop FSAs that will allow them to compete internationally, our results might be interpreted to support the argument that some EMNEs, particularly those from China and Russia, are still undergoing the earlier stages (i.e. stage 2) of an upward spiral springboard process (Luo & Tung, 2018). We draw this conclusion as Luo and Tung's (2018) popular springboard argument, updated now to an upward spiral process model for EMNEs, suggests earlier stages of the internalization process mainly involve 'transferring acquired foreign strategic assets back home' (p. 137). In stages one and two of the upward spiral, they argue, the domestic base is used as the 'lynchpin' and thus EMNEs primarily seek NLB strategic assets (which is what we have found). LB strategic assets, by contrast, remain relatively unattractive to them, as it is costly, for example, to directly transfer the reputation associated with a locally embedded brand to a foreign and unknown market (Cuervo-Cazurra et al., 2007; Lo et al., 2011). Extensive advertising and marketing activities must be undertaken locally to develop brand recognition for those brands that lack international recognition. More importantly, a level of locational capability may also be required if such brands are to be fully exploited (Zaheer & Nachum, 2011). As many EMNEs, moreover, lack experience in managing brands, specifically those targeted at developed market consumers and businesses (for producer markets), they rightly may be wary of acquiring such assets. By contrast, codified knowledge embodied in patents may be somewhat easier to absorb and transfer for an EMNE. Application of new internalization theory to the portability of strategic assets may play a complementary role in better understanding the outward FDI activities of EMNEs when combined with arguments from the EMNE literature (like the upward spiral model).

The upward spiral model argues SEMNEs are eventually able to 'catapult' from their home bases 'with solidified capabilities' (p. 137) – but that this takes time (i.e. referred to as stages four and five). It is at these stages that the upward spiral process implies greater attention towards location bounded assets, like brands, which provide greater potential for sustained competition in global markets. Indeed, as EMNEs move up through the upward spiral process, their domestic market becoming relatively less important to them, they may eventually become more similar to DMNEs. Over time, the upward spiral model predicts EMNEs may develop their own locational capabilities, giving them the potential to exploit assets which are more tacit in nature and embedded more strongly in local environments. Indeed, while in the minority, some EMNEs from our sample have of course made foreign acquisitions with the purpose of acquiring a location bounded brand. In many cases they have done so specifically for the purposes of securing better access to developed markets (i.e. via

distribution networks) and moving further up the value chain. The Chinese juvenile products manufacturer of child car seats and pushchairs, Goodbaby, is one excellent example. It acquired Evenflo, a very well recognized US company owning 202 trademarks (but only 1 patent). In doing so Goodbaby moved from acting as an Evenflo sub-contractor (i.e. stages one and two of the upward spiral model) to having direct access to the US market and taking over its major competitors. The reputation of Evenflo appears to have been vital for Goodbaby's success in the US market. Despite producing high quality car seats, many US based consumers were unwilling to place their trust in an unknown Chinese brand, particularly when it came to child safety (i.e. they were strongly risk-averse in these matters) (Ernst & Young, 2018). Thus the acquisition of the brand had a compelling economic logic. In this case, however, Goodbaby already possessed significant manufacturing and product development FSAs, meaning it was undertaking LB SAS from a position of FSA strength as well as considerable prior inward internationalization. While such cases exist, compared with DMNEs such EMNE firms remain comparatively less common. In short, the finding that some EMNEs, particularly those from China, are highly active in acquiring NLB assets is consistent with Luo and Tung's (2018) updated springboard perspective, particularly the argument that many EMNEs are still in the earlier upward spiral stages of development. Our findings are also consistent with other EMNE related theories that implicitly incorporate the notion of transferability of strategic assets – like that of Hennart's (2012 imperfect locational advantage argument and Petersen and Siefert's (2014) asymmetric liability of foreignness argument. If this interpretation is correct, it suggests that many EMNEs are still in the earlier stages of catching-up with DMNE counterparts, in which the home base plays a larger role in driving outward FDI strategy (Hennart, 2010; Luo & Tung, 2018). This also implies that many EMNEs still have a considerable way to go before they can truly compete with DMNEs on a transnational basis.

Explaining country level differences in the SAS orientation

An alternative interpretation of our results, of course, is that there is not enough consistency at the country level to reach any strong, generalized conclusion regarding preferences for LB and NLB strategic assets and the underlying causes of those differences. Indeed, one might argue that the fact both Brazil and India show no apparent difference to DMNEs in their SAS choices supports the position that in general EMNEs are essentially similar to DMNEs. Adopting this line of argument, therefore, it might by contrast be argued that one of the main findings of interest is the apparent exceptionality of Chinese MNEs and the relative normality of other EMNEs (vis a vis DMNEs) in their SAS orientation.

As noted, according to Luo and Tung's (2018, p.147) upward spiral perspective, 'most SMNEs view their home base as the lynchpin of success'. Our results could certainly be interpreted to provide some support for this idea in the case of Chinese MNEs. Domestic market growth has been

exceptional, outperforming other BRIC markets. Large domestic business groups, often diversified, have grown-up to dominate many domestic market niches. Foreign businesses in China, moreover, face government, legal and regulatory challenges on two main fronts, retarding their entry. Barriers to entry for DMNEs occur firstly because China is an emerging market, characterized by a weak institutional environment (i.e. "institutional voids"). Judicial and regulatory systems are generally weaker than in higher income markets and, comparatively speaking, government procedures lack transparency. Standard everyday tasks, like obtaining permit and product approvals, for example, may become a drain on management resources. Secondly, and arguably of more interest, China has long espoused ambitious domestic industrial policies to nurture its own national champion business groups with a view to them growing, one day, into internationally successful MNEs. The policy to build a 'national team' of around one hundred large internationally competitive business groups, following an East Asian model of development (particularly Japan and South Korea, with large *keiretsu* and *chaebol* groups respectively), in fact dates to the early 1980s (Guest & Sutherland, 2009). The evolution in this policy to nurture domestic champions now spans over four decades and is reaching its zenith. The current China 'Manufacturing 2025' policies, for example, target ten specific industries (including new advanced information technology, automated machine tools and robotics, aerospace and aeronautical equipment, maritime equipment and high-tech shipping, modern rail- transport equipment, new-energy vehicles and equipment, power equipment, agricultural equipment; new materials; and biopharma and advanced medical products). In areas such as new electric vehicles and battery technology, semiconductors, solar panels/modules and wind power, interventions have been extensive, ongoing and highly prominent (DRC & The World Bank, 2013). Semiconductors, for example, are reported to have received over $150 billion in government subsidies alone. According to the US President's Council of Advisors on Science and Technology, Chinese industrial policies in this sector 'pose real threats to semiconductor innovation and US national security' (Lucas, 2017). New battery technologies have similarly received great support, with large state-owned groups like CATL now emerging as one of the largest players on the world stage (Sanderson, Hancock, & Lewis, 2017). Similarly, support (and overcapacity) in wind and solar- power sectors have been prominent to date. In this light, it is perhaps not surprising that Chinese MNEs appear to be among the most aggressive seekers of NLB strategic assets (i.e. patents).

As well as a strong domestic base, controlled but extensive inward internationalization has provided Chinese MNEs with vital domestic market learning opportunities, often within global value chains, so bolstering their absorptive capacity and appetite for foreign acquisitions (Hertenstein et al., 2015). While China has encouraged high levels of inward FDI, government industrial policies (like China manufacturing 2025) has in addition strongly negotiated for technology transfer from DMNE inward investors (by, for example, forcing DMNEs into joint-ventures and technology sharing partnerships (Nolan, 2013)), again facilitating learning. Interestingly, a growing body of empirical evidence shows

that Chinese MNEs have been comparatively successful in reverse knowledge transfer related to outward technology seeking FDI, implying the successful integration of NLB assets. Anderson et al. (2015), for example, consider the impact of foreign acquisitions on patenting activity in Chinese MNE parent firms, finding positive outcomes for them (Anderson et al., 2015). Similarly Fu et al. (2018), find positive impacts of Chinese FDI in developed countries on domestic innovation outputs (using survey data from MNEs in Guangdong province in 2010). They conclude that FDI 'serves as an effective channel for latecomer firms to overcome internal resource constraints and leapfrog toward the technology frontier' (Fu, Hou, & Liu, 2018, p. 111). In addition, Amendolagine et al (2018) have looked at acquisitions of medium and high-tech firms in Europe and the US (during 2003–2011). They too found positive influences on innovation outcomes, particularly in cases where Chinese acquirers had sufficient absorptive capacity (Amendolagine, Giuliani, Martinelli, & Rabellotti, 2018). Li et al (2016) similarly consider the effects of outward FDI on innovation performance but this time use regional panel data from Chinese provinces (Li, Strange, Ning, & Sutherland, 2016). They find that outward FDI had a 'very significant' impact on domestic innovation (contingent again on provincial absorptive capacity) (p.1010). Taking a different but complementary angle, Piperopoulos et al (2018) find that Chinese MNEs can use outward FDI as a strategy to globalize R&D and enhance their innovation performance in their foreign subsidiaries, with potential links to parent firms (Piperopoulos, Wu, & Wang, 2018). In general, existing empirical research therefore shows Chinese MNE can benefit domestically from technology seeking FDI.

At a conceptual level, Hennart (2012) and Petersen and Seifert (2014) have explained why *all* EMNEs may enjoy abnormal rents when repatriating strategic assets to protected home markets (when compared to DMNEs that do not have such protection). However, while domestic market protection and asymmetries in liabilities of foreignness may certainly facilitate Chinese MNE NLB strategic asset seeking, it seems credible to argue that Chinese policy-makers, in creating sophisticated industrial policies to nurture internationally competitive big business groups (i.e. the 'national team'), have undertaken interventions well beyond those found in other emerging markets (like Brazil and India). In this regard, it does not seem so unusual to find a stronger NLB orientation in Chinese MNEs. Alternatively, therefore, it might also be argued that simply having a large, fast-growing protected domestic market is not a sufficient condition for stronger NLB SAS activity (Hypothesis 1). Rather, it is only when accompanied by active government policy interventions that we are more likely to witness unusually high levels of NLB SAS activity. In other words, recourse to imperfect locational advantages (Hennart, 2012) or asymmetric liabilities of foreignness (Petersen and Siefert, 2012) partially explains our results. It is, however, the role of state interventions and policy that also play a decisive factor in facilitating these types of protection as well as further encouragements (i.e. soft loans) which incentivize strategic asset seeking.

Conclusion

To date few studies have distinguished between the different types of strategic assets sought by EMNEs or how the properties of these assets may vary. Comparisons between EMNEs from the major BRIC economies and those with other DMNEs, moreover, are also relatively scarce. As a result, the EMNE literature has applied general models of SAS to quite a wide variety of different scenarios, each shaped by different underlying initial FSA conditions. New internationalization theory, with its distinction between the location boundedness properties of FSAs (and hence also strategic assets), is useful in providing further insights into EMNE SAS and is a useful lens and complement through which to reinterpret some of the literature and theory on EMNEs. Our comparative empirical analysis of NLB and LB SAS in DMNEs and EMNEs indicates there are differences in the SAS intensity of EMNEs and DMNEs with regards to location and non-location bounded strategic assets, albeit this is primarily in certain cases (i.e. China and Russia). We have found, moreover, that EMNEs are more strongly engaged in SAS in pursuit of NLB assets only. EMNEs thus appear to seek strategic assets with specific types of properties. It is therefore an oversimplification to argue that EMNEs are different to DMNEs because of the greater intensity of their asset seeking orientation. Rather, it is also the differences in the *qualitative* nature of this asset seeking orientation that is of note.

Policy implications

The China-US geopolitical relationship has become increasingly tied to China's acquisition of foreign strategic assets and associated domestic market protection and ongoing industrial policies. Ongoing trade negotiations in early 2019, for example, centred on Chinese state subsidies, government directed credit (via the state controlled banking system) and public procurement, as well as forced technology transfer. China has been accused of using domestic legal, regulatory and government interventions to favour its domestic firms. Policy-makers in China, at present, appear unlikely to deviate from their commitment towards state orchestrated capitalism (currently only "cosmetic, non-impactful offers" on Chinese subsidies have been made, for example, and current negotiations with China have been likened by US negotiators to "pulling teeth" owing to China's "stonewalling on market access") " (Toplensky, 2019). Similar to the US, sentiment in the European Union has swung strongly against what are increasingly now perceived as discriminatory Chinese domestic interventions. KUKA's acquisition by Midea Group in 2016 ignited the national debate within Germany and in turn led to a significant change, led by Angela Merkel, in the mind-set of European Union leaders. Following increased political pressures Margarethe Vestager, head of the EU competition commission, has acknowledged that it is "more and more obvious" the market openness between the EU and China is "an asymmetrical thing" (Toplensky, 2019). European leaders as a result are now looking to reform competition rules to create a system that may be more in line with a European wide strategic industrial

policy. China's state capitalism model is therefore drawing strong responses in both Europe and the US. Current geopolitical interactions between the US, EU and China appear to testify to the deep concern about asymmetric industrial interventions that the China has put in place to facilitate firm-level catch-up. Our results show China to be different in its SAS orientation compared to other emerging markets like India and Brazil, it being a more aggressive asset seeker of NLB strategic assets that can be employed domestically, as well potentially in global operations. These results confirm the concerns of many Western policy-makers regarding China's strategic intentions in its overseas investment activities.

Limitations and further research

Some may take issue with our proxies for NLB and LB strategic assets. It is, however, worth keeping in mind that there is very limited empirical research to date in this area. To our knowledge, only several studies have tried to empirically explore how location boundedness influences outward FDI and strategy (Lo et al., 2011). We cannot completely rule out the possibility that our results are biased by differences in geographical coverage in this database (i.e. the level of detail is higher for DMNEs, leading to biases in the CMNE/DMNE samples). Future research might further explore the impact of the location boundedness properties of strategic assets and FSAs on SAS strategies in both DMNEs and EMNEs, to further ascertain similarities and differences, using alternative data sources. Understanding the impact of existing FSAs (in the acquiring firm) on the propensity of EMNEs to engage in LB and NLB SAS is a potentially fruitful area for future research. Are, for example, firms with strong existing NLB strategic assets more likely to engage in either NLB (due to easier digestion) or LB (complementary resources) in the host market? The impact of strategic asset location boundedness on FDI is an under-researched area ripe for expansion.

Our sample size is not adequately large in the cases of some of EMNE sample, for example Russian and Brazilian MNEs, to detect any significant differences (Table 2). The number of observations is relatively low. It is also possible that the particular domestic institutional environments in these countries is not as supportive, both in terms of domestic protection, as well as in terms of incentives for outward SAS related FDI. Clearly more detailed comparative work considering SAS orientation of EMNEs from these BRIC markets is required.

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Table 1: Variable descriptions

Variable	Description
Acquirer patents	Patent count in the acquiring firm at the time of acquisition as a proxy for absorptive capacity
Acquirer trademarks	Trademark count in the target firm at time of acquisition as a proxy for the impact of LB strategic assets
Acquirer firm age	Number (count) of years from organization incorporation to 2016
Total assets of acquiring firm	Total assets at time of acquisition of the acquirer
Subsidiaries	Number of subsidiaries controlled by the acquirer
Corporate group geographic diversification	An entropy measure of geographic diversification based around count of foreign and domestic subsidiaries
Corporate group domestic diversification	Two digit SIC code entropy measure of diversification, based on count of companies in the corporate group (sales data not widely available for all subsidiaries)Log of number of firms in the corporate group (i.e. owned by an ultimate owner), reflecting group wide resources available to acquirer
SIC 4 digit match	Matching SIC codes at four digit level capturing similarity in business activities of acquirer and target firm
SIC, no relationship	By contrast, dissimilarity in main business lines may make technological acquisitions less attractive owing to challenges in integrating dissimilar activities, captured by no match in SIC code at below two digit level
Corporate group size	Group size based on global ultimate ownership information, reflecting group wide resources available to acquirer
Year and industry dummies	Dummy variables at two digit NACE codes to control for industry, year dummies

Table 2: correlation matrix and descriptive statistics.

Variables	Mean	s.d	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) China	0.067	0.25	1.000													
(2) Brazil	0.014	0.12	-0.032*	1.000												
(3) Russia	0.021	0.14	-0.039*	-0.018	1.000											
(4) India	0.03	0.17	-0.047*	-0.021	-0.026	1.000										
(5) Patents_acq	131.7	2119	0.001	-0.007	0.000	-0.011	1.000									
(6) Trademrks_acq	26.7	184	-0.036*	-0.011	-0.020	-0.024	0.201*	1.000								
(7) Age	67.7	47.6	-0.088*	0.007	-0.046*	-0.053*	0.005	0.019	1.000							
(8) Total assets	845000	7.85e+07	-0.002	-0.004	0.006	-0.018	0.119*	0.139*	0.090*	1.000						
(9) Subsidiaries	48.1	296.4	-0.029	-0.006	-0.010	-0.025	0.237*	0.162*	0.045*	0.455*	1.000					
(10) Geogr. Div.	0.625	0.93	-0.055*	-0.001	-0.046*	-0.067*	0.095*	0.144*	-0.087*	0.009	0.109*	1.000				
(11) Dom. Div.	0.354	0.68	0.223*	0.015	0.159*	-0.055*	0.014	0.010	-0.049*	0.037	0.078*	0.460*	1.000			
(12) SIC 3match	0.10	0.31	-0.032*	0.005	-0.016	-0.010	-0.007	-0.001	0.001	-0.022	-0.025	0.024	-0.017	1.000		
(13) SIC no match	0.32	0.47	0.073*	-0.026	0.050*	-0.026	0.017	0.021	-0.022	0.011	0.023	-0.010	0.067*	-0.230*	1.000	
(14) Group size	3.11	2.40	0.037*	0.007	0.033*	-0.028	0.076*	0.118*	-0.203*	0.150*	0.195*	0.429*	0.390*	-0.015	0.016	1.000

* shows significance at the .05 level

Table 3: Results of Multinomial Regression using EMNEs as group and by individual country or EMNE origin.

	Model A			Model B			Model C		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variables	Target owns trademarks	Target owns patents	Target patents/ trademarks	Target owns Trademarks	Target owns Patents	Target patents/ trademarks	Target owns Trademarks	Target owns Patents	Target patents/ trademarks
Patents	-0.000	0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Trademarks	0.001**	0.000	0.000	0.001**	0.000	0.000	0.001**	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Age	-0.002	0.002	-0.001	-0.002	0.002	-0.001	-0.002	0.001	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Total Assets	-0.000	-0.000	0.000	-0.000	-0.000	0.000	-0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Subsidiaries	-0.000	-0.001*	-0.000	-0.000	-0.001	-0.000	-0.000	-0.001	-0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)
Geographic diversification	-0.071	0.252***	0.244***	-0.077	0.288***	0.265***	-0.098	0.337***	0.294***
	(0.077)	(0.085)	(0.076)	(0.079)	(0.087)	(0.078)	(0.080)	(0.088)	(0.079)
Domestic diversification	0.018	-0.250*	-0.092	0.029	-0.310**	-0.130	0.076	-0.423***	-0.212*
	(0.099)	(0.131)	(0.116)	(0.103)	(0.133)	(0.119)	(0.109)	(0.136)	(0.122)
SIC code 4 digit match	0.507**	-0.394	0.435**	0.507**	-0.398	0.432**	0.520**	-0.396	0.440**
	(0.202)	(0.310)	(0.211)	(0.202)	(0.310)	(0.211)	(0.202)	(0.311)	(0.212)
SIC, no relationship	-0.174	-0.031	-0.010	-0.170	-0.053	-0.024	-0.154	-0.080	-0.042
	(0.148)	(0.172)	(0.159)	(0.148)	(0.172)	(0.160)	(0.148)	(0.174)	(0.160)
Corporate group size	0.039	0.055	-0.002	0.039	0.058	0.000	0.039	0.059	0.000
	(0.034)	(0.042)	(0.039)	(0.034)	(0.042)	(0.039)	(0.034)	(0.042)	(0.039)
EMNE				-0.083	0.466**	0.288			
				(0.207)	(0.226)	(0.214)			
Chinese MNEs							-0.090	1.117***	0.910***
							(0.297)	(0.284)	(0.260)
Brazilian MNEs							-0.165	0.085	0.409
							(0.549)	(0.626)	(0.510)
Russian MNEs							-1.229**	0.738*	-0.089

							(0.612)	(0.439)	(0.544)
Indian MNEs							0.233	0.169	-0.595
							(0.332)	(0.419)	(0.530)
Constant	-1.913***	-2.634***	-1.938***	-1.901***	-2.723***	-1.989***	-1.938***	-2.809***	-2.018***
	(0.224)	(0.286)	(0.238)	(0.225)	(0.291)	(0.241)	(0.227)	(0.297)	(0.245)
McFadden's R^2	0.043	0.043	0.043				0.051	0.051	0.051
Max. Likelihood R^2	0.076	0.076	0.076	0.044	0.044	0.044	0.089	0.089	0.089
Akaike Information Criterion	1.853	1.853	1.853	0.079	0.079	0.079	1.852	1.852	1.852
				1.853	1.853	1.853			
χ^2 (LR)	191.8***	191.8***	191.8***	197.6***	197.6***	197.6***	225.6***	225.6***	225.6***
Change in χ^2 Model A				5.812***	5.812***	5.812***	33.8***	33.8***	33.8***
Observations	2,414	2,414	2,414	2,414	2,414	2,414	2,414	2,414	2,414

Note: Year and industry dummies not reported. Standard errors in parentheses. Multinomial model base: acquires target with neither patents nor trademarks. Model explores impact of country of origin (i.e. EMNE or not) on type of SAS target preference.

*** p<0.01, ** p<0.05, * p<0.1

Table 4: The Average Marginal Effects of Country of Origin on the Probability of Choosing to Acquire Different Kinds of Strategic Assets

Based on Models B and C in Table 3				
	(1)	(2)	(3)	(4)
	No patents/ trademarks	Target owns trademarks only	Target owns patents only	Target owns patents/trademarks
Chinese MNEs	-0.13***	-0.029	0.089**	0.071*
	(-0.048)	(-0.026)	(0.04)	(0.038)
Brazilian MNEs	-0.0258	-0.0148	0.00921	0.0314
	(0.079)	(0.051)	(0.049)	(0.06)
Russian MNEs	0.037	-0.0832***	0.0613	-0.0151
	(0.069)	(0.025)	(0.058)	(0.048)
Indian MNEs	0.0319	0.0151	0.00167	-0.0487
	(0.056)	(0.042)	(0.035)	(0.031)
All EMNEs	-0.41	-0.16	0.35*	0.22
	(0.029)	(0.019)	(0.019)	(0.02)
Observations	2,414	2,414	2,414	2,414

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Note: Table 4 estimates average marginal effects for the country and EMNE group dummy variables based on models B (for EMNEs as a group) and C (for individual countries) from Table 3.