

How Effective is Investment Promotion? Firm-Level Evidence

Christian Volpe Martincus
Jerónimo Carballo
Ignacio Marra de Artiñano
Juan Blyde

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How Effective is Investment Promotion? Firm-Level Evidence*

Christian Volpe Martincus
Inter-American Development Bank

Jerónimo Carballo
University of Colorado Boulder

Ignacio Marra de Artiñano
Inter-American Development Bank

Juan Blyde
Inter-American Development Bank

Abstract

In this paper we present evidence on the impact of investment promotion activities on multinational firms' location decisions using -for the first time to our knowledge- firm-level data. In particular, we carry difference-in-differences estimations on data on the establishment and location of affiliates of multinational firms and assistance to these firms by the national investment promotion agency in Costa Rica and Uruguay over the period 2000-2016. Estimation results suggest that investment promotion has been effective in attracting affiliates of multinational firms. Further, this effect is stronger on firms headquartered in developed home countries.

Keywords: Information Barriers, Investment Promotion, Multinational Firms

JEL-Codes: F23, F13, F14

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Corresponding Author: Christian Volpe Martincus, Inter-American Development Bank, Stop W0610, 1300 New York Avenue, NW, Washington, DC 20577, United States of America. E-mail: christianv@iadb.org. Tel: +1 202 623 3199.

1. Introduction

All countries around the world have implemented policies to attract foreign direct investment (FDI). Investment promotion activities by dedicated agencies (IPAs) stand out among them (see, e.g., Alfaro and Charlton, 2007; and Harding and Javorcik, 2011; 2012; and 2013). In fact, the number of these agencies has substantially increased in recent decades. The median IPA manages a budget of US\$7 million, has 100 employees, and performs roughly 40 different promotional activities, but resources available to IPAs in certain countries can exceed US\$200 million and 1,000 employees (see Volpe Martincus and Sztajerowska, 2019).

Our paper addresses two main questions: Has investment promotion significantly affected the likelihood that multinational firms establish an affiliate in the respective country? To what extent the effects of investment promotion are heterogeneous across firms, sectors, and countries? In answering these questions, we primarily apply a difference-in-differences strategy to identify the effects of investment promotion activities by Costa Rica's and Uruguay's national investment promotion agencies on multinational firms' location decisions and use a unique dataset that combines data on distribution of foreign affiliates across countries including information on the main sector and the year of establishment and data on assistance by those agencies to multinational firms over time.

This study relates to a growing number of papers that have analyzed the patterns, determinants, and implications of FDI and multinational production (see, e.g., Yeaple, 2003; Antràs et al., 2009; Alfaro and Charlton, 2009; Chen and Moore, 2010; Antràs and Yeaple, 2013; Irarrazabal et al., 2013; Egger et al., 2014; Ramondo, 2014; Ramondo et al., 2015; Conconi et al., 2016; Alviarez, 2019; Garetto et al., 2019; Head and Mayer, 2019). We complement these papers by explicitly assessing the role of a widely used public policy, namely, investment promotion, in shaping these patterns.

In so doing, the study also adds to a series of papers that have specifically examined the impact of investment promotion in different settings. Broadly speaking, two main approaches have been followed to proxy investment promotion: a binary variable indicating the existence of an IPA or an office of an IPA in the host or in the home country and IPA's sectoral targeting strategies. As defined here, Head et al. (1999) associate investment promotion with the existence of an office of an US state in Japan to explore its impact on the distribution of Japanese manufacturing firms' FDI across these states between 1980 and 1992. The estimates of the specification derived from a location choice model indicate that US investment promotion offices did not appear to have been effective in attracting FDI from Japan. According to the authors, a possible explanation of this result is that Japanese investors may have been already well informed

about the states, in which case information provided by the agencies would not have made a difference. In contrast, working with a sample of eight home countries and using a linear dynamic panel estimator, Bobonis and Shatz (2007) find that state offices in these countries did influence FDI into US states between 1976 and 1996.¹ Hayakawa et al. (2014) also assess the effects of investment promotion but through the presence of offices of an IPA in potential countries and accordingly focusing on outward FDI from Japan and Korea. Their results reveal that such a promotion had a positive effect, but limited to politically risky economies. Based on a similar proxying approach, Ni et al. (2017) examine instead whether city-level investment promotion as captured by the presence of an IPA in the city leads to more firm-level and city-level FDI in China over the period 2002-2007. Using a first-difference two stage least square estimation, they find that so-measured investment promotion has no significant impact on new FDI in either level. Most IPAs target some sectors (see Charlton et al., 2004). These are sectors in which their countries have comparative advantage and sectors that allow for diversification, thereby bringing new technologies and skills to the host economies (see Alfaro and Charlton, 2007). Changing countries' sector targeting has been used to identify the impact of investment promotion on FDI inflows (see Charlton and Davis, 2007; Harding and Javorcik, 2011). It has also been used as an instrument to identify the effects of sectoral FDI on sectoral growth (see Alfaro and Charlton, 2007). These studies apply a difference-in-differences strategy on host country-sector-year data, while controlling for host country-sector, home country-year, and sector-year fixed effects, and home country, sector, and year fixed effects, respectively. Results from these empirical examinations indicate that FDI inflows has been larger in those prioritized sectors. For instance, based data of sectoral FDI from the US over the period 1990-2004, estimates reveal that targeted sectors received 155 percent more FDI after being targeted, which translated into an additional annual inflow of 17 million for the median county-sector combination and that the effects are more pronounced in countries where information barriers and transaction costs are higher (see Harding and Javorcik, 2011). Available analyses further suggest that IPAs that handle investors' inquiries in a more professional manner and have higher-quality websites attract larger volumes of FDI (see Harding and Javorcik, 2013).

While certainly insightful, the existing literature has limitations, which makes the evidence on how investment promotion affects firms' location decisions at best preliminary. In particular, identification of the effects of interest relies on cross-country-sector variation. This identification strategy has the drawback that unobserved time-varying

¹The countries used in this study are Australia, Canada, France, Germany, Japan, the Netherlands, Switzerland, and the United Kingdom.

country-sector characteristics that are relevant for investment and potentially correlated with investment promotion are not satisfactorily controlled for.

We contribute to this existing literature in multiple ways. First, we characterize, to our knowledge for the first time, the extensive margin of public interventions specifically designated to attract multinational firms, i.e., absolute and relative numbers of these firms supported through investment promotion activities.

Second, we assess, also to our knowledge for first time, the effectiveness of investment promotion using firm-level data on both location decisions and assistance statuses. Unlike studies based on aggregate data, we can specifically observe all four possible combinations of policy treatments and outcomes: assisted multinational firms that locate in the host country, assisted multinational firms that never locate in the host country, non-assisted multinational firms that locate in the host country, and non-assisted multinational firms that never locate in the host country. As a consequence, we can precisely account for the non-observed time-varying country-sector factors referred to above and thereby reduce the risk of potential endogeneity biases. Third, we examine the heterogeneous effects across groups of firms. Since activities performed by IPAs mainly aim at ameliorating informational problems, it can be expected that these activities have the largest impact when these problems are more important. Thus, the effect of their actions is likely to be larger on firms from home countries that are more distant or where a different language is spoken and operating in sectors with more differentiated products.

The remainder of this paper is organized as follows. Section 2 provides a background on investment promotion in our country case studies. Section 3 describes the dataset and presents descriptive evidence. Section 4 explains the empirical strategy. Section 5 discusses the estimation results, and Section 6 concludes.

2. Investment Promotion in Costa Rica and Uruguay²

2.1. Costa Rica

CINDE is Costa Rica's national IPA. It was established in 1982 as a private organization whose unique mandate is to promote inward FDI and is headquartered in San Jose. Its highest governing body is the Board of Directors, which is exclusively composed of nine representatives from the private sector. In addition to the board, CINDE's

²This section is based on the IDB-OECD survey to investment promotion agencies (see Volpe Martincus and Sztajerowska, 2019).

organizational structure consists of a general manager and four departments which are responsible for: investment promotion, research, international affairs, and after-care.

As of 2016, the agency's budget was \$4.7 million. Around 42% of the budget was provided directly by the public sector through the Ministry of Foreign Trade. The contributions from the private sector amounted to approximately 30% of this budget and the remaining part are resources coming from Costa Rica's national trade promotion organization, PROCOMER. CINDE had 47 employees, most of whom had previous experience in the private sector in general and in multinational firms in particular and speak a foreign language. More than three quarters of the financial resources and the personnel were assigned to the typical core investment promotion functions, investment generation and investment facilitation and retention.

In promoting FDI into Costa Rica, CINDE carries out multiple activities including analysis of relevant raw data; production of market studies; attendance and organization of events such as sectoral fairs, exhibitions, and missions both in the country and abroad and bilateral meetings with potential investors; provision of assistance to define the investment project, to complete administrative procedures, to resolve emerging issues after investment, to match with local firms and to train and recruit local personnel; and policy advocacy actions such as investment climate monitoring and formal and informal suggestions to the government on how to improve such a business climate. Virtually all the associated services to multinational firms are provided free of charge.

2.2. Uruguay

URUGUAY XXI is Uruguay's national trade and investment promotion agency. It was created in 1996 as a public-private organization tasked with promoting exports and inward FDI, although it only started to actually assist multinational firms in 2009. URUGUAY XXI and its headquarters are located in Montevideo. The agency's highest governing body is the Board of Directors, which has 11 members: a president (Ministry of Foreign Affairs), five representatives from the public sector (Ministry of Finance; Ministry of Cattle Raising, Agriculture, and Fisheries; Ministry of Industry, Energy, and Mining; Ministry of Tourism; and Ministry of Education and Culture), three representatives from the private sector (National Chamber of Commerce and Services, Uruguay's Exporters Union, and Uruguay's Rural Association), and two representatives from the civil society (Inter-Union Plenary of Workers-National Convention of Workers and National Institute of Cooperativeness). URUGUAY XXI's organization structure is completed with an executive director, a general manager, and seven departments (areas): export promotion, investment promotion, global services, competitive intelligence,

country brand, image and communication, and administration and finance.

In 2016 the agency's budget amounted \$3.8 million. All the budget is provided directly by the public sector through the Ministry of Finance. URUGUAY XXI had 43 employees in total. As with CINDE, most of the employees responsible for promoting FDI had previous experience in the private sector in general and in multinational firms in particular and speak a foreign language.

URUGUAY XXI promotes FDI by performing a range of activities similar to that of CINDE and such assistance is also costless to multinational firms.

3. Data and Descriptive Evidence

Our dataset consists of several databases including Dun and Bradstreet (DB)'s World-Base (see, e.g., Alfaro and Chen, 2012 and 2014) and databases which were kindly shared with us by the CINDE and URUGUAY XXI.

The WorldBase furnishes us with data on home country, year of establishment and sector of activity for all multinational firms operating worldwide as well as data on location -i.e., host country-, year of establishment, and sector of activity for each of its affiliates. In 2016, the Worldbase included about 260 million public and private firms. Most of these firms are stand-alone businesses with no formal linkages to other companies. We will work with the sub-group of all parent firms that have at least one subsidiary or branch in a different country (i.e., roughly 200,000 firms).

The databases from CINDE and URUGUAY XXI also provide us with data on starting year, sector of activity, and operation regime (i.e., free trade zones vs. customs territory) for the foreign affiliates established in the corresponding country and, in addition, with a list of all multinational firms assisted by the agency each year over the period 2000-2016, and the nature of the service (either reactive-initiated by the firm or proactive-initiated by the agency).

These databases have been merged using firms' names. These names generally differ in the databases. This could be due to the type of business structure or due to spelling. To deal with these issues, we first harmonize firms' names in each database separately. In particular, we modify the procedure in Bessen (2009).³ Second, we use a fuzzy matching algorithm to compare the harmonized names across datasets.⁴

³This procedure was designed to match US patent data with COMPUSTAT data. The procedure consists of several steps. In a first step, we get rid of special and punctuation characters and conjunctions. In a second step, we replace business structures by their acronyms. In a third step, we eliminate from the firm's name all the abbreviations generated in the second previous step. We do this in order to match those firms that appear with their corresponding business structure in one database but not in the other or firms that appear with different business structures in each database.

⁴We use a command called *matchit* written in STATA by Julio D. Raffo. The algorithm splits the names into

Table 1 shows the total number of multinational firms established in Costa Rica and Uruguay, the three main sectors of activity and the three main home countries of these firms as defined based on the respective shares in the aforementioned total number of firms, and the number of these firms assisted by the respective national investment promotion agency, CINDE and URUGUAY XXI, in each year of our sample period. The number of multinational firms located in Costa Rica and Uruguay roughly doubled from 2000 to 2016 reaching 465 and 1,420, respectively. In Costa Rica, most multinational firms operate in the financial services (64), wholesale trade (46), and office administrative, office support, and other business support activities (82) sectors and are headquartered in the United States, Panama, and the United Kingdom, whereas in Uruguay firms predominantly belong to the financial services (64), whole sale trade (46), and crop and animal production (01) sectors and Argentina, the United States, Spain, and Brazil are their main origin countries.

The number of multinational firms assisted by the IPAs grew more than proportionally in these years.⁵ Thus, in the case of Costa Rica, this number increased from approximately 4% in 2000-2003 to 35% 2013-2016 as a percentage share of the total number of firms established in the country. In Uruguay, this percentage share shows a similar evolution. It started on average around 6% in 2009-2012 when the agency began to promote investment and moved up to 20% in most recent years.

4. Empirical Methodology

We primarily aim at estimating the effects of investment promotion assistance on multinational firms' decisions to establish affiliates in the host country. This requires to properly account for other relevant observed and unobserved factors such as multinational firms' size, changing countries' comparative advantages, time-varying, pair- and sector-specific trade policies that may affect both location decisions and use of investment promotion services. In so doing, we use the following baseline general empirical linear probability model:

$$\mathbb{I}(A)_{\text{fhst}} = \sum_{k=0}^K \alpha_k \mathbb{I}(\text{IPA})_{\text{fhst-k}} + \sum_{j=1}^J \sum_{k=1}^K \beta_k^j X_{\text{fhst-k}}^j + \lambda_{\text{fhs}} + \rho_{\text{hst}} + \varepsilon_{\text{fhst}} \quad (1)$$

bigrams, which are sequences of two adjacent moving characters. For each standardized firm name in one database, the algorithm finds the best match (or group of matches) in the other standardized database, up to a similarity score of 80%. The final step is a clerical review to validate the matches that are a 100% similar and to decide on the matches that are in a range of 80% to 99% of similarity.

⁵These figures include all assisted multinational firms that either located or have not located in these host countries.

where $\mathbb{I}(A)_{fhsst}$ is a binary indicator that captures presence, the establishment of a first affiliate, the establishment of subsequent affiliates (reinvestment) of a parent firm in the host country. More precisely, in the first case, the binary indicator takes the value of one if parent firm f operating in sector s from home country h has an affiliate in the host country in question (i.e., Costa Rica or Uruguay) in year t and zero otherwise; in the second case, it takes the value of one if parent firm f operating in sector s from home country h establishes an affiliate in the host country in year t and zero otherwise; and, in the third case, it takes the value of one if parent firm f operating in sector s from home country h which already has at least one affiliate in the host country establishes an additional affiliate therein in year t and zero otherwise. In an alternative specification, we use as a dependent variable a measure of within country extensive margin, namely, the number of affiliates of parent firm f in the host country in question in year t . $\mathbb{I}(\text{IPA})_{fhsst(-k)}$ is a binary indicator that takes the value of one if the parent firm f operating in sector s from home country h was assisted by the national investment promotion agency CINDE in year $t(-k)$ and zero otherwise, where $k \neq 0$ allows for non-contemporaneous supports to affect the outcome variable. The coefficient on $\mathbb{I}(\text{IPA})$, α , is accordingly our parameter of interest. If $\alpha > 0$ ($\alpha = 0$), then investment promotion support has a positive (no) impact on probability that a multinational firm establishes or increases its number of affiliates in Costa Rica.

The remaining terms of Equation (1) correspond to control variables. Thus, $X_{fhsst-k} = \{X_{fhsst-1}^1, \dots, X_{fhsst-K}^J\}$ is set of up to three lags of time-varying firm-level characteristics including the parent firm's total number of affiliates, total number of countries in which the parent firm is present -which can also be considered a proxy for productivity (see, e.g., Helpman et al., 2004; Yeaple, 2009; and Chen and Moore, 2010)-, and number of sectors in which the parent firm operates (across affiliates). λ_{fhs} and ρ_{hst} are sets of firm-home country-sector fixed effects and home country-sector-year fixed effects, respectively, that control for both time-invariant firm-specific factors and standard bilateral gravity variables such as distance, common language, and common border between Costa Rica and Uruguay and the home country as well as for time-varying (host country-)home country-sector factors including market size; Costa Rica's and Uruguay's productivity growth and changing comparative advantages in given sectors (e.g., relative skilled labor endowments), sector-specific policies, and differences in business cycles; the number of affiliates from the home country operating in Costa Rica and Uruguay; share of those firms that were assisted by the IPA; sectoral and actual country IPA's prioritization; potential information spillovers across parent firms in given sectors and home countries; exchange rates; trade-related procedures (i.e., port handling and customs processing times); transport costs and tariffs (see, e.g., Alfaro

and Chen, 2018); preferential trade agreements, bilateral investment treaties, double taxation treaties, and tax rates differentials between Costa Rica and Uruguay and the home countries. ε is the error term.

The baseline equations assume that the effect of investment promotion on firms' location decisions is symmetric across types of firms, home countries, and sectors. However, there are reasons to believe that these effects may differ among groups of firms, countries, and sectors, in which case such a restriction would not hold. Thus, for instance, impacts can be larger for more distant and thus less familiar home countries (see, e.g., Huang, 2007) or in sector with higher degree of differentiation and lower degree of contractability (see, e.g., Antras and Yeaple, 2013). Hence, we also generalize this equation to explore the existence of heterogeneous effects across those groups as follows:

$$\mathbb{I}(A)_{\text{fhst}} = \sum_{l=1}^L \sum_{k=0}^K \alpha_k^l \Phi_1 \mathbb{I}(\text{IPA})_{\text{fhst-k}} + \sum_{j=1}^J \sum_{k=1}^K \beta_k^j X_{\text{fhst-k}}^j + \lambda_{\text{fhs}} + \rho_{\text{hst}} + \varepsilon_{\text{fhst}} \quad (2)$$

where l indexes the groups of firms, home countries, or sectors; and Φ_1 is the corresponding group indicator.

Standard errors will be clustered by firm for inference purposes, thus allowing for an unrestricted covariance structure over time within firms, which may differ across them.

5. Estimation Results

5.1. Baseline Estimates

Tables 2 and 3 report OLS estimates of alternative specifications of the baseline Equation (1), which only consider contemporaneous support and incorporate varying sets of fixed effects and firm-level covariates to control for different sources of heterogeneity. In particular, Row 1 to 4 present the estimated impact of investment promotion assistance on the probability that a multinational firm is present in the host country (*Presence*), the probability that a multinational firm establishes a first affiliate in the host country (*Establishment*), the probability that a multinational firm that is already present in the host country establishes an additional affiliate their (*Reinvestment*), and multinational firms' affiliate extensive margin (*Number of Affiliates*), respectively. Moving from Column 1 to Column 7, we start with a specification without fixed effects and then sequentially include fixed effects and variables capturing firms' characteristics that account in increasingly granular ways for time-varying confounding factors: firm and year fixed effects; firm, home country-year, and sector-year fixed effects; firm and home country-sector-year fixed effects; and, finally, firm and home country-sector-year fixed effects

along with firms' attributes lagged one year, up to two years, and up to three years. Estimates, which are consistent across these various specifications, indicate that assistance from the national IPA has had a positive and significant effect on both the presence and the establishment of multinational firms in both Costa Rica and Uruguay. As for the firm-level covariates, the multinational firms' number of affiliates and host countries seem to be positively associated with all three investment outcomes, while, if anything, the opposite holds for the number of sectors. Thus, according to our baseline (Column 7), investment promotion support has been associated with an increase of 5 to 22 percentage points in the probability that a multinational firm is present and of 1 to 12 percentage points in the probability that it establishes an affiliate in the host country. Assistance from the IPAs also appears to have positively and significantly affected the total number of multinational firms' affiliates in the host country but does not seem to have made a difference in terms of reinvestment -as strictly defined as addition of a new affiliate- by multinational firms already located in our sample countries.⁶

Table 4 shows estimates of alternative, more general specifications of Equation (1), which additionally include lagged investment promotion assistance status. While the estimated impact of their lags is non-significant, that of contemporaneous assistance remains positive and significant across outcome measures and host countries and, specifically, is similar in terms of magnitude when compared to their counterparts reported in Table 1.

5.2. Robustness

Our difference-in-differences identification approach relies on the parallel trend assumption, i.e., investment promotion should not be associated with any difference in location behavior between assisted multinational firms and non-assisted multinational firm before such an assistance takes place. The plausibility of this identifying assumption can be assessed by regressing current location decisions in future support from the national IPA. In particular, we use data over the period 2000-2008 excluding those multinational firms that were assisted in these years to conduct a falsification exercise whereby we assume that firms assisted in 2009-2016 -the period with the largest number of supported firms in both countries- were instead assisted in 2000-2008.⁷ These placebo estimates are shown in Table 5 along with those for the respective real sample,

⁶All estimates are similar for Uruguay (and Costa Rica) when we restrict the sample period to 2008-2016, i.e., from one year before the agency started to assist multinational firms to the last year for which we have data. For ease of exposition, we decided to keep the period symmetric across host countries.

⁷This holds by definition in Uruguay as no investment promotion assistance was provided in these years.)

as obtained from essentially the same set of firms. Reassuringly, almost none of the former estimated coefficients are significantly different from zero, but the latter are.⁸

Further, a specific important threat to our baseline estimation strategy is that multinational firms can self-select into investment promotion assistance. In other words, firms that are already interested in investing in the country for some reasons approach the respective national agency and end up receiving its support. While our sets of fixed effects and time-varying firm-level covariates go a long way in neutralizing factors that can lead to such a self-selection, regrettably they cannot rule them out. In order to assess to whether and to what extent this is a concern, we use information from the investment promotion agency's CRM system which allows us to distinguish assisted multinational firm among those which contact the agency (*services initiated by the firm*) and those which were contacted by the agency (*services initiated by the agency*). CRM stands for customs relationship management. Conditional on the host country- and sector-time fixed effects, which account for agencies' sector and country prioritization practices, and on time-varying multinational firms' characteristics, which control for prioritization of specific types of investors (see Harding and Javorcik, 2011; and Volpe Martincus and Sztajerowska, 2019), it can be argued that there is no systematic bias in agencies' approaching of firms and thus the treatment could be considered essentially random (see Munch and Schaur, 2018). Table 6 reports estimates of a variant of Equation (2) whereby we allow for different effects of investment promotion precisely depending on whether the firm approached the agency or the agency approached the firm. These estimates reveal that agency-initiated investment promotion, which can be considered less subject to self-selection concerns, has had a positive and significant effect on presence, establishment and the affiliate extensive margin in both countries, thus corroborating our initial findings.

Admittedly, investment promotion is one among various policy instruments governments resort to to attract multinational firms to their territories. The possibility to locate in free trade zones and accordingly receive fiscal and even financial incentives is a prominent widely used tool. In fact, both Costa Rica and Uruguay have free trade zones where several multinational firms are established. The question then arises of whether it is the assistance from the agency or the more favorable tax and customs regime that is inducing multinational firms to open an affiliate and be present in the host country. In order to assess whether this potential confounding factor is contaminating our results, we exploit information on free trade zone status and re-estimate Equation (1) on the sample of firms that have no affiliates in a free trade zone. Estimates are reported in

⁸The only exception is the estimated coefficient on IPA for the number of affiliates. This may reflect that the agency has been assisting several firms already established in the country.

Table 7. These estimates indicate that, while relatively smaller, investment promotion assistance has had a direct, independent positive impact on presence, establishment, and number of affiliates.

5.3. *Heterogeneous Effects*

Investment promotion assistance can have heterogeneous effects depending on the specific types of investors, home countries, and sectors. Thus, the impact could be larger on investments decisions by multinational firms from home countries for which the host country is less familiar and hence there is less information available. Similarly, support from the agency can affect differently decisions from multinational firms operating in manufacturing or service sectors and thus with different average degrees of differentiation. We examine whether this is the case in Table 8. More specifically, this table shows estimates of variants of Equation (2) whereby the effects of investment promotion support are allowed to differ for host countries that share a common language with the host country (i.e., Spanish) and for host countries with a different language, for OECD and non-OECD countries, and for primary and manufacturing and service sectors.⁹ These estimates indicate that promotion efforts are more effective in attracting investments from OECD countries than from non-OECD countries. As for languages, in the case of Costa Rica, investment promotion activities have stronger effects on investments by multinational firms from countries whose population speaks a different language. In Uruguay, the opposite appears to be the case. In this regard, it should be recalled that Argentina, a neighboring important trade partner, was a major investment source country. Finally, when distinguishing sectors, investment promotion seems to be more effective in attracting relatively more multinational primary and manufacturing firms.

6. **Concluding Remarks**

Investment promotion policies are ubiquitous. However, no matter how widespread these policies are and besides valuable insights from a few aggregate studies, little is known on whether, and, if so, to what extent and how they affect multinational firms' location decisions. In this paper we attempt to close this gap in the literature by providing for the first time to our knowledge microeconomic evidence on the effects of investment promotion using time-specific, firm-level data on both investment decisions and

⁹Chile and Mexico, two Latin American countries like Costa Rica and Uruguay, are not included among the OECD countries.

support status over a long period of time for two countries, Costa Rica and Uruguay. This evidence reveals that investment promotion assistance has had significant positive effects on the probability that multinational firms are present, establish a first affiliate, and expand their number of affiliates in the host country in question. These results are robust to using alternative specifications, considering exclusively those assistance initiated by the agencies, and controlling for other investment attraction policies such as free trade zones. Furthermore, effects appear to be heterogeneous across firms from different host countries and operating in different sectors.

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Table 1
Established Multinational Firms and Assisted Firms

Year	Firms	Main Sectors		Main Countries		Assisted Firms
		Sectors	Share	Countries	Share	
Costa Rica						
2000	197	64, 46, 20	35.53%	USA, PAN, GBR	56.85%	5
2001	213	64, 46, 20	37.09%	USA, PAN, GBR	55.87%	8
2002	221	64, 46, 20	37.56%	USA, PAN, GBR	54.75%	9
2003	232	64, 46, 20	36.21%	USA, PAN, GBR	55.17%	7
2004	245	64, 46, 20	35.92%	USA, PAN, GBR	56.33%	13
2005	257	64, 20, 46	35.80%	USA, PAN, GBR	56.03%	21
2006	276	64, 46, 20	36.23%	USA, PAN, GBR	55.80%	25
2007	298	64, 46, 20	37.58%	USA, PAN, GBR	54.36%	25
2008	310	64, 46, 20	36.77%	USA, PAN, GBR	55.16%	30
2009	323	64, 46, 20	36.53%	USA, PAN, GBR	56.04%	32
2010	345	64, 46, 20	36.81%	USA, PAN, GBR	55.94%	70
2011	370	64, 46, 82	35.95%	USA, PAN, GBR	56.49%	94
2012	395	64, 46, 82	35.70%	USA, PAN, GBR	56.46%	111
2013	413	64, 46, 82	36.08%	USA, PAN, GBR	55.45%	125
2014	432	64, 46, 82	35.65%	USA, PAN, GBR	55.32%	160
2015	446	64, 46, 82	35.65%	USA, PAN, GBR	54.93%	178
2016	465	64, 46, 82	35.91%	USA, PAN, GBR	54.41%	157
Uruguay						
2000	734	64, 46, 01	34.88%	ARG, USA, ESP	45.49%	0
2001	773	64, 46, 01	36.09%	ARG, USA, ESP	44.50%	0
2002	804	64, 46, 01	36.57%	ARG, USA, ESP	44.53%	0
2003	836	64, 46, 01	37.08%	ARG, USA, ESP	44.14%	0
2004	870	64, 46, 01	37.13%	ARG, USA, ESP	43.79%	0
2005	916	64, 46, 01	37.12%	ARG, USA, ESP	43.56%	0
2006	994	64, 46, 01	38.93%	ARG, USA, ESP	43.56%	0
2007	1066	64, 46, 01	40.34%	ARG, USA, ESP	43.34%	0
2008	1144	64, 46, 01	41.17%	ARG, USA, BRA	43.79%	0
2009	1206	64, 46, 01	41.71%	ARG, USA, BRA	44.28%	4
2010	1285	64, 46, 01	42.57%	ARG, USA, BRA	44.59%	67
2011	1311	64, 46, 01	42.11%	ARG, USA, BRA	44.32%	91
2012	1350	64, 46, 01	42.15%	ARG, USA, BRA	43.70%	133
2013	1376	64, 46, 01	42.15%	ARG, USA, BRA	43.10%	229
2014	1390	64, 46, 01	42.30%	ARG, USA, ESP	43.17%	392
2015	1403	64, 46, 01	42.05%	ARG, USA, ESP	43.05%	258
2016	1420	64, 46, 01	41.97%	ARG, USA, ESP	43.17%	252

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.
The table reports the total number of multinational firms present in Costa Rica and Uruguay in each year of the sample along with the three main sectors these firms belong to and the three main home countries they are originally from and the respective overall share and the total number of multinational firms assisted by the corresponding investment promotion agencies, CINDE and URUGUAY XXI.

Table 2
Baseline Estimates – Costa Rica

Costa Rica							
Presence							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
IPA	0.519*** (0.036)	0.215*** (0.025)	0.213*** (0.025)	0.224*** (0.026)	0.219*** (0.026)	0.219*** (0.026)	0.218*** (0.026)
Observations	2,792,324	2,792,324	2,792,324	2,792,324	2,709,808	2,602,032	2,493,447
First Opening							
IPA	0.096*** (0.014)	0.110*** (0.016)	0.109*** (0.016)	0.114*** (0.017)	0.113*** (0.017)	0.114*** (0.017)	0.115*** (0.018)
Observations	2,788,798	2,788,798	2,788,798	2,788,798	2,706,120	2,598,353	2,489,780
Reinvestment							
IPA	0.032*** (0.009)	0.040** (0.017)	0.042* (0.021)	0.024 (0.024)	0.023 (0.024)	0.023 (0.024)	0.022 (0.024)
Observations	3,726	3,726	3,726	3,726	3,688	3,679	3,669
Number of Affiliates							
IPA	0.833*** (0.097)	0.305*** (0.034)	0.304*** (0.034)	0.321*** (0.037)	0.311*** (0.036)	0.312*** (0.037)	0.310*** (0.036)
Observations	2,792,324	2,792,324	2,792,324	2,792,324	2,709,808	2,602,032	2,493,447
Firm Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	No	No	No	No	No
Country-Year Fixed Effects	No	No	Yes	No	No	No	No
Sector-Year Fixed Effects	No	No	Yes	No	No	No	No
Country-Sector-Year Fixed Effects	No	No	No	Yes	Yes	Yes	Yes
Firm Level Controls	No	No	No	No	1 Lag	2 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has four panels for four different dependent variables. In the first panel (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second panel (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this panel the sample is restricted to firms that were not present in Costa Rica in the previous year. In the third panel (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this panel the sample is restricted to firms that were present in Costa Rica in the previous year. In the fourth panel (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in Costa Rica. The main explanatory variable, IPA, is a binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and zero otherwise. The different columns are increasingly demanding specifications, with more fixed effects and controls. In the first column there are no fixed effects, the second one has firm and year fixed effects, the third one has firm, country-year and sector-year and the fourth one has firm and country-sector-year fixed effects. The last three columns add, respectively, one, two and three lags of firm-level control variables. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; denotes significant at the 5% level and * denotes significant at the 10% level.

Table 3
Baseline Estimates – Uruguay

Uruguay							
Presence							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
IPA	0.134*** (0.017)	0.069*** (0.012)	0.067*** (0.012)	0.064*** (0.012)	0.053*** (0.012)	0.056*** (0.012)	0.053*** (0.012)
Observations	2,792,324	2,792,324	2,792,324	2,792,324	2,709,808	2,602,032	2,493,447
First Opening							
IPA	0.020*** (0.004)	0.020*** (0.004)	0.020*** (0.004)	0.018*** (0.004)	0.016*** (0.004)	0.017*** (0.004)	0.015*** (0.004)
Observations	2,787,036	2,787,036	2,787,036	2,787,036	2,699,520	2,592,564	2,484,788
Reinvestment							
IPA	0.018 (0.012)	-0.011 (0.022)	-0.029 (0.026)	-0.023 (0.038)	-0.035 (0.036)	-0.034 (0.025)	-0.033 (0.035)
Observations	10,288	10,288	10,288	10,288	10,288	9,468	8,659
Number of Affiliates							
IPA	0.158*** (0.021)	0.090*** (0.015)	0.088*** (0.015)	0.086*** (0.016)	0.071*** (0.015)	0.073*** (0.015)	0.071*** (0.015)
Observations	2,792,324	2,792,324	2,792,324	2,792,324	2,709,808	2,602,032	2,493,447
Firm Fixed Effects	No	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	No	Yes	No	No	No	No	No
Country-Year Fixed Effects	No	No	Yes	No	No	No	No
Sector-Year Fixed Effects	No	No	Yes	No	No	No	No
Country-Sector-Year Fixed Effects	No	No	No	Yes	Yes	Yes	Yes
Firm Level Controls	No	No	No	No	1 Lag	2 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has four panels for four different dependent variables. In the first panel (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second panel (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this panel the sample is restricted to firms that were not present in Uruguay in the previous year. In the third panel (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this panel the sample is restricted to firms that were present in Uruguay in the previous year. In the fourth panel (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in Uruguay. The main explanatory variable, IPA, is a binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and zero otherwise. The different columns are increasingly demanding specifications, with more fixed effects and controls. In the first column there are no fixed effects, the second one has firm and year fixed effects, the third one has firm, country-year and sector-year and the fourth one has firm and country-sector-year fixed effects. The last three columns add, respectively, one, two and three lags of firm-level control variables. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; denotes significant at the 5% level and * denotes significant at the 10% level.

Table 4
Lagged Assistance

Costa Rica				
	Presence	First Opening	Reinvestment	Affiliates
IPA	0.139*** (0.020)	0.116*** (0.020)	0.031 (0.031)	0.185*** (0.026)
IPA(-1)	0.124*** (0.019)	-0.005 (0.017)	-0.017 (0.035)	0.196*** (0.026)
Observations	2,493,447	2,489,780	3,669	2,489,780
Uruguay				
	Presence	First Opening	Reinvestment	Affiliates
IPA	0.044*** (0.010)	0.023*** (0.007)	-0.018 (0.072)	0.066*** (0.015)
IPA(-1)	0.014 (0.009)	-0.012* (0.007)	-0.026 (0.069)	0.007 (0.011)
Observations	2,493,447	2,484,788	8,659	2,493,447
Firm Fixed Effects	Yes	Yes	Yes	Yes
Country-Sector-Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Level Control Variables	3 Lags	3 Lags	3 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has two panels, one for Costa Rica and one for Uruguay. The table has four columns for four different dependent variables. In the first column (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second column (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this column the sample is restricted to firms that were not present in the host country in the previous year. In the third column (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this column the sample is restricted to firms that were present in the host country in the previous year. In the fourth column (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in the host country. The main explanatory variables are a binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and zero otherwise, along with a lag of such binary indicator. All specifications have firm and country-sector-year fixed effects along with firm-level controls. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; ** denotes significant at the 5% level and * denotes significant at the 10% level

Table 5
Placebo Exercises

Costa Rica								
	Presence		First Opening		Reinvestment		Affiliates	
IPA – Placebo	0.003		-0.055		-0.055		-0.055	
	(0.010)		(0.053)		(0.053)		(0.053)	
IPA – Real Assistance		0.144***		0.119***		0.002		0.191***
		(0.024)		(0.020)		(0.030)		(0.031)
Observations	1,359,319	1,359,319	1,308,341	1,308,341	1,472	1,472	1,359,319	1,359,319
Uruguay								
	Presence		First Opening		Reinvestment		Affiliates	
IPA – Placebo	0.003		0.002		0.000		0.004	
	(0.005)		(0.003)		(0.001)		(0.006)	
IPA – Real Assistance		0.038***		0.016***		-0.028		0.051***
		(0.009)		(0.004)		(0.031)		(0.012)
Observations	1,359,319	1,359,319	1,306,834	1,306,834	3,183	3,183	1,359,319	1,359,319
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-Sector-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm Level Control Variables	3 Lags	3 Lags	3 Lags	3 Lags	3 Lags	3 Lags	3 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has two panels, one for Costa Rica and one for Uruguay. Each panel is divided into two estimations: placebo and baseline. The placebo estimation performs a placebo exercise in which the firms assisted in the second half of the sample period (2009-2016) are assumed to have been assisted instead in the first half of the sample (2000-2008). Therefore, in the placebo estimation the dependent variable is a binary indicator that takes the value of one if the firm will be assisted by the agency in the corresponding year of the second half of the sample. The baseline estimation shows the baseline estimation for 2009-2016 with the actual assistance. In this case the dependent variable is a binary indicator that takes the value of one if the firm was actually assisted by the agency in that year. The table has eight columns with two columns (one for the placebo, one for the corresponding baseline) for each one of four different dependent variables. In the first two columns the dependent variable (*Presence*) is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the third and fourth columns the dependent variable (*First Opening*) is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In these columns the sample is restricted to firms that were not present in the host country in the previous year. In the fifth and sixth column the dependent variable (*Reinvestment*) is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In these columns the sample is restricted to firms that were present in the host country in the previous year. Finally, in the last two columns the dependent variable (*Affiliates*) is the total number of affiliates of the multinational firm in the host country. All specifications have firm and country-sector-year fixed effects along with firm-level controls. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; denotes significant at the 5% level and * denotes significant at the 10% level.

Table 6
Proactive vs. Reactive Investment Promotion

Costa Rica				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Initiated by the IPA	0.279*** (0.047)	0.130*** (0.032)	-0.019 (0.028)	0.399*** (0.060)
IPA – Initiated by the firm	0.195*** (0.047)	0.104*** (0.020)	0.019 (0.047)	0.190*** (0.052)
Observations	2,493,447	2,489,780	3,669	2,489,780
Uruguay				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Initiated by the IPA	0.052*** (0.017)	0.014** (0.006)	0.002 (0.046)	0.084*** (0.025)
IPA – Initiated by the firm	0.056** (0.022)	0.017** (0.008)	-0.025 (0.053)	0.061** (0.025)
Observations	2,493,447	2,484,788	8,659	2,493,447
Firm Fixed Effects	Yes	Yes	Yes	Yes
Home Country-Sector-Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Level Control Variables	3 Lags	3 Lags	3 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has two panels, one for Costa Rica and one for Uruguay. The table has four columns for four different dependent variables. In the first column (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second column (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this column the sample is restricted to firms that were not present in the host country in the previous year. In the third column (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this column the sample is restricted to firms that were present in the host country in the previous year. In the fourth column (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in the host country. The explanatory variables are one binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and the contact between the firm and the agency was initiated by the agency and zero otherwise and another binary indicator that takes value one if the firm was assisted by the agency and the contact was initiated by the firm itself. All specifications have firm and country-sector-year fixed effects along with firm-level controls. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; ** denotes significant at the 5% level and * denotes significant at the 10% level.

Table 7
Baseline Excluding Firms in Free Trade Zones

Costa Rica				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Not in Free Trade Zone	0.147*** (0.023)	0.061*** (0.013)	0.033 (0.026)	0.205*** (0.034)
Observations	2,492,677	2,489,671	3,008	2,489,010
Uruguay				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Not in Free Trade Zone	0.052*** (0.012)	0.015*** (0.004)	-0.020 (0.037)	0.069*** (0.016)
Observations	2,491,983	2,484,501	7,482	2,491,983
Firm Fixed Effects	Yes	Yes	Yes	Yes
Home Country-Sector-Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Level Control Variables	3 Lags	3 Lags	3 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has two panels, one for Costa Rica and one for Uruguay. The table has four columns for four different dependent variables. In the first column (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second column (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this column the sample is restricted to firms that were not present in the host country in the previous year. In the third column (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this column the sample is restricted to firms that were present in the host country in the previous year. In the fourth column (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in the host country. The explanatory variable is a binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and the firm does not operate in a free trade zone and accordingly does not receive fiscal incentives and zero otherwise. All specifications have firm and country-sector-year fixed effects along with firm-level controls. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; ** denotes significant at the 5% level and * denotes significant at the 10% level.

Table 8
Heterogeneous Effects

Costa Rica				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Common Language	0.002 (0.013)	0.047 (0.046)	0.028 (0.021)	-0.005 (0.018)
IPA – Different Language	0.228*** (0.027)	0.117*** (0.018)	0.003 (0.026)	0.330*** (0.038)
IPA – OECD Home Country	0.227*** (0.028)	0.121*** (0.019)	0.003 (0.026)	-0.005 (0.040)
IPA – Non-OECD Home Country	0.181** (0.080)	0.072* (0.037)	0.028 (0.021)	0.177** (0.080)
IPA – Primary and Manufacturing	0.173*** (0.040)	0.093*** (0.027)	0.039 (0.028)	0.316*** (0.069)
IPA – Services	0.250*** (0.035)	0.125*** (0.022)	-0.024 (0.036)	0.324*** (0.043)
Observations	2,493,447	2,489,780	3,669	2,489,780
Uruguay				
	Presence	First Opening	Reinvestment	Affiliates
IPA – Common Language	0.196*** (0.061)	0.088*** (0.033)	-0.069 (0.067)	0.322*** (0.103)
IPA – Different Language	0.039*** (0.011)	0.010*** (0.004)	-0.021 (0.040)	0.047*** (0.013)
IPA – OECD Home Country	0.053*** (0.013)	0.015*** (0.005)	-0.036 (0.037)	0.073*** (0.018)
IPA – Non-OECD Home Country	0.052** (0.026)	0.017* (0.010)	-0.029 (0.106)	0.065** (0.032)
IPA – Primary and Manufacturing	0.075*** (0.027)	0.028** (0.011)	0.334*** (0.010)	0.079*** (0.030)
IPA – Services	0.046*** (0.013)	0.011*** (0.004)	-0.049 (0.035)	0.068*** (0.018)
Observations	2,493,447	2,484,788	8,659	2,493,447
Firm Fixed Effects	Yes	Yes	Yes	Yes
Home Country-Sector-Year Fixed Effects	Yes	Yes	Yes	Yes
Firm Level Control Variables	3 Lags	3 Lags	3 Lags	3 Lags

Source: Authors' calculations based on World Base, CINDE, and URUGUAY XXI.

The table reports OLS estimates of Equation (1). The table has two panels, one for Costa Rica and one for Uruguay. The table has four columns for four different dependent variables. In the first column (*Presence*), the dependent variable is a binary indicator that takes the value of one if the multinational firm is present in the host country in question and zero otherwise. In the second column (*First Opening*) the dependent variable is a binary indicator that takes value of one if the multinational firm opens its first affiliate in the host country in the year in question and zero otherwise. In this column the sample is restricted to firms that were not present in the host country in the previous year. In the third column (*Reinvestment*) the dependent variable is a binary indicator that takes the value of one if the multinational firm opens another affiliate in the country in that specific year and zero otherwise. In this column the sample is restricted to firms that were present in the host country in the previous year. In the fourth column (*Affiliates*) the dependent variable is the total number of affiliates of the multinational firm in the host country. The explanatory variables are different sets of interactions of a binary indicator that takes the value of one if the multinational firm was assisted by the national investment promotion agency and other variable. The variables used in the interactions are one binary indicator that takes value one if the country of origin of the multinational shares the same common official language as the host country (or it doesn't), one binary indicator that takes value one if the country of origin of the multinational is an OECD country (or it isn't) and one binary indicator that takes the value one if the firm operates in primary sector and manufacturing (or in services). All specifications have firm and country-sector-year fixed effects along with firm-level controls. The firm-level controls are the number of affiliates of the multinational firm, the number of sectors in which the affiliates of the multinational firm operate and the number of countries in which the affiliates of the multinational firm are present. Standard errors are clustered by firm. *** denotes significant at the 1%; ** denotes significant at the 5% level and * denotes significant at the 10% level.