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Holger Görg
Liza Jabbour

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Abstract:
This paper considers the link between the local availability of services and a firm's decision to become a multinational. This is a highly topical issue, given that many industrialised countries are increasingly becoming services economies and firms become increasingly more globalised. In an analysis of rich firm level data for France we find evidence that the availability of services in the home country indeed has a positive impact on firms' decisions to become multinationals. This is robust to endogeneity concerns. The result can be interpreted in a simple set up where the local availability of business services improves firm efficiency and, hence, allows firms to overcome sunk costs of investing abroad more easily.

Keywords: Business Services, Foreign Direct Investment, Multinationals.

JEL classification: F23, R11

Holger Görg
Kiel Institute for the World Economy;
University of Kiel
D-24105 Kiel

Contact:
holger.goerg@ifw-kiel.de

Liza Jabbour
Birmingham Business School
University House
UK-Birmingham
B15 2TT
Contact:
l.jabbour@bham.ac.uk

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1 Introduction

It is well known that most developed countries are increasingly becoming service economies. For example, Francois and Hoekman (2010) show that services have increased between 1977 and 2007 as a fraction of GDP from 58 to 74 percent for high-income OECD countries, and from 55 to 70 percent for the world as a whole. Still, research in the international trade literature has only recently started to investigate the potential interconnectedness between services and manufacturing.

At the firm level, it is apparent that firms classified as manufacturers also produce and export services (Breinlich and Criscuolo, 2011, Hijzen et al., 2011, Kelle, 2013, Malchow-Møller et al., 2015). There are also links between manufacturing and services at the sectoral level. For example, Arnold et al. (2011) show that trade liberalisation in the services sector has positive effects on productivity growth in manufacturing firms, while Breinlich et al. (2014) show that trade liberalization in manufacturing leads manufacturing firms to switch into producing services. Fernandes and Paunov (2012) investigate the positive links between foreign direct investment (FDI) in the services sector and manufacturing productivity. Most closely related to our paper, Debaere et al. (2013) argue and provide evidence that services play an important role for the international sourcing activities of manufacturing firms. The better the availability of services in the local economy (such as transportation, finance, or insurance) the higher a firm's engagement in international sourcing of inputs.

In this paper we contribute further to this growing literature. We study whether the availability of local services in the home country is important for a firm's decision to open affiliates abroad and become a multinational. In doing so we bring together two strands of literature. On the one hand, there are papers that look at firms' decisions to engage in international activities and, more specifically, to become a multinational, in the framework of models of trade with heterogeneous firms (Helpman, 2006, Greenaway and Kneller, 2007). On the other hand, there is a new economic geography literature that looks at the location of headquarter activities, showing that availability of services play an important role (e.g., Henderson and Ono, 2008, Davis and Henderson, 2008, Strauss-Kahn and Vives, 2009).

We combine insights from these two, largely separate, strands of literature in our empirical analysis of comprehensive French firm level data. We investigate empirically the importance of the availability of local services in the home country for the probability of a domestic firm becoming a multinational, i.e., starting to open up affiliates abroad.[1]

The theoretical motivation for our empirical work is as follows. From the literature on heterogeneous firms we know that operations abroad involve substantial sunk costs. Combined with some aspect of firm heterogeneity (usually in terms of productivity or size), this implies that only a certain set of firms will choose to operate abroad and become a multinational (e.g., Helpman et al., 2004). The sunk costs of investing abroad are largely related to services, more specifically business services. There are costs of market research, communication costs between foreign affiliate and headquarters, legal costs for contracting,

[1] A related literature looks at the determinants of the location of foreign affiliates e.g., Mayer et al. (2010) for France. We are not concerned with this, rather, we look at data for the home country (France in our case) and investigate the switch a firm makes from being a domestic firm to having affiliates abroad, i.e., becoming a multinational.

etc. Hence, firms deciding whether to become multinational or not, need access to business services firms which specialise in these activities.[2]

Assume that firms are final good producers, using business services as inputs. In a Dixit-Stiglitz world, a greater local provision of services, implying a larger variety of services inputs, improves efficiency of the final good producer using these services as inputs. The local provision is important as services require face-to-face contact and customer interaction. This is the mechanism identified in the new economic geography literature on the importance of services for headquarter locations (e.g., Davis and Henderson, 2008).

Adapted to our purposes this mechanism implies that the local availability of business services, improving firm efficiency, allows firms to overcome sunk costs of investing abroad more easily. Hence, if we assume two identical firms, one located in an environment with easy access to local business services, and one not, then we would assume that the former firm is more easily able to overcome sunk costs and invest abroad, while the absence of services providers makes it harder for the latter firm to become a multinational. This is the issue we investigate empirically in the remainder of this paper, using rich firm level data for France.

We are, to the best of our knowledge, the first to look at this. However, the question is not just of academic interest but also addresses an important policy concern. In a globalised economy it is important for firms to be active on international markets in order to improve their competitiveness. We know that only the most productive firms invest abroad (Helpman et al., 2004) and that these firms grow not only abroad but also in their domestic operations (Hijzen et al., 2011). We also know that developed economies are intensive in services production. Hence, the relationship between services activities and firms' ability to become multinationals provide important insights for policy makers.

To preview our results, we find indeed that the local availability of business services has a positive impact on firms' decisions to invest abroad and become multinationals. We obtain this finding when looking specifically at "new multinationals", i.e., firms that switch status from purely domestic to being a multinational. Furthermore, access to local services is more relevant to smaller domestic parents, suggesting that domestic parent firms that control a large network of domestic affiliates are more likely to internalise the production of their needed business services and may be less reliant on existing suppliers in the market. Our result is robust to dealing with endogeneity in an instrumental variables set up, where we use information that may explain the formation of a local services sector as instruments.

The remainder of the paper is structured as follows. Section 2 presents the data set and shows some descriptive statistics. Section 3 presents the core of the paper, which is the empirical analysis of the link between local availability of services and a firm's decision to go multinational. Section 4 concludes.

[2] Of course, firms may also internalise the provision of such services inputs. This is the focus of Debaere et al. (2013) and also an issue we get back to in the empirical analysis. For the intuitive discussion here, it suffices to assume that at least some services inputs need to be sourced from local providers.

2 Data, variables, and descriptive evidence

Our analysis is based on firm level data for France. We combine two data sets at the firm level, namely the *Financial Links Survey* and the *Firm Annual Survey*. In both datasets, each firm is identified with a unique registration code (Code Siren). This code is used to merge the two data sets. Both data sets cover the period 1990 to 2001.

The Financial Links ("Liaisons Financières") Survey

The data on FDI activities by French firms are extracted from the financial links survey. This survey provides information on the structure of groups in the French Economy. It is an annual survey carried out by the French national statistical office (INSEE). The survey is not exhaustive, it is addressed to firms satisfying at least one of the following criteria: having more than 500 employees, having a value of stocks higher than 1.2 million Euros, being identified as a parent company in the previous year, directly controlled by a foreign company in the previous year, or having a turnover value higher than 30 million Euros.

Each firm, covered by the framework of the survey, has to report the financial links it has with other firms within France or abroad as well as its affiliation to a group. The firm has also to report the identity (unique registration code) and the country of location of all the firms that it directly controls. Moreover, each firm has to report the identity as well as the country of origin of the parent firm.[3]

The financial links survey allows the identification of several categories of firms: single firms, affiliates of a group, parent firms of domestic groups, and parents of multinational groups. For each parent company, it is possible to identify domestic and foreign affiliates. The panel structure of the financial links survey allows tracking the changes in the structure of groups and the identification of new domestic and foreign investments.

The survey also identifies the country of location of foreign affiliates of French multinationals. We use this information to classify countries depending on their links with France and the degree of openness of their business services sector.

The Firm Annual Survey ("Enquête Annuelle D'Entreprises")

We complement the data from the Financial Links Survey with information on firm characteristics extracted from the Firm Annual Survey. This is an exhaustive survey that covers all firms with more than 20 employees in manufacturing and services industries. The survey provides information on the activity of the firm: production, sales, investment, value-added, number of employees, wage-bill, etc. The firm annual survey allows the construction of control variables at the firm level, the identification of the industry (4-digit French classification) where the firm mainly operates, and the geographic region where the firm is located.

[3] In case the firm is not affiliated to a group or if the firm is the parent company of a group, the identity of the parent firm is the identity of the firm itself.

The combination of the financial links and firm annual surveys results in an unbalanced panel of over 794,000 observations for the period 1990-2001. Table 1 presents the number of observations in each 2-digit industry. About a quarter of firms in our sample (23%) is active in the business services sector and almost 14% of firms operate in the operational services sector. The business services sector encompasses activities like accounting, advertising, architecture, market studies, legal services, business consulting, IT services, and engineering controls. Operational services encompasses other activities that firms tend to outsource like recruitment and hiring of employees, rental of vehicles and transport equipment, security and cleaning services, etc. For the remainder of the paper we aggregate business services and operational services and refer to them for brevity as "business services".

Table 1 here

In the empirical analysis we look at whether the availability of business services plays a role in determining a firms' decision to become a multinational and open affiliates abroad. In our dataset we can distinguish three types of domestic firms:

- **Single firms**: domestic firms that are not affiliated to a group and that do not control any domestic or foreign affiliates. A large share (98%) of the firms in our sample corresponds to single firms.

- **Domestic Parent**: domestic firms that control at least one affiliate, but control exclusively affiliates located within France. In our sample we indentify 2961 Domestic Parent firms.

- **Multinational Parent**: French-owned firms that control at least one affiliate located abroad. Our sample contains 923 Multinational Parent firms. Of those, 463 firms are new multinationals, i.e., invested abroad for the first time during the sample period. Of these new multinationals, more than half invest in only one foreign affiliate, at the year of entry, and around 20% establish two foreign affiliates. Very few new multinationals control more than three foreign affiliates.

In the empirical analysis we try to identify an effect of the local availability of business services on multinationals by looking at these "new multinationals" only. In other words, we are interested in what determines a decision of a firm to switch from being purely domestic to becoming a multinational, i.e., opening up affiliates abroad.

The main variable of interest is the local availability of business services. As argued above, we would expect that, all other things equal, a greater availability of business services locally makes a firm more likely to overcome sunk costs of investing abroad and, hence, establish affiliates abroad. We assume that the benefits that a firm can extract from available business services require certain proximity between firms and business services providers.

We follow Debaere et al. (2013) and use firm-level information on the location of services firms to create a measure of the effective availability of business services in each region *r* as the number of business services firms, within the same region, multiplied by an input coefficient based on the input-output table for French industries provided by the INSEE. The input coefficient, α_{js}, represents the purchases of inputs from the business services sector (s) used by industry j as a share of the total output of industry j. Specifically, our measure is calculated as

$$effective\ business\ services_{jrt} = \propto_{js} * n_{srt}$$

We follow the French administrative classification of regions and consider that metropolitan France consists of 96 different geographic locations located within 22 provinces.

Before we move on to the empirical estimation, we briefly present descriptive statistics on the characteristics of French new multinationals to relate our data to recent work on multinationals and heterogeneity. Table A1, in the appendix, presents some summary statistics by firm type on the key variables included in the empirical analysis. It shows, as expected, that multinationals are on average larger and more productive than non-multinationals. We also find that, compared to all multinationals, new multinationals – i.e., firms that started to become multinationals during the sample period – are smaller and less productive.[4]

We analyse further the heterogeneity of new multinationals by estimating the premia of being a new multinational based on several characteristics of the firm. We focus on total factor productivity (estimated using the Olley and Pakes (1996) methodology), output per worker, value-added per worker, scale (number of employees), exports, and profits. This analysis corresponds to the estimation of the following equation:

$$Ln\ X_{it} = \beta_1 New\ Multinational_{it} + \beta_2\ LnScale_{it} + f_t + f_j + f_p + \varepsilon$$

where X represents the firm's characteristic, "New Multinational" is a dummy indicating whether the firm is a new multinational at time t and has switched from being a domestic firm to being a multinational at time t or earlier during the sample's time period. f_t, f_j and f_p are time and industry (3-digit) and province fixed effects.

Table A2, in the appendix, shows that French new multinationals are significantly more productive, larger in terms of employment and turnover, more export oriented and more profitable than the remaining categories of French firms.[5] The advantage of new multinationals is robust when we compare firms within the same size, within the same 3-digits industry, and within the same geographical province. This is in line with findings for other countries, as in Helpman et al. (2004) and Mayer and Ottaviano (2008).

3 Availability of business services and multinationality

We now turn to analysing the link between the availability of business services in a firm's region and internationalisation through opening up affiliates abroad. More precisely, we investigate whether a higher availability of business services within a region increases the likelihood of outward investment by firms located within the same region.

To start with, Table 2 presents the top five regions, in 2001, in terms of the number of business services firms, the number of multinational parents, and the number of new multinationals. Note that the regions Hauts-de-Seine and Val-de-Marne are suburbs of Paris.

[4] In table A1, the category "New Multinational" considers all observations from the moment a firm switches from domestic to multinational.

[5] Table A2 includes "old" multinationals in the control group. The results are robust to the exclusion of these types of firms.

The other regions in the list include the largest French cities; Marseille (Bouches-du-Rhone), Lyon (Rhone), and Lille (Nord). The table highlights a co-agglomeration of business services and multinational firms in these locations.

It is not surprising to have an agglomeration of activity around large cities and in regions that have historically hosted a significant share of the production activity of a country. The co-agglomeration between business services firms and multinational parent firms may simply reflect the "natural" advantages of certain regions (Ellison et al., 2010, Davis and Henderson, 2008).[6]

Table 2 here

In order to identify an effect of the availability of local business services on the decision of a firm to become a multinational our strategy is to focus on 'new multinationals', i.e., firms that are domestic in *t* and become multinationals in *t+1*. We compare these switchers to parent firms that remain domestic firms throughout the sample period. That is, our control group consists of domestic parents – firms that own at least one affiliate, but only in France. We drop single firms that are not affiliated to a group in order to eliminate one potential source of firm heterogeneity that may otherwise bias our results.[7]

We estimate the following empirical model

$$Pr(New\ Multinational = 1) = f(effective\ business\ services,\ firm\ characteristics,\ regional\ controls)$$

where the dependent variable is a dummy variable equal to zero for firms that have no foreign affiliate. The dummy is equal to 1 once a firm switches from being a domestic firm to becoming a multinational, i.e., when it opens up the first foreign affiliate in time t, and as long as the firm maintains its international investments. The dummy variable switches to zero if the firm exits the international market. We drop from our sample firms that are multinationals at the start of the time period. On the right hand side, the variable "effective business services" is the measure of the availability of business services in the region in which the firm is located.

The empirical challenge is to identify a relationship between the availability of business services and the probability of becoming a multinational. In other words, we need to ensure that our business services variable does not merely reflect the impact of other related factors. Or to be more precise, we need to avoid a correlation of the business services variable with the error term. As a first step towards aiding identification of the effect of business services we introduce a vector of control variables. The model includes a number of firm and region level controls as well as full sets of time dummies, three digit industry dummies, and region level dummies to control for unobserved heterogeneity along those lines.

Firm heterogeneity is likely to play an important role in determining the decision to become a multinational (see Helpman, et al. 2004). Hence, in our empirical analysis, we control for the **scale** of the firm measured as the number of employees and for the productivity of the firm.

[6] "Natural" advantages do not necessarily mean natural resources but reflect everything that is specific to a region and that makes it attractive for industrial activity.

[7] We drop firms that remain single throughout the time period. New multinationals that were previously single are included in our sample.

We use **labour productivity** measured as the ratio of value added over the number of employees.[8] We also control for the size of the domestic group by taking into account the number of local affiliates (**Nb Local Affiliates)** controlled by the domestic parent company. Everything else being equal, we would expect domestic parent firms that control a larger network of domestic affiliates to find it easier to invest overseas and become multinationals as they may be more likely to internalise the provision of business services inputs (see Debaere et al., 2013).

At the region level, we account for the presence of general agglomeration forces that could influence the capacity of firms to internationalise through FDI (Mayer et al., 2010). Such agglomeration effects are likely to be correlated with the business services variable (Ellison et al., 2010) and their omission may therefore lead to a biased estimation of the impact of business services on firms' FDI decisions. We measure agglomeration (**Agglomeration**) as the share of employment in the firm's region in the total employment of the firm's industry at the 3-digit level.

We also control for the general attractiveness of a region as a location for multinationals and general exogenous shocks that might influence activities by multinationals in a given industry. To do so, we include two variables; **Multinationals_Region** measures the number of domestic multinationals within a certain region in a given year, and **Multinationals_Industry**, measures the number of multinationals in a 3-digit industry in a given year. These variables also control for any spillover or competition effects from existing domestic multinationals at the region and industry levels (e.g, Görg and Greenaway, 2004)

Table 3 presents summary statistics for the main variables included in the empirical analysis, based on the sample of firms used in the subsequent regression analysis.[9]

Table 3 here

The use of additional covariates aids identification of the effect of locally available business services only under the assumption that there are no other time varying regional characteristics that may be correlated with the explanatory variable. While we would argue that this is unlikely to be the case, we also go one step further and implement an instrumental variables (IV) strategy, using information that may explain the formation of a local services sector as instruments. We discuss the IV approach, and the instrument used in detail below.

Table 4 presents the estimation results from our baseline model, where the availability of business services is measured as the weighted number of services firms in the region. The model is estimated using a complementary log-log estimator using data for firms in manufacturing and services firms.[10]

[8] As an alternative measure of productivity we estimate total factor productivity (**TFP**) using the semi-parametric method of Olley and Pakes (1996). However, due to unavailability of data on the capital stock in many instances, this variable can only be calculated for a relatively small number of firms, see Table A2. Hence, we prefer labour productivity in the empirical estimation.

[9] All independent variables, except for agglomeration are expressed in natural logarithm in the regressions.

[10] The cloglog estimator is the discrete time version of the proportional hazard model. See Jenkins (2005) for an excellent overview of complementary log-log and proportional hazard models. This estimation does not include firm specific time invariant effects. Estimations reported in Table A3 in the appendix are based on random effects probit estimations which control for such unobserved firm heterogeneity. Results are comparable to those presented in the main tables.

The four columns in the table differ in terms of the definition of the dependent variable. We estimate four versions of our empirical model in order to allow for differences in the effects depending on characteristics of the host country. In the first specification we take into account investments in all countries, as described above. In the following three columns, we distinguish between three types of investments: investments in countries with no past colonial links with France, investments in countries with no common language ties with France, and investments in countries that have significant restrictions to international trade in services.

The first two distinctions (no colonial links, no common language) allow us to abstract from country heterogeneity in terms of "gravity variables". Countries with colonial ties and or common language may be more attractive host countries per se, and services may potentially play less of a role for the decision to invest there.

Distinguishing countries by their level of restrictions for services trade allows us to consider, in an indirect way at least, whether the availability of services in the host country may distort our estimates on the importance of the provision of services in the home country. If a country is more closed to trade in business services, this may imply a lower quantity and/or quality of services in the host country. In that case, French firms may have to rely even more on services provision in the home country. In order to measure such restrictions, we use the *Services Trade Restrictions Database* of the World Bank to identify countries that impose restrictions on international trade in services (see Borchert et al., 2014).[11] More than 80 percent of new multinationals invest in a country that does not share colonial links or language links with France. Also, less than 50 percent invest in a country with trade restrictions in the business services sector.

Accordingly, we define three different dependent variables for the analyses in columns (2) to (4): **No Colony** is a dummy equal to 1 once a firm switches from being a domestic firm to becoming a multinational with at least one affiliate in a foreign country with no past colonial links with France in time t, and as long as the firm maintains its international investments in these countries. The dummy variable switches to zero if the firm exits non colonial international markets. Similarly the variables **No Common Language and Closed to Business Services** are dummy variables indicating whether a domestic firm has started and maintained at least one investment in a country with no-common language ties with France and a country that applies restrictions to the international trade of business services respectively. In all specifications standard errors are clustered at the region-3 digit industry level.

Firm heterogeneity in terms of size and productivity is included in all regressions. We find positive coefficients on these two variables, indicating that larger and more productive firms are more likely to open affiliates abroad. This is in line with expectations based on heterogeneous firm models such as Helpman et al. (2004). We also find that firms with a larger number of domestic affiliates are more likely to become multinationals. Conditional on

[11] The database covers 103 countries and for each country considers five major service sectors encompassing 19 subsectors. It presents 4 indices of trade openness, an overall index, and 3 different modes: mode one covering financial services, transportation and professional services, mode 3 covering all subsectors and mode 4 covering professional services. The database defines 5 degrees of trade openness: completely open with a score equal to zero, virtually open with minor restrictions with a score equal to 25, major restrictions with a score equal to 50, virtually closed with limited opportunities to enter and operate with a score equal to 75, and completely closed with a score equal to 100. We focus on mode one and we assume that countries with a score higher than 25 are closed to international trade in business services. Table A4 in the appendix provides a list of countries that are considered closed to business services trade based on this definition.

other variables in the model and on region fixed effects, the coefficient on the agglomeration variable is statistically insignificant in all specifications. We also control for the presence of multinationals in the region and the industry to capture potential spillovers. We find statistically significant negative effects of these variables, particularly the variable measuring spillovers at the industry level. This result points to a competition effect, not unusual in the literature on spillovers from multinationals (e.g., Görg and Greenaway, 2004). Here, French firms in industries with a high presence of existing domestic multinationals tend to be less likely to start becoming multinationals themselves.

Turning to our main variable of interest, we find that the local availability of business services is positively associated with a firm's decision to start becoming a multinational. The coeffecient is positive and statistically significant in all specifications. The point estimates in columns (1) to (3) are fairly similar, while the estimate in column (4) – where we only consider investments in countries with high restrictions on services trade - is higher. This is in line with our conjecture that the provision of services in such host countries may be poorer than in other host countries and that therefore the availability of local services in the home country is more important.

Table 4 here

It can be argued that firms do not necessarily rely on external providers of business services to support their internationalisation activities, and it is important to distinguish between firms that rely on the market and those that are more likely to integrate these activities. While we do not have information in the data on production of services inputs by firms themselves, we conjecture that larger parent firms, in particular those with multiple production plants, may be more likely to produce services themselves (see Debaere et al., 2013). In the further analysis we, therefore, assume that domestic parent firms that control a large network of domestic affiliates are more likely to internalise the production of their needed business services within their own network, and may be less reliant on existing suppliers in the market.

Table 5 presents estimations of the model where we allow for an interaction between number of local affiliates of a domestic parent and the Effective Business Services variable. Table 5 shows that this interaction is negative and significant in all specifications. Moreover, the coefficient on the Effective Business Services variable increases in magnitude with comparison to results presented in table 4. Hence, these results are in line with our assumption that local business services are more relevant to domestic parents with smaller networks of affiliates. This is also in line with the finding by Debaere et al. (2013), who show that availability of services matter for the outsourcing decision of firms, but only for small purely domestic non-multinational firms. Taken together, these sets of results suggest that firms that are too small to internalise the provision of services rely more on local services markets.

Table 5 here

While the table shows the coefficients from the non-linear complementary log-log model, we also calculate marginal effects and predicted probabilities, which are reported at the bottom of the table. In column (1), an increase in business services by one standard deviation leads to an increase in the probability of investing abroad by 12 percent for firms with no domestic affiliate. This, thus, represents a doubling in the overall probability to invest abroad, which is also predicted at 12 percent. Hence, this suggests that the effect is not only statistically

significant but also economically meaningful. The larger the number of affiliates, the less the parent firm benefits from the availability of business services, however.

Our interpretation of the positive coefficient on business services as a causal effect on a firm's decision to become a multinational relies on the assumption that, conditional on the covariates in the model, there are no unobserved time varying effects that are correlated with business services and multinationality that may be driving the results. However, if the forces that draw firms to particular locations are not captured by our spillover and agglomeration variables and the fixed effects at the region level, then our results could still suffer from endogeneity and, hence, be biased. In order to make further progress in identifying an effect of local business services on the probability of being a multinational, we now turn to instrumental variables techniques.

The main instrument we use is the size of the active population in each region, as this is likely to be an important variable to explain the formation of a local services sector. We use historic information from 1968, available from the population census data provided by the French Statistical Office (INSEE) to measure this. Historic population size is likely to be a relevant instrument as, for example, Davis and Henderson (2008) show that business services are disproportionally located in large cities. Historic information may therefore be a good proxy for the formation of a local business services sector, but is unlikely to be correlated with contemporaneous decisions of firms to become a multinational, conditional on the other covariates in the model.[12] Because these instruments are time-invariant within each region, we are not able to add region fixed effects with the IV specification. Instead we control for province level fixed effects and add two additional controls at the region level; **Port** and **International Airport** which control for the availability of infrastructure related to internationalisation. The first variable is a dummy variable that indicates the presence of a maritime port in the region. The second variable is a dummy variable that indicates the presence of an airport with international flights in the region.

Table 6 presents the results from the instrumental variables estimations. We use population size on its own, and interacted with the number of foreign affiliates as excluded instruments. The IV approach is implemented in a linear regression model. Reassuringly, the business services variable maintains its positive and significant coefficient in most specifications. Table A5, in the appendix, presents the result from the first stage of the IV estimations and the tests of exogeneity. Note that our instrument is highly relevant as indicated by the first stage F test. Based on this instrument set, we cannot reject the assumption of exogeneity of the business services variable, conditional on the covariates included in the empirical model. Hence, we prefer the models based on the complementary log-log estimator.

Table 6 here

[12] We also experimented with two additional instruments, namely, the share of entrepreneurs and managers in the active population of each region, or a measure of the total demand for business services within each region. The share of entrepreneurs and managers is extracted from historical population census data. Total demand for business services corresponds to a weighted sum of 2-digit industry level employment in each region where the weights represent the share of business services output sold as input to each industry. The weights are extracted from the input-output tables for French industries provided by the French Statistical Office (INSEE). Contemporaneous demand is again an important variable to explain the formation of the services sector. However, it is unlikely to be correlated with an individual firm's decision to open affiliates abroad. Our results are robust to the use of several of these instruments in each specification, however, the Sargan tests rejected the overidentification restrictions.

Tables 7 to 9 present a series of further robustness checks. In Tables 7 and 8 we look specifically at the role of the Ile de France province that includes Paris and its suburbs. Table 2 indicates that a large number of French multinationals are located within the Ile de France province and that this province is top ranking in terms of the number of firms in the business services sector. Table 7 excludes the Ile de France province while table 8 focuses exclusively on this specific province. Both tables report results that are similar to table 5; the availability of business services at the region level enhances the probability of becoming and remaining a multinational and this effect declines with the number of domestic affiliates.

It can be argued that it is restrictive to limit the availability of business services to the boundaries of the region where the firm is located. In table 9 we relax this assumption and allow firms to benefit from the availability of business services in all metropolitan French regions. We introduce a new variable representing the availability of business services to a firm located in region *r*: **Effective Business Services_All Regions**. This variable is a weighted sum of measures of business services availabilities in all regions, including region r, where the weight is the inverse of the road distance seperating two regions. Specifically, our measure is calculated as :

$$effective\ business\ service\ all\ regions_{jrt} = \sum_{s} w_{sr} effective\ business\ services_{jst}$$

where *s* represent regions including region *r* and w_{sr} is the invesrse of the road distance betwen regions *s* and *r* (Combes et al., 2005). To account for internal distance, we follow Combes et al. (2005) and consider that each region is a disk where all production concentrates at the center and consumers are uniformly distributed on a given proportion of the total land-area of the region. Combes et al. (2005) use a proportion of 1/6 and calculate internal distance as $d_{rr} = 1/6\sqrt{A/\pi}$ where A is the land area of region *r*.[13] Results reported in Table 9 are consistent with those reported in our main table.

Tables 7-9 here

4 Conclusion

This paper considers, to the best of our knowledge for the first time, the link between the local availability of services and a firm's decision to become a multinational. This is a highly topical issue, given that many industrialised countries are increasingly becoming services economies and firms become increasingly more globalised. Hence, this begs the question as to how the internationalisation of manufacturing can be linked to services. While there are many ways in which the globalisation of manufacturing and services can be linked, we focus on firms' decisions to locate affiliates abroad.

In an analysis of rich firm level data for France we find robust evidence that the availability of services has a positive impact on firm's decisions to become multinationals. We also find that the effect of locally available services is strongest for firms that are small, in the sense of having fewer domestic affiliates. These are likely to be firms that are less likely to internalise the provision of business services inputs. These results hold when taking account of the potential endogeneity of the business services variable. In order to deal with this, we

[13] Our results are robust to the use of an internal distance equal to one.

implement an instrumental variable strategy, using variables that capture factors of the formation of a local services sector as instruments.

Our result is quite intuitive and indicates that firms rely on the provision of local services when deciding to invest abroad.[14] This is particularly so if firms are too small to produce their needed business services themselves. The results can be interpreted in a simple theoretical set up where the local availability of business services improves firm efficiency and, hence, allows firms to overcome sunk costs of investing abroad more easily.

Our research may provide some further input into the discussion on the advantages from liberalisation in the services industries. As Borchert et al. (2014) argue, professional services (which are included in our measure of business services) are amongst the most protected in both industrialised and developing countries. Hence, further liberalisation in these sectors could potentially improve the efficiency of firms by allowing them to link more easily into the global economy through opening up affiliates abroad.

[14] This is in line with an earlier literature that emphasised that the increased availability of services inputs can trigger international fragmentation of production (e.g., Jones and Kierzkowski, 1990; Deardorff, 2001).

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Table 1: Distribution of Firms by Industry

	Single Firrm		Domestic Parent		Multinational		New Multinational	
Industry (2-digits)	Obs	%	Obs	%	Obs	%	Obs	%
Wearing Apparel	23,850	3	137	1.58	79	2.16	17	3.67
Printing and Publishing	20,125	2.53	381	4.39	76	2.08	11	2.38
Pharmaceutical	5,440	0.69	57	0.66	112	3.07	13	2.81
Domestic Appliances	16,696	2.1	129	1.49	155	4.25	22	4.75
Motor Vehicles	5,963	0.75	36	0.41	49	1.34	7	1.51
Other Transport Equipment	3,130	0.39	14	0.16	54	1.48	3	0.65
Machinery and Equipment	41,716	5.25	166	1.91	190	5.21	21	4.54
Computer, Electronic, Optical Products, and Electrical Motors and Generators	12,584	1.58	99	1.14	44	1.21	12	2.59
Mineral Products	13,493	1.7	159	1.83	69	1.89	9	1.94
Textile	16,340	2.06	192	2.21	119	3.26	12	2.59
Wood and Paper	14,654	1.85	120	1.38	52	1.43	9	1.94
Chemicals, Plastic and Rubber	20,729	2.61	168	1.94	199	5.45	27	5.83
Basic Metals and Fabricated Metal Products	39,408	4.96	251	2.89	126	3.45	25	5.4
Electrical Products	8,660	1.09	48	0.55	94	2.58	8	1.73
Coke and Refined Petroleum Products	734	0.09	1	0.01	10	0.27	1	0.22
Water, Gas, and Electricity	1,745	0.22	51	0.59	34	0.93	0	0
Transportation and Storage	8,059	1.01	35	0.4	32	0.88	6	1.3
Financial and Insurance Activities	7,637	0.96	35	0.4	11	0.3	2	0.43
Real Estate Activities	83,213	10.48	798	9.19	91	2.49	14	3.02
Postal, Courier activities, and Telecommunication Activities	4,317	0.54	11	0.13	16	0.44	3	0.65
Business Services	179,852	22.65	4,579	52.74	1,782	48.84	202	43.63
Operational Services	111,883	14.09	562	6.47	150	4.11	23	4.97
Hotels and Restaurants	99,889	12.58	453	5.22	30	0.82	7	1.51
Audiovisual Activities	24,371	3.07	175	2.02	74	2.03	9	1.94
Personal Services	29,615	3.73	25	0.29	1	0.03	0	0
Total	794,103	100	8,682	100	3,649	100	463	100

Table 2: Top Five Regions in terms of Business Services and Multinational Parents, 2001

Region	Business Services Firms	Region	Multinational Parents	Region	New Multinationals
Nord	1058	Val de Marne	13	Rhone	2
Bouches du Rhone	1174	Nord	13	Val de Marne	3
Rhone	1325	Rhone	15	Bouches du Rhone	3
Hauts de Seine	2886	Hauts de Seine	63	Hauts de Seine	7
Paris	6569	Paris	118	Paris	11

Table 3: Summary Statistics of the Main Variables

Variable	Nb Observations	Mean	St. Deviation	Within Variation	Between Variation
New Multinational	7477	0.06	0.24	0.22	0.14
Multinational	7477	0.19	0.40	0.30	0.25
Effective Business Services	7477	201.65	318.53	115.75	330.22
Nb Local Affiliates	7477	4.06	6.31	3.66	4.97
Labour Productivity	6043	566.71	1517.48	992.88	1567.38
Scale	7477	175.81	412.33	163.80	263.99
Multinationals_Regions	7477	79.78	97.01	14.90	96.83
Multinationals_Industry	7477	58.28	66.10	17.15	65.62
Agglomeration	7477	9.87	12.86	2.15	12.23
Business Services_All Regions	7477	172.57	298.64	108.72	309.42

Table 4: Business Services and New Multinationals – Baseline estimations

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services	0.8***	0.88***	0.95***	1.34***
	(0.2)	(0.2)	(0.2)	(0.3)
Nb Local Affiliates	1.3***	1.24***	1.25***	1.5***
	(0.08)	(0.09)	(0.1)	(0.1)
Multinationals_Regions	-0.35***	-0.2	-0.31**	-0.6**
	(0.13)	(0.14)	(0.13)	(0.2)
Multinationals_Industry	-0.55***	-0.5***	-0.53***	-0.86***
	(0.1)	(0.1)	(0.1)	(0.1)
Labour Productivity	0.28***	0.3***	0.32***	0.57***
	(0.09)	(0.09)	(0.1)	(0.16)
Scale	0.28***	0.35***	0.36***	0.55***
	(0.05)	(0.06)	(0.05)	(0.06)
Agglomeration	-0.002	-0.008	-0.01	-0.006
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-7.463***	-7.838***	-8.109***	-40.04***
	(1.1)	(1.3)	(1.2)	(2.8)
Nb of observations	5184	5115	5011	3707
Predicted Probability	0. 13***	0. 09***	0. 1***	0.03***
	(0.009)	(0.008)	(0.009)	(0.005)
Business Services (Marginal effect)	0.09***	0.08***	0.09***	0.05***
	(0.02)	(0.02)	(0.02)	(0.01)

Note: All specifications include constant, time, region and 3-digit industry fixed effects. In all specifications standard errors are clustered at the region-industry level.

Table 5: Business Services and New Multinationals – Including Interactions

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services	1.05***	1.14***	1.2***	1.58***
	(0.2)	(0.2)	(0.2)	(0.2)
Nb Local Affiliates	2.2***	2.3***	2.3***	2.7***
	(0.17)	(0.2)	(0.17)	(0.23)
EBS*Nb Local Affiliates	-0.2***	-0.24***	-0.25***	-0.27***
	(0.03)	(0.04)	(0.03)	(0.04)
Multinationals_Regions	-0.37***	-0.22	-0.32**	-0.65**
	(0.14)	(0.15)	(0.14)	(0.27)
Multinationals_Industry	-0.54***	-0.5***	-0.5***	-0.82***
	(0.09)	(0.11)	(0.11)	(0.13)
Labour Productivity	0.28***	0.32***	0.32***	0.6***
	(0.08)	(0.09)	(0.11)	(0.16)
Scale	0.29***	0.35***	0.37***	0.57***
	(0.05)	(0.05)	(0.05)	(0.07)
Agglomeration	-0.0001	-0.004	-0.01	-0.007
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-8.64***	-9.3***	-9.4***	-38.92***
	(1.1)	(1.3)	(1.2)	(2.2)
Nb of observations	5184	5115	5011	3707
Predicted Probability	0. 12***	0. 09***	0. 09***	0.03***
	(0.009)	(0.008)	(0.008)	(0.005)
Business Services (Marginal effect)	0.12***	0.1***	0.11***	0.05***
	(0.02)	(0.02)	(0.02)	(0.01)

Note: All specifications include constant, time, region and 3-digit industry fixed effects. In all specifications standard errors are clustered at the region-industry level.

Table 6: IV regressions

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services	0.05**	0.04	0.05**	0.021
	(0.02)	(0.02)	(0.02)	(0.02)
Nb Local Affiliates	0.25***	0.24***	0.27***	0.16***
	(0.03)	(0.03)	(0.03)	(0.03)
EBS*Nb Local Affiliates	-0.01*	-0.01**	-0.02***	-0.01
	(0.007)	(0.008)	(0.007)	(0.007)
Multinationals_Regions	-0.02	-0.01	-0.02	-0.017
	(0.02)	(0.02)	(0.02)	(0.016)
Multinationals_Industry	-0.05***	-0.04**	-0.03*	-0.04***
	(0.02)	(0.017)	(0.018)	(0.015)
Labour Productivity	0.03**	0.027**	0.024**	0.027***
	(0.01)	(0.01)	(0.01)	(0.009)
Scale	0.03***	0.037***	0.035***	0.035***
	(0.008)	(0.008)	(0.007)	(0.007)
Agglomeration	-0.0006	-0.001	-0.002	-0.0005
	(0.001)	(0.001)	(0.001)	(0.001)
Constant	-0.06	-0.02	-0.02	0.05
	(0.06)	(0.06)	(0.05)	(0.04)
Nb of observations	5344	5344	5344	4670
R-squared	0.3	0.29	0.296	0.276

Note: All specifications include constant, time, province and 3-digit industry fixed effects. We have also included two additional controls at the regional level, a dummy indicating the presence of a port and a dummy indicating the presence of an airport with international flights. Both these variables are insignificant. In all specifications standard errors are clustered at the region-industry level.

Table 7: Business Services and New Multinationals – Excluding the Ile-de-France Province

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services	1.2***	1.3***	1.2***	1.7***
	(0.3)	(0.3)	(0.3)	(0.4)
Nb Local Affiliates	2.8***	2.9***	2.9***	3.5***
	(0.2)	(0.27)	(0.25)	(0.45)
EBS*Nb Local Affiliates	-0.4***	-0.4***	-0.43***	-0.47***
	(0.06)	(0.06)	(0.07)	(0.14)
Multinationals_Regions	-0.3*	-0.19	-0.25	-0.7*
	(0.189)	(0.194)	(0.193)	(0.398)
Multinationals_Industry	-0.3**	-0.3**	-0.25	-0.46***
	(0.14)	(0.15)	(0.16)	(0.17)
Labour Productivity	0.09	0.14	0.18	0.3
	(0.13)	(0.15)	(0.15)	(0.31)
Scale	0.3***	0.41***	0.48***	0.6***
	(0.1)	(0.11)	(0.09)	(0.11)
Agglomeration	0.005	-0.03	-0.03	0.05
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	-6.9***	-7.75***	-8.5***	-8.5***
	(1.4)	(1.6)	(1.5)	(2.06)
Nb of observations	2786	2723	2710	1803
Predicted Probability	0. 12***	0. 09***	0. 09***	0.03***
	(0.01)	(0.01)	(0.01)	(0.01)
Effective Business Services (Marginal effect)	0.13***	0.11***	0.1***	0.04***
	(0.04)	(0.03)	(0.03)	(0.01)

Note: All specifications include constant, time, region and 3-digit industry fixed effects. In all specifications standard errors are clustered at the region-industry level.

Table 8: Business Services and New Multinationals – Within the Ile-de-France Province

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services	1.3***	1.8***	1.9***	3.3***
	(0.44)	(0.44)	(0.46)	(0.79)
Nb Local Affiliates	2.7***	3.05***	2.8***	2.4***
	(0.54)	(0.7)	(0.6)	(0.8)
EBS*Nb Local Affiliates	-0.25***	-0.33***	-0.29***	-0.2
	(0.08)	(0.12)	(0.1)	(0.13)
Multinationals_Regions	-0.17	-0.07	-0.5	-1.2
	(0.38)	(0.38)	(0.44)	(0.89)
Multinationals_Industry	-0.77***	-0.84***	-1.01***	-1.99***
	(0.18)	(0.21)	(0.21)	(0.4)
Labour Productivity	0.45***	0.48***	0.4***	0.74***
	(0.08)	(0.1)	(0.09)	(0.1)
Scale	0.31***	0.41***	0.36***	0.48***
	(0.08)	(0.07)	(0.07)	(0.12)
Agglomeration	-0.01	-0.02	-0.03**	-0.023
	(0.01)	(0.01)	(0.01)	(0.02)
Constant	-24.8***	-27.5***	-26.11***	-28.08***
	(2.4)	(2.44)	(2.43)	(4.03)
Nb of observations	1957	1893	1870	1495
Predicted Probability	0. 1***	0. 09***	0. 07***	0.02***
	(0.01)	(0.02)	(0.01)	(0.004)
Business Services (Marginal effect)	0.13***	0.16**	0.15**	0.08***
	(0.04)	(0.03)	(0.05)	(0.02)

Note: All specifications include constant, time, region and 3-digit industry fixed effects. In all specifications standard errors are clustered at the region-industry level.

Table 9: Business Services and New Multinationals – Distance weighted measures

	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Effective Business Services_All Regions	1.4***	1.47***	1.6***	2.07***
	(0.29)	(0.3)	(0.34)	(0.4)
Nb Local Affiliates	1.89***	1.95***	2.03***	2.31***
	(0.15)	(0.17)	(0.16)	(0.22)
EBS_AR*Nb Local Affiliates	-0.15***	-0.18***	-0.2***	-0.2***
	(0.02)	(0.03)	(0.02)	(0.03)
Multinationals_Regions	-0.36***	-0.21	-0.31**	-0.6**
	(0.13)	(0.14)	(0.13)	(0.25)
Multinationals_Industry	-0.6***	-0.57***	-0.58***	-0.93***
	(0.11)	(0.12)	(0.13)	(0.14)
Labour Productivity	0.28***	0.32***	0.32***	0.58***
	(0.08)	(0.09)	(0.1)	(0.1)
Scale	0.28***	0.35***	0.37***	0.57***
	(0.05)	(0.05)	(0.05)	(0.06)
Agglomeration	-0.001	-0.006	-0.01	-0.006
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	-9.6***	-10.2***	-10.6***	-39.1***
	(1.3)	(1.5)	(1.5)	(2.2)
Nb of observations	5184	5115	5011	3707
Predicted Probability	0. 12***	0. 09***	0. 09***	0.03***
	(0.009)	(0.008)	(0.008)	(0.005)
Effective Business Services_ All Regions (Marginal effect)	0.16***	0.13***	0.14***	0.06***
	(0.03)	(0.03)	(0.03)	(0.01)

Note: All specifications include constant, time, region and 3-digit industry fixed effects. In all specifications standard errors are clustered at the region-industry level.

Appendix

Table A1: Summary Statistics by Type of Firm

	Single			Domestic Parent			Multinational			New Multinational		
Variable	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.	Obs	Mean	Std. Dev.
Scale	776355	57.04	608.4	8357	143	461.99	1883	2604.5	13512.8	1978	257.36	436.5
Output per Worker	564618	585.4	6908.1	6331	1271.7	4337.25	1599	4468.8	32138.91	1680	1920.33	5657.8
Labour Productivity	564618	368.5	2327.9	6331	664.42	2033.4	1599	1399.6	6329.88	1680	621.51	1249.7
TFP	241441	4.58	0.94	3135	4.9	1.01	1074	5	1.07	1228	4.83	1
Output	607082	54711.04	677143.8	7075	125229.8	456500.8	1683	4098830	21500000	1742	294891.3	585019.1
Sales	345927	95969.4	986507.2	3837	159007.2	456500.8	1285	4998296	24100000	1212	351597.9	647078.4
Profits	607082	1603.6	64296.9	7075	5557.7	1105712.5	1683	274069.7	1363576	1742	13412.6	75004.4
Exports	545174	17160.1	340233.5	6839	13128.3	61710.3	1676	1238525	8410109	1725	127129.8	392401.9

Table A2: Heterogeneity of New Multinational Firms

Dependent Variables	New Multinational		Scale		Constant		Year and	Observations	Number of Firms
	Coefficient	Sd Errors	Coefficient	Sd Errors	Coefficient	Sd Errors	Industry Dummies		
TFP	0.08***	0.02			4.64***	0.004	No	248226	39614
TFP	0.05**	0.02			4.4***	0.04	Yes	248226	39614
TFP	0.06***	0.02	-0.03***	0.002	4.5***	0.04	Yes	248226	39614
Labour Productivity	0.001	0.02			5.32***	0.002	No	578365	152046
Labour Productivity	0.03*	0.02			2.8***	0.01	Yes	578365	152046
Labour Productivity	0.06***	0.02	-0.08***	0.001	2.8***	0.01	Yes	578365	152046
Output per Worker	0.22***	0.02			5.6***	0.006	No	359620	73970
Output per Worker	0.14***	0.02			4.3***	0.22	Yes	359620	73970
Output per Worker	0.14***	0.02	0.04***	0.002	4.2***	0.22	Yes	359620	73970
Scale	0.2***	0.01			1.8***	0.003	No	741241	192365
Scale	0.22***	0.01			0.8***	0.01	Yes	741241	192365
Sales	0.38***	0.01			10.06***	0.005	No	298695	53695
Sales	0.22***	0.01			9.1***	0.05	Yes	298695	53695
Sales	0.12***	0.01	0.78***	0.001	6.5***	0.03	Yes	297918	53451
Exports	0.79***	0.05			6.9***	0.01	No	212800	49037
Exports	0.47***	0.05			5.4***	0.4	Yes	212800	49037
Exports	0.27***	0.05	0.9***	0.005	2.5***	0.4	Yes	210754	47729
Profits	0.56 ***	0.05			6.4***	0.007	No	265709	56521
Profits	0.45***	0.05			3.78***	0.07	Yes	265709	56521
Profits	0.35***	0.04	0.63***	0.005	1.6***	0.06	Yes	262341	55568

Table A3: Random Effects Probit Estimations

	(1)
Effective Business Services	0.74**
	(0.37)
Nb Local Affiliates	4.47***
	(0.75)
EBS*Nb Local Affiliates	-0.38**
	(0.17)
Multinationals_Regions	-0.27
	(0.24)
Multinationals_Industry	-0.25
	(0.18)
Labour Productivity	0.25**
	(0.1)
Scale	0.42***
	(0.1)
Agglomeration	-0.02
	(0.02)
Constant	-11.97***
	(2.5)
Nb of observations	5184

Note: specification include constant, time, region and 3-digit industry fixed effects. Standard errors are clustered at the region-industry level.

Table A4: Countries with Trade Restriction in the Services Sector

Mode 1
Albania
Algeria
Argentina
Armenia
Bahrain
Bangladesh
Belarus
Botswana
Brazil
Cambodia
China
Costa Rica
Cote d'Ivoire
Czech Republic
Ethiopia
Guatemala
Honduras
Hungary
India
Iran
Italy
Japan
Kenya
Republic of Korea
Kuwait
Lebanon
Madagascar
Malawi
Malaysia
Mauritius
Mexico
Mongolia
Morocco
Mozambique
Namibia
Nepal
Pakistan
Paraguay
Peru
Philippines
Portugal
Saudi Arabia
Senegal
Thailand
Tunisia
Turkey
Uganda
Uzbekistan
Zimbabwe

Table A5: First Stage IV Regressions

	Effective Business Services			
	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Nb Local Affiliates	-0.08	-0.08	-0.08	-0.11
	(0.11)	(0.11)	(0.11)	(0.12)
Multinationals_Regions	0.17***	0.17***	0.17***	0.16***
	(0.01)	(0.01)	(0.01)	(0.01)
Multinationals_Industry	0.33***	0.33***	0.33***	0.32***
	(0.02)	(0.02)	(0.02)	(0.02)
Labour Productivity	0.004	0.004	0.004	0.01
	(0.008)	(0.008)	(0.008)	(0.008)
Scale	-0.01*	-0.01*	-0.01*	-0.01**
	(0.005)	(0.005)	(0.005)	(0.005)
Agglomeration	0.007***	0.007***	0.007***	0.007***
	(0.001)	(0.001)	(0.001)	(0.001)
Port	-0.24***	-0.24***	-0.24***	-0.22***
	(0.05)	(0.05)	(0.05)	(0.05)
International Airport	-0.19***	-0.19***	-0.19***	-0.2***
	(0.03)	(0.03)	(0.03)	(0.03)
Total Population Region	1.27***	1.27***	1.27***	1.28***
	(0.03)	(0.03)	(0.03)	(0.03)
Total Population Region*Nb Local Affiliates	0.006	0.006	0.006	0.008
	(0.009)	(0.009)	(0.009)	(0.009)
F-Statistics	4763.6***	4763.6***	4763.6***	1060.17***
Exogeneity test	1.9	1.9	1.9	1.4

	EBS*NB Local Affiliates			
	(1) All Countries	(2) No Colony	(3) No Common Language	(4) Closed to BS
Nb Local Affiliates	-17.77***	-17.77***	-17.77***	-17.09***
	(0.64)	(0.64)	(0.64)	(0.7)
Multinationals_Regions	0.15***	0.15***	0.15***	0.11**
	(0.05)	(0.05)	(0.05)	(0.05)
Multinationals_Industry	0.51	0.51	0.51	0.45***
	(0.04)	(0.04)	(0.04)	(0.04)
Labour Productivity	0.01	0.01	0.01	0.01
	(0.02)	(0.02)	(0.02)	(0.02)
Scale	-0.01	-0.01	-0.01	-0.02
	(0.01)	(0.01)	(0.01)	(0.01)
Agglomeration	0.002	0.002	0.002	0.003
	(0.004)	(0.004)	(0.004)	(0.004)
Port	-0.43**	-0.43**	-0.43**	-0.43**
	(0.19)	(0.19)	(0.19)	(0.2)
International Airport	-0.35***	-0.35***	-0.35***	-0.31***
	(0.09)	(0.09)	(0.09)	(0.1)
Total Population Region	-0.51***	-0.51***	-0.51***	-0.4***
	(0.11)	(0.11)	(0.11)	(0.11)
Total Population Region*Nb Local Affiliates	1.74***	1.74***	1.74***	1.7***
	(0.05)	(0.05)	(0.05)	(0.05)
F-Statistics	54.46***	54.46***	54.46***	164.25***
Exogeneity test	1.9	1.9	1.9	1.4