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A Microeconometric Analysis of the Springboard Subsidiary: The Case of Spanish Firms

Carolina Caicedo Marulanda, José Pla-Barber, Fidel León Darder, and Jhon James Mora Rodríguez

Abstract
This paper provides a microeconometric analysis of the distinctive characteristics of springboard subsidiaries that have a positive impact on the subsidiaries’ performance. Based on panel data estimations for subsidiaries of European multinational companies with a presence in Spain, the authors found that if the subsidiary is located in the springboard country, then the performance improvement (increase in profit margin) of the subsidiary is about 49 percentage points. When the Spanish subsidiary is considered a springboard subsidiary, its performance is 7.7 percentage points higher than the performance of other subsidiaries that are not springboard subsidiaries. If the subsidiary has a technological relationship with another subsidiary, its performance is 6.7 percentage points higher than the performance of other subsidiaries that do not have a technological relationship. Finally, when the firm has low autonomy, the performance of the subsidiary is 6.2 percentage points lower than that of firms that are independent or have a high level of autonomy.

JEL C23 D22 J25

Keywords Microeconometric analysis; springboard country; springboard subsidiary; subsidiary – specific advantage; firm performance; panel data

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1 Introduction

Recent decades have witnessed significant changes in economics, politics, technology and culture; all of these changes have been bolstered by what is known today as globalization. Many academics from global institutions view globalization as a solely economic phenomenon: A strong interdependence develops among countries around the world (Stiglitz, 2006) in which their national or regional economies are immersed in a process of expanding integration (Whitley, 2001) aimed at stimulating the creation of and strengthening global institutions that advocate for adherence to international standards and behaviors (Benito, 2005). This phenomenon goes far beyond economic matters to encompass multiple dimensions, creating an environment in which business is carried out not only in a domestic context but in a global one as well.

Globalization is changing ways of doing business (O’Donnell, 2000) and the competitive environment in which companies carry out their corporate strategies (Meyer, 2006). Multinational companies (MNCs) are the main proponents of growing economic interdependence between nations and regions, which has transformed them into “key actors in the globalization process” (Rugman and Verbeke, 2004). One long-held perception of MNCs was that they possessed large structures and strong ties to domestic markets and to centralized governance structures that exercised control over most activities in the value chain. But globalization has changed this perception to one in which they are viewed as organizations in which linkages are prioritized over structure, flexibility over size, and frequently the intangible is valued more highly than physical assets (Pla-Barber and León, 2004).

However, not all approaches point toward domination of the economic environment by unfettered globalization. According to Yeung, Poon and Perry (2001), parallel to the globalization process there has been a process of “regionalization in which three regions have emerged as leading pillars of a tripolar world economy – North America, Western Europe and East Asia” (Lasserre, 1996). In their view, the driving force of globalization is the existence of relatively homogeneous markets that have arisen as a result of regional economic integration policies. These integration policies may be organized by product, which is the most widely used form in Latin America and implies trade flows and direct foreign investment; or by capital, work and knowledge, which move internationally as a
result of deeper integration treaties (Ghemawat, 2003). And although these treaties have made significant progress in terms of integration (e.g., the EU), they are still far from what Ghemawat (2003) has referred to as “semiglobalization.”

In these new types of integration, subsidiaries become an important unit of analysis (Rugman and Verbeke, 2001). Their significance lies in the key strategic role that subsidiaries can play in developing the firm's specific advantages through their operation in foreign markets, and the resulting impact not only on their performance but on the MNC's entire network. In addition, international expansion of MNCs has been an important topic of research both in the field of international business and in management strategy (Delios and Beamish, 2001). Although initially many considered subsidiaries to be merely organizational units of the parent company located in distant geographic locations and exposed to the idiosyncratic elements of the business environments in which they operated, today the perception of them has changed considerably not only in the research field but also within MNCs (parent companies) themselves. The latter have now come to view subsidiaries as essential elements from strategic, competitive and financial points of view, given their influence on the MNC’s overall performance.

The study of behaviors and strategies used by companies to address the challenge of doing business in a globalized world has revealed a gap between the explanations of traditional theory and what firms do in the field of international business. This includes behaviors that cannot be fully explained by the existing theory either because they incorporate and/or combine elements that had not been considered simultaneously or because they are behaviors that have never been documented before. It is precisely in this context that the springboard perspective emerges. According to this theory, it is possible for companies to take shortcuts in their internationalization processes by making use of both the strategic position that a country may play as a mediator between other countries and making use of the skills that a company may develop, in order to incorporate the advantages derived from the strategic role of the country where it is located. Pla-Barber and Camps (2012) developed this theory and refer to this strategic role as the “springboard country,” within the framework of the theory of internationalization processes. According to the various perspectives on this process, when companies enter international markets, an experiential knowledge acquisition process is generated that is vital to the successful development of international business as carried out by MNCs. The springboard country provides the company with a new
way of acquiring part of the experiential knowledge needed to develop new markets without having a previous investment history in said markets.

The springboard perspective (Pla-Barber and Camps, 2012) is based on two inseparable concepts: the springboard country and the springboard subsidiary. A springboard country is one that maintains an intermediate position in terms of distance, institutional knowledge, and business knowledge between the country of origin and the country where the investment is being made. The springboard subsidiary is located in the springboard country and has successfully incorporated the specific advantage of the springboard country into its competitive strategy. This enables the subsidiary to gain external legitimacy to the extent that it incorporates organizational and business knowledge that deepens its connection to the target country. It also provides it with internal legitimacy, to the degree that it is recognized, by the parent company and the company’s other subsidiaries, as a regional headquarters outside the geographical region of the subsidiaries over which it has influence or for which it develops management practices.

The principal contribution of this article consists of providing an empirical validation of the springboard approach to internationalization, where the subsidiary of an MNC that is located in a springboard country will begin its internationalization process based on the development of distinctive capacities that generate advantages, enabling it to signal to the parent company and other subsidiaries its position as a springboard subsidiary. These capacities enable such subsidiaries to become semi-autonomous actors with incremental resources of influence and power that they are willing to use to stimulate change, innovation, and growth within their corporate networks.

This paper is organized as follows: the first section provides an introduction, while the second section presents a review of the literature and the hypotheses. In the third section we describe the sample, the data used, operationalizations of the variables and the data panel model. The fourth section provides the study findings and general conclusions are presented in the fifth section.

2 Literature Review and Hypotheses

The springboard perspective is therefore an alternative way to explain how companies develop internationalization processes in emerging markets. It is worth noting that this concept encompasses not only companies in emerging economies
but also large MNCs from developed countries that are interested in entering emerging markets without the need to acquire \textit{in situ} experience in advance.

Luo and Tung (2007) consider that MNCs from emerging economies use foreign investments as a springboard for acquiring strategic assets needed to compete effectively against global competitors and avoid institutional and market limitations faced both in the domestic market and internationally. Springboarding behaviors are often characterized as allowing firms to overcome the disadvantage of being a new arrival in the global market through a series of aggressive and risky measures to acquire critical assets from mature MNCs in order to compensate for competitive weaknesses. These MNCs do not rely on previous experience, nor do they follow evolutionary processes such as those described in traditional sequential internationalization theory, nor do they choose forms of entrance or localization of the productive activity that result from that model (Luo and Tung, 2007).

According to Figure 1, multinationals from emerging markets use international expansion as a springboard to acquire the strategic assets needed to compete more effectively against global competitors, both in their market of origin and abroad, and to avoid institutional and market restrictions faced in their countries of origin. This set of actions taken by MNCs constitutes a deliberate, long-term strategy aimed at reaching a higher growth level for the firm and better positioning in global markets. Springboarding activities are recursive in that they are recurring and rotational. They are recurring since through an acquisition the MNC is able to solve a latent disadvantage it has, for example, in marketing, or it is able to improve distribution channels. And springboarding activities are rotational because the resulting activities are integrated with the firm’s activities in the domestic market. This latter aspect is very important because MNCs from emerging markets strongly depend on their domestic markets and if their market position is threatened, the MNC may face extinction despite the success of its activities abroad.

Thus, the springboard perspective is a defensive strategy for emerging country MNCs who have seen their markets become increasingly attractive to MNCs from developed countries. This strategy enables such emerging economy MNCs to develop a strong position in the domestic market that cannot be eroded by competitors from abroad and established domestic competitors.

For their part, Pla-Barber and Camps (2012) consider a springboard perspective in which MNCs from European countries can develop a spring-
boarding strategy where the MNC's subsidiary, taking advantage of the strategic position of the springboard country in relation to the destination countries, can manage its network of subsidiaries in these countries and become a springboard subsidiary. The springboard approach can therefore be seen in the opposite direction as Luo and Tung (2007), since for Pla-Barber and Camps' (2012) the springboard strategy can be used by MNCs from developed countries who want to enter emerging markets, in addition to MNCs from emerging countries.

Pla-Barber and Camps (2012) start from the analysis of international business (Johanson and Vahlne, 1977), the regionalization theory of Rugman and Verbeke (2005, 2007) and develop research on how MNCs manage their foreign subsidiaries in the field of economic geography (e.g., Yeung, Poon, and Perry 2001 and Fuller and Phelps 2000). Thus, the springboard strategy can be developed by a subsidiary that is located in a springboard country. The springboard country holds an intermediate position in terms of institutional knowledge and business knowledge between the country of origin and the investment destination. The subsidiary located in said country will be a springboard subsidiary if it is able to incorporate that specific advantage of the springboard country into its strategy and transform it into a specific advantage for the firm. This will give the subsidiary external legitimacy to the extent that it incorporates institutional and
business knowledge that deepens its relationship with the destination country and internal legitimacy to the extent that it is recognized by headquarters and the other subsidiaries as a regional headquarters established outside the geographic region of the subsidiaries over which it exercises influence or management practices. The basic model suggested by Pla-Barber and Camps (2012) is illustrated in Figure 2.

A key element in the development of the springboard country concept is experiential knowledge, which will be acquired faster if the MNC is situated in an institutional and business environment that occupies an intermediate position between the MNCs origin and its destination (Pla-Barber and Camps, 2012). Penrose (1959) proposes that experiential knowledge can only be learned through personal experience and that experience itself cannot be transmitted or separated from individuals. This knowledge is crucial in internationalization processes but must be gained successively during operation in international markets (Johanson and Vahlne, 1977) since it cannot be acquired easily (Barkema, Bell, and Pennings, 1996). Experiential knowledge that is obtained through the internationalization process allows decision-makers to change their perception of the costs and benefits of changing or entering a market (Calof and Beamish, 1995). It also allows firms to acquire greater confidence in their ability to measure consumer needs (Davidson, 1980) and to evaluate the true economic value of foreign markets (Erramilli, 1991). According to Eriksson et al. (1997, p. 340) “experiential knowledge not only produces a reduction in the risks involved in going abroad but also provides a vehicle for acquiring knowledge of internal and external resources and opportunities for combining them,” such that the firm develops capacities that enable it to enter markets that are more distant from one another, less familiar and more differentiated (Davidson, 1983). Eriksson et al. (1997) view experiential knowledge of a market as having two different aspects: business knowledge related to clients, markets and competitors abroad and institutional knowledge that involves knowledge about the government, the institutional structure, rules, regulations and values specific to foreign markets. Thus, lack of business and institutional knowledge positively influences the perceived cost of the internationalization process; these costs are mainly related to collection, codification, transfer and decodification of knowledge and the change in resource structures, processes and routines in the organization. While it is true that firms can acquire all this knowledge through their own forays
Figure 2: The springboard perspective according to Pla-Barber and Camps (2012)

Source: Prepared by authors, following Pla-Barber and Camps (2012).
into foreign markets, Pla-Barber and Camps (2012) suggest that there are other ways of acquiring such knowledge, such as through imitation, mergers and acquisitions, hiring human resources with a high level of experience or through the springboard country concept.

When developments prior to the springboard country perspective are integrated, they determine the cases in which a country can be considered a springboard. The first condition is related to institutional knowledge. In this sense, the springboard country must be in an intermediate position between the destination country and the origin country, such that the institutional distance between the two countries is shortened by the intermediation of the springboard country. The second condition is related to the existence of some intense business flows between the springboard country and the destination country that can benefit the acquisition of business knowledge by the firm in the country of origin such that it has the possibility of developing business networks from the springboard country.

In this way the subsidiary of an MNC located in a springboard country will have a large number of subsidiary companies (Birkinshaw and Hood, 1998). For Taggart (1998), subsidiaries are “generally distant tools of corporate management that react like nodes to impulses sent downward through the bureaucratic nervous system” (1998). For Bouquet and Birkinshaw (2008) they are subordinate entities within the MNC. Meanwhile, White and Poynter (1984) view them as semi-autonomous actors with their own resources and distinct environments, capable of taking their own strategic actions within certain limitations and contributing to reaching the objectives of the overall organization.

While there are numerous points of view on what defines a subsidiary, all of them consider it part of the MNC and its role within the MNC has been the subject of numerous studies (Youssef, 1975; Brandt and Hulbert, 1976; Sim, 1977; Garnier, 1982; and Birkinshaw and Hood, 1998). Studies initially focused on the parent company-subsidiary relationship and the parent company's decisions to invest abroad (Birkinshaw and Morrison, 1995; Gupta and Govindarajan, 1991; Ghoshal and Bartlett, 1990; Dunning, 1988). Later, the research focus shifted to coordination of management tasks for a network of subsidiaries based overseas (Birkinshaw and Morrison, 1995) and analysis of the competitive advantage that emerges from the possibility of obtaining profits from economies within the scope of such networks (Ghoshal and Bartlett, 1990; Birkinshaw and Hood, 1998; Rugman and Verbeke, 2001). In the 1990s, studies increasingly examined
networks and/or strategies of subsidiaries (Taggart, 1998; Ghoshal and Bartlett, 1990; Gupta and Govindarajan, 1991; Jarillo and Martínez, 1990; Roth and Morrison, 1992; and Surlemont, 1998, among others).

Globalization's impact on business and changing global competitive conditions have transformed the view of the MNC. The relationship between the parent company and the subsidiary is no longer seen as hierarchical, but as “a web of diverse and differentiated inter- and intra-firm relationships” (O'Donnell, 2000, p. 526). Through this lens, significant attention is paid to lateral relationships within the MNC and the benefit that may be derived from transferring resources and competencies that can be developed in different locations where the MNC has subsidiaries (O'Donnell, 2000).

Knowledge alone can be used in a local and static sense but can generate dynamic benefits for the organization as a whole (Rugman and Verbeke, 1992). For this to be possible, the knowledge acquired must be relevant, specialized, recognized and sustainable in the long term (Rugman and Verbeke, 2001).

When the subsidiary is effectively able to meet these conditions and is perceived as being clearly differentiated, it may receive more resources and obtain a greater degree of autonomy (Monteiro et al., 2008). The aforementioned aspects are fundamental in enabling a subsidiary to perform the role of a springboard and formulate strategies and implement autonomous decisions in the target country or region (Pla-Barber and Camps, 2012). However, although the conditions for being a springboard subsidiary are fairly specific, like any other subsidiary they can perform different functions. Regarding the role of subsidiaries, they have changed from fulfilling more or less the same functions to a network model, where each subsidiary is constantly seeking to differentiate itself (Rugman and Verbeke, 2001, 2003). This is conditioned more by the specific external environments of the countries in which they are located and entails unique challenges for development of specialized competencies that enable subsidiaries to move up within the network of subsidiaries and become key aspects of their stability and performance.

Considering the definition provided for the springboard subsidiary, an initial approximation is to frame this concept within existing typologies of subsidiaries and then differentiate among the multiple roles that a subsidiary may play, in order to define its basic characteristics.

In classifying the strategic roles of subsidiaries, two possibilities emerge: the Integration-Responsibility (I-R) structure and the structure based on knowledge
flows. In an exploration of the evolution of strategy in subsidiaries, Taggart (1998) proposes that one of the dominant paradigms in the 1980s and 1990s was the Integration-Responsibility structure, which was developed by Prahalad and Doz (1987) and evaluated empirically by Roth and Morrison (1990) and Johnson (1995). Harzing and Noorderhaven (2006) consider that one of the most influential contributions on subsidiary role typologies is that put forward by Gupta and Govindarajan (1991), who proposed a structure based on knowledge flows such that they can be classified as either a global innovator, integrated player, implementor, or local innovator (Gupta and Govindarajan, 1991).

One of the characteristics of the springboard subsidiary is autonomy, which is not limited to its local market but extends to a regional sphere, given that it is a springboard. In this same sense, it will need to have developed strong ties to other units within the network of subsidiaries (to the degree that these are managed by the springboard subsidiary) and with the parent company itself, which will delegate to the springboard subsidiary the focus on a geographic area over which it once exercised influence. The springboard subsidiary will serve as a source of knowledge for other units but will be responsible for creating new knowledge, knowledge that is not tied to the subsidiary's geographical location and that the MNC can take advantage as a whole (Gupta and Govindarajan, 1991; Rugman and Verbeke, 1992).

Because the springboard subsidiary has influence not only over its own management but also the management of other subsidiaries, it takes on the characteristics of centers of excellence to the extent that it acquires expertise in specific areas and leverages those resources within the organization. It also becomes more generalist, a characteristic of administrative centers (Surlemont, 1998). Finally, there is one characteristic that differentiates springboard subsidiaries from regional centers or headquarters: While the latter are located in the region (as is the case of a regional headquarters for East Asia that is located in Singapore), the springboard subsidiary is based outside the region, constituting an extra-regional headquarters (Pla-Barber and Camps, 2012).

Also, there is a connection between FDI and springboard subsidiaries. We took this relationship into consideration through the construction of the springboard country variable, which was created to serve as an index of distance that includes FDI as one of its aspects. The springboard country is the strategic role that a country can play when it holds an intermediary position between two countries.
that want to establish inflows and outflows of direct foreign investment. Rather than being based on geographical distance, its advantageous position is based on institutional distance, which is decisive for these types of flows of capital, knowledge and final products.

Thus, the springboard perspective may be seen as a strategy available to multinationals in developed countries that seek to enter emerging markets. In this vein, Pla-Barber and Camps (2012) propose a springboard perspective in which European multinationals can develop a springboarding strategy. Using this strategy, the multinational’s subsidiary takes advantage of a springboard country’s strategic position relative to the destination countries in order to manage its network of subsidiaries, thus becoming a springboard subsidiary. This perspective is based on theoretical developments in literature on international business (Johanson and Vahlne, 1977), regionalization theory (Rugman and Verbeke, 2005; Rugman and Verbeke, 2007), and research in the economic geography field on how multinational companies manage their foreign subsidiaries (e.g., Yeung, Poon, and Rerry (2001) and Fuller and Phelps (2000).

Finally, it is clear that in standard FDI theory (Rugman 1986, Caves 1971, Hollenstein and Berger 2015) firms invest in foreign markets in order to obtain rents from exploiting firm-specific capabilities (products and knowledge). FDI boosts firms’ strategic position by providing access to scarce resources like labor and knowledge (Chen and Chen 1998).

2.1 Formulation of Hypotheses

The role of the springboard subsidiary depends fundamentally on whether the subsidiary is able to internalize the specific advantages of the springboard country in which it operates and develop specific advantages for the firm.

Springboard Country and Subsidiary Performance: The springboard country is the strategic role that a country can perform when it is in an intermediate position between two countries that seek to establish inflows and outflows of direct foreign investment. Its advantageous position is based not on geographical distance but on the institutional distance that becomes decisive for these types of relationships involving flows of capital, knowledge, and final products. The position of the springboard country has advantages, given the possibility that firms have of exploiting this “natural” advantage and incorporating
it into their competitive advantage based on their location in the country and the development of some capacity in terms of knowledge absorption and transfer. Specifically, what the springboard country offers the firm is an institutional proximity [cultural, commercial, economic, geographical, demographic, innovation, financial, regulatory, political, trade practice, connectivity and labor market distance] that is closer than what would exist directly between the country of origin and the country to which the investment is directed. As the springboard subsidiary has been located in the springboard country and has developed the capacity for knowledge absorption and transfer, it is possible to pose that:

**Hypothesis 1.** Locating in a springboard country improves the subsidiary's performance.

Thus, the role of the springboard subsidiary depends fundamentally on whether the subsidiary is able to internalize the specific advantages of the host country in which it operates and develop specific advantages for the firm that improve its performance. As posed by Pla-Barber and Camps (2012), the basic argument of the springboard perspective is that the subsidiary becomes a springboard to the extent that it can develop a specific advantage based on institutional and business knowledge derived from its location in the springboard country, which can only be used in a local and static sense but can generate dynamic benefits for the organization overall (Rugman and Verbeke, 1992).

**Subsidiary's Absorption Capacity and Performance:** The knowledge base is perhaps the greatest capacity that serves as a source of sustainable differentiation and therefore competitive advantage for firms (Gupta and Govindarajan, 2000). One concept that is closely linked to absorption capacity is that of intangible assets (Harris and Moffat, 2013). Intangible assets are defined as the knowledge incorporated into intellectual assets and absorption capacity is defined simply as the ability to exploit knowledge–obtained both internally and externally–that is incorporated into intangible assets (Harris and Moffat, 2013; Cohen and Levinthal, 1990; Lapatinas, 2015). A firm's intangible assets are a key element of its competitiveness, since they improve its capacity to combine internal and external sources of knowledge to exploit business opportunities as a distinctive competency of the firm and expand into new markets (Eustace, 2000; Dunning, 1988; Barney, 1991; Delios and Beamish, 2001). Harris and Moffat
(2013) show that there is a positive relationship between the possession of intangible assets by an MNC and the market value of its subsidiaries by justifying that the possession of intangible assets influences the subsidiary's performance. Therefore, it is possible to pose the following hypothesis:

**Hypothesis 2.** An increase in the absorption capacity of the subsidiary will be positively related to an improvement in the subsidiary’s performance.

Technological Relationship and Subsidiary Performance: A stronger relationship between the subsidiary and the parent company facilitates the dynamic capacity of the subsidiary to receive and assimilate knowledge from the parent company (Fang, Wade, Delios, and Beamish, 2013), allowing for greater familiarity with the knowledge transferred and the capacity to absorb such knowledge (Lane, Salk, and Lyles, 2001). Subsidiaries also have a greater motivation to learn from the parent company when the knowledge that resides with the parent is more valuable and relevant (Fang et al., 2013). Relevance provides the path along which the new knowledge is connected to previous knowledge (Schulz, 2003). The existence of a relationship between the subsidiaries that links them together in some aspects of knowledge (markets, products, technology) makes the process of transferring knowledge between them more effective and this is reflected in the firm's improved performance. Based on the foregoing, the following hypothesis is posed:

**Hypothesis 3.** Subsidiaries that have a technological relationship with the parent company will perform better than subsidiaries that do not have a technological relationship with the parent company.

Because of their characteristics, springboard subsidiaries can perform functions similar to those provided by centers of excellence or regional headquarters (Pla-Barber and Camps, 2012). However, by exercising such functions they face differences in preexisting knowledge as they develop relationships with other subsidiaries, and therefore, sharing processes and having similar techniques, technologies, knowledge and businesses can facilitate this interaction (Adenfelt and Lagerström, 2008).

**Autonomy and Subsidiary Performance:** Autonomy is a key element in the structure of an organization (Garnier, 1982). Subsidiary autonomy has been linked to the assignment of a mandate or specific area of responsibility by the
headquarters (Birkinshaw, 1996) and the growth of a center of excellence capable of creating value in certain areas (Frost, Birkinsaw and Ensign, 2002). Likewise, subsidiary autonomy has also been linked to the development of resources associated with the location (Rugman and Verbeke, 2001). Autonomy allows subsidiaries to develop and contribute to development of their host economies (Edwards, Ahmad and Moss, 2002). Gammelgaard, McDonald, Stephan, Tüselmann, and Dörrenbächer (2012) and Slangen and Hennart (2008) have analyzed subsidiary autonomy and its effect on performance. The findings, both theoretical and empirical, are mixed. On the one hand, Mudambi and Navarra (2004) suggest that subsidiary autonomy increases the ability to appropriate income, leading to inferior subsidiary performance, while Kawai and Strange (2013) find that subsidiary autonomy doesn't independently affect the firm's competitive advantage although it does when other values are considered such as technological uncertainty and internal coordination. On the other hand, Slangen and Hennart (2008), Ambos and Birkinshaw (2010) and Tran, Mahnke, and Ambos (2010) find a relationship between autonomy and subsidiary performance. Meanwhile, McDonald, Warhurst, and Allen (2008) find limited evidence for a positive relationship between some types of autonomy and performance. Therefore, the following hypothesis is posed:

Hypothesis 4. Low subsidiary autonomy reduces subsidiary performance.

Ownership and Subsidiary Performance: Ownership frequently, although not always, represents the degree to which the parent company exercises control over the subsidiary's activities and has strong implications for performance (Erramilli, 1996). Garnier (1982) proposed that headquarters can increase the legal dependency of their foreign subsidiaries and reduce the risks to those subsidiaries through a policy on intellectual property. Foreign ownership is correlated with improvements in productivity (Aitken and Harrison, 1999) and leads to improvements in productivity in the year of acquisition and also in subsequent years (Arnold and Javorcik, 2005). Companies that are foreign-owned tend to improve their performance after acquisition (Chari, Chen, and Dominguez, 2012). Given this, the following hypothesis is posed:

Hypothesis 5. Foreign ownership improves the subsidiary's performance.
European MNCs with subsidiaries in Spain and Latin America were chosen for this study, given the economic relationships and historical ties that connect these two regions in several aspects. According to UNCTAD (2013), Europe is first among the world's leading investors and three Latin American economies are among the largest recipients of investment: Brazil, Chile, and Colombia. As a region, Latin America and the Caribbean is ranked second in terms of inflows and outflows of direct foreign investment and Europe is its primary investor. Historically, Europe has maintained colonial ties with countries in Latin America, which implies the existence of a political, social, commercial, cultural, linguistic, and religious connection. In the past, European cooperation policy has maintained ties to Latin America and this is largely due to the colonial roots that link the two regions (Sanahuja, 2002).

The data are from the AMADEUS database, based on which 2,582 subsidiaries were chosen from an eight-year period (2003-2010). The subsidiaries had parent companies in 18 European countries and the Spanish subsidiaries, in turn, had subsidiaries in 17 countries in Latin America and the Caribbean. The subsidiaries were in industries classified in 20 different sections, using the European Community's Nomenclature of Economic Activities (NACE).

The panel model for $N$ firms and $T$ time periods, where the firms are indexed by $i$ and time by $t$, takes the following form:

$$
Performance_{i,t} = \beta_1 Springboard\ Country_{i,t} + \beta_2 Springboard\ Subsidiary_{i,t} + \beta_3 Autonomy_{i,t} + \beta_4 Technological\ Rel_{i,t} + \beta_5 Absorption\ Capacity_{i,t} + \beta_6 Control\ Variables_{i,t} + \alpha_i + \vartheta_{i,t}
$$

where, $i = 2582$ subsidiaries and $t = 8$ periods, so the total number of observations is 20,656 in the panel data.

$Performance_{i,t}$ reflects a measure of subsidiary performance. In order to analyze the subsidiary's performance, the profit margin of the subsidiaries of

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1 United Kingdom, Germany, Switzerland, France, Sweden, Italy, Norway, Ireland and Luxembourg are among the leading 20 investor countries in the world (UNCTAD, 2013).
European MNCs located in Spain were used, which allowed for evaluation of the subsidiary's performance from a comparative perspective (Andersson, Forsgren and Holm, 2001).

Springboard Country, is a compound indicator developed by Caicedo (2014). This indicator considers all aspects of distance that affect international business and is measured among three countries involved in managing the subsidiaries of an MNC—the parent company's country of origin, the host country of the subsidiary, and an intermediate country considered a springboard—since it reduces the institutional distance between the aforementioned countries. This variable can take three intervals for analysis: $0 < distPt < 1$, which represents the case of the springboard country; $distPt = 1$, when the firm is indifferent to using the country as the springboard country; and $distPt > 1$, when the country is not considered a springboard. Thus, a dummy variable was created that takes a value of 1 when a country is springboard country and 0 when they are not.

Springboard Subsidiary, reflects the springboard subsidiary; ownership was used for this variable. Specifically, if the Spanish subsidiary owns 10% or more of the subsidiary in Latin America, the Spanish subsidiary is considered a springboard subsidiary. The choice of the value is because standard FDI definitions typically only require that the foreign firm (in this case the Spanish subsidiary) hold 10% of the foreign firm. Thus, a dummy variable was created that takes a value of 1 when ownership is equal to or greater than 10% and 0 when it is less than 10% or does not have a subsidiary. The data for this variable correspond to the Total Ownership variable from Bureau van Dijk's Ownership Database. This variable tends to reflect relationships of control rather than property relationships (BvDEP, 2009).

Autonomy, reflects the relationship between autonomy and subsidiary performance. Specifically, if the Spanish subsidiary owns 70% or more of the subsidiary in Latin America then the Spanish subsidiary has low autonomy. A dummy variable was created that takes a value of 1 when ownership is equal to or greater than 70% and 0 when it is less than 70% or does not have a subsidiary. The data for this variable correspond to the Total Ownership variable from Bureau van Dijk's Ownership Database (BvDEP, 2009).

We appreciate the comments of the referee with to respect the 10% cut-off value. We also use a 50% (majority ownership) value; the results are presented in Table 3.
Technological Rel_{i,t} reflects the relationship between technological link and subsidiary performance. The NACE code of both subsidiaries was compared up to three digits of disaggregation, which is a proxy measure widely used to measure related products (Grant et al., 1988; Morosini, Shane and Singh, 1998; Robins and Wiersema, 1995; Wade and Gravill, 2003; Fang et al., 2013). This was used to construct a dummy variable that takes a value of 1 when the subsidiaries are technologically related and 0 when they are not.

Absorption Capacity_{i,t} reflects the relationship between absorption capacity (Cohen and Levinthal, 1990) and subsidiary performance. Intangible assets generate advantages that can be exploited in foreign markets (Delios and Beamish, 2001). At the firm level, company financial statements are the principal source of data. International accounting standards define intangible assets as “non-monetary assets which are without physical substance and are identifiable and are used in the production or supply of goods and services” (International Accounting Standards Committee, 1998). Thus, the data correspond to the intangible fixed assets of Spain-based subsidiaries of European MNCs.

α_{i} is the unobservable firm specific effect (unobservable entrepreneurial or managerial skills that affect the firm’s performance) and θ_{i,t} represents the remainder disturbance random effects.

Control variables: we add dummy variables for financial activities sector (SecActFin_{i,t}) and dummy variables for the year (D2004_{i,t}, .., D2010_{i,t}).

Table 1 provides descriptive statistics of the variables. What it shows is how the performance mean increases over the study period. However, this trend falls abruptly in 2008 and 2009, an effect which may be attributable to the global financial crisis, which had an enormous impact on Europe and particularly on Spain, where the subsidiaries are located. The springboard country variable shows the degree to which Spain fulfills the function of a springboard country when considering the country of origin of the parent company and the destination country of the Latin American subsidiary, which is owned by the Spanish subsidiary. The mean indicates that Spain plays the role of a springboard country in approximately 60% of the cases included in the study. The Spanish subsidiary is a springboard subsidiary in 10.2% of the cases (265 of 2,582 firms). With respect to autonomy, the Spanish subsidiary owns 25% or more of the Latin American subsidiary. Just 2.3% of the Spanish subsidiaries have a technological relationship
Table 1: Descriptive Statistics of the Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Performance</td>
<td>2582</td>
<td>0.03961</td>
<td>0.1303032</td>
<td>0.04805</td>
</tr>
<tr>
<td>Springboard Country</td>
<td>2582</td>
<td>0.59799</td>
<td>0.4903997</td>
<td>0.59799</td>
</tr>
<tr>
<td>Springboard Subsidiary</td>
<td>2582</td>
<td>0.10689</td>
<td>0.309038</td>
<td>0.10689</td>
</tr>
<tr>
<td>Autonomy</td>
<td>2582</td>
<td>0.08288</td>
<td>0.2757564</td>
<td>0.08288</td>
</tr>
<tr>
<td>Technological Rel.</td>
<td>2582</td>
<td>0.02324</td>
<td>0.1506871</td>
<td>0.02324</td>
</tr>
<tr>
<td>Absorption Capacity</td>
<td>2582</td>
<td>14373.5</td>
<td>90196.58</td>
<td>12490.7</td>
</tr>
<tr>
<td>Financial Activities Sector</td>
<td>2582</td>
<td>0.01356</td>
<td>0.1156582</td>
<td>0.01356</td>
</tr>
<tr>
<td>Numb. Employ. by Subsidiary</td>
<td>2582</td>
<td>58.5022</td>
<td>236.9876</td>
<td>63.9067</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>Performance</td>
<td>2582</td>
<td>0.05412</td>
<td>0.1124557</td>
<td>0.03363</td>
</tr>
<tr>
<td>Springboard Country</td>
<td>2582</td>
<td>0.59799</td>
<td>0.4903997</td>
<td>0.59799</td>
</tr>
<tr>
<td>Springboard Subsidiary</td>
<td>2582</td>
<td>0.10689</td>
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<tr>
<td>Autonomy</td>
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<td>0.08288</td>
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<td>0.08288</td>
</tr>
<tr>
<td>Technological Rel.</td>
<td>2582</td>
<td>0.02324</td>
<td>0.1506871</td>
<td>0.02324</td>
</tr>
<tr>
<td>Absorption Capacity</td>
<td>2582</td>
<td>105285</td>
<td>802275.4</td>
<td>27331.8</td>
</tr>
<tr>
<td>Financial Activities Sector</td>
<td>2582</td>
<td>0.01356</td>
<td>0.1156582</td>
<td>0.01356</td>
</tr>
<tr>
<td>Numb. Employ. by Subsidiary</td>
<td>2582</td>
<td>74.9917</td>
<td>330.7903</td>
<td>77.5443</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.
with the Latin America subsidiary and 1.3% of the Spanish subsidiaries are in the financial activities sector.

4 Results

The results of the model are shown in Table 2 below. In this section we discuss each variable with respect to the main hypothesis, adding the variables one by one in order to analyze the robustness of the model.

Hypothesis 1 predicts that being located in a springboard country improves the subsidiary's performance. This hypothesis is proven since the coefficient of the springboard country is positive and statistically significant \((p<0.01)\). The results are robust as the variable's statistical significance is maintained in all models even when we add the controls.\(^3\)

Hypothesis 2 predicts that an increase in absorption capacity is positively related to an improvement in subsidiary performance. This hypothesis is proven since the coefficient of the absorption capacity is positive and statistically significant \((p<0.01)\).

Hypothesis 3 predicts that the technological relationship between subsidiaries increases the performance of the subsidiary. The results in Table 2 show a positive coefficient but we don’t find a statistically significant coefficient. It is evident that this hypothesis predicts that the technological relationship exercises a moderating role between the location of the springboard subsidiary in the springboard country and subsidiary performance.

Hypothesis 4 predicts that a low degree of subsidiary autonomy reduces the subsidiary's performance. In this case the results show a negative but not a statistically significant coefficient \((p<0.05)\).

Next we discuss the exogeneity of the springboard country to the performance of the subsidiary. Table 3 compares the results of a Panel Data Random Effects (PDRE) model and an Instrumental Panel Data Random Effects (IVPDRE) model.

\(^3\) We use a classical Hausman test of random effects versus fixed effects; the results show that random effects is consistent and efficient.
Table 2: Panel Regressions’, 2003-2010

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Only Springboard</th>
<th>+Ownership</th>
<th>+Techn.Relat.</th>
<th>Without Controls</th>
<th>+Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
</tr>
<tr>
<td>Springboard County</td>
<td>+</td>
<td>0.01161574**</td>
<td>0.01140843**</td>
<td>0.01154936**</td>
<td>0.01291288***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.00378780)</td>
<td>(0.00376870)</td>
<td>(0.00377040)</td>
<td>(0.00371242)</td>
</tr>
<tr>
<td>Springboard Subsidiary</td>
<td>+</td>
<td></td>
<td>0.03344391**</td>
<td>0.03077709*</td>
<td>0.03054221*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.01208052)</td>
<td>(0.01229638)</td>
<td>(0.01209169)</td>
</tr>
<tr>
<td>Autonomy</td>
<td>-</td>
<td></td>
<td>-0.00045074</td>
<td>0.00068326</td>
<td>0.00039605</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.01354144)</td>
<td>(0.01354202)</td>
<td>(0.01321738)</td>
</tr>
<tr>
<td>Technological Rel.</td>
<td>+</td>
<td></td>
<td></td>
<td>0.01538277</td>
<td>0.01152650</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.01325646)</td>
<td>0.01152650</td>
</tr>
<tr>
<td>Absorption Capacity</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td>0.00000001***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.00000000)</td>
</tr>
</tbody>
</table>

Sectoral dummies: No
Years dummies: No

- Wald: 2.21e-07
- R2-Between: 0.004
- R2-Within: 0.015
- Chi2: 9.404135
- Rho: 0.53
- Theta: 0.684
- N-Firms: 2582
- T-Years: 8
- NxT: 20656

Source: Authors' calculations based on AMADEUS. Standard error in parenthesis.* p<0.05, ** p<0.01, *** p<0.001
Our discussion of whether the springboard country is endogenously determined is based on two different tests, the results of which are in the first column. The first D-W-H (Durbin-Wu-Hausman) test evaluates the consistency of IVPDRE compared to PDRE, which is less efficient. The results of a chi-squared with 12 degrees of freedom was 13.14 with a p-value of 0.359. These results do not reject the hypothesis IVPDRE is consistent and efficient. The second test is a classical test on residuals. We estimate a Probit Panel Data for Springboard Country using the number of employees by subsidiary as an instrument and other exogenous covariables and compute the residuals of this regression. These residuals were included in the main equation. Under the exogeneity hypothesis, if the t-value is not significant then the correlation must be zero. The result was a coefficient equal to 0.0129552 with a standard error of 0.003683 and a t-value of 3.517. In other words, we don’t reject the correlation between residuals and the springboard and the variable is endogenous.4

The differences in the results are clear. In the PDRE model the subsidiary located in a springboard country increases its performance by 1.3 percentage points while in the IVPDRE model the subsidiary located in a springboard country increases its performance by 49 percentage points. These results are expected because the PDRE model suffers from the endogeneity problem and the impact of the springboard country on performance is biased because of the correlation between these variables.

The final model is an IVPDRE and we use the number of employees by subsidiary as the instrument of springboard status.5

Our results using IVPDRE are consistent with all hypotheses:

With respect to Hypothesis 1, we find that being located in a springboard country improves the subsidiary's performance.

With respect Hypothesis 2, we find that an increase in the absorption capacity is positively related to an improvement in subsidiary performance.

With respect to Hypothesis 3, we find that the technological relationship between subsidiaries increases the performance of the subsidiary.

4 We appreciate the comments from the referee about the exogeneity of the springboard country in the main equation.
5 Of course, we can always find a better instrument but this is a classical discussion in the instrumental variables methodology.
Table 3: Endogeneity of the Springboard Country

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>PDRE</th>
<th>IVPDRE-10%</th>
<th>IVPDRE-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b/se</td>
<td>b/se</td>
<td>b/se</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Springboard Country</td>
<td>+</td>
<td>0.0132016***</td>
<td>0.49568110***</td>
</tr>
<tr>
<td></td>
<td>(0.00368366)</td>
<td>(0.13329251)</td>
<td>(0.13230766)</td>
</tr>
<tr>
<td>Springboard Subsidiary</td>
<td>+</td>
<td>0.03014132*</td>
<td>0.05101970**</td>
</tr>
<tr>
<td></td>
<td>(0.01199565)</td>
<td>(0.01979421)</td>
<td>(0.03095483)</td>
</tr>
<tr>
<td>Autonomy</td>
<td>-</td>
<td>-0.00008615</td>
<td>-0.05033057*</td>
</tr>
<tr>
<td></td>
<td>(0.01321085)</td>
<td>(0.02499610)</td>
<td>(0.03621363)</td>
</tr>
<tr>
<td>Technological Rel.</td>
<td>+</td>
<td>0.01419598</td>
<td>0.06799131**</td>
</tr>
<tr>
<td></td>
<td>(0.01294647)</td>
<td>(0.02511990)</td>
<td>(0.02496562)</td>
</tr>
<tr>
<td>Absorption Capacity</td>
<td>+</td>
<td>0.00000001***</td>
<td>0.00000002***</td>
</tr>
<tr>
<td></td>
<td>(0.000000001)</td>
<td>(0.000000001)</td>
<td>(0.000000001)</td>
</tr>
<tr>
<td>Sectorial dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Wald</td>
<td>0.00001149</td>
<td>0.03473</td>
<td>0.03918</td>
</tr>
<tr>
<td>EndogTest (D-W-H)</td>
<td>0.359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EndogTest (Residuals)</td>
<td>3.517</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2-Between</td>
<td>0.048</td>
<td>0.006</td>
<td>0.006</td>
</tr>
<tr>
<td>R2-Within</td>
<td>0.026</td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td>Rho</td>
<td>0.519</td>
<td>0.665</td>
<td>0.665</td>
</tr>
<tr>
<td>Theta</td>
<td>0.6780239</td>
<td>0.756624</td>
<td>0.7567942</td>
</tr>
<tr>
<td>N-Firms</td>
<td>2582</td>
<td>2582</td>
<td>2582</td>
</tr>
<tr>
<td>T-Years</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>NxT</td>
<td>20656</td>
<td>20656</td>
<td>20656</td>
</tr>
</tbody>
</table>

Source: Authors' calculations based on AMADEUS. Standard error in parenthesis. * p<0.05, ** p<0.01, *** p<0.001
With respect to Hypothesis 4, we find that a low degree of subsidiary autonomy reduces the subsidiary's performance.

Finally, with respect to Hypothesis 5, we find that foreign ownership increases the subsidiary's performance.

All variables are statistically significant at 5% and some are statistically significant at 1%.

Next, we discuss the results on IVPDRE. With respect to the Spanish subsidiary we use a cut-off value of 10% (IVPDRE-10%) and 50% (IVPDRE-50%). The reason is that standard FDI definitions typically only require that the foreign firm (in this case the Spanish subsidiary) hold 10% of the foreign firm (the subsidiaries in Latin America). Also, we use a cut-off value of 50% or more of all outstanding shares (majority ownership).6

In the IVPDRE-10% model, when the Spanish subsidiary is considered a springboard subsidiary its performance is 5.1 percentage points higher than other firms that are not springboard subsidiaries. Meanwhile, in the IVPDRE-50% model, when the Spanish subsidiary is considered a springboard subsidiary, its performance is 7.7 percentage points higher than other firms that are not springboard subsidiaries. Furthermore, low autonomy reduces the performance of the springboard subsidiary by between 5.0 and 7.8 percentage points. If the subsidiary has a technological relationship with another subsidiary, its performance is between 6.7 and 7.2 percentage point higher than other subsidiaries that do not have a technological relationship.

5 Conclusions

In managing a multinational company's network of subsidiaries around the world, it is important to take into consideration the location of subsidiaries in a springboard country, as this influences not only the legitimacy challenges faced by subsidiaries in foreign markets but also forms of managing and administering subsidiaries in distant countries in terms of international business. In this sense, the incorporation of a specific advantage of the springboard country by the springboard subsidiary translates into better performance of the subsidiary and an

6 We appreciate the comments from the referee regarding ownership cut-off values.
improved position with respect to other subsidiaries in the multinational company's network that do not benefit from that location. A springboard subsidiary should have a technological relationship with a subsidiary that it owns and controls in order to boost the performance of the subsidiary and thus play a strategic role. These findings provide managers with a body of knowledge and guidelines that will enable them to develop new internationalization strategies.

The findings here show that locating a subsidiary in a springboard country increases that subsidiary's performance by 49 percentage points compared to subsidiaries that are not located in a springboard country. The fact that one subsidiary has an ownership tie to a subsidiary in another country indicates the control that the former has over the latter and its role in the springboard subsidiary. Thus, the performance of the subsidiary is between 5.1 and 7.7 percentage points higher than other subsidiaries that don't have any ownership ties abroad and are therefore not springboard subsidiaries.

We also found that the technological relationship with other subsidiaries is an important element that increases subsidiary performance (by 6.7 percentage points) while absorption capacity increases subsidiary performance.

In conclusion, countries should include in their internationalization policies a series of strategies that address the role of springboard countries and springboard subsidiaries. Such considerations will aid in establishing, for example, bilateral policies for managing and protecting foreign capital, economic complementation agreements and free trade agreements, all of which have an impact on economic growth.
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