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The Foundations of International Business: Cross-Border Investment Activity and the Balance between Market-Power and Efficiency Effects

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ABSTRACT

The foundational international business (IB) scholarship grappled with whether multinational enterprises (MNEs) are largely efficiency-enhancing or market-power inducing institutions. Contemporary scholarship, however, often associates foreign direct investment (FDI) with efficiency-enhancing properties and thus neglects the market-power interpretation of the MNE. Such an imbalance is problematic given that the theoretical and empirical justifications behind the field’s embrace of the efficiency interpretation are not fully evident. Instead, both efficiency and market-power effects are seemingly present in cross-border investment activity. Based on a comprehensive sample of up to 4,361 cross-border investments materializing between 1986 and 2010, we present theoretically-grounded hypotheses with regard to when market-power effects will tend to dominate efficiency effects. We find that cross-border investments undertaken by emerging-market MNEs in both developed and emerging markets tend to involve substantial efficiency effects and minimal market-power effects when compared with the cross-border investments undertaken by developed-country MNEs in both developed and emerging markets.

Keywords: Emerging markets, FDI, International Acquisitions, Multinational Enterprise, Theory of FDI.

INTRODUCTION

The question of “why do multinational enterprises (MNEs) exist?” plays a central role in the theory of the MNE (Forsgren, 2013). The earliest answer to this question came from Stephen Hymer (1976 [1960]) who declared that MNEs arise when firms are unable to exploit their monopolistic ownership advantages via market-based trading relationships, and decide to bypass imperfect market mechanisms by engaging in foreign direct investment (FDI). This market-
power interpretation of the MNE avers that firms derive their ownership advantages by internalizing structural market-imperfections that exist to the extent that the industrial-level market structures for final products deviate from effective competition (Bain, 1956). Building on this premise, the market-power interpretation views FDI as a vehicle to project market power, extend market dominance and capture value from consumers across multiple national markets (Dunning and Pitelis, 2008). Accordingly, the spread of MNEs via FDI ultimately runs the danger of stifling local competition and harming consumer welfare (Hymer, 1970, 1971, 1979 [1968]).

In contrast, subsequent scholars – while accepting Hymer’s insight that MNEs and markets represent alternative institutions to facilitate value-added activities across borders – shifted their focus away from market-power considerations and moved towards an efficiency interpretation of the MNE. The most influential of which is internalization theory which holds that ownership advantages stem from the MNE’s superior ability to economize on the transaction costs arising from natural market-imperfections. As Dunning and Rugman (1985) observe, natural market-imperfections ensue from the inadequacies involved with market pricing under the context of uncertainty and bounded rationality. Here, the analytical focus shifts away from the final market structure and toward imperfections in intermediate-goods markets, especially those associated with the transfer of valuable tacit-knowledge such as proprietary technology and organizational know-how (Buckley and Casson, 1976; Hennart, 1982). Following Coase (1937) and Williamson (1985), MNEs exist in order to reorganize imperfect external markets within firm boundaries and create more perfect internal markets. Under the efficiency interpretation of the MNE, FDI is thus generally associated with positive welfare outcomes as MNEs exist to the
extent that they are more efficient vehicles than alternate arrangements to economize on the
transaction costs arising from natural imperfections (Dunning and Pitelis, 2008; Pitelis, 2002).

An even stronger case for efficiency effects comes from what can be broadly labelled as
the organizational capability literature which views ownership advantage as stemming from the
MNEs’ superior ability to transfer capabilities, create innovations and spur new markets across
borders (Kogut and Zander, 1993; Madhok, 1997). As Kogut and Zander (1993, p. 637)
underscore, “the primary explanation for [foreign] direct investment is the possession
of…superior capabilities…responsible for the growth of the firm across international borders”.
The organizational capability view departs from both the market-power view and internalization
theory by rejecting imperfect markets as a relevant premise; instead, this view avers that market
“co-creation functions are not merely a response to a market that has somehow failed…(but)…it
is often the case that the market has quite simply failed to emerge and needs to be created…by
entrepreneurially managed business enterprises” (Teece, 2014, p. 12). The rent accrued to MNEs
in this scenario is entrepreneurial rather than monopolistic in nature; and MNEs exist to the
extent that they are more efficient at spurring innovation, co-creating value and transmitting
valuable tacit knowledge across borders (Kogut and Zander, 1993; Teece, 2014). Accordingly,
the organizational capability view – akin to internalization theory – generally associates MNEs
and FDI with efficiency-enhancing behavior that ultimately leads to positive welfare outcomes.

The above discussion naturally begs the question of whether “MNEs are largely creatures
of market-power or efficiency?” That is, do MNEs tend to increase social welfare by
economizing on transaction costs, creating new markets, and facilitating innovation (à la the
efficiency interpretation); or do they tend to decrease social welfare by stifling competition at the
expense of consumer welfare (à la the market-power interpretation)? While some declare that the
focus on market power is “little more than a distraction” (Teece, 2006, p. 126), others caution that a more realistic conclusion would be for market-power and efficiency effects to coexist and manifest at different strengths under different contexts (Buckley and Casson, 2009). Indeed, there is no a priori theoretical reason to ascertain which effect dominates, and reviews of available empirical evidence reach similar conclusions (e.g., Blomström and Kokko, 1997; Dunning and Lundan, 2008; Lall, 1979). Forsgren (2013) underscores this point when he urges contemporary scholarship to go beyond strictly considering the presence of efficiency effects and also consider market-power effects since “multinational firms are in an especially favourable position to reduce competition in the market” (p. 56). The contemporary literature’s adoption of efficiency effects as a default assumption is also consistent with the general observation that international business (IB) scholarship has not fulfilled its potential in terms of advancing our understanding of the nexus between MNEs and social welfare (Eden and Lenway, 2001; Ghauri and Yamin, 2009; Meyer, 2004).

Against this backdrop, our aim is to evaluate the relative presence of market-power and efficiency effects associated with cross-border investment activity and ascertain whether the balance between these effects substantially varies in the cross-national context for FDI. We take such an approach as foundational IB scholarship (e.g., Wells, 1983) held that variation in country-pair types may help explain the balance between market-power and efficiency effects. For instance, adherents of the market-power interpretation of the MNE (e.g., Hymer, 1970, 1971; Lall, 1978, 1979) argued that emerging-market nations were most vulnerable with respect to MNE market-power. Furthermore, Hymer (1970) posited that cross-border investment undertaken by emerging-market MNEs (EM-MNEs) may yield substantial efficiency effects. In a more contemporary study, Blonigen and Wang (2004) theoretically justify and empirically
establish the inappropriateness of pooling across different country-pair types. Namely, FDI determinants vary systematically between emerging markets and developed countries, as FDI does not play the same role in emerging markets as it does in developed countries. In addition, a number of IB scholars (e.g., Clougherty and Grajek, 2008; Globerman and Shapiro, 2003; Ricart et al., 2004; Sethi et al., 2003) have found it fundamental to differentiate – both theoretically and empirically – between developed and emerging countries when examining FDI.

We will consider then whether the tendencies regarding the balance between efficiency and market-power effects in cross-border investment activity are consistent across four different country-pair types: from developed countries to emerging markets (DC → EM); between developed countries (DC → DC); from emerging markets to developed countries (EM → DC); and between emerging-market countries (EM → EM). In order to follow through on these aims, we organize the remainder of the paper in the following manner: we first establish that market-power and efficiency effects are most accurately conceptualized as coexisting in all cross-border investment activities (i.e., they are not best analyzed as independent phenomena). Second, we forward three hypotheses pertaining to when market-power effects will tend to dominate efficiency effects. Third, we describe the methodology employed to test these theoretical priors and interpret the empirical results. Finally, we conclude by discussing the implications, limitations, and avenues for future research that can extend the insights of the current study.

INTEGRATING MARKET-POWER & EFFICIENCY EFFECTS

Before delving into an integration of market-power and efficiency effects, it behooves us to further ground these concepts in the pre-existing management literature. First, the market-power interpretation focuses on the MNE’s ability to capture value from consumers and strengthen
market dominance across national borders (Dunning and Pitelis, 2008; Pitelis, 2002). In line with Hymer (1970, 1971), market-power effects are manifested by the MNE’s ability to better dictate final-product prices as a result of their transferring ownership advantages internationally. In this view, industrial-level market imperfections generate the ownership advantages necessary for internationalization, and internationalization in turn leads to further structural imperfections that will generate greater profits for MNEs. Thus from a welfare perspective, the rise of an MNE has the ability to increase industry concentration, reduce competition, compromise allocative efficiency, and ultimately decrease consumer welfare (Hymer, 1971).

The efficiency interpretation of the MNE instead rests on the MNEs ability to efficiently organize transactions (Buckley and Casson, 1976; Rugman, 1981), safeguard contractual hazards (Hennart, 2007), spur innovation (Hennart, 1982), and create/share organizational know-how (Kogut and Zander, 1993). Importantly, ownership advantage in the efficiency interpretation is a function of endogenous processes that crystalize within firm boundaries rather than exogenous industry-level structural imperfections. Market power accrued in the process of firm growth is considered to be a derivative rather than a cause of ownership advantage, and any resulting inefficiencies represent static byproducts on the way toward dynamic efficiency (Dunning and Pitelis, 2008; Penrose, 1959; Teece, 2014). Following this logic, MNEs arise when firm-specific assets cannot be transacted efficiently across borders via the price system (Buckley and Casson, 1976) or when valuable firm-specific knowledge – often tacit in nature – is more efficiently created and transmitted through the MNE (Hennart, 1982; Kogut and Zander, 1993). Under the efficiency interpretation, the analytical focus shifts away from industrial-level market structure for the final product (as in the market-power interpretation) and toward the natural market imperfections inherent in intermediate-goods markets and the internal dynamics that make
MNEs superior vehicles to transmit and create knowledge across borders (Buckley and Casson, 1976; Hennart, 1982; Kogut and Zander, 1993). The consequent welfare implications of FDI under the efficiency interpretation are generally positive as MNEs enhance welfare via effective transnational dissemination of innovations, reduction of societal inefficiencies, creation of new values, and minimization of transaction costs (Caves, 1974).

As already alluded to in our discussions above, a number of IB scholars (e.g., Blomström and Kokko, 1997; Buckley and Casson, 2009; Dunning and Lundan, 2008; Forsgren, 2013; Lall, 1979) have called for analysis that integrates both market-power and efficiency effects. In fact, there exists a broader literature within management (e.g., McGahan and Porter, 1999; Oxley et al., 2009; Porter, 1985; Walter and Barney, 1990) that considers the coexistence of market-power and efficiency effects as relevant factors in economic exchange. Hymer (1979 [1968]) also recognized that FDI involves both market-power and efficiency effects, though his work placed stronger emphasis on market-power effects. For example, Hymer (1979 [1968]) was aware that MNEs offer superior internal markets for certain types of transactions thereby involving efficiency effects, but he predicted that MNEs ultimately engage in profit-maximizing collusion which leads to market-power effects.

The preceding theoretical discussion illustrates that integrating efficiency and market-power effects is important yet challenging, as the manifestation of market power may actually be a consequence of efficiency-based activity and vice versa (Walter and Barney, 1990). Indeed, a number of scholars (e.g., Chatterjee and Lubatkin, 1990; Clougherty and Duso, 2011; Lubatkin, 1983; McGahan and Porter, 1999; Seth, 1990) recognize that investment activity can lead to synergies based on both market-power and efficiency effects. In an effort to analyze market-power and efficiency effects in an integrated manner, we will build upon Gugler et al. (2003)’s
methodological approach for identifying whether market-power or efficiency effects dominate in particular transactions.

Figure I illustrates the Gugler et al. (2003) methodological approach that considers post-investment changes in sales and profits for merging firms in order to classify merger activity into four-distinct transaction types. Quadrant 3 depicts investment activity where market-power effects dominate efficiency effects. In line with Hymer (1970, 1971), strong market-power effects are based on the MNE’s ability to better dictate final-product prices in the years subsequent to the cross-border investment so as to enhance profits. Thus, a post-transaction environment where merging firms can simultaneously increase profits and contract output indicates relatively strong market-power effects. Quadrant 2 depicts investment activity where efficiency effects dominate market-power effects. In line with previous scholarship (e.g., Buckley and Casson, 1976; Hennart, 1982; Kogut and Zander, 1993), strong efficiency effects are based on the MNE’s ability to tap into synergies which enhance cross-border commercial activity without harming social welfare in the years subsequent to the cross-border investment. Accordingly, a post-merger environment where the output of merging firms increases and profits decrease indicates the presence of relatively strong efficiency effects. Lastly, quadrants 1 and 4 depict investment activity where it is indeterminate with respect to whether efficiency or market-power effects dominate in such transactions. While both market-power and efficiency effects surely manifest in such transactions, Gugler et al. (2003) note that assigning a clear net-effect is challenging for transactions with such outcomes.

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INSERT FIGURE I ABOUT HERE
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Thus while contemporary IB scholarship has largely coalesced on the efficiency interpretation of the MNE, we wholeheartedly agree with Buckley and Casson’s (2009) observation that a more balanced approach that encompasses both market-power and efficiency effects is warranted. This more encompassing perspective is shared by a number of IB scholars (e.g., Blomström and Kokko, 1997; Dunning and Lundan, 2008; Forsgren, 2013; Lall, 1979) as well as by scholars within the greater management literature (e.g., McGahan and Porter, 1999; Oxley et al., 2009; Porter, 1985; Walter and Barney, 1990). Such a view recognizes an empirical reality where market-power and efficiency effects will coexist and manifest, to different degrees, in each and every cross-border transaction. The next step in scholarship then is to generate formal expectations regarding the balance between market-power and efficiency effects in cross-border investment activity; in particular, theoretically-grounded hypotheses regarding when market-power effects might dominate efficiency effects are called for—a task to which our next section turns.

HYPOTHESES

We aim to consider whether the presence of market-power and efficiency effects in foreign-investment activity varies substantially in the cross-national context. In particular, we desire to understand whether the balance between these competing effects involves considerable differences across four country-pair types: foreign-investment activity from developed countries to emerging markets (DC→EM); foreign investment between developed countries (DC→DC); foreign investment from emerging markets to developed countries (EM→DC); and foreign investment between emerging-market countries (EM→EM).
While the general tendencies regarding the balance between market-power and efficiency effects might involve a good deal of heterogeneity across the four country-pair types, it is well known by scholars (e.g., Guillen and Garcia-Canal, 2009; Luo and Tung, 2007) that the majority of cross-border investment activity takes place between developed countries. For instance, 78.1% of our sampled cross-border acquisitions occur in DC→DC country-pairs. It is no surprise then that the theoretical and empirical literature in IB tends to concentrate on FDI flows between developed countries. Yet as already noted, the foundational IB scholarship (e.g., Hymer, 1970, 1971; Lall, 1978, 1979) expressed particular concerns with regard to DC→EM investment involving substantial market-power effects. For this reason, we will consider DC→EM country-pairs to be the benchmark for establishing whether the cross-border transactions in other country-pair types involve relatively stronger (weaker) efficiency (market-power) effects. In particular, we will conjecture as to whether the cross-border investments taking place between the DC→DC, EM→EM, and EM→DC country-pairs involve substantially different tendencies in terms of the balance between market-power and efficiency effects as compared to DC→EM investments. In addition to these considerations, we can also implicitly factor whether the DC→DC, EM→EM, and EM→DC country-pairs involve ordinal differences in terms of the balance between market-power and efficient effects. Namely, the ordering of these country-pair types (DC→EM, DC→DC, EM→EM, and EM→DC) is intentional, as it reflects a priori with regard to successively weaker market-power effects and stronger efficiency effects.

**DC→DC Cross-Border Investments**

Political institutions play a fundamental role in ensuring that economic activity primarily involves efficiency enhancing properties that ultimately lead to enhanced social welfare (North,
When it comes to FDI activity, the national institutions of host countries are charged with ensuring that anti-competitive investments (where market-power effects swamp efficiency effects) do not arise. For example, the regulation of investment activity via effective negotiation of bilateral investment treaties (e.g., Jandhyala et al., 2011) and via the enforcement of competition policies (e.g., Brewer, 1993) can ensure that market-power effects do not substantially manifest in inward FDI. Yet, Vernon (1973, p. 117) observed that “(the) institutions which are expected to provide the countervailing force to the multinational enterprise – the national governments, the national labor unions, and the national press – are often engaged in an unbalanced game” as MNEs are in a unique position to ‘shop around’ for the best place to locate their productive assets (see also Johnson, 1970; Vernon, 1971, 1972). In essence, early IB scholarship envisioned that the bargaining power between MNEs and national governments was a central factor in determining whether market-power effects dominated in cross-border investment activity.

While a number of positive effects have derived from host governments taking on pro-FDI policies (Dunning, 1998), the potential for downside is also present. In particular, some contemporary scholars (e.g., Thomas, 2010) have picked up on Vernon’s (1971, 1972, 1973) observations and surmised that bargaining-power imbalances have led to a sort of location-tournament process best characterizing the interactions between MNEs and host governments. Under this dynamic, host governments must aggressively compete against each other in order to attract inward FDI. Even more concerning is the observation by UNCTAD (1997, p. 159) that governments have increasingly offered MNEs “arrangements that grant market power with legal protection against competition in exchange for investment” in order to gain an upper hand in
these location tournaments. Such an observation highlights the potential for substantial market-power effects.

Within this context of vigorous competition for inward FDI, it is important to point out that developed host countries may be less subject to pernicious market-power effects from inward FDI as compared to emerging-market host countries. In particular, the quality and state of institutions in developed countries fundamentally differs from that in emerging-market countries (Meyer and Peng, 2016; Narula, 2012). Developed countries often have the market-supporting institutions – such as property-rights protection, third-party contract enforcement, transparent financial markets and effective competition policies – that are customarily less present in emerging markets (Hoskisson et al., 2013; Khanna and Palepu, 1997; North, 1990; Wright, et al., 2005). Furthermore, DC-MNEs possess the proprietary reputations, technologies and capital that emerging-market governments find so necessary for economic development; yet, developed-country governments will not be so beholden to DC-MNEs as their proprietary resources and capabilities are less critical for developed countries (Eden et al., 2005). Accordingly, the institutional actors in developed host countries do not experience the substantial power asymmetries vis-à-vis DC-MNEs that the institutional actors in emerging-market host countries often experience.

The passages above suggest then that developed countries have less need to incentivize inward FDI; thus, developed-country governments will be less likely to engage in aggressive measures to attract FDI. Furthermore, Thomas (2010) observes that the presence of advanced institutions in developed countries eases the burden on foreign investors; hence, the additional host-government incentives which are required in emerging markets will not be required in developed countries. For instance, Luo (2001, p. 409) observes that emerging-market
governments often intentionally generate “unnatural market imperfections by granting monopoly power or position to foreign companies.” Developed countries, on the other hand, tend to engage in fewer arbitrary ‘bends of the rules’ that govern foreign-investment activity, which in turn favors relatively large efficiency effects – and relatively small market-power effects – in DC→DC cross-border investment activity.

In fact, Hymer (1970, 1979 [1968]) similarly observed that MNEs held significant bargaining-power advantages vis-à-vis national governments and that this was particularly the case for cross-border investments in emerging-market nations undertaken by DC-MNEs. In his view, emerging-market nations lacked the resources and capabilities necessary for development of indigenous industries; hence, emerging markets were reliant on DC-MNEs to provide such resources and capabilities. This dependence on DC-MNEs in turn compromised the bargaining power of the governments and other actors in emerging markets (Hymer and Resnick, 1969). Accordingly, this imbalance between MNEs and host-governments would be particularly acute when DC-MNEs invest in emerging markets, and much less relevant when DC-MNEs invest in developed countries (Ietto-Gilles, 2002).

Building on the above foundations regarding the presence of strong institutions and adequate bargaining power in developed countries, we contend that cross-border investments in developed countries undertaken by DC-MNEs are more likely to generate relatively strong efficiency effects and relatively weak market-power effects as compared to DC-MNE investments in emerging markets. Thus, our first hypothesis can be set out as follows:

\[ H1: \text{As compared to DC} \rightarrow \text{EM cross-border investments, DC} \rightarrow \text{DC cross-border investments will tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects (i.e., efficiency effects will tend to dominate market-power effects).} \]
EM→EM Cross-Border Investments

Over the last decade there has been considerable expansion in outward FDI by emerging-market MNEs (Hoskisson et al., 2013; Luo and Tung, 2007). The rise of EM-MNEs has created significant debate within the IB literature as to whether EM-MNEs are fundamentally different than DC-MNEs and whether current IB theory can adequately and accurately explain and predict the behavior of EM-MNEs within existing theoretical frameworks (Alon et al., 2011; Hennart, 2012; Hoskisson et al., 2013; Mathews, 2006; Meyer, 2004; Narula, 2012; Pananond, 2015; Ramamurti, 2012; Wells, 1983). Underpinning the theory of the MNE is that multinationals possess ownership – or firm specific – advantages (i.e., capabilities, technologies, brands, etc.) that allow compensating for the additional costs incurred when operating in foreign markets (Dunning, 1998). Emerging-market firms, however, have not traditionally been deemed to possess sufficient ownership advantages that would allow international expansion.

Yet, recent IB scholarship suggests that EM-MNEs possess nontraditional ownership advantages that are created when operating in underdeveloped institutional environments. For example, Cuervo-Cazurra and Genc (2011) argue that EM-MNEs are characterized by substantial non-market advantages that facilitate operating in emerging markets. These non-market advantages involve the “resources that the firm develops and uses to interact with and operate in its environment, such as knowledge of the local language and customs or understanding of laws and regulations” (Cuervo-Cazurra and Genc, 2011, p. 444). Such advantages can enhance access to resources that would otherwise be unavailable to foreign MNEs (Hennart, 2012). These advantages thus facilitate entry into other emerging markets since EM-MNEs already possess many of the non-market advantages required to navigate the
institutional voids characteristic of these markets (Holburn and Zelner, 2010). Considering the tremendous untapped potential that is innate to most emerging markets, the successful transfer of appropriate technologies and organizational know-how by EM-MNEs into emerging markets can generate outcomes with substantial efficiency effects (UNCTAD, 2006).

Taking these arguments to a more granular level, research suggests that EM-MNEs often transfer labor-intensive technologies that are more suitable for the conditions in emerging markets (UNCTAD, 2006). In essence, EM-MNEs transfer technologies that are labor intensive and less tacit in nature to emerging markets. Transferring basic technologies in this context makes sense as emerging-market firms often lack the absorptive capacity necessary for the advanced production technologies characteristic of DC-MNEs (Aitken et al., 1996; Cantwell, 1993). Accordingly, EM-MNEs expend fewer resources and encounter lower internationalization difficulties when making investments in emerging markets; thus, they are better positioned than DC-MNEs to leverage their unique ownership advantages (Cuervo-Cazurra and Genc, 2008).

These general patterns regarding EM→EM investment also align well with recent theorizing on internationalization motives (e.g., Benito, 2015; Cuervo-Cazurra et al., 2015), as EM-MNE investments in emerging markets tend to be market-seeking in nature; i.e., these EM-MNEs are motivated by the desire to sell more products and increase revenue via international expansion (Cuervo-Cazurra et al., 2015). Successfully following through on these internationalization motives will lead then to operational expansion and scale economies which directly imply efficiency gains. In line with the above priors, several studies find that EM-MNEs are more present in emerging markets than are DC-MNEs, and that this is particularly the case in emerging markets with extensive institutional voids (Buckley et al., 2007; Cuervo-Cazurra and Genc, 2008).
Turning to an analysis of the potential market-power effects involved with EM→EM investment, it is fair to first observe that the bargaining power of EM-MNEs is limited in such a context. Given the nature of EM-MNE ownership advantages, the bargaining power of EM-MNEs vis-à-vis host governments in emerging markets will tend to be lower as compared to the bargaining power of DC-MNEs (Fagre and Wells, 1982; Lecraw, 1984). In particular, EM-MNEs generally do not have the advanced resources and capabilities (e.g., technology, capital, brands, etc.) which DC-MNEs have and which are so fundamental to the developmental needs of emerging markets (Hoskisson et al., 2013; Narula, 2012). The limited bargaining power of EM-MNEs vis-à-vis emerging-market host governments suggests that EM-MNEs will be unable to secure the preferential legal arrangements (e.g., privileged access to scarce resources, protection against competition) and the influence over local partners (Inkpen and Beamish, 1997; Lee et al., 1998; Yan and Gray, 2001) which in turn generate substantial market-power effects. As a result, several studies have posited that cross-border investments between emerging-market nations are less likely to involve outcomes involving substantial market-power effects as compared to investments by DC-MNEs in emerging markets (UNCTAD, 2006; Wells, 1983, 1998).

In sum, the cross-border investments by EM-MNEs in other emerging markets will tend to be characterized by substantial efficiency effects and minimal market-power effects. First, EM-MNEs are configured to the demands of emerging markets and can thus cope with the institutional voids characteristic of emerging host countries; thus, they are better equipped than DC-MNEs to transfer appropriate technologies, seize the available opportunities, and engage in the necessary market co-creation functions that lead to substantial efficiency effects. Second, EM-MNEs do not generally possess the types of ownership advantages (e.g., sophisticated technologies, advanced capabilities and established brands) that yield substantial bargaining
power advantages vis-à-vis host governments that in turn lead to the concessions which generate substantial market-power effects. Building on the above foundations, we posit that cross-border investments undertaken by EM-MNEs in emerging markets (i.e., EM→EM) are more likely to generate relatively strong efficiency effects and relatively weak market-power effects as compared to the cross-border investments undertaken by DC-MNEs in emerging markets (i.e., DC→EM). Thus, our second hypothesis can be set out as follows:

\[H2: \text{As compared to DC→EM cross-border investments, EM→EM cross-border investments will tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects (i.e., efficiency effects will tend to dominate market-power effects).}\]

**EM→DC Cross-Border Investments**

In addition to being important destinations for FDI, emerging markets have increasingly become important sources of inward FDI for developed countries (UNCTAD, 2006). A number of scholars have responded to these developments by examining the rationales and motivations behind EM-MNE investment in developed countries (e.g., Buckley et al., 2007; Guillen and Garcia-Canal, 2009; Meyer, 2015). The dominant hypothesis in this literature is that EM-MNEs invest in developed countries in order to overcome their latecomer disadvantages (Luo and Tung, 2007). Accordingly, the overriding aim of EM-MNEs is to enhance their overall competitiveness as they seek to gain access to resources and capabilities that lead to enhanced efficiency and productivity upgrading. Recent scholarship points out that efficiency-enhancing investments are imperative for EM-MNEs, as otherwise they will be unable to thrive in both home and foreign markets since they face increasing competition from DC-MNEs in these markets (Guillen and Garcia-Canal, 2009; Luo and Tung, 2007; Meyer, 2015; Narula, 2006, 2012).
We can provide some grounded examples of the above dynamics. For instance, Meyer (2015) illustrates how the Tata Group – an Indian based multinational conglomerate – acquired technologically advanced businesses (i.e., Corus Steel and Jaguar Land Rover) in the United Kingdom with little intent to reduce costs or integrate the businesses. Instead, Tata’s main motivation was to learn how to manage luxury brands and build managerial capabilities that would enhance the group’s global competitiveness. EM-MNE investments in developed countries are then primarily a search for advanced capabilities that allow emerging-market firms to conduct higher value-added activities (Pananond, 2015; UNCTAD, 2006). Similarly, Child and Rodrigues (2005) observe that Chinese multinationals investing in developed countries tend to prioritize learning which in turn leads to productivity upgrading and enhanced efficiency. Accordingly, EM→DC cross border investments can be largely viewed as learning experiences which ultimately yield productivity upgrading and enhanced operational efficiency (Gubbi et al., 2010).

More generally, the motivation behind EM→DC investment activity is consistent with Penrose’s (1959) point that firms seek out new resources that reside outside a firm’s existing boundaries, and that this is particularly the case when firm-specific assets are undervalued due to a lack of complementary assets. Emerging-market firms often experience substantial imbalances with their asset portfolios, as they possess abundant tangible assets (e.g., access to cheap labor and growing markets) but lack the intangible assets which are necessary in order to make full use of their asset portfolio (Moon and Roehl, 2001). Developed-country firms, on the other hand, tend to possess valuable intangibles in the form of proprietary brands, capabilities, and technologies. EM→DC cross-border investments consequently enable the combination of developed-country intangible resources with emerging-market tangible resources—a
redeployment of resources that allows emerging-market firms to redress the imbalances present with their previous asset portfolios (Buckley et al., 2014). For instance, Arçelik – a Turkish white-goods manufacturer – acquired several European companies with advanced technologies and solid brands, and then enhanced its competitiveness by combining these assets with its low-cost manufacturing in Turkey and access to growing Middle Eastern markets (Bonaglia et al., 2007). This potential for strong complementarities between the asset portfolios of emerging-market and developed-country firms explains why empirical studies generally find that EM→DC cross-border investments substantially improve firm performance (e.g., Buckley et al., 2014; Gubbi et al., 2010; Guo and Clougherty, 2015; Guo et al., 2016; Lecraw, 1993).

In addition to the potential for EM-MNE investments in developed countries to yield substantial transaction-based efficiency effects, access to developed countries can also help EM-MNEs overcome the limitations involved with their home-country institutional environments (Cuervo-Cazurra et al., 2015). Investing in developed countries allows EM-MNEs to take advantage of institutional environments where there are better tax regimes, more stable currencies, and enhanced corporate-governance practices (Boateng et al., 2008). For example, Martynova and Renneboog (2008) illustrate that cross-border mergers can increase in value when acquirers from countries with less-developed corporate governance standards voluntarily comply with the target country’s improved governance standards. Similarly, Bhagat et al. (2011) and Khanna and Palepu (2004) found positive valuation effects when emerging-market acquirers voluntarily bootstrap themselves to the improved governance standards of target firms. These findings support the argument that EM-MNE investment in developed countries is driven in part by a search for better governance and institutional conditions which in turn enhance the efficiency of these emerging-market firms (Cuervo-Cazurra and Dau, 2008).
In addition to the obvious implications regarding efficiency effects, the dominant learning motive of EM-MNEs investing in developed countries also involves substantial market-power implications. First, it is important to underscore that market-power effects require merging firms to reduce capacity and output (Farrel and Shapiro, 1990). If the merging firms were to not rationalize production, then the fundamental supply and demand conditions within the industry would not be altered and there would be no consequent increase in final-product prices; i.e., no market-power effects would result (Tirole, 1992). Yet, EM-MNEs have been observed to be quite reluctant to eliminate operations and fire personnel in acquired developed-country firms (Kumar, 2009). In light of the dominant learning motive characteristic of EM-MNE investment in developed countries (Luo and Tung, 2007), this reluctance to eliminate personnel and shutdown operations is quite intuitive since the learning function would be substantially impaired if such actions were taken (Barkema and Schijven, 2008). Most obviously, EM-MNEs cannot learn from personnel and/or operations that have been eliminated. In addition, the disruptions to organizational cohesiveness from such actions would interfere with a well-functioning organizational environment and compromise the ability to learn. It is no surprise then that EM-MNEs are reported to make bare-minimum changes to the developed-country firms which they acquire (Kumar, 2009). While taking such a light touch is optimal in terms of preserving a learning environment for EM-MNE acquirers, it does involve some implications with regard to the reaping of market-power effects. In essence, the lack of rationalization and elimination of duplicities between the merging firms means that it will be virtually impossible to reap substantial market-power effects. Preserving the developed-country firm does then involve a substantial cost, as keeping operations at pre-merger capacity means that output in the market
will not be reduced and in turn final-product prices will not increase in the years subsequent to the investment.

Summarizing the above reasoning, we posit that market-power effects will tend to be quite minimal and efficiency effects quite extensive for EM→DC investment activity. First, EM→DC investments are generally motivated by the EM-MNEs need to seek out complementary assets that strengthen overall competitiveness—a motivation which implies a strong case for the presence of efficiency effects where the merged entity becomes a stronger and more-efficient competitor. Second, market-power effects will tend to be quite minimal in such transactions due to the overriding ambition to learn and upgrade, as the reductions in capacities that are essential for market-power effects are not consistent with a learning ambition. Building on the above foundations, we posit that cross-border investments undertaken by EM-MNEs in developed countries (i.e., EM→DC) are more likely to generate relatively strong efficiency effects and relatively weak market-power effects as compared to the cross-border investments undertaken by DC-MNEs in emerging markets (i.e., DC→EM). Thus, our third hypothesis can be set out as follows:

*H3: As compared to DC→EM cross-border investments, EM→DC cross-border investments will tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects (i.e., efficiency effects will tend to dominate market-power effects).*

**DATA & METHODOLOGY**

**Variables and Estimation Strategy**

We collected data on the cross-border acquisitions materializing between 1986 and 2010 from Thomson Reuter’s ‘Worldwide Mergers & Acquisitions’ series database. We also obtained firm-
level sales and profit measures for all merging firms (acquirers and targets) over our sampled period from Thomson Reuter’s Worldscope database. Focusing on cross-border acquisitions as the empirical setting offers a sort of natural experiment in which to examine the market-power and efficiency effects associated with FDI (Dunning and Lundan, 2008). Acquisitions allow acquirers to immediately gain ownership control over target assets and resources, thereby providing the appropriate pre- and post-contexts in which to examine the degree to which efficiency and market-power effects are realized. By its very nature, Greenfield FDI does not provide the pre-context counterfactual which cross-border acquisitions provide. Moreover, cross-border acquisitions have become an increasingly prominent mode to engage in FDI over the past three decades, as they now constitute up to 50 percent of global FDI value (UNCTAD, 2014).

In order to test our theoretical priors concerning the balance between market-power and efficiency effects in cross-border acquisition activity across the different country-pair types, we must first create a variable construct that captures whether market-power effects dominate efficiency effects in specific cross-border transactions. The Gugler et al. (2003) methodological approach – which focuses on the change in sales and profits for merging firms and is illustrated in Figure I – represents a particularly effective means to capture the relative strength of market-power with respect to efficiency effects in cross-border investment activity. As previously outlined, transactions where sales decrease but profits increase tend to be characterized by substantial market-power effects and minimal efficiency effects. Furthermore, transactions where sales increase and profits decrease tend to be characterized by substantial efficiency effects and minimal market-power effects. Thus, the Gugler et al. (2003) methodological approach is unique in that it allows analyzing efficiency and market-power effects in an integrated manner.
In order to operationalize this approach, we must calculate post-acquisition changes in sales and profits for the merging firms for each particular cross-border transaction. Thus, we consider the weighted-average annual change in sales and profits for merging firms over the five years subsequent to the acquisition (i.e., for years t+1 through t+5), and then normalize this average with respect to industry averages over the same period. More specifically, we first calculate the yearly percentage change in sales and profits at both the firm and industry level throughout the post-acquisition period; and then calculate the yearly differences in sales and profit growth for both acquirers and targets with respect to the industry averages. The resulting yearly differentials in sales and profit growth are then summed via a weighting by firm size. For each period from t+1 to t+5, we then add up the weighted deviations for each firm and calculate the average over the available data for post-acquisition years. Via the above process, we are able to obtain measures of sales and profit growth relative to the average firm in the focal firm’s respective industry which indicates then whether the merging firms over or under perform with respect to their industry peers in the post-transaction period.

Accordingly, the average changes in sales and profits for the firms sharing the same four-digit SIC code represent the benchmarks via which we capture post-acquisition changes in sales and profits for merging firms. Put differently, average firm performance in the industry sets an additional counterfactual, as the merging firms would seemingly grow sales and profits somewhat in line with the typical firm in an industry in a scenario where no cross-border investment occurs. Equations 1 and 2 represent the respective calculations for the yearly changes in sales and profits which form the basis of operationalizing this methodological approach:

\[
\Delta Sales_{a,t} = \frac{\left(\%\delta Sales_{acq} - \%\delta Sales_{acq-ind} \right) \cdot Sales_{acq} + \left(\%\delta Sales_{tar} - \%\delta Sales_{tar-ind} \right) \cdot Sales_{tar}}{Sales_{acq} + Sales_{tar}}
\]

\[
\Delta Profit_{a,t} = \frac{\left(\%\delta Profit_{acq} - \%\delta Profit_{acq-ind} \right) \cdot Profit_{acq} + \left(\%\delta Profit_{tar} - \%\delta Profit_{tar-ind} \right) \cdot Profit_{tar}}{Profit_{acq} + Profit_{tar}}
\]
Our sample includes up to 4,361 cross-border transactions with available data on sales and profitability to operationalize the Gugler et al. (2003) methodological approach. Moreover, employing this taxonomy of transaction types allows the creation of dichotomous and trichotomous dependent constructs that capture the market-power/efficiency tendencies of cross-border acquisition activity. First, we create a simple dichotomous variable to capture the presence of transaction types where market-power effects dominate efficiency effects. In particular, we create a dichotomous construct that is equal to 1 when merging firms experience both decreased sales and increased profits (i.e., market-power dominant transactions are realized, as exhibited by quadrant 3 in Figure I), and equal to 0 otherwise (i.e., the transactions in the other three Figure I quadrants which do not indicate clear market-power dominance). Second, we create a trichotomous dependent construct that better takes advantage of the variation involved with the four different transaction types. In particular, transactions where efficiency effects dominate market-power effects (quadrant 2) represent the polar opposite of those where market-power effects dominate efficiency effects (quadrant 3). Furthermore, quadrants 1 and 4 involve transactions where market-power and efficiency effects tend to counteract and offset; thus, transactions where neither effect dominates represent a middle-ground between the polar opposites. This ordinal categorization allows the creation of a trichotomous dependent construct that is set to -1 for cross-border acquisitions where efficiency effects dominate (quadrant 2), set to 0 for cross-border acquisitions involving indeterminate effects (quadrants 1 and 4), and set to 1 for cross-border acquisitions where market-power effects dominate (quadrant 3).

In order to test our hypothesized relationships concerning the balance between efficiency and market-power effects across different country-pair contexts, we must categorize our sampled cross-border acquisitions into four different country-pair types in order to create our main
explanatory constructs. Specifically, we define developed (emerging-market) countries based on OECD (non-OECD) membership which leads to four country-pair configuration types: developed to emerging market (DC→EM), developed to developed (DC→DC), emerging market to developed (EM→DC), and emerging market to emerging market (EM→EM). In terms of the composition of our sample of 4,361 cross-border transactions with available data, the DC→DC country-pair type represents 78.1% (3404) of our cross-border acquisitions, the DC→EM country-pair type represents 15.7% (685) of our cross-border acquisitions, the EM→DC country-pair type represents 4.6% (202), and the EM→EM country-pair type represents 1.6% (70). This sample composition is consistent with the population of cross-border acquisition activity, as DC-MNEs dominate cross-border investment activity despite an upswing in emerging-market based activity in recent years (Kang and Johansson, 2000; Makaew, 2010). Since the above country-pair configurations are mutually exclusive categories, DC→EM transactions constitute the omitted reference category in our empirical estimations. Setting up DC→EM transactions as the benchmark follows from the previously noted a priori regarding these cross-border investments being most likely to manifest substantial market-power effects.

We control for an additional set of factors which are likely to affect the balance between realized market-power and efficiency effects in order to make stronger causal inferences with respect to the relationship between country-pair configuration and the market-power/efficiency tendencies involved with cross-border acquisition activity. First, prior studies (e.g., Halebian and Finkelstein, 1999; Hayward, 2002) find that acquisition experience is a salient attribute in predicting a firm’s ability to both learn from and transfer knowledge to target firms, thereby enhancing the efficiency effects involved with the acquisition (Vermeulen and Barkema, 2001). As prior-acquisition experience may influence post-acquisition outcomes, we create a control
variable, *acquirer experience*, that captures the number of targets the acquirer has purchased—going back to 1986 (the start of our sample period)—prior to the focal transaction.

Second, the literature on M&A activity far too often fails to distinguish between mergers and acquisitions and instead employs these terms interchangeably. Conceptually, M&As can be thought of as residing on a continuum where targets at one end of the continuum have minimal post-acquisition influence on the merged entity (i.e., a true acquisition of assets and equity interest is taking place), and where targets at the other end of the continuum are equal partners with respect to the acquirer (i.e., a true merger of equals is taking place). When considering our sampled data, 75% of our transactions can simply be characterized as acquisitions of equity interest or assets in target firms, while some 25% of our transactions are characterized by Thomson as mergers. We should stress, however, that a number of these mergers might still be best characterized as acquisitions; e.g., the Daimler/Chrysler transaction was termed a merger by Thomson when in reality it was an acquisition by Daimler. Nevertheless, it is possible that the nature of the transaction (merger or acquisition) might affect the balance between market-power and efficiency effects. In particular, a number of scholars (e.g., Larsson and Finkelstein, 1999; Larsson and Lubatkin, 2001) report that efficiencies are most elusive when true mergers take place, thus mergers may be more market-power based as compared to acquisitions. We accordingly create a dummy variable, *merger-tendency*, set to 1 if the transaction is classified by Thomson as a merger and set to 0 otherwise—which controls for the transactions tendency toward being a merger of equals.

Third, acquirer size may influence the tendency toward market-power effects manifesting in our sampled transactions, as larger acquirers may be better able to use these acquisitions to forestall competition in a market (Singh and Montgomery, 1987). For instance, large MNEs may
be interested in acquiring smaller firms which represent future competitive threats (Lewis, 1983); thus, acquirer size may yield more pronounced market-power effects in our empirical study. To capture the potential effects of acquirer size, we use the acquirer’s yearly sales in order to create the *acquirer size* control variable. In estimations reported to referees, we also controlled for the pre-acquisition efficiency level of the acquirer relative to the target; however, including this control variable reduced sample size by 34%. Since results employing this substantially reduced sample do not change qualitatively, we repres those estimations which are available from authors on request. Table I displays descriptive statistics and a correlation matrix for all of our explanatory variables of interest. Note that none of the correlations are above the 0.5 benchmark for multi-collinearity concerns.

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**INSERT TABLE I ABOUT HERE**

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Turning to our empirical estimation strategy, we first employ logit regression analysis in order to estimate the influence of country-pair configuration on the balance between market-power and efficiency effects in cross-border acquisition activity. The logit estimation method is appropriate since our dependent variable takes the value of one if the cross-border acquisition is defined as market-power dominant and 0 otherwise. Furthermore, one can interpret the results of the logit regression as yielding coefficient estimates that predict the likelihood that market-power dominant transactions will result. Second, we can also capture the balance between market-power and efficiency effects in cross-border transactions via our trichotomous dependent construct. To analyze our trichotomous dependent variable, we employ an ordered logit regression. The ordered logit method is appropriate in this trichotomous context as post-
transaction outcomes are ordered in terms of the relative strength of market-power effects vis-à-vis efficiency effects. We also employ fixed period-specific effects (i.e., year dummies) in all of our estimations in order to control for any common time trends across our sampled cross-border acquisitions.

An additional estimation issue is involved with the introduction of our acquirer-size control variable as it contains a number of missing observations; i.e., the number of feasible observations drops by 336 when acquirer-size is included in the estimations. We face then a trade-off between having a large sample and having a rigorous estimation procedure with multiple controls. Our reported regressions must then strike a balance between sample size and the benefits of including extensive controls. For both the logit and ordered-logit regressions, we accordingly first report estimations that strictly involve the three control variables where the smaller sample is necessarily employed; we next introduce estimations that involve the three principal explanatory variables where the larger sample can be employed; and we then sequentially introduce our control variables (acquirer-experience, merger-tendency and acquirer-size) in the three subsequent estimations involving the principal explanatory variables and where all possible observations are employed.

**Empirical Results**

Table II reports the empirical results for the five logit estimations, while Table III reports the results for the five ordered-logit estimations. The different country-pair configurations represent the explanatory constructs of principal interest. While our focus is on the empirical results for the constructs capturing our three hypothesized relationships, we briefly discuss here the results for our control variables. First, acquirer-experience does not appear to significantly affect the
balance between market-power and efficiency effects in cross-border investment activity, as only in Model 4 of Table III does it yield a significant coefficient estimate. Second, the merger-tendency construct also exhibits a consistent lack of significance in both tables, thus suggesting that transaction type (merger or acquisition) does not yield significant differences in terms of the balance between market-power and efficiency effects. As already noted, this result might be driven by the majority of our ‘mergers’ actually being ‘acquisitions’ in nature; i.e., even with mergers, it is the acquiring firms which tend to call the shots. Third, the acquirer-size construct – which limits the sample – appears to positively and significantly enhance the market-power tendencies of transactions in both the logit (Table II) and ordered logit (Table III) estimations. Consequently, the larger the acquirer in a cross-border acquisition the more likely is it that market-power effects dominate efficiency effects. We turn now to a discussion of the empirical results for our explanatory variables of principal interest.

INSERT TABLE II & III ABOUT HERE

Our first hypothesis predicted that cross-border transactions involving developed-country acquirers and targets (DC→DC) would tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects as compared to the cross-border transactions involving developed-country acquirers of emerging-market targets (DC→EM). The empirical results for the logit estimations reported in table II fail to support this hypothesis, as the coefficient estimates are consistently insignificant across the different model estimations. In addition, the empirical results for the ordered-logit estimations reported in table III also yield insignificant coefficient estimates across the different model estimations. Accordingly, our
empirical results indicate that cross-border acquisitions of developed-country targets undertaken by developed-country acquirers tend to be no different in terms of the balance between market-power and efficiency effects when compared with the cross-border acquisitions taking place between developed-country acquirers and emerging-market targets.

Our second hypothesis predicted that cross-border transactions involving emerging-market acquirers and targets (EM→EM) would tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects as compared to the cross-border transactions involving developed-country acquirers of emerging-market targets (DC→EM). The empirical results for the logit estimations reported in table II yield some support for this hypothesis, as the coefficient estimates for EM→EM transactions are significant and negative per prediction in three estimations (Models 2, 3 & 4). The EM→EM coefficient estimate does, however, become insignificant in Model 5 when the acquirer-size construct is introduced—a control which also drops sample size. The empirical results for the ordered-logit estimations reported in table III yield similar results, as the coefficient estimates for EM→EM transactions are again significant in Models 2, 3 and 4 and insignificant in the Model 5 estimation.

Accordingly, our empirical results provide partial support for the a priori captured in hypothesis 2 that cross-border acquisitions of emerging-market targets undertaken by emerging-market acquirers will tend to be characterized by stronger efficiency effects and weaker market-power effects when compared to the cross-border acquisitions taking place between developed-country acquirers and emerging-market targets.

Our third hypothesis predicted that cross-border transactions involving emerging-market acquirers and developed-country targets (EM→DC) would tend to be characterized by relatively strong efficiency effects and relatively weak market-power effects as compared to the cross-
border transactions involving developed-country acquirers of emerging-market targets (DC→EM). The empirical results for the logit estimations reported in table II yield strong support for this hypothesis, as the coefficient estimates are consistently significant and negative per prediction across all of the estimations. For instance, the coefficient estimate for EM→DC in model 5 – where all control variables are included – is negative and statistically significant at the 1% level. Furthermore, calculating the marginal effect for this most-conservative coefficient estimate suggests that such transactions are 11.5% less likely to be market-power dominant as compared to DC→EM cross-border transactions. The ordered-logit estimations in table III also yield consistent support for the substantial presence of efficiency-effects in EM→DC cross-border transactions, as the coefficient estimates in these five estimations are all negative and significant. Calculating the marginal effect of the coefficient estimate of -0.372 for EM→DC in model 5 (where all control variables are included) suggests that EM→DC transactions are 8.3% less likely to be market-power dominant as compared to DC→EM cross-border transactions. Accordingly, our empirical results provide strong support for the prior that cross-border acquisitions of developed-country targets undertaken by emerging-market acquirers tend to be characterized by relatively-large efficiency effects and relatively-small market-power effects when compared with the cross-border acquisitions taking place between developed-country acquirers and emerging-market targets.

DISCUSSION AND CONCLUSION

As FDI growth has outstripped that of cross-border trade in recent decades, research on the welfare implications of MNE activity has become a vibrant topic in many disciplines. The foundational IB literature wrestled with the fact that FDI is potentially a double-edged sword as
it can replace imperfect markets with efficient internal mechanisms (as in internalization theory), generate more opportunities for value co-creation via more efficient transmission of valuable tacit knowledge (as in the organizational capability view), but also possibly lead to the reaping of oligopolistic rents via reduced competition (as in the market-power view). Yet despite these foundations, contemporary IB scholarship tends to gravitate towards the efficiency interpretation of the MNE. Hence, the aim of our study was to evaluate the balance between the market-power and efficiency effects associated with contemporary cross-border investment activities.

Our principal finding is that the market-power and efficiency effects involved with cross-border investment activity manifest heterogeneity in the cross-national context for FDI. In particular, by classifying our sample of cross-border investments into different country-pair configurations, we generate empirical results that conform to some of the priors in the foundational IB scholarship. Specifically, early IB scholarship (e.g., Hymer, 1970, 1971; Lall, 1978, 1979) posited that cross-border investments undertaken by emerging-market MNEs would be more beneficial than the investments undertaken by developed-country MNEs. In line with these priors, our empirical analysis first strongly supports that acquisitions of developed-country firms by EM-MNEs tend to involve relatively strong efficiency effects and relatively weak market-power effects when compared with the cross-border investments by DC-MNEs in emerging markets. Second, our empirical analysis partially supports that acquisitions of emerging-market firms by EM-MNEs tend to involve relatively strong efficiency effects and relatively weak market-power effects when compared with the cross-border investments by DC-MNEs in emerging markets.

This study also informs the rich literature on multinationality-performance (Yang et al., 2013). Specifically, one of the main arguments for positing a positive association between
multinationality and performance is that MNEs can amortize their fixed costs in R&D and brand value by gaining a larger market via international diversification (Hennart, 2007). Implicitly, these scholars build on the efficiency view by assuming that MNEs expand firm boundaries across borders – hence multinationality – when internalization generates efficient organization of transactions thus leading to positive performance consequences. Our study suggests that a complementary logic leading to the same outcome would be that the market-power gained through international diversification would also lead to a positive relationship between multinationality and performance. In other words, the mechanism linking the explanatory variable (i.e., multinationality) with the dependent variable (i.e., performance) is not only animated by extended scale and scope accrued through superior efficiency vis-à-vis competitors, but also via the increased market power attained through attenuating effective competition.

In terms of practical implications, our study speaks to the controversies surrounding the recent uptick in investment activity by EM-MNEs in developed countries. In particular, EM-MNEs have faced a good deal of host-country opposition in response to their increased proclivity to acquire developed-country assets and firms. High profile cases include China National Offshore Oil Company’s (CNOOC) $18.5 billion bid for Unocal – a mid-sized U.S oil company – in 2004, and Haier’s $2.5 billion bid for Maytag – a U.S white-goods manufacturer – in 2005. Both bids were met by fierce political opposition despite the fact that U.S. officials had a difficult time articulating why this was not in the public interest and a difficult time refuting the Chinese outcry regarding double standards (The Economist, 2005). Our results suggest that the controversies and opposition to increased investment activity by EM-MNEs in developed countries may be shortsighted. At least from a consumer-welfare perspective, it appears that the investments by EM-MNEs in developed countries are far less market-power based as compared
to the traditional investments by DC-MNEs. In fact, our analysis indicates that, if anything, public policy should incentivize and encourage cross-border investments by EM-MNEs; or at the very least, this investment activity should be treated according to the same standards that cross-border investments by DC-MNEs are subjected to.

Our study, nevertheless, involves a number of limitations which provide scope for future research. Most obviously, we recognize that methods may exist in which to separately estimate efficiency and market-power effects. For instance, labor-productivity upgrading represents an intuitive means to capture efficiency effects in multinational enterprises; furthermore, total factor productivity, structural estimations, and even earnings per employee represent alternative approaches to capture efficiency effects (e.g., Haskel et al., 2007). In addition, alternatives may exist with regard to specifically capturing market-power effects: e.g., the event-study method, industry-level price changes, and estimation of price-cost markups (Clougherty and Duso, 2011). We encourage future empirical scholarship that examines the efficiency and market-power tendencies of MNEs via such methodological approaches so as to establish the robustness and boundary conditions of our findings. Furthermore, future scholarship which explicitly links the impact of internationalization motives (e.g., Benito, 2015; Cuervo-Cazurra et al., 2015) on the balance between market-power and efficiency effects is also called for. Lastly, we envision scholarship which considers the market-power and efficiency effects involved with other modes of FDI (e.g., Greenfields), as outcomes may be substantially different across different FDI modes (Nocke and Yeaple, 2008). While cross-border acquisitions represent a substantial portion of contemporary FDI, it is essential that future scholarship examines market-power and efficiency effects across all forms of FDI in order to offer a more comprehensive understanding.
Despite the above limitations, our study contributes to the IB literature by empirically evaluating in a comprehensive manner the balance between market-power and efficiency effects in cross-border acquisition activity. We demonstrate that heterogeneity exists in the cross-national environment for FDI, as investments undertaken by EM-MNEs tend to involve less market-power and greater efficiency effects as compared to the traditional investments undertaken by DC-MNEs. Taken together, our analysis suggests that both efficiency and market-power effects should be prominent in the study of MNEs and FDI. Indeed, re-integrating market-power insights into contemporary IB research may offer fruitful avenues for future research that more comprehensively factors the totality of MNE effects. We hope our analysis will spur scholars to increasingly consider the full implications of FDI so as to enhance the epistemological and practical relevance of our academic endeavors.

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Figure I. Taxonomy of Transaction Types

<table>
<thead>
<tr>
<th>Δ Sales &lt; 0</th>
<th>Δ Profits &lt; 0</th>
<th>Quadrant 1</th>
<th>Indeterminate Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Δ Sales &gt; 0</td>
<td>Δ Profits &gt; 0</td>
<td>Quadrant 3</td>
<td>Market-Power Effects Dominate</td>
</tr>
<tr>
<td>Δ Sales &gt; 0</td>
<td>Quadrant 2</td>
<td>Efficiency Effects Dominate</td>
<td></td>
</tr>
<tr>
<td>Δ Sales &gt; 0</td>
<td>Quadrant 4</td>
<td></td>
<td>Indeterminate Effects</td>
</tr>
</tbody>
</table>

Adapted from Gugler et al. (2003)
TABLE I: Descriptive Statistics and Correlations

<table>
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<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DC→EM</td>
<td>4361</td>
<td>0.16</td>
<td>0.36</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. DC→DC</td>
<td>4361</td>
<td>0.78</td>
<td>0.41</td>
<td>-0.85</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. EM→EM</td>
<td>4361</td>
<td>0.02</td>
<td>0.13</td>
<td>-0.03</td>
<td>-0.18</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. EM→DC</td>
<td>4361</td>
<td>0.05</td>
<td>0.21</td>
<td>-0.07</td>
<td>-0.41</td>
<td>-0.01</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Acquirer-Experience</td>
<td>4361</td>
<td>3.56</td>
<td>5.12</td>
<td>0.09</td>
<td>-0.04</td>
<td>-0.04</td>
<td>-0.07</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Merger-Tendency</td>
<td>4361</td>
<td>0.24</td>
<td>0.43</td>
<td>-0.19</td>
<td>0.17</td>
<td>-0.03</td>
<td>0.02</td>
<td>-0.08</td>
<td>1.00</td>
<td></td>
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<tr>
<td>7. Acquirer-Size</td>
<td>4025</td>
<td>15.62</td>
<td>2.75</td>
<td>0.14</td>
<td>-0.08</td>
<td>-0.03</td>
<td>-0.08</td>
<td>0.51</td>
<td>-0.13</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Note: The number of feasible observations drops by 336 when acquirer-size is included in the estimations due to missing values for annual sales.
Table II: Logit Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC→DC</td>
<td>-0.135</td>
<td>-0.121</td>
<td>-0.130</td>
<td>-0.035</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.103)</td>
<td>(0.101)</td>
<td>(0.102)</td>
<td>(0.096)</td>
<td></td>
</tr>
<tr>
<td>EM→EM</td>
<td>-0.688***</td>
<td>-0.639**</td>
<td>-0.640**</td>
<td>-0.065</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.243)</td>
<td>(0.264)</td>
<td>(0.264)</td>
<td>(0.289)</td>
<td></td>
</tr>
<tr>
<td>EM→DC</td>
<td>-0.757***</td>
<td>-0.697***</td>
<td>-0.704***</td>
<td>-0.518***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.214)</td>
<td>(0.197)</td>
<td>(0.194)</td>
<td>(0.200)</td>
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</tr>
<tr>
<td>Acquirer-</td>
<td>-0.014</td>
<td>0.017</td>
<td>0.018</td>
<td>-0.015</td>
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</tr>
<tr>
<td>Experience</td>
<td>(0.014)</td>
<td>(0.017)</td>
<td>(0.017)</td>
<td>(0.015)</td>
<td></td>
</tr>
<tr>
<td>Merger-</td>
<td>0.068</td>
<td></td>
<td>0.035</td>
<td>0.075</td>
<td></td>
</tr>
<tr>
<td>Tendency</td>
<td>(0.094)</td>
<td></td>
<td>(0.086)</td>
<td>(0.091)</td>
<td></td>
</tr>
<tr>
<td>Acquirer-</td>
<td>0.130***</td>
<td></td>
<td></td>
<td>0.127***</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>(0.017)</td>
<td></td>
<td></td>
<td>(0.016)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-2.276***</td>
<td>-0.210**</td>
<td>-0.243***</td>
<td>-0.244***</td>
<td>-2.195***</td>
</tr>
<tr>
<td></td>
<td>(0.096)</td>
<td>(0.096)</td>
<td>(0.093)</td>
<td>(0.093)</td>
<td>(0.254)</td>
</tr>
<tr>
<td>Year Dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pseudo R-sqr</td>
<td>0.025</td>
<td>0.010</td>
<td>0.012</td>
<td>0.012</td>
<td>0.026</td>
</tr>
<tr>
<td>Observations</td>
<td>4025</td>
<td>4361</td>
<td>4361</td>
<td>4361</td>
<td>4025</td>
</tr>
</tbody>
</table>

Notes: Columns 1 through 5 report Logit estimations based on a dichotomous dependent construct that is equal to 1 when merging firms experience both decreased sales and increased profits (i.e., market-power dominant cross-border acquisitions are realized), and equal to 0 otherwise. Furthermore, the explanatory constructs include: DC→DC (acquisitions undertaken by developed-country MNEs in other developed countries), EM→EM (acquisitions undertaken by emerging-market MNEs in other emerging markets), EM→DC (acquisitions by emerging-market MNEs in developed countries), Acquirer-Experience (the number of targets the acquirer has purchased going back to 1986), Merger-Tendency (set to 1 if the transaction is classified by Thomson as a merger and set to 0 otherwise), Acquirer-Size (yearly sales), and year dummies to capture period-specific effects. Significance at the 1%, 5%, and 10% levels is represented by ***, **, * respectively.
Table III: Ordered Logit Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC→DC</td>
<td>-0.103</td>
<td>-0.084</td>
<td>-0.090</td>
<td>0.029</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.107)</td>
<td>(0.104)</td>
<td>(0.105)</td>
<td>(0.099)</td>
<td></td>
</tr>
<tr>
<td>EM→EM</td>
<td>-0.639**</td>
<td>-0.568**</td>
<td>-0.569**</td>
<td>-0.010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.263)</td>
<td>(0.270)</td>
<td>(0.270)</td>
<td>(0.302)</td>
<td></td>
</tr>
<tr>
<td>EM→DC</td>
<td>-0.675***</td>
<td>-0.587***</td>
<td>-0.592***</td>
<td>-0.372**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.239)</td>
<td>(0.221)</td>
<td>(0.215)</td>
<td>(0.189)</td>
<td></td>
</tr>
<tr>
<td>Acquirer-Experience</td>
<td>-0.007</td>
<td>0.025</td>
<td>0.025*</td>
<td>-0.009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.009)</td>
<td>(0.015)</td>
<td>(0.015)</td>
<td>(0.009)</td>
<td></td>
</tr>
<tr>
<td>Merger-Tendency</td>
<td>0.062</td>
<td>0.025</td>
<td>0.057</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.083)</td>
<td>(0.078)</td>
<td>(0.081)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acquirer-Size</td>
<td>0.135***</td>
<td></td>
<td></td>
<td>0.134***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.016)</td>
<td></td>
<td></td>
<td>(0.015)</td>
<td></td>
</tr>
</tbody>
</table>

Cut 1
| Constant   | -0.516**     | -2.555***    | -2.514***    | -2.514***    | -0.514**     |
|            | (0.120)      | (0.120)      | (0.117)      | (0.117)      | (0.231)      |

Cut 2
| Constant   | 2.394***     | 0.251**      | 0.300***     | 0.300***     | 2.400***     |
|            | (0.0234)     | (0.098)      | (0.092)      | (0.092)      | (0.236)      |

<table>
<thead>
<tr>
<th>Year Dummies</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pseudo R-sqr</td>
<td>0.023</td>
<td>0.009</td>
<td>0.011</td>
<td>0.011</td>
<td>0.024</td>
</tr>
<tr>
<td>Observations</td>
<td>4025</td>
<td>4361</td>
<td>4361</td>
<td>4361</td>
<td>4025</td>
</tr>
</tbody>
</table>

Notes: Columns 1 through 5 report Ordered Logit estimations based on a trichotomous dependent construct that is set to -1 for cross-border acquisitions where efficiency effects dominate market-power effects, set to 0 for cross-border acquisitions involving indeterminate effects, and set to 1 for cross-border acquisitions where market-power effects dominate efficiency effects. Furthermore, the explanatory constructs include: DC→DC (acquisitions undertaken by developed-country MNEs in other developed countries), EM→EM (acquisitions undertaken by emerging-market MNEs in other emerging markets), EM→DC (acquisitions by emerging-market MNEs in developed countries), Acquirer-Experience (the number of targets the acquirer has purchased going back to 1986), Merger-Tendency (set to 1 if the transaction is classified by Thomson as a merger and set to 0 otherwise), Acquirer-Size (yearly sales), and year dummies to capture period-specific effects. Significance at the 1%, 5%, and 10% levels is represented by ***, **,* respectively.