

Using Latin America as a research laboratory

The moderating effect of trade openness on the relationship between inward and outward FDI

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Abstract

Purpose – This paper aims to use Latin America as a laboratory to better understand the relationship between inward foreign direct investment (IFDI) and outward foreign direct investment (OFDI) (both in total as well as in regional flows) and also examine the moderating effect of trade openness on that relationship. Latin America is an ideal study context for this purpose because of the relative homogeneity of its countries, which reduces confounding effects and increases comparability.

Design/methodology/approach – This paper uses longitudinal panel regression models with moderation effects. Secondary data were gathered on IFDI (per country and per country-sector), OFDI (total per country and region-targeted per country) and on trade openness from 11 Latin American countries.

Findings – IFDI in natural resources is positively associated with OFDI in both overall total flows and regional flows. The effect of IFDI in manufacturing has a consistent negative effect on total OFDI. IFDI in services has positive effects on total OFDI. Additionally, trade openness moderates positively the relationship between total IFDI and both total OFDI and regional OFDI. As a consequence, the authors found evidence suggesting that the relation between IFDI and OFDI in Latin America is positively moderated by trade openness.

Originality/value – The authors explored the nature of the impact of IFDI on the capacity of the recipient country to compete abroad as expressed by its OFDI flows. Specifically, they elucidated whether trade openness can be considered a suitable mechanism for home country firms to leverage potential spillovers provided by foreign entrants.

Keywords Latin America, Inward FDI, Emerging markets, Outward FDI, Trade openness, AIB-LAT

Paper type Research paper



Introduction

We use the context of Latin America to examine the impact of inward foreign direct investment (IFDI) on both regional and total outward foreign direct investment (OFDI) and

the moderating role of trade openness on these relationship. As argued by [Cuervo-Cazurra \(2007, 2016\)](#), Latin America can serve as a good laboratory to explore the previously described associations because of the relative homogeneity across countries, which reduces confounding effects and increases comparability. Further, Latin America is not immune from the challenges associated to globalization and market openness. In the region, we can analyze highly prominent examples of countries embracing globalization (e.g. Chile, Colombia and Peru) and countries becoming more insular in their policies (e.g. Bolivia, Ecuador and Venezuela) ([Borda et al., 2017](#)). As such, the region provides an appropriate context to examine the effects of these competing forces on various trade-related outcomes.

Assessing the relation between IFDI and OFDI and the moderating function of trade openness is important for multiple reasons. First, if Latin American countries (and by extension, emerging markets in general) are truly able to advance beyond being dependent on their natural resource base and other basic industries, then they need to systematically advance their capabilities to higher levels ([Cuervo-Cazurra et al., 2016](#)). Learning from the investments of foreign firms is a primary method of developing higher-level capabilities. However, we need to better understand how prepared they are to do so. Second, policy-makers need to understand whether trade openness policies truly provide benefits to their local economies and their own home country firms. Such information could help them in better understanding the trade-offs of these policies. Third, as academics, a study of these topics can help us better understand the context of globalization, both in Latin America and, by extension, the broader global environment where similar debates are currently playing out in both advanced and emerging countries.

Also, the current perspective paper introduces this special issue on Latin America, published by the *Multinational Business Review (MBR)* and composed of some of the best papers and panels presented at the 2017 conference of the Academy of International Business Latin America Chapter (AIB-LAT). This conference was hosted by Universidad ESAN, in Lima (Peru), with William Newburry as the Chair of AIB-LAT at the time. Armando Borda and Mariella Olivos were the Local Chairs and Jorge Carneiro served as the Program Chair. Of the 97 papers submitted to the conference, 77 were accepted for presentation, and 12 were initially selected for potential publication in this special issue. After a rigorous double-blind review process, two papers were accepted. The first paper, by [Cuervo-Cazurra et al. \(2019\)](#), presents empirical evidence and proposes a conceptual model about how some Latin American firms have been able to escape the low-cost-low-price commodity trap and, in fact, have managed to compete head to head abroad with players from advanced markets. The second paper, by [Kelley et al. \(2019\)](#), presents a theoretical digression and concludes that, as markets become further developed, CSR initiatives tend to increase the proportion of shared reputational value between a firm and its country, as a result of aligning CSR initiatives that benefit a society with the strategic goals of the firm. A third paper, by [Arias-Pérez and Cepeda \(2019\)](#), which had been submitted to *MBR* through the journal's regular process, was also invited to participate in the review process for this special issue, given its topic adherence. This paper presents evidence about the mediating role of open innovation capabilities in the relationship between information technology capabilities and organizational agility. We hope that *MBR* readers will enjoy these papers and will join us (again) in future AIB-LAT conferences.

Within the following sections, we overview the historical context of Latin America and why it is an appropriate setting to examine the questions we have raised in the first introductory paragraph. Next, we discuss the relationships between IFDI, OFDI and openness. We then describe our research methods, before presenting our study results. We

conclude with a discussion of the results and their implications for both academics and public policy-makers.

Historical context of Latin America

Latin America is one of the most homogeneous regions in the world. It is more homogeneous than Asia, Africa or Europe (Gomez-Mejia and Palich, 1997). Latin American countries shared a similar colonial history that is reflected in similar languages and religion. Spanish and Portuguese are the dominant languages and Roman Catholic is the prevailing religion in the region. In fact, Latin America accounts for almost 40 per cent of the world's total Catholic population (Taylor, 2014).

Further, most Latin American countries obtained independence from their rulers (Spain and Portugal) almost at the same time (during the 1820s) and their original frontiers have remained relatively stable over time and have changed considerably less than in countries located in other regions (Bulmer-Thomas, 2003). Another link to their common colonial history is reflected in the legal framework; most Latin American legal systems are based on the Napoleonic Code (Vassolo *et al.*, 2011). However, during most of the Republican history, poor monitoring capacity of governments, weak enforcement of rules and even tacit collusion expressed in the form of corruption and informality have been the widespread norm in the region. For instance, while Godinez and Liu (2015) mentioned that corruption is deeply rooted in the region, Transparency International (2017) cautioned that its level has even risen recently. Similarly, Tornarolli *et al.* (2014) stressed the pervasiveness of labor informality in the region, with levels above 45 per cent during the past decade. While labor informality can be considered an isolated indicator of informality, De Soto (1989) argued that business informality can be considered the rule (in particular, among lower economic segments of the society).

Moreover, Latin American countries have followed a similar economic path of development based on their abundant access to natural resources. In particular, mining, petroleum and agriculture have been the most important commodities exported and represent the most important commercial links of Latin America with the rest of the world (Bulmer-Thomas, 2003). There is a strong similarity in the economic policies followed by most countries in the region. Between the 1950s and the 1970s, countries within the region adopted government-led economic policies with relative success. In this economic model, governments determine country investments and favor domestic industry through import substitution (Cuervo-Cazurra and Dau, 2009a, 2009b; Fraga, 2004). Nevertheless, both the destructive oil and debt crisis events during the 1970s triggered the exhaustion of the model, and by the 1980s, economic recession and stagflation were widespread within the region. In fact, the 1980s is often referred to as the “lost decade” (Santiso, 2003) to reflect the poor economic performance of the region as a whole.

Latin American countries were required to respond to their crisis by adopting a structural reform named “the Washington Consensus” if they were to receive financial help from international development aid agencies. During late 1980s and early 1990s, countries in the region simultaneously adopted pro-market reforms to improve macroeconomic conditions and to foster governance and economic liberalization (Fraga, 2004; Dau, 2012).

At the country level, there are several potential benefits associated with the adoption of pro-market reforms. Among others, they reduce transaction costs and institutional voids favoring market functioning through governance improvements, they increase competition in domestic markets fostering local firms to upgrade their capabilities to compete with foreign firms at home, and they expand opportunities of domestic firms to source and sell internationally and, consequently, improve efficiency in the domestic markets

(Cuervo-Cazurra, 2016; Cuervo-Cazurra and Dau, 2009a; Dau, 2012; Dau, 2018). For all the previously exposed reasons, Latin America has been considered a natural laboratory to analyze internationalization processes given the comparability across countries (Cuervo-Cazurra, 2007).

However, just after a decade of the adoption of pro-market reforms and despite these potential benefits, the validity of the new economic model has been questioned because of an unequal distribution of wealth and constraints on national sovereignty of states (Fraga, 2004; Meyer, 2017). Kim *et al.* (2010) explained that at early stages of institutional changes, a period of friction occurs characterized by a lack of alignment between the regulatory pillar and the more fundamental normative and cognitive pillars, and therefore, there is a risk of institutional reversals. Regarding openness and globalization in particular, Rodrik (2018), explaining the case of the political backlash among Latin American countries, argued that globalization processes exacerbate income disparities between upper and lower classes on the one side and between large corporations and multinationals versus the rest of society on the other. For instance, Oh *et al.* (2018) analyzed the conflicts between multinational mining companies and the communities where they operate in two Latin American countries. They found that companies need to address contextual underlying issues by establishing informal approaches of dialogue to understand local community concerns, aligning them with foreign direct investments' interests. This could contribute to preventing the risk of future institutional reversals and political backlashes.

Further, populist leaders can easily blame the causes of this distributional distress on the abrupt nature of economic liberalization, consisting of the adoption of International Monetary Fund (IMF) programs and a rapid trade opening with the entrance of foreign competitors.

In fact, attitudes toward openness and economic integration have been a source of distinction among countries in the region recently. For instance, Borda *et al.* (2017) argued about the existence of two alternative paths followed: one is associated with the Pacific Alliance membership (Chile, Colombia, Mexico and Peru) in South America and most notably Costa Rica in Central America, which have been consistently opening their borders and increasing their integration with the world economy. The other group led by Mercosur members – Argentina, Brazil, Paraguay and Uruguay – and also including Bolivia, Ecuador, Nicaragua and Venezuela have decided to reverse toward becoming relatively closed economies. Nevertheless, despite these country-level differences, reversal pressures in both groups have appeared and increased during election times. For instance, Brazil recently elected Jair Bolsonaro, a right wing president that favors economic integration with the rest of the world. On the other side, Mexico has elected Andres Manuel Lopez Obrador, a left wing president, who is expected to maintain Mexico's presence in its trade agreements but with a bigger participation of the government.

Inward foreign direct investment and outward foreign direct investment

In earlier stages of economic development, the economic progress of a country may depend on its capacity to attract IFDI. However, as posited by the development path theory (Dunning, 1982; Dunning and Narula, 1998), OFDI, on the other hand, may increase to relevant levels only after the firms of a country have accumulated enough ownership advantages (Dunning, 2001).

In fact, IFDI can stimulate local firms to engage in OFDI via multiple mechanisms, such as increased competition in the home market, the development of a more demanding domestic customer base and spillover effects. First, as firms sense that their local turf is being challenged by foreign competitors, they may want to go abroad (via exports or FDI) to

compensate for the loss of demand at home and as a way to retaliate against foreign competitors. However, to be able to successfully compete abroad, firms will need to develop competitive (ownership) advantages (Dunning, 1998).

Second, as local customers are served by foreign firms that bring better products or services, these customers may become more demanding, thereby forcing local firms to upgrade their offers if they want to remain competitive at home – and become competitive abroad as a natural consequence (Porter, 1990). Then, local firms may choose to serve customers abroad – either by exports or by FDI. Therefore, IFDI may promote OFDI. However, Li *et al.* (2012) cautioned that internal innovation as a strategy to upgrade capabilities is not necessarily an alternative for firms in emerging markets, given that they do not possess the required abilities and expertise to innovate, as signaled by the lack of qualified human capital both at the firm level and in the domestic economy as a whole.

The third mechanism to prompt local firms to undertake FDI is via upgrading their capabilities by means of spillover effects. Foreign multinationals (MNCs) will need to build local supply chains in the host country to secure inputs in due quantity and time (Li *et al.*, 2012). As a consequence, local firms that participate in relationships with these MNCs will be exposed to their technological standards, procurement processes and managerial and governance practices, which may prompt local firms to develop certain capabilities, a phenomenon known as spillover (Eden, 2009); spillover may be potentialized in the case of agglomerations, that is, clusters and business networks (Dunning and Lundan, 2008). In the context of emerging market firms, Li *et al.* (2012) argued that IFDI and OFDI can be considered imperfect substitutes for learning and upgrading capabilities, as domestic firms can take advantage of spillovers at home. At the firm level, Meyer and Sinani (2009) adapted the awareness, motivation and capability framework developed by Chen *et al.* (2007) to explain competitive tension and potential reaction against foreign competitors and further argued that the capacity to take advantage of spillovers is contingent on the level of (technological and managerial) development of the firms of the recipient country – an argument also forwarded by Blalock and Simon (2009) and Liu *et al.* (2009).

At the country level, the capacity of domestic firms to take advantage of available spillovers is dependent on the level of development of their home economies and on their openness to trade (Meyer and Sinani, 2009). Most Latin American countries are considered efficiently driven economies (Schwab, 2018) and characterized as middle income ones (Bulmer-Thomas, 2003; Schwab, 2011). In these types of markets, local firms not only should have already developed basic competencies to face foreign competitors at home, but also most probably target similar segments as foreign participants, providing an additional motivation to protect their firm-specific advantages. Given the level of development already reached, host country firms no longer benefit from demonstration effects to upgrade capabilities (Meyer and Sinani, 2009). Therefore, host country firms in Latin America will be aware of the local presence of foreign firms and they will have strong motivation to react and compete against these firms, but they will lack the capabilities to do so. We will next discuss the potential impact of trade openness on the ability to leverage benefits associated with IFDI.

Inward foreign direct investment, trade openness and economic sector impacts

Interestingly, trade openness may play a role in upgrading local firms' capabilities. Adoption of (and consistency of) pro-market reforms, which include trade openness and reducing transaction costs and institutional voids, thus favoring market functioning through governance improvements, may not be enough to encourage the

internationalization of a country's firms. However, this adoption may strengthen the relationship between IFDI and OFDI. Considering these points together, although there is evidence that trade and FDI are linked (Globerman, 2017), the impact of trade openness in stimulating OFDI directly or in strengthening the impact of IFDI on OFDI is not straightforward.

On the one hand, lower trade openness (e.g. tariff barriers) may "encourage inward FDI as a substitute for exporting from sourcing countries. As a result, [the absolute value of] spillovers associated with the presence of foreign-owned affiliates might actually increase" (Blomström *et al.*, 2001, p. 16), thereby nurturing opportunities for more spillovers. Alternatively, subsidiaries purely oriented to serve these relatively closed economies will be subject to lower quality and technical standards (Narula and Driffield, 2012) that may provide demonstration effects but not knowledge needed to internationalize. On the other hand, greater trade openness has been argued to attract higher value-added activities to recipient economies (Perri and Perruffo, 2016) and also to attract export-oriented firms, which will tend to use the host country as a platform for exports to other countries and, thus, may incorporate host country firms in their international networks and value chains (Kokko *et al.*, 2001). As a consequence, local firms would be compelled to upgrade their resource pools if they want to relate to the incoming MNCs. Besides, greater trade openness may open the eyes of local firms regarding potential opportunities to serve clients abroad (Aitken *et al.*, 1997), via export or FDI.

Further, trade openness may enable local firms to acquire new technologies that help them to absorb new knowledge (Hoekman *et al.*, 2005) and also to both develop learning capabilities and flexibility to adapt to changing local conditions (Keller, 1996). By upgrading their technological (even if not managerial) capabilities, local firms will be better prepared to leverage spillover effects (resulting from IFDI), increase their productivity levels and other core competencies and then successfully internationalize, including via OFDI (Cuervo-Cazurra and Dau, 2009a, 2009b; Dau, 2012). However, a contradictory argument about the impact of trade openness can be raised: trade openness may provide local firms with alternative means to access resources and knowledge without the need to leverage spillover effects, thereby making IFDI less relevant as a source of the technological know-how needed for firms to engage in OFDI.

Despite the ambiguous effects of trade openness on OFDI, it seems that there would be a net positive relationship, either direct or by moderating the effect of IFDI on OFDI. Interestingly, the effect of IFDI on OFDI may be contingent on the type of economic sector, as the potential for spillover effects, as well as opportunities to serve clients abroad by means of FDI, may be higher in some sectors than in others. In the natural resources sector, access to nature-endowed commodities is crucial, and therefore, a firm's advantage is location-bound. However, sectors such as mining, petroleum or agribusiness are normally associated with global value chains. The interaction of host country firms with companies that are part of global chains may promote resource-seeking FDI in production/extraction and even FDI in logistics facilities to serve foreign clients better. In the manufacturing sector, there seems to be greater opportunities for firms to join global value chains and, thus, engage in FDI, both for market-seeking and strategic asset-seeking purposes (Serafim, 2011). In the services sector, there may be interesting prospects, derived from advances in information technologies and telecom, to serve clients via offshoring and outsourcing arrangements (Strom *et al.*, 2016). Additionally, services have become an essential complement to many manufacturing activities. As long as some of these services demand physical facilities close to the clients, then FDI may be spurred. Overall, it seems that the

impact of IFDI on OFDI would tend to be greater for manufacturing than for natural resources or for services sectors.

To clarify the importance of these economic activities among Latin American countries, [Table I](#) presents the percentage of gross domestic product (GDP) by the type of sector in the 11 Latin American countries included in our sample: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela (UNCTAD, 2018).

Additionally, regarding the destination of OFDI, we follow [Rugman and Verbeke \(2004\)](#) and posit that firms would have fewer constraints to internationalize within their home region. Therefore, IFDI would be more likely to result in an increase in regional OFDI than an increase in the total amount of OFDI.

Methods

In line with the focus of this special issue, we examine the issues presented above in the context of Latin America. Below, we present our data sample, our research variables and our research method. Considering that this perspective piece aims to promote dialogue and discussion among scholars, we acknowledge that the results presented in the next section are exploratory in nature.

Data sources and sample

Our data came from multiple sources: IFDI and OFDI figures came from the Foreign Direct Investment in Latin America Report ([ECLAC - Economic Commission for Latin America and the Caribbean, 2018](#)) and the World Investment Report ([UNCTAD, 2018](#)), trade openness information came from [UNCTAD \(2018\)](#), corruption indexes were obtained from [Transparency International \(2018\)](#) and data on absorptive capacity came from the World Intellectual Property Organization – [WIPO \(2018\)](#).

We selected 11 countries within Latin America. We included countries that belong to the Andean Community, Mercosur or the Pacific Alliance (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela) that not only provide enough variability in terms of sizes of the economies, FDI flows and trade openness policies, but also together represent more than 90 per cent of the OFDI flows of the region over the past decade ([UNCTAD, 2018](#)). Data availability constrained the time span used in our analyses, especially the analyses associated with IFDI and corruption. For our measure of total IFDI, we initially collected data from 1980 to 2016. However, only 203 country-year observations were considered, given the data availability on one key variable of the region: corruption. We captured this with data from the Corruption Perception Index from 1995 to 2016. For our measure of IFDI per sector, we were able to collect data from 1999 to 2015. For these models, we considered 144 country-year observations for the analysis. Again, the lack of data on corruption affected the time span available for analysis.

Variables

[Figure 1](#) presents our conceptual model.

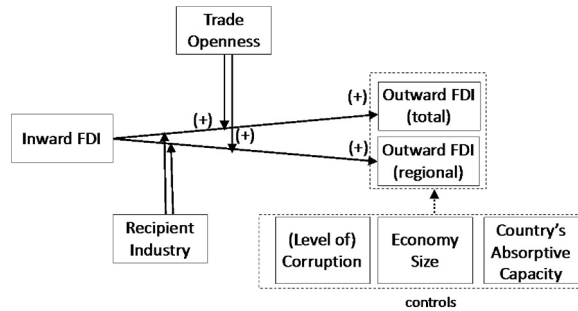
Dependent variable. We used two main dependent variables in our analyses. First, we used the total OFDI flows per country expressed in US dollars as a measure of internationalization at the country level. Complementarily, we used OFDI in Latin America expressed in US dollars as a measure of internationalization in the region per country. To compute this variable, we used the adaptation proposed by [Flores and Aguilera \(2007\)](#) by considering all countries in the Americas but the USA and Canada. We obtained these measures of international activity at the country level from [UNCTAD \(2018\)](#).

Country	Argentina	Bolivia	Brazil	Chile	Colombia	Ecuador	Mexico	Paraguay	Peru	Uruguay	Venezuela
Agriculture, hunting, forestry, fishing	6.66	13.37	5.19	4.20	7.07	10.20	3.58	19.96	7.35	5.69	5.73
Industry	25.80	30.42	22.58	32.78	32.00	33.80	32.50	29.79	33.76	26.77	36.49
Services	67.55	56.22	72.24	63.02	60.93	56.00	63.92	50.25	58.89	67.54	57.79
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: UNCTAD (2018)

Table I.
Percentage of gross
domestic product by
type of sector (2017)

Figure 1.
Conceptual model



Independent variables. Our main independent variable is the level of IFDI (per country), measured as the capital flows received by the focal country in a particular year expressed in US dollars as reported by UNCTAD (2018). We also captured the flows of IFDI broken down by sector – natural resources, manufacturing and services – expressed in million US dollars, as reported by ECLAC (2018).

Moderator. We used Trade Openness as our moderator. Following previous research, trade openness was calculated as total imports and exports as a share of GDP (Kolstad and Wiig, 2012). Data were collected from UNCTAD (2018).

Controls. We included home country factors that potentially may influence, positively or negatively, outward foreign investment. The factors included in the model are: level of corruption, size of the economy and absorptive capacity at the country level.

To capture *Corruption*, we considered the Corruption Perception Index developed by Transparency International (2018). The index varies from 0 to 100, where the 0 refers to a highly corrupt country, while 100 refers to a corruption-free economy. Given this variable's importance, we decided to restrict the time of analysis in our models to accommodate its inclusion. Transparency International reported data from 1995 to 2017. *Size of the Economy* was captured by GDP expressed in current US dollars in billions from UNCTAD (2018).

We use absorptive capacity, that is, a firm's "ability to recognize the value of new information, assimilate it, and apply it to commercial ends" (Cohen and Levinthal, 1990, p. 128) to represent the country's aggregated (across the country's firms) level of capabilities. To capture the Country's *Absorptive Capacity*, we considered the number of patents filed by each country each year. Patents have been considered a suitable measure for innovation capacity and technology of a country (Li et al., 2012). We collected patent information from the World Intellectual Property Organization website (WIPO, 2018).

We lagged all independent, moderator and control variables by one year because the impacts on OFDI (the dependent variable) may take some time to occur, given our arguments that local firms need to upgrade their capabilities before they commit to international markets (Lu and Beamish, 2001).

Model specification

We used panel data to test the relations of interest presented in this manuscript. We conducted the Breusch–Pagan Lagrange multiplier test to determine whether a pooled OLS regression model was appropriate. The results indicate that pooled OLS is not appropriate ($p < 0.001$). The Hausman test failed to reject the null hypothesis, suggesting the use of random effects models ($p < 0.4122$). Further, we tested for serial correlation and heteroskedasticity. We used the Wooldridge test for autocorrelation. The results ($p < 0.0652$)

failed to reject the null hypothesis of no first-order autocorrelation, and therefore, we do not need to correct for serial correlation. Finally, we tested for heteroskedasticity with the Wald test. The Wald test is highly significant, which means that we reject the null hypothesis (Panel Homoscedasticity in the model). Therefore, to test the relations proposed in this article, we use Feasible Generalized Least Squares (FGLS) and correct for Heteroscedasticity.

Results

Tables II and III present the correlation matrix and the summary statistics for the variables of interest. To check for multicollinearity, we analyzed variance inflation factors (VIFs). With the exception of IFDI in two models and economy size in three models, the remaining VIFs are less than 10, the standard cut-off point (Hair *et al.*, 1998). Given the relatively small number of countries in the analysis, the presence of a couple high VIFs might be expected. Table II presents the correlations and Table III presents the descriptive statistics of the variables.

Table IV presents the results of the main relations explored in this study. We first estimated the model with only controls as explanatory variables of OFDI. Our empirical evidence provides consistent results regarding the impact of the size of the economy on OFDI (both total FDI and regional FDI). The bigger the size of the host country, the higher the level of OFDI. The effect of corruption was important only when we analyzed OFDI within the region. We found a marginal positive effect in Model 4 ($p < 0.10$) and a positive effect in Model 6 ($p < 0.05$). It seems that corruption has a negative impact on OFDI within the region. Similarly, with regards to the absorptive capacity of the country, we failed to find a significant impact on total OFDI. However, we found a positive effect of patenting activity when we considered internationalization flows to the region in Models 4 ($p < 0.10$) and 5 ($p < 0.05$). It seems that the practical effects of exploiting intangible knowledge is restricted to the region, as suggested by Rugman and Verbeke (2004).

Regarding the effect of IFDI on total OFDI, we failed to find statistical evidence of a main effect in Models 1 and 4. However, when we split IFDI by sector, we found interesting patterns. We found that IFDI in natural resources is positively related with OFDI in both overall total flows and regional flows. It seems that Latin American countries base their international output in sectors related with their comparative advantage, as suggested by Cuervo-Cazurra *et al.* (2019). Further, surprisingly, the effect of IFDI in manufacturing has a consistent negative effect on OFDI. It seems that IFDI in manufacturing basically targets exploiting large domestic markets in the region. Apparently, incumbents in these host countries may be caching up in terms of capabilities but using their upgraded capabilities to compete at home as opposed to using their newly acquired capabilities to compete internationally. Interestingly, we found a positive effect of IFDI in the service sector on total OFDI ($p < 0.001$) but not on regional OFDI. This result is surprising given that Rugman and Verbeke (2008) claimed that firm-specific advantages make MNCs more regionally oriented and that the importance of such advantages would be higher in the case of services. Probably, large investments in telecoms, one of the most prominent service industries attracting FDI in Latin America, provide the required infrastructure to deploy businesses in other countries, irrespective of region.

We found statistical evidence of the moderating effect of trade openness. When considering total IFDI, we found a positive moderating effect of trade openness in Models 2 ($p < 0.01$) and 5 ($p < 0.05$). These results suggest that trade openness not only prepares domestic firms to absorb new knowledge but also provides them with opportunities that can be exploited above and beyond national boundaries.

Table II.
Correlation table

	1	2	3	4	5	6	7	8	9	10	11
1. IFDI	1										
2. IFDI – Natural resources	0.663**	1									
3. IFDI – Manufacturing	0.907**	0.504**	1								
4. IFDI – Services	0.873**	0.458**	0.803**	1							
5. OFDI – total	0.290**	0.209*	0.076	0.205*	1						
6. OFDI – regional	0.389**	0.460**	0.302**	0.481**	0.806**	1					
7. Level of corruption	0.202**	0.295**	0.254**	0.318**	0.026	0.309**	1				
8. Economy size	0.923**	0.550**	0.931**	0.821**	0.332**	0.447**	0.148*	1			
9. Country's absorptive capacity	0.630**	0.486**	0.848**	0.766**	0.156**	0.465**	0.252**	0.701**	1		
10. Trade openness	-0.101*	-0.285**	-0.282**	-0.310**	0.106*	-0.144	-0.024	-0.193**	-0.294**	1	
11. IFDI * Trade openness	0.881**	0.534**	0.782**	0.805**	0.454**	0.499**	0.252**	0.795**	0.551**	0.081	1

Notes: ** $p < 0.01$; * $p < 0.05$

	N	Min	Max	Mean	SD	VIF					
						OFDI Model 1	OFDI Model 2	OFDI Model 3	OFDI regional Model 4	OFDI regional Model 5	OFDI regional Model 6
1. IFDI	406	-0.983	96.152	5.576	11.784	7.16	11.07	1.49	9.13	11.46	1.76
2. IFDI – Natural resources	158	-1,958.000	20,251.000	2,316.380	3,615.159			1.49			1.76
3. IFDI – Manufacturing	158	-657.000	42,425.000	4,137.386	8,216.655			8.87			9.55
4. IFDI – Services	158	-461.000	34,545.000	5,026.354	6,827.269			3.31			3.30
5. OFDI	375	-12.434	28.202	1.214	3.603						
6. OFDI Latin America	124	-258.400	9,605.530	1,049.630	2,012.275						
7. Level of corruption	227	1.500	74.000	12.286	17.452	1.11	1.13	1.27	1.18	1.29	1.39
8. Economy size	406	3.520	2,616.156	215.921	387.787	8.66	8.66	9.93	12.21	12.43	14.38
9. Country's absorptive capacity	406	0.000	1,591.000	147.052	264.010	3.28	3.35	4.27	3.40	3.41	3.38
10. Trade openness	406	0.126	1.240	0.441	0.204	1.16	1.58	1.23	1.23	1.41	1.30
11. IFDI * Trade openness	405	-0.321	30.666	2.221	4.443		5.36			5.02	

Table III.
Descriptive statistics

Table IV.
Regression results

	Model 1 OFDI	Model 2 OFDI	Model 3 OFDI	Model 4 OFDI regional	Model 5 OFDI regional	Model 6 OFDI regional
Constant	-0.0948	0.8125	-2.315016	-477.3523	-432.6659	-803.6496
1. Level of corruption	0.6100	0.4089	0.857143	244.5325	249.9144	247.6221
	-0.0089	-0.0087	-0.0083502	105.7907*	93.20444	171.106**
	0.0078	0.0059	0.0141537	62.67312	58.376	80.56014
2. Economy size	0.0024368*	0.0011	0.0073866***	1.698629***	1.599465***	2.271436***
	0.0013	0.0012	0.0018897	0.4921017	0.4597749	0.5633042
3. Trade openness	0.5908	-1.309579*	3.91179***	262.8471	210.5	424.8415**
	1.1557	0.7033	1.455944	188.2545	247.953	166.3345
4. Country's absorptive capacity	0.0003	-0.0005	-0.0013388	1.206745*	1.405615**	1.11519
	0.0011	0.0010	0.0018659	0.705815	0.6965256	0.8406446
5. IFDI	0.0495	-0.1601446***		-0.4312698	-66.13195*	
	0.0396	0.0616		19.33929	38.62596	
6. IFDI – Natural resources			0.0002441***			0.1175575**
			0.0000809			0.0506653
7. IFDI – Manufacturing			-0.0004672***			-0.1496975**
			0.0001253			0.0749915
8. IFDI – Services			0.0002498***			0.0416186
			0.0000094			0.0480641
9. IFDI * Trade openness		0.6444643***			162.3291**	
		0.1336			78.96816	
N	202	202	144	121	121	103

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

Discussion and conclusion

In this perspective article, we explored the nature of the impact of IFDI on the capacity of the recipient country to compete abroad as expressed by its OFDI flows. Our results suggest that the impact of IFDI is not straightforward. In fact, there seem to be several contingent factors that may affect such relation. Considering the backlash that globalization is suffering in the world (Cuervo-Cazurra *et al.*, 2017), with nationalism movements such as Brexit or the election of Donald Trump and his “Make America Great Again” promoting protectionism (Globerman, 2017) and the particular populist and nationalist movements that have recently appeared in various Latin American countries against openness, we explored whether trade openness can be considered a suitable mechanism for home country firms to leverage potential spillovers provided by foreign entrants. We found evidence suggesting that the relation between IFDI and OFDI in Latin America is positively moderated by trade openness.

While trade openness has been associated with income inequalities within the region (although with mixed empirical results, Rivas, 2007; Jaumotte *et al.*, 2013; Daumal, 2013), FDI is still viewed in positive terms (Rodrik, 2018). This perspective article may help to reconcile these seemingly opposite perspectives. In view of our results, trade openness serves as a key determinant for firms from recipient countries to leverage available knowledge spillovers.

In fact, considering that demonstration effects are not enough to develop core competencies suitable to internationalize in middle income economies (Meyer and Sinani, 2009), country openness to trade may provide domestic firms with alternative mechanisms to upgrade their capabilities and to improve their chances to internationalize. Not only are domestic firms capable of obtaining knowledge and assistance from international vendors operating in the domestic firms’ home countries, but they also may tropicalize this knowledge and leverage it in both domestic and international markets. Further, access to international markets may provide domestic firms flexibility and resourcefulness to source intermediate products from more efficient markets that can prepare them to capture more complex types of spillovers and to internationalize later on.

Therefore, despite previous mixed results regarding the effect of trade openness on national welfare expressed as inequality at the country level (not explicitly addressed in this paper; Rivas, 2007; Jaumotte *et al.*, 2013; Daumal, 2013), there may be a positive indirect effect associated with trade openness in regards to job creation and poverty alleviation. As mentioned, trade openness may provide domestic firms a mechanism to be more competitive. This may have an impact on national welfare as well. For instance, consider the case of the more open countries in the region, such as the economies of the Pacific Alliance members. According to the World Bank (2018), Colombia has decreased poverty by almost 20 per cent between 2002 and 2017. Similar impressive results have been recorded in Chile and Peru. To enable the development of more competitive firms capable of leveraging international opportunities requires a large pool of talent that at least initially may be obtained from the resource pool at home. Therefore, while income inequality is an important aspect to be considered when evaluating national policies, equally important is the capacity to generate jobs and to reduce poverty.

We also discovered interesting patterns regarding the effects of IFDI per sector. We found evidence of a positive effect of IFDI on OFDI in the natural resources sector. According to Bulmer-Thomas (2003), primary sectors like agriculture and mining represent the strongest link of Latin American countries with the rest of the world. A plausible explanation for this positive impact on OFDI may be the participation of foreign firms in global value chains that provides domestic firms with international standards, procedures

and access to international markets. Relevant examples of regional MNCs that may provide face validity to our claims may be the cases of Vale (Brazil), Juan Valdez (Colombia) and even Resemin (Peru). Consistent with the positive impact on overall OFDI, the effect of IFDI in the natural resources sector is also positive and significant in predicting OFDI within Latin America, which reflects the historically dependence on commodities and natural resources that has characterized the region.

A surprising finding in our analysis is the negative effect of IFDI on OFDI (in both overall and regional flows) in the manufacturing sector. Given that manufacturing investment requires the construction of a reliable network of suppliers and customers, it is expected that foreign firms constantly interact with domestic ones, generating spillovers capable of being captured and leveraged by indigenous companies. However, as [Narula and Driffeld \(2012\)](#) caution, preventative moves of foreign firms may prevent the generation of relevant spillovers. Further, it is possible that local subsidiaries may not possess the same firm-specific advantages that their headquarters possess, reducing the possibility of generating spillovers which could be used by local firms to develop international activities. Given that our data capture country-level flows and not characteristics at the firm level, this result suggests an area for future research.

Finally, we found a positive impact of IFDI on total OFDI in the services sector, but failed to find significant results on OFDI within Latin America. Considering that most firms are regionally oriented ([Rugman and Verbeke, 2004](#)) and that service firms are more geographically constrained than their manufacturing counterparts ([Rugman and Verbeke, 2008](#)), these results may be counter intuitive. Similarly, psychic distance reasoning would suggest that increases in regional OFDI would be expected to be higher than increases in total OFDI. Why did we not find this pattern? Our results may reflect the fact that IFDI in services in the region has included significant investments in the telecom industry ([Treviño and Mixon, 2004](#)), and thus, a plausible explanation may be associated to some characteristics associated with knowledge-intensive services. For instance, the relevant market for knowledge-intensive service firms tends to be developed countries or large emerging economies, suggesting the need to escape the region and operate more globally. Similarly, embeddedness in knowledge centers can be considered a requirement to operate on a global scale. Latin American firms would like to collocate in knowledge centers to benefit from cluster effects in developed economies or being noticeable to potential clients as well. Therefore, there would be a strong incentive to operate outside Latin America in this type of business. Considering that we have data only at aggregate levels, this pattern also indicates an area for future research.

Looking at our control variables, we found an interesting contrast with absorptive capacity having a significant impact on regional OFDI but not for total OFDI. We speculate that absorptive capacity may have two roles. First, it potentially serves as a mediating mechanism; that is, it may result from spillover effects from observing and interacting with foreign firms investing in the local market. These may be easier to obtain in relation to knowledge applicable to the Latin American region, given the difficulties associated with spillovers in emerging markets noted earlier. Second, it may be a direct determinant of OFDI, irrespective of IFDI, as local firms need to have knowledge – of several natures: technical and managerial – and also motivation to invest in absorbing foreign technologies and skills as they “spill over” ([Blomström et al., 2001](#)). The development of such skills and motivation can be promoted by local governments.

We also note some potential explanations for the non-significant findings. Of particular importance is the fact that the impact of IFDI on OFDI may take some time to materialize to allow indigenous firms to upgrade their knowledge resource pool (via spillover effects). As

such, future research may explore different time lags. Additionally, the relatively small number of countries in the region may influence the limited significance of some variables in our models.

Given the increasing debates about globalization occurring not only in Latin America but also on a global basis, the results of our exploratory study should be of interest to both academics and practitioners alike. Academics should be encouraged to develop more sophisticated models regarding the various effects of trade openness on OFDI. They should further shape these models to include both regional versus global effects to understand the boundaries of trade openness, along with variables that may occur as a result of firms operating in certain industries. Government officials can use these results as input for developing policies that address the level of trade openness of a country. While our analyses were at the country level, companies may also take note of the potential impacts of trade openness policies on their abilities to capture spillover benefits.

Additionally, while we hope that this perspective article sparks further inquiry into the important topic of country openness, both in the context of Latin America and in more global settings, we also hope that it creates interest in the other articles within this *MBR* special issue on Latin America, which originated from some of the best papers and panels presented at the 2017 conference of the Academy of International Business Latin America Chapter (AIB-LAT). Please enjoy these articles, which we believe provide significant insights regarding the importance of the Latin American region.

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