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When geography matters: International diversification and firm performance of Spanish multinationals

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Abstract

This paper studies how the nature and shape of the relationship between inter- national diversification (ID) and performance (P) may vary according to a firm's geographical focus of internationalization. Using a sample of Spanish multinational firms for the 2004—2012 period we find an M-shaped relationship. However, significant differences are found when the different geographical foci of internationalization are considered. Strong support is found when firms adopt a regional focus (an inverted S-curve when the ID measure refers to the number of foreign countries and an M-curve when it refers to the size of the network of foreign sub- sidiaries), a biregional focus (an S-curve) and a semiglobal focus (an inverted S-curve but also an M-curve with foreign subsidiaries). These findings and their pattern suggest the critical impor- tance of the country of origin and the geographical focus of internationalization in explaining the relationship between ID—P.

JEL CLASSIFICATION C33; F23; G15; L25

Keywords

International diversification, Firm performance, Geographical focus, M-curve, Spain, Multinational firms

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Introduction

The relationship between international diversification (ID) and firm performance (P), hereafter referred as to ID—P relationship, is one of the most addressed research issues in the field of International Business (Nguyen, 2017). In spite of the large volume of research carried out in the past 40 years, the theoretical foundations and the empirical findings concerning the nature of ID—P relationship vary greatly (see Yang and Driffield, 2012).

This lack of consensus is manifested in the different shapes of the ID—P relationship that have been reported in the literature: positive linear (Gaur and Kumar, 2009); negative linear (Lin et al., 2011; Singla and George, 2013); U-shaped (Li and Yue, 2008; Chen and Yu, 2012); inverted U-shaped (Chao and Kumar, 2010; Lampel and Giachetti, 2013); S-shaped (Lu and Beamish, 2004; Kumar and Singh, 2008); and more recently M-shaped (Ruigrok et al., 2007; Lee, 2010; Almodóvar, 2012; Almodóvar and Rugman, 2014).

Faced with the diversity of findings, there is a grow- ing recognition that contextual factors are critical in ID—P research (Fleming and de Oliveira Cabral, 2016; Kirca et al.,

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Table 1. International diversification—performance studies in Spain.

Author(s) and year	Type of firm [sector]	Number of firms	Period	Results
Ramírez-Alesón and Espitia-Escuer (2001)	Non-financial public firms listed in Spanish stock exchanges	103	1991—1995	Linear positive
Bobillo et al. (2010)	Exporting firms [Manufacturing]	n.a.	1991—2001	Horizontal S-shaped
Jiménez-Palmero and Benito-Osorio (2011)	Multinational firms [All sectors]	119	2000—2007	No relationship
Muñoz-Bullón and Sánchez-Bueno (2011)	Exporting SMEs [Manufacturing]	2446	1993—2006	Linear negative
Almodóvar (2012)	Exporting firms	1067	2000—2008	M-shaped curve for product standardization firms and inverted M curve (W) for product customization firms
Almodóvar and Rugman (2014)	International new ventures (exporting) [Manufacturing]	110	1994—2008	Inverted U-shaped curve in the very short term. M-shaped curve once learning takes place.
Fernández-Olmos and Díez-Vial (2015)	Wine exporting firms from Rioja designation of origin	138	2011	U-shaped curve for firms with a gradual internationalization path. Horizontal S-shaped for firms with an accelerated path.
Serrano et al. (2015)	Agri-food exporting firms	101—189 (depending on the year)	1994—2012	Horizontal S-shaped
Fernández-Olmos et al. (2016)	Exporting family-owned SMEs [Manufacturing]	424—526 (depending on the year)	2006—2011	Inverted M or W-curve
Benito-Osorio et al. (2016)	Exporting SMEs and large firms [Manufacturing]	1371—2020 (depending on the year)	1994—2008	Horizontal S-shaped
Shin et al. (2017)	Micro-multinationals (FDI) [Capital-intensive and Knowledge-intensive services]	1082	2005—2012	Inverted horizontal S-shaped (all) U-Shaped (CI) and Inverted U-Shaped (KI)

2012b). Nowadays, the field has shifted its perspective and recent lines of inquiry focus on understanding the factors underlying the ID—P relationship in *specific contexts* rather than trying to find a *generic* shape of the ID—P curve that can be generalizable across sectors (Hennart, 2007). In that regard, ID—P researchers have started to pay attention to the role played by geography. Some researchers argue that the differences observed in the ID—P relationship can be explained by the country (and region) of origin (e.g. Contractor et al., 2007; Gaur and Kumar, 2009) and by the geographical scope of the international diversification strategies adopted, that is, whether the firm expands its operations into a relatively homogenous group of countries within a region or between different countries across heterogeneous geographic regions (e.g. Rugman and Verbeke, 2004; Qian et al., 2010; Chen and Tan, 2012).

In the last twenty years the Spanish economy has significantly increased its integration into the world economy in terms of both international trade and foreign direct investment (FDI). One of the most remarkable developments has been the emergence of a large group of multinational enterprises (MNEs). The significant growth of outward FDI flows during the 1990s transformed some Spanish firms from national players to leading MNEs in their respective sectors. This process occurred especially among large firms, being followed later on by medium- and small-sized firms in many sectors (Guillén, 2006; Mendoza and Vives, 2010). However, there is a paucity of empirical studies on the ID—P relationship concerning Spanish firms which constitutes an under-researched area (García-Canal et al., 2012). Moreover, 8 out of the 10 studies published in academic journals since 2010 (see Table 1) have focused on manufacturing firms using as a measure for ID the export intensity ratio (total exports-to-total sales), that is, these studies have actually analyzed the ID—P relationship when companies internationalize through exports. Only two studies, Jiménez-Palmero and Benito-Osorio (2011) and Shin et al. (2017) used samples of Spanish MNEs and multinationality measures for ID. In short, there is a clear knowledge gap about the ID—P relationship when Spanish firms become MNEs and internationalize using FDI modes.

This study is in line with calls for further ID—P research in Spain (García-Canal et al., 2012; Benito-Osorio et al., 2016), and more in general in Europe (Almodóvar and Rugman,

2014; Oh and Rugman, 2012). More specifically, it seeks to answer the following two research questions: (1) *what effect does ID have on the performance of Spanish MNEs?* and (2) *whether the different geographical foci of internationalization adopted by these firms do lead to different shapes and directions of the observed ID—P relationship?*

To answer these questions, we built a very complete data set from a sample of 196 Spanish MNEs operating over a period of nine years (2004—2012) and perform panel data analysis employing the Generalized Method of Moments (GMM).

Based on the particular characteristics of Spanish MNEs (late internationalizers, based in an EU member country, concentrating their FDI stock in their 'natural markets': the European Union and Latin America), we hypothesize that the shape of the ID—P relationship is an M-curve for which we find strong empirical support. Further, we also find that the ID—P relationship exhibit different shapes when firms adopt a regional focus (an inverted S-curve when the ID measure refers to the number of foreign countries and an M-curve when it refers to the size of the network of foreign subsidiaries), a biregional focus (an S-curve in all cases), and a semiglobal one (an inverted S-curve in all cases but also an M-curve with foreign subsidiaries).

This article contributes to the extant ID—P literature in several and important ways. Firstly, the findings demonstrate the influence of the country of origin in determining the shape of the ID—P relationship which in the case of Spanish MNEs adopts an M-curve. Secondly, we provide a theoretical explanation and an empirical test on how the firm's geographical focus influences the ID—P relationship at different levels of internationalization. Thirdly, our findings challenge the notion that the risk to over-internationalize may only occur to large, highly internationalized firms which have expanded into several geographical regions.

The article proceeds as follows: Section 'Theoretical framework and hypotheses' reviews the literature on the ID—P relationship in general and on ID—P studies with samples of Spanish firms in particular, laying the ground for the development of hypotheses. Section 'Data and methodology' details the methodological aspects of the study. Section 'Results' presents and discusses the results of the statistical analysis. Section 'Discussion and conclusions' is devoted to the conclusions and limitations of the study and offers future research directions.

Theoretical framework and hypotheses

The relationship between international diversification and performance

The number of empirical studies that analyze the relationship between international diversification (ID) and firm performance (P) has grown significantly in the last three decades. However, there is a well-known lack of consensus in the literature on the shape and direction of the ID—P relationship (Li, 2007; Gaur and Kumar, 2009; de Jong and van Houten, 2014).

Some of the initial empirical studies in the 1970s found a positive linear relationship, emphasizing the benefits associated with ID, while later studies in the 1980s found a negative linear relationship, highlighting that costs as well as the risks associated to doing business abroad were significant (Benito-Osorio et al., 2016). At the end of the 1980s and mainly in the 1990s, researchers found two non-linear relationships, namely an inverted U-curve and a U-curve.

The rationale for an inverted U-shaped ID—P relationship was based on the perspective of incremental internationalization, notably the Uppsala model (Johanson and Vahlne, 1990). Thus, in the initial stages of international expansion the benefits of internationalization will exceed the costs incurred when a firm first enters in relatively homogeneous markets. However, as a firm enters next into increasingly dissimilar and more distant markets, the costs of international activities will escalate as a consequence of the growing environmental and organizational complexity, and beyond a point, it will exceed the benefits of entering new foreign markets. That is, there is likely to be an optimal degree or threshold of internationalization.

On the other hand, the U-shaped relationship implies that performance first decreases at low levels of ID due to the liabilities of internationalization, namely the liability of foreignness (Zaheer, 1995) and the liability of newness (Stinchcombe, 1965; Lu and Beamish, 2004). How-ever, with continued international expansion, performance increases because firm-specific advantages can be exploited at a greater scale and new knowledge and capabilities are developed (Ruigrok and Wagner, 2003), while the liabilities of internationalization are reduced through accumulated experience in the host country (Lu and Beamish, 2004). In an effort to integrate conflictive and divergent prior results Contractor et al. (2003) as well as Lu and Beamish (2004) proposed a three-stage model in which the ID—P relationship adopts a sigmoid or horizontal S-shaped curve. Depending on which part of the S-curve we examine, we can find a U-shaped or an inverted U-shaped segment thus being able to reconcile the results of previous studies. These authors argue that the benefits and costs of internationalization do not occur simultaneously, on the contrary, it is their differentiated dynamics over time as the firm expands internationally that shapes the ID—P relationship (Contractor et al., 2003; Contractor, 2012; Lu and Beamish, 2004; Thomas and Eden, 2004). Thus, firm performance experiences a decrease in the initial first stage of internationalization, then followed by an increase in the second stage, and after reaching a tipping point, firms move to the third stage where further international expansion yields negative results. The empirical studies that have confirmed the existence of a horizontal S-curve have been

carried out in the most advanced countries (e.g. European Union, Japan, Switzerland and US) (Benito-Osorio et al., 2016), while researchers doubt that emerging market firms may have reached stage 3 (excessive internationalization) (Contractor et al., 2007) given that these firms are 'late internationalizers' (Gaur and Kumar, 2009).

In recent years, several authors have also found the existence of a four-phased M-curve, in the case of Swiss manufacturing MNEs (Ruigrok et al., 2007), international new ventures in Korea (Lee, 2010) and Spain (Almodóvar and Rugman, 2014), and Spanish manufacturing firms producing standardized products (Almodóvar, 2012). The rationale for the M-curve is based on the three-stage model proposed by Contractor et al. (2003) and Lu and Beamish (2004) to which an additional stage have been added at the beginning to account for specific contextual or organizational factors.

Especially relevant for our research is the study on Swiss MNEs. According to Ruigrok et al. (2007, p. 353), these companies are based in a very small home market while the adjacent geographical markets are much larger and institutionally comparable. The country has four official languages, so most Swiss employees are able to speak the same first language than their customers in some core European markets such as Germany, France or Italy. Moreover, Swiss MNEs have virtually unrestricted access to the European Union (EU). These authors found that the expected S-curve was 'shifted to the right' and occur at intermediate-high levels of ID, being preceded by an initial phase in which Swiss firms were able to experience increase performance at low and moderate levels of ID due to the idiosyncratic characteristics of their home base. See Fig. 1 to observe the form of the different relationships between international diversification and performance of the firm.

Faced with the diversity of findings, a series of factors and/or moderators have been reported in the literature to explain the different results (Kirca et al., 2012a). In that regard, there is a growing recognition that contextual factors are critical in ID—P research (Fleming and de Oliveira Cabral, 2016; Kirca et al., 2012b; Singla and George, 2013). Nowadays, the ID—P research field has shifted its perspective: recent lines of research focus on understanding the factors underlying the ID—P relationship in *specific contexts* rather than trying to find a *generic* shape of the ID—P curve that can be generalizable across sectors (Hennart, 2007). In this study we focus on the specific context of Spanish MNEs.

International diversification—performance studies in Spain

In the last twenty years the Spanish economy has noticeably increased its integration into the world economy in terms of both trade (total exports of goods and services reached 33% of the GDP in 2016) (INE, 2017) and investment (outward

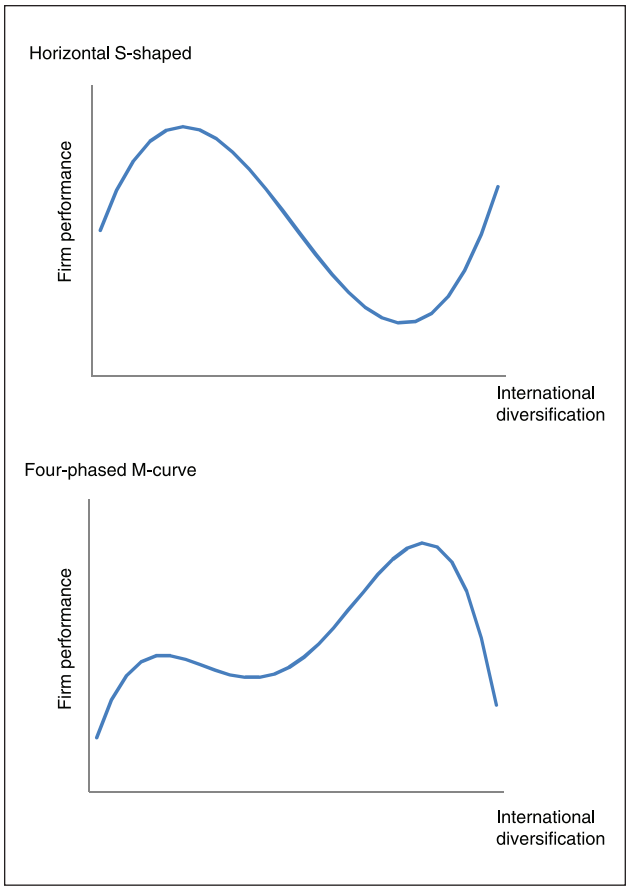

Figure 1. Relationship between international diversification and firm performance.

FDI stock represented 41.9% of the GDP in 2016, very close to the 44.8% average of developed economies) (UNCTAD, 2018). The country went from being a net receiver to a net foreign investor since the second half of the 1990s (Durán Herrera, 2006). The growth of Spanish direct investments abroad during the 1990s transformed some Spanish firms from national players to leading MNEs in their respective sectors. This process occurred especially among large firms being followed later on by medium- and small-sized firms in many sectors (Guillén, 2006; Mendoza and Vives, 2010). In that regard, Spanish firms can be considered 'late internationalizers' as compared to their counterparts in other advanced economies (Durán Herrera, 2006).

According to the most recent official statistics, firms resident in Spain had 8960 first- and second-level foreign affiliates in 2016 (Mincotur, 2018). The turnover of these foreign affiliates amounted to 438,215 million euros in 2016, exceeding the total value of Spanish exports of goods and services that reached 368,515 million euros in that year (INE, 2017). Moreover, these subsidiaries employed a total of 1,443,007 people in 2016 (Mincotur, 2018), which would represent — based on UNCTAD (2018) estimates — 2.0% of the direct jobs created worldwide by the foreign affiliates of MNEs in that year.

In spite of the significant internationalization of the business fabric in Spain in the past two decades, there is a paucity of empirical studies on the ID—P relationship. As stated by García-Canal, Guillén and Valdés-Llanez (2012, p. 68), ''the relationship between the internationalization of Spanish firms and their performance is a research subject that has not been sufficiently studied, and presents a significant development potential''.

The first paper that examined the effect of international diversification on economic performance of Spanish firms was authored by Ramírez-Alesón and Espitia-Escuer (2001) who concluded that the relationship is positive, although they did not test for non-linear ID—P models. However, it is only in recent years that researchers have started paying attention to the ID—P relationship in Spanish firms as shown in Table 1.

An analysis of the empirical studies published from 2010 onwards (see Table 1) reveals the need to study in greater detail the effect that international diversification has on the performance of Spanish firms, and more specifically on the performance of Spanish MNEs. Firstly, although the ten reported studies have all found non-linear ID—P relationships and some convergence can be observed around the three-stage model (horizontal S-curve), there is no conclusive evidence. Secondly, most of these studies (8 out of 10) have only considered exporting industrial firms with data coming from an *ad hoc* survey in one case (Fernández- Olmos and Díez-Vial, 2015), from Worldscope database in another (Bobillo et al., 2010) and in the other six cases from the Survey of Business Strategies, carried out by Fundación SEPI, that offers information on export revenues but not on whether a firm has or not foreign affiliates. Thus, in these studies the measure for ID was the export intensity ratio (total exports-to-total sales), that is, these studies actually analyzed the ID—P relationship when companies internationalize through exports. Only two studies, Jiménez-Palmero and Benito-Osorio (2011) and Shin et al. (2017), had a sam- ple of Spanish MNEs and used multinationality measures for ID (foreign subsidiaries-to-total subsidiaries the former, and the latter a multinationality index combining the number of foreign subsidiaries and the number of countries where those subsidiaries were located). In other words, there is a clear knowledge gap about the ID—P relationship when Spanish firms internationalize using investment modes and become MNEs.

The four phases of the M-curve in the case of Spanish MNEs

As a result of the particular characteristics of Spanish MNEs (late internationalizers, full access to the EU as Spain is a member country, a shared language and historical links with Latin America) most of them are expected to take an incremental pathway to multinationality entering first into foreign countries culturally and institutionally proximate and moving sequentially into more distant countries as proposed by the Uppsala internationalization process model (Johanson and Vahlne, 1990). The fact that the European Union and Latin America concentrate 43% and 26% respectively of the Spanish Outward FDI stock (Mincotur, 2018) clearly indicates that these two regions are the 'natural markets' for Spanish firms (Casanova, 2004). Further, we also expect differences in the ID—P relationship when firms internationalize using investment modes as compared to exporting ones, as firms have already accumulated international experience and established business relations in foreign markets (as exporting firms) or can have access to this knowledge resources when following a supportive customer in its international expansion (service firms). As a result, we argue that the shape of the ID—P relationship in the case of Spanish MNEs is an M-curve with four phases.

There is ample empirical evidence that foreign direct investments tend to be made once firms have had prior positive experiences in the host country (Johanson and Vahlne, 1990). Thus, one would expect that the first countries in which a firm decides to have a direct presence through foreign affiliates would be those that show the most attractive business opportunities, probably because they are already important export markets in the case of manufacturing firms or in the case of service firms as a result of a 'follow the customer' international strategy.

Cultural and institutional proximity as well as prior experience and established business relations in a foreign country (in the case of exporting firms) or a supportive customer which the firm follows in its international expansion would contribute to sensibly mitigate the costs derived from the liabilities of foreignness and newness (Johanson and Vahlne, 1990). Moreover, in the initial stage — when the number of countries and foreign affiliates is very low — the firm can take advantage of its existing organizational infrastructure, without the need of significant adjustments, in order to control and coordinate its incipient network of foreign affiliates (Franko, 1993). All of this would account for a positive slope of the ID—P curve in the initial phase of multinationality, since the associated benefits would be superior to the incurred costs.

As an MNE is stimulated by its initial success and continues establishing itself in new foreign markets, it will likely face greater geographical, cultural and institutional distances which will negatively affect its performance due to the additional costs derived from a greater liability of foreignness, even if it remains in the same geographical region. Moreover, as the number of foreign subsidiaries increases, the firm must face greater internal organizational complexity. This would bring an increase in the information flows and in the coordination and control demands that would end up forcing the parent company to redesign its initial organizational infrastructure and

develop appropriate systems for managing its still limited but growing network of foreign subsidiaries (an effort that requires significant time and investments). Thus, the ID—P relationship in the second phase of expected to present a negative slope as the benefits associated with additional international expansion would be outweighed by the high costs originated by this internal restructuring process as well as the higher internationalization costs.

However, with continued internationalization, performance increases as the level of international diversification increases since new knowledge and capabilities are developed (Ruigrok and Wagner, 2003). Once a firm's organizational capabilities for managing a network of foreign subsidiaries are developed, it would be in a position to support the growth of its network, especially if it takes place in countries with similar characteristics. The derived learning economies and increased efficiency in managing international operations associated with larger size and access to economies of scale would explain that the ID—P relationship shows a positive slope in the third phase of multinationality.

However, it should not be assumed that, once new knowledge and organizational capabilities are developed, a firm would be assured greater levels of performance by increasing its international diversification. As the firm expands into increasingly dissimilar markets and grows in more complexity, the costs of international activities escalate and beyond a certain threshold exceed the benefits of entering new foreign markets, especially if they are located in new geographical regions. Therefore, the ID—P relationship in the fourth phase of multinationality is expected to present a negative slope. According to the above arguments, we propose:

> **Hypothesis 1.** The relationship between international diversification and performance in the case of Spanish MNEs is non-linear and will likely adopt the shape of an M-curve.

The above hypothesis assumes that all Spanish MNEs will experience the same performance implications from international diversification, although this may not be the case. We next examine how the geographical focus of the firm's internationalization may have a differentiated effect on the shape and direction of the ID—P relationship.

International diversification and performance of Spanish MNEs according to their geographical focus

ID—P researchers have only recently started paying attention to the role played by geography. Some authors argue that the differences observed in the impact that international diversification has on the performance of MNE can be explained by the country/region of origin and by the geographical scope of the international diversification strategies adopted (Chen and Tan, 2012). On the one hand, firm performance is influenced by the conditions that prevail in the home region of the firm, such as factors of production, institutions and agglomeration. On the other hand, there are good reasons to believe that the shape of the ID—P curve may vary with the country of origin of the firm and the destination countries (Chang, 2007), which is why not only the number of foreign markets matters (Cie'slik et al., 2012), but also whether the firm expands its operations within a relatively homogenous group of countries or between heterogeneous geographic regions (Rugman and Verbeke, 2004; Vachani, 1991).

Qian et al. (2010) note that there is an intense scholarly debate among the merits of intra- and inter-regional diversification. However, the empirical literature presents inconclusive results because some authors conclude that intra-regional diversification is more effective (e.g. Arregle et al., 2009; Asmussen, 2009; Belaounia and Nekhili, 2014), while others arrive at the opposite conclusion (e.g. Elango, 2004; Delios and Beamish, 2005; Osegowitsch and Sammartino, 2008). More recent studies have shown that the impact of the firm's geographical focus on the ID—P relationship is not linear, but rather exhibits distinct behaviors at different stages of the internationalization process (Pan and Tsai, 2012; Banalieva and Dhanaraj, 2013).

Given the particular characteristics of Spanish MNEs (late internationalizers, concentration of their FDI stock in their 'natural markets') it is likely that they will take an incremental pathway to multinationality establishing their first foreign subsidiaries into countries within a single region, either Europe (due to having a high level of geographical and institutional proximity) or Latin America (because a shared common language and history) (Casanova, 2004). The arguments used to motivate the first three phases of the M-curve (see Section 'The four phases of the M-curve in the case of Spanish MNEs') fully applied in the case of Spanish MNEs that have a regional focus. Therefore,

> **Hypothesis 2a.** The relationship between international diversification and performance in Spanish MNEs with a regional focus will likely adopt the shape of an inverted S-curve.

Rugman and Verbeke (2004, 2007) argue that, on top of geographical proximity, countries within a region are culturally close and firms face similar market demands and similar o even the same competitors. All these factors make it easier to do business and facilitate that the experience and knowledge of one country can be applied to another country within that region. However, when MNEs diversify across regions they do not benefit from such sharing and face the costs of 'inter-regional' distance and the 'liability of inter- regional foreignness'. Thus, when a Spanish regional MNE broadens its geographical focus and establishes new subsidiaries in one or more countries within a second region, it is going to face not just country-specific

liabilities of foreignness but also an added liability of regional foreignness which will likely translate into a decrease in performance levels in the initial phase. As the firm accumulates experience and learning on the idiosyncrasies of the new countries and the new region and enhances its administrative infrastructure and organizational capabilities for managing a larger and more diverse network of foreign subsidiaries, firm performance will eventually increase as the level of ID increases. However, beyond a certain point, increases in the level of ID will not yield greater levels of performance. As the firm expands into smaller, increasingly dissimilar markets and/or less attractive markets within its biregional scope, the costs of international activities will likely escalate and the returns diminish. Therefore,

Hypothesis 2b. The relationship between international diversification and performance in Spanish MNEs with a biregional focus will likely adopt the shape of an S-curve.

Given that Spanish MNEs tend to invest first in the regions that constitute their 'natural markets' (Casanova, 2004), it is reasonable to assume that most Spanish MNEs with a semiglobal focus would have previously developed their administrative infrastructure and organizational capabilities for managing abiregional network of foreign subsidiaries located in both an economically advanced region such as Europe and in a developing region such as Latin America. This ambidexterity or broader managerial and organizational bandwidth will allow them to mitigate significantly the initial costs associated with the liability of regional foreignness when entering a new region. According to official outward FDI statistics, after Europe and Latin America, Spanish MNEs tend to invest in North America, especially the US, in some countries of North Africa and the Middle East, especially Turkey, and in Asia, almost exclusively in China (Mendoza, 2015). However, as they expand into more countries in the new region or regions, they will need to readjust their administrative infrastructure to cope with the challenges of resource allocation, coordination and control of international operations in increasingly distant locations, resulting in a decrease in performance in a second phase. Nonetheless, once achieved this readjustment, a semiglobal focus will likely contribute to increase firm's performance because it provides access to the benefits of inter-regional diversification (as it helps to maximize market opportunities and successfully arbitrage production factors and consumer market differences) (Qian et al., 2010) while avoiding the risks of over-internationalizing (Flores and Aguilera, 2007). Therefore:

Hypothesis 2c. The relationship between international diversification and performance in Spanish MNEs that have a semiglobal focus will likely adopt the shape of an inverted S-curve.

Spanish MNEs with a semiglobal focus willing to expand and achieve a more global footprint, will more likely have to establish new foreign subsidiaries into geographically, culturally and institutionally far distant regions such as Asia (excluding China), Oceania, the Community of Independent States or Sub-Saharan Africa. Such a geographical expansion represents a major challenge for most Spanish MNEs, even for the more experienced ones. Therefore, it is reasonable to expect that these firms will face a significant liability of regional foreignness on top of country-specific liabilities of foreignness, which will most likely translate into a decrease in performance levels in the initial phase. As the firm accumulates experience and learning about the idiosyncrasies of the new countries and the new regions and reconfigures its administrative infrastructure and organizational capabilities for managing an even larger and more diverse network of foreign subsidiaries, firm performance will eventually increase as the level of ID increases. However, the high costs involved in managing international operations in these new regions imply that only the most attractive markets will deliver appropriate returns. Consequently, beyond a certain point, increases in the level of ID will translate into declining levels of performance. Therefore,

Hypothesis 2d. The relationship between international diversification and performance in Spanish MNEs with a global focus will likely adopt the shape of an S-curve.

Data and methodology

Data

The sample of Spanish firms considered in our study has been extracted from SABI (Iberian Balance sheet Analysis System). SABI is a database that covers Portugal and Spain and contains a company's financials (balance sheet, income statement, and financial ratios), date of incorporation, main office location, primary and secondary industry codes, total number of employees, and ownership data related to a company's shareholders and the equity stake a company owns in each of its affiliates. Data on foreign affiliates was only available from 2004 onwards. SABI is compiled by Informa, the Spanish subsidiary of Bureau van Dijk, and includes more than 95% of the Spanish companies that deposit their financial statements and annual report at the Mercantile Registry Offices (roughly two million companies).

We define as Spanish MNEs those firms that meet the following criteria: (a) to be incorporated in Spain; (b) controlled by Spanish investors, thus excluding the Spanish subsidiaries of foreign MNEs; (c) to have at least one foreign affiliate; and (d) to have ten or more employees.

Following the criteria established by UNCTAD (2018), we use the term *foreign affiliate* for an incorporated firm in

a host country in which a Spanish parent company owns at least 10% of the shareholders' voting rights. According to the degree of control exerted by the parent company on its foreign affiliates we can distinguish between *associate firms* (in which the Spanish parent company owns at least 10% but not more than half of the shareholders' voting rights) and *subsidiary firms* (in which the Spanish parent company owns more than half of the shareholders' voting rights).

The initial sample amounted to 197 firms for which we had accounting and affiliates annual data for the nine-year period from 2004 to 2012 resulting in 1773 firm-year observations. From the total observations, 5 with less than 10 employees were excluded; 74 with foreign participation in the ownership of Spanish MNEs were also excluded; 45 were left aside as their internationalization focus was impossible to determine; 65 where the voting rights in the subsidiary could not be determined. Therefore, the final sample is composed of 196 firms during 9 years (2004—2012) with a total of 1584 firm-year observations.

Description of variables

Dependent variable (performance)

The performance of firms is measured by the financial ratio of Return on Equity (ROE) which SABI calculates as:

$$ROE = \frac{P/L\ Before\ Tax}{Shareholders\ Equity}$$

ROE is a performance indicator widely used in ID—P empirical studies (Thomas and Eden, 2004; Contractor et al., 2007; Belaounia and Nekhili, 2014). This measure focuses on the ability of firms to generate returns in terms of shareholders' investment. ROE is often used to measure management's effectiveness and to reward managers (Chin-Chun and Boggs, 2003). We have also used the Return on Assets (ROA) to evaluate the robustness of the results.

Independent variable (international diversification)

We utilize three measurements for international diversification in terms of its breadth, depth and intensity. Firstly, we consider the number of foreign countries where the firm has affiliates (NC) and the number of foreign subsidiaries (FS). NC captures the breadth of the international diversification of a firm in its geographical dimension, while FS captures, in an indirect manner, the depth of the international diversification of a firm in its organizational dimension as owning foreign subsidiaries means not only having a part of the firms's assets and employees in other countries, but also generating part of the firm's sales and revenues abroad. NC is built with the information on the localization of the foreign affiliates of each firm (Andersen, 2005) and is the natural logarithm of the number of foreign countries where the firm has affiliates. FS is obtained by taking into account the degree of control of the parent company over its foreign affiliates (Lu and Beamish, 2001) and is built as a natural logarithm of the number of foreign subsidiaries. Additionally, we built the DIV (NC×FS) variable which is a measure for the intensity of the firm's internationalization as it captures both the increase in foreign subsidiaries (foreign assets under corporate control) and the increase in the number of countries.

Control variables

The control variables considered in our study can be divided between internal (ICV) and external variables (ECV). Among the ICV we consider the size of the parent company (SIZE) that is measured as a natural logarithm of the number of employees (de Jong and van Houten, 2014). The age of the parent company (AGE) is calculated as a natural logarithm of the years the firm has operated in the country of origin. The financial leverage (FL) is calculated by the ratio of indebtedness (%) (Total Liabilities/Total Assets). The predominant entry mode (EM) is calculated as the average percentage of voting rights that the parent company has over its foreign affiliates. The business group affiliation (BGA) is a dichotomous variable (0 = not affiliated; 1 = affiliated). To build this variable we use the BvDEP independence indicator provided by SABI, where firms with values of ''C'' and ''D'' count on an investor that directly or indirectly controls 50% or more of voting rights; in almost all cases this investor is another firm – either the group's holding company or another firm of the same business group.

The EVC correspond to dummy variables that take the value of 1 when the firm belongs to a particular industrial sector and 0 otherwise. We considered 5 industrial sectors (Knowledge intensive services [KNOWLEDGE], Capital Intensive services [CAPITAL], Holding company [HOLDING], Manufacturing [INDUSTRY] and Other sectors [OTHERS]). Additionally, we controlled by annual GDP growth rate from six large countries or regions (China, the USA, the EU, South, East and Southeast Asia and Oceania, Latin America and The Caribbean, and Middle East and North Africa). These variables allowed us to capture, on the one hand, the temporary effect and, on the other, to control for macroeconomic events not observed (such as financial crisis, for instance) and that could have an important impact on the countries where Spanish subsidiaries are located.

Geographical focus of internationalization

A firm's geographical focus is determined based on the number of regions where it has foreign affiliates as follows: Regional focus, all foreign affiliates located in the same region; Biregional focus, when affiliates are located in

2 regions; Semi-global focus, when they are located in 3 or 4 regions; and Global focus, when foreign affiliates are in 5 or more regions. This classification is similar to the one proposed by Collinson and Rugman (2008) and Oh and Rugman (2012), although we have added the semi-global category proposed by some authors (Flores and Aguilera, 2007; Banalieva and Eddleston, 2011). The countries where foreign affiliates are located are classified into eight regions: (1) Europe; (2) Latin America and the Caribbean; (3) USA and Canada; (4) Sub-Saharan Africa; (5) South, East and Southeast Asia; (6) Northern Africa and Middle East; (7) Oceania; and (8) Community of Independent States and Southeast Europe (former communist countries). This classification of regions closely mirrors the one used by the Spanish Registry of Foreign Investments (which is very similar to the classification of UNCTAD, 2018).

Models

To investigate the shape of the relationship between international diversification and performance we estimated the following model:

$$PERFORM_{i,t} = \beta_1 INTDIV_{i,t} + \beta_2 INTDIV_{i,t}\hat{}2 + \beta_3 INTDIV_{i,t}\hat{}3 + \beta_4 INTDIV_{i,t}\hat{}4 + \beta_5 IVC_{i,t} + \beta_6 EVC_{i,t} + \mu_{i,t} \quad (1)$$

where *PERFORMi,t* is ROE; *INTDIVi,t* is the international diver- sification variable (NC, FS or DIV, respectively). In order to observe the shape of the curve or, in other words, to test whether the ID—P relationship is linear, quadratic, cubic or sigmoid, and quartic, we built new variables as of *INTDIV*, namely *INTDIV*^2, *INTDIV*^3 and *INTDIV*^4, as it is common in the literature (Almodóvar and Rugman, 2014). Further, *IVCi,t* is a set of internal control variables and *EVCi,t* is a set of external control variables, previously defined.

Endogeneity

An extensive body of literature has highlighted the existence of problems of endogenous selection in corporate diversification models, such as diversification of business lines, ownership of other companies, and performance (Campa and Kedia, 2002; Jara-Bertin et al., 2015). International Business literature portrays international diversification as a strategic decision through which the company leverages its firm-specific advantages (FSAs) in foreign markets (Bobillo et al., 2010), however, the causality link with performance can be in two directions, either its FSAs allow the firm to increase its profitability and with additional resources expand into foreign markets or its FSAs allow the firm to enter into foreign markets and as a result increase its profitability. Therefore, it could be considered that the adoption of an international diversification strategy and the increase in company performance are closely related, inferring an endogenous relationship between these variables. Given this endogenous relationship, we can expect that both NC (number of countries) and FS (foreign subsidiaries) are correlated with the error term of equation (1) and because of this, estimated coefficients ¨*i* may present some bias derived from the presence of the model's endogenous selection problems.

To tackle these problems, we estimate the equations through data panel methodology, providing estimators with efficiency beyond that of other estimation methods (Arellano, 2003). To fix the problems of endogeneity, we employed the Generalized Method of Moments (GMM) estimator system developed by Blundell and Bond (1998) and used all of the independent variables with lags of two and three years as instruments in differences for the equations in levels. According to this estimation method, the consistency of the estimators critically depends on the absence of serial second-order auto-correlations of the residuals and on the validity of the instruments (Arellano and Bond, 1991). Consequently, in our estimates, we compute a statistical test of absence of serial second-order autocorrelations that we call Auto (2). To test the validity of the instruments, we use the Hansen test of over-identification restrictions under the null hypothesis of the absence of a correlationship between the instruments and the error term.

Results

Descriptive analysis and correlation matrix

Table 2 Panel A, shows descriptive information of the different variables of our sample. Most sample firms do not present high levels of international diversification since on average they have foreign affiliates in 4.5 countries. This figure is quite similar to that obtained by Mendoza and Vives (2010) for a sample of 1452 Spanish MNEs, which had on average foreign affiliates in 3.8 countries. Nonetheless, if one considers the minimum and maximum values of countries and subsidiaries, from 1 to 28 and from 1 to 51 respectively, the firms that make up our sample present significant differences in the scope of their international diversification. Another characteristic is the preference for higher control modes as sample firms control on average 83.3% of the voting rights of their foreign subsidiaries. As regards the performance of sample firms, ROE has a mean value of 17.2% while the average ROE for Spanish firms was 7.7% in the same period (Mendoza, 2015). In terms of size and age, our sample firms have on average 1165 employees and are 38.42 year old. In summary, most of the firms of our sample are quite large, mature and profitable firms and practically two thirds are affiliated to a business group. Furthermore, the firms of our sample present a uniform data distribution with respect to their financial leverage (FL), with an average value of 56.0% for the ratio Total Liabilities/Total Assets. Table 2

Table 2. Sample information.

Variables	Mean	SD	Min	Max
Panel A: Descriptive information of the variables				
Return on Assets (ROA)	0.0600	0.0924	−0.299	0.842
Return on Equity (ROE)	0.172	0.321	−1.919	4.028
No. of foreign subsidiaries (FS)	5.845	6.683	1	51
No. of foreign countries (NC)	4.541	4.143	1	28
No. of employees (Size)	1165	4879	10	64,490
Parent company age in years (Age)	38.42	17.99	12.18	114.9
Financial Leverage (FL)	0.560	0.215	0.0159	0.988
Business Group Affiliation (BGA)	0.679	0.467		
Average % voting rights in foreign subsidiaries (EM)	0.833	0.182	0.0983	1

Sector	Percentage
Panel B: Sample distribution by sector	
Industrial companies	48.8
Capital-intensive services	35.7
Knowledge-intensive services	9.9
Others	3.0
Holding companies	2.7
Total	100.0

Year	Observations	Percentage
Panel C: Sample distribution by year		
2004	178	11.24
2005	185	11.68
2006	184	11.62
2007	161	10.16
2008	145	9.15
2009	186	11.74
2010	186	11.74
2011	180	11.36
2012	179	11.30
Total	1584	100.00

Panel B, presents the breakdown of the sample by sectors, 48.8% are industrial firms and 45.6% are service firms, with a predominance of capital-intensive services. Table 2 Panel C, shows the number of observations per year. Given that the total number of firms in the sample is 196, one can conclude that our panel data is pretty well balanced.

Table 3 shows the pairwise correlations between the studied variables. The number of countries (NC), the number of foreign subsidiaries (FS), number of employees (SIZE), financial leverage (FL), and affiliation to a business group (BGA) are positively correlated to ROE, while the age of the parent company (AGE) is negatively correlated. As expected, ROE and ROA are highly correlated and similar results are obtained when using ROA.

Relationship between international diversification and performance

Table 4 shows the results of the ID—P relationship for the entire sample. In columns (1) and (2) the independent variable, ID, is measured by NC (breadth); in columns (3) and (4) by FS (depth) and in columns (5) and (6) by DIV (intensity). The results show that the ID—P relationship adopts the shape of an M-curve when ID is measured by NC (column 2), by FS (column 4) and by DIV (column 6). That is, in all three models the results indicate that some Spanish MNEs in the sample have reached the fourth phase of excessive internationalization of the M-curve due to their significant geographical scope (which goes up to 28 countries) as well as the size and complexity of their network of foreign subsidiaries (which goes up to 51 subsidiaries). Overall, the results obtained provide a robust-statistical support to Hypothesis 1 that states that the ID—P relationship in the case of Spanish MNEs adopts the shape of an M-curve.[1]

As for the control variables, in general, firms that are larger (SIZE) and younger (AGE) obtain better performance with the adoption of an international diversification strategy. In turn, greater GDP growth rates in developing Asia (including China and the other countries from East,

Table 3. Correlation matrix.

	ROA	ROE	F. subs	Countries	Employees	Age	FL	BGA	EM
ROA	1								
ROE	0.742***	1							
Foreign Subs.	0.136***	0.116***	1						
Countries	0.197***	0.141***	0.909***	1					
Employees	0.041	0.060**	0.150***	0.134***	1				
Age	−0.001	−0.048*	0.067***	0.066***	0.083***	1			
FL	−0.129***	0.229***	0.080***	0.037	0.086***	−0.094***	1		
BGA	0.103***	0.148***	0.065***	0.062**	−0.050**	−0.016	0.232***	1	
EM	0.031	0.030	0.108***	0.050**	0.058**	−0.053**	0.078***	0.031	1

***$p < 0.01$.
**$p < 0.05$.
*$p < 0.1$.

Table 4. International diversification and performance.

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: ROE						
NC1	0.182** (2.477)	0.380** (2.483)				
NC2	−0.162** (−2.192)	−0.578** (−2.306)				
NC3	0.031 (1.628)	0.272** (2.010)				
NC4		−0.042* (−1.761)				
FS1			0.066 (1.123)	0.283** (2.183)		
FS2			−0.037 (−0.691)	−0.400** (−1.974)		
FS3			0.002 (0.179)	0.183* (1.834)		
FS4				−0.027* (−1.771)		
DIV1					0.010 (0.483)	0.106***(3.392)
DIV2					−0.004 (−0.706)	−0.065***(−3.703)
DIV3					0.000 (0.409)	0.011***(3.308)
DIV4						−0.001***(−2.951)
SIZE	0.042*** (3.849)	0.055*** (4.073)	0.052*** (4.800)	0.053*** (4.296)	0.053*** (4.804)	0.057***(5.102)
AGE	−0.286*** (−7.339)	−0.292*** (−6.548)	−0.265*** (−7.039)	−0.250*** (−6.336)	−0.270*** (−7.068)	−0.257***(−6.487)
FL	−0.051 (−0.697)	−0.081 (−1.195)	−0.028 (−0.389)	−0.056 (−0.809)	−0.010 (−0.141)	−0.090 (−1.386)
BGA	0.016 (0.863)	−0.016 (−0.841)	0.005 (0.243)	−0.012 (−0.547)	0.005 (0.226)	0.002 (0.108)
EM	0.018 (0.476)	0.031 (0.742)	0.010 (0.280)	−0.001 (−0.023)	0.007 (0.188)	0.012 (0.308)
CHINA	1.455*** (3.253)	1.163** (2.272)	1.763*** (4.682)	1.575*** (4.253)	1.624*** (4.033)	1.106**(2.427)
ASIA	−0.847 (−0.979)	−0.377 (−0.404)	−1.166 (−1.634)	−0.951 (−1.292)	−0.821 (−1.092)	−0.016 (−0.018)
EUROPE	−0.036 (−0.031)	0.871 (0.664)	−0.645 (−0.739)	−0.245 (−0.281)	−0.258 (−0.269)	0.709 (0.646)
LATAM	−0.671 (−0.414)	−1.892 (−1.063)	0.116 (0.092)	−0.249 (−0.195)	−0.500 (−0.369)	−1.700 (−1.098)
EAST	1.024 (1.591)	1.496** (2.150)	0.619 (1.187)	0.685 (1.260)	0.859 (1.580)	1.274**(1.981)
USA	1.024** (2.195)	0.830 (1.525)	1.302*** (3.527)	1.051*** (2.705)	1.190*** (3.021)	0.590 (1.243)
F-test	93.09	23.30	62.63	536.6	21.96	66.12
F p-value	0	0	0	0	0	0
Auto (2)	0.302	0.317	0.271	0.344	0.279	0.274
Hansen-test	86.03	82.51	82.68	84.40	83.45	91.12
Hansen *p*-value	0.302	0.371	0.397	0.318	0.374	0.166
Observations	1.584	1.584	1.584	1.584	1.584	1.584
Number of ct	196	196	196	196	196	196

t-statistics in parentheses.
***$p < 0.01$.
**$p < 0.05$.
*$p < 0.1$.

Table 5. Descriptive information of the variables by geographical focus.

	REGIONAL	BIREGIONAL	SEMIGLOBAL	GLOBAL
ROA	0.05	0.07	0.06	0.09
ROE	0.13	0.19	0.21	0.26
Countries	1.93	4.03	6.92	14.88
Foreign subsidiaries	2,36	4.86	8.90	21.52
No. of employees	610	1,707	1,424	1,510
AGE	36.81	39.90	38.28	43.83
FL	0.54	0.56	0.59	0.57
BGA	0.71	0.66	0.66	0.61
EM	0.87	0.80	0.81	0.88
No. of observations	660	420	411	93
No. of firms	154	117	88	26

South and Southeast Asia), a region with an important impact on the growth of the world economy, are positively related to the performance of the sample firms.

Methodologically, the GMM results in Table 4 pass the required tests of autocorrelation Auto (2) and instrument validity (Hansen). These tests do not reject neither the null hypothesis of validity of the instruments (Hansen) nor the null hypothesis of absence of second-order autocorrelation.[2]

Geographical focus of internationalization

To find out whether the firm's geographical focus has a differentiated effect on the ID—P relationship at different stages of internationalization, it is necessary to examine the ID—P relationship separately for each group of firms. Table 5 shows descriptive information of the different variables of our sample broken down by the geographical focus adopted by firms in their international expansion. Several aspects are worthwhile to comment. Firstly, the single largest group in our sample are MNEs that during the period of study (2004—2012) had a regional focus at least in one year (154 firms), followed by those that had a biregional focus (117 firms), a semiglobal focus (88 firms) and lastly a global focus (26 firms). Secondly, if we add the number of firms adopting each of the four geographical foci we obtain a total of 385, given that our sample is made up of 196 firms, it means that on average each firm changed once its geographical focus during the period of the study. Thirdly, as expected, a broader geographical focus also means on average a larger footprint in terms of the number of countries in which the MNE has a direct presence. However, a not so evident aspect is that on average the network of foreign subsidiaries grows faster in size (as compared to the number of countries) when the MNE broadens its geographical focus. Lastly, average performance indicators (ROE and ROA) tend to rise as firms broaden their geographical focus.

Table 6 shows the results of the ID—P relationship for each group of firms according to their geographical focus of intenationalization. Only the results for variables NC, FS and DIV are reported. The authors will gladly provide the complete results of the estimations upon request.

Our results provide strong empirical support to the hypothesized influence of the firm's geographical focus on the shape of the ID—P relationship. In the case of Spanish MNEs with a regional focus, as predicted, the ID—P relationship adopts the shape of an inverted S-curve when ID is measured by NC (see Table 6, column 1, row NC), thus supporting Hypothesis 2a. When the measure of ID takes into account the size of the firm's network of foreign subsidiaries (cases of FS and DIV), the resulting ID—P relationship adopts the shape of an M-curve which is consistent with the inverted S-curve found for NC (a sit represents the first three stages of the M-curve). Nonetheless, this is an unexpected result which indicates that some Spanish MNEs in our sample have over-internationalized, *even having expanded within a single region* (see Table 6, column 2, rows FS and DIV). This finding challenges the notion that the risk to over-internationalize may only occur to large, highly internationalized firms which have expanded into many dissimilar countries in different regions (Contractor et al., 2003; Contractor, 2012). More specifically, some of the MNEs with a regional focus of our study encounter a threshold of internationalization at intermediate levels of multinationality (the maximum values of NC and FS in this group are 9 and 17, respectively). This suggests that the threshold of internationalization is a relative notion that depends not only on the number of countries and their degree of heterogeneity but also on a firm's managerial and organizational capabilities. This finding is in line with the results of the study by Shin et al. (2017) using a sample of Spanish service micro MNEs.

In the case of Spanish MNEs with a biregional focus, the ID—P relationship adopts the shape of a sigmoid or horizontal S-curve when ID is measured by NC, FS and DIV (see Table 6, column 3, rows NC, FS and DIV). In the case of DIV, the model of column 4 is also statistically significant but the value of the quartic coefficient is zero, so in terms of the shape of the ID—P relationship what it reveals is a S-curve (as the three models of column 3 do).

These results provide a strong statistical support to Hypothesis 2 band its core argument that when a regional MNE decides to enter countries in a second region, it will face not just country-specific liabilities of foreignness but also an added liability of regional foreignness which will likely translate into a decrease in performance levels in the initial phase, followed by an increase once experience and learning about the idiosyncrasies of the new region as well as the new countries are accumulated and translated into new knowledge and organizational capabilities. These results also indicate that some firms within this group have also over-internationalized, as expected, given that some of them have already achieved high levels of multinationality (the maximum values of NC and FS are 14 and 25, respectively).

In the case of Spanish MNEs with a semiglobal focus, the ID—P relationship adopts the shape of an invertedS-curve when ID is measured by NC, FS and DIV (see Table 6, column 5, rows NC, FS and DIV). Moreover, in the cases in which the measure of ID takes into account the geographical dimension (NC and DIV) we also obtain a M-curve (see Table 6, column 6, rows NC and DIV).

While these results provide a broad statistical support to Hypothesis 2c that predicts an inverted S-shaped ID—P relationship, the fact that two models show an M-shaped ID—P relationship also indicates that the risk of excessive internationalization within the group of semi global firms is more related to their presence in a large number of countries rather than to the size of their foreign subsidiary networks (the maximum values of NC and FS are 21 and 42 for this group).

The small sample of companies with a global focus (26 firms and 93 observations) does not allow for a reliable way of finding the shape and direction of the ID—P relationship (note that Hansen *p*-value equals 1 for all models with that type of focus). Thus, Hypothesis 2d is not supported.

The GMM results shown in Table 6 pass the required tests of autocorrelation Auto (2) and instrument validity (Hansen) for the models related to regional, bioregional and semiglobal focus. These tests do not reject neither the null hypothesis of validity of the instruments (Hansen) nor the null hypothesis of absence of second-order autocorrelation.[3]

Discussion and conclusions

Even though the ID—P relationship has been object of intense scrutiny in the past decades, the theoretical foundations and the empirical findings concerning its nature vary greatly. Faced with this notorious lack of consensus, there is a growing recognition in the literature that contextual factors are critical to advance our understanding of the nature of the ID—P relationship. Among contextual factors, researchers have started paying attention to the role played by geography in recent years, more specifically, to which extent the conditions that prevail in the home country (and region) of the firm as well as in host countries (and regions) may explain the differences observed in the impact of international diversification on firm performance.

Based on the particular characteristics of Spanish MNEs (late internationalizers, full access to the EU as Spain is a member country, a shared language and historical links with Latin America), we hypothesize that the shape of the ID—P relationship is an M-curve for which we find strong empirical support. This finding converges with the results obtained by Ruigrok et al. (2007) concerning Swiss MNEs. It is interesting to note that the firms of both countries have in common the existence of their own 'natural markets' which facilitates their initial international expansion. In the same line, Almodóvar (2012) found that the ID—P relationship adopts an M-curve in the case of Spanish firms that export standardized products. In short, our finding highlights the critical importance of the country (and region) of origin in the initial stage of multinationality and its impact on firm performance.

We have also examined the effect on the ID—P relationship of the choice of host countries by looking at the geographical focus of internationalization adopted by firms. We find that the ID—P relationship exhibit different shapes when firms adopt different geographical focus. Firms with a regional focus adopt an inverted S-curve when the ID measure refers to the number of foreign countries and an M-curve when it refers to the size of the network of foreign subsidiaries. Firms with a biregional focus exhibit a sigmoid or horizontal S-curve in all cases. Firms with a semiglobal focus show an inverted S-curve in all cases and also a M- curve when ID measures take into account the number of foreign countries. The low number of firms in our sample with a global focus did not allow us to test the corresponding hypothesis (an S-curve).

Taken together, these results offer an interesting pattern. Given that on average each firm of our sample changed once its geographical focus during the period of the study, the above results reveal an organizational evolutionary process in which firms follow a cycle of 'convergence, decline, reorientation and convergence' as stated by Sullivan (1994). Lu and Beamish (2004, p. 122) suggested that the S-shaped pattern of the ID—P relationship "may continue in [a] cyclical fashion which may consist of multiple S curves, because the management learns to adapt to the new complexities of the environments". According to our findings, Spanish MNEs appear to follow this pattern of successive S-curves when they move from a regional to a biregional focus, but when they move from biregional to semiglobal the S-curve is 'shifted to the right' using the expression of Ruigrok et al. (2007). We argue that because Spanish MNEs tend to invest first in the regions that constitute their 'natural markets', it is reasonable to assume that most biregional Spanish MNEs would have developed their administrative infrastructure and organizational capabilities for managing a network of

Table 6. International diversification (REGIONAL) and performance - GMM regressions.

	REGIONAL		BIREGIONAL		SEMIGLOBAL		GLOBAL	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable: ROE								
NC1	0.666*** (9.748)	0.662*** (2.894)	−0.268*** (−4.139)	−0.171 (−1.356)	0.363***(6.996)	1.332*** (11.927)	0.292 (0.826)	0.277 (0.478)
NC2	−0.842*** (−8.086)	−0.841 (−1.446)	0.228*** (3.678)	0.018 (0.075)	−0.309*** (−7.512)	−1.836*** (−11.621)	−0.052 (−0.272)	−0.161 (−0.173)
NC3	0.270*** (7.000)	0.274 (0.604)	−0.043*** (−2.944)	0.094 (0.632)	0.062*** (6.607)	0.863*** (10.172)	−0.008 (−0.216)	0.049 (0.105)
NC4		−0.002 (−0.019)		−0.027 (−0.931)		−0.136*** (−8.878)		−0.006 (−0.083)
F-test	29.63	28.44	45.09	42.43	20,675	581	64.28	129
F p-value	0	0	0	0	0	0	0	0
Auto (2)	0.610	0.612	0.327	0.286	0.339	0.407	0.749	0.811
Hansen-test	70.17	70.10	74.16	73.04	73.37	72.90	5.54	5.545.87
Hansen *p*-value	0.539	0.508	0.473	0.477	0.564	0.547	1	1
Observations	660	660	420	420	5	411	93	93
Number of ct	154	154	117	117	88	88	26	26
FS1	0.038 (0.765)	0.445*** (4.594)	−0.146*** (−2.865)	−0.159* (−1.804)	0.169*** (4.189)	−0.214*** (−5.823)	0.970 (1.279)	1.321 (1.641)
FS2	0.080 (1.379)	−0.802*** (−3.729)	0.103** (2.572)	0.120 (0.985)	−0.143*** (−5.025)	0.000 (.)	−0.374 (−1.155)	−1.255 (−1.456)
FS3	−0.029* (−1.833)	0.537*** (3.672)	−0.015* (−1.916)	−0.024 (−0.399)	0.024*** (4.096)	0.075*** (4.966)	0.040 (1.049)	0.464 (1.183)
FS4		−0.108*** (−3.615)		0.001 (0.140)		−0.019*** (−5.098)		−0.058 (−1.082)
F-test	64.02	105.04	40.69	37.39	16,815	515	135	88
F p-value	0	0	0	0	0	0	0	0
Auto (2)	0.534	0.634	0.433	0.439	0.259	0.332	0.923	0.967
Hansen-test	74.81	78.62	73.30	72.73	69.67	151	9.32	7.84
Hansen *p*-value	0.387	0.250	0.501	0.487	0.682	3.84e−07	1	1
Observations	660	660	420	420	411	411	93	93
Number of ct	154	154	117	117	88	88	26	26
DIV1	0.090*** (4.082)	0.199*** (5.586)	−0.047** (−2.595)	−0.095*** (−3.474)	−0.081*** (−4.528)	0.220*** (7.468)	0.057 (0.111)	0.007 (0.021)
DIV2	−0.022 (−1.645)	−0.123*** (−4.260)	0.021*** (3.221)	0.054*** (3.498)	0.019*** (4.040)	−0.139*** (−7.978)	−0.011 (−0.124)	0.017 (0.152)
DIV3	0.001 (0.843)	0.029*** (3.903)	−0.002*** (−2.992)	−0.008*** (−2.883)	−0.002*** (−4.405)	0.026*** (7.917)	0.001 (0.166)	−0.003 (−0.234)
DIV4		−0.002*** (−3.667)		0.000** (2.346)		−0.001*** (−7.757)		0.000 (0.276)
F-test	42.70	46.05	34.46	32.28	6801	1558	162	114
F p-value	0	2.67e−10	0	0	0	0	0	0
Auto (2)	0.582	0.594	0.382	0.313	0.281	0.310	0.824	0.919
Hansen-test	69.83	66.41	75.45	69.21	71.91	69.95	10.54	5.36
Hansen *p*-value	0.550	0.632	0.431	0.604	0.612	0.643	1	1
Observations	660	660	420	420	411	411	93	93
Number of ct	154	154	117	117	88	88	26	26

t-statistics in parentheses.
***$p < 0.01$.
**$p < 0.05$.
*$p < 0.1$.

foreign subsidiaries located in both an economically advanced region (Europe) and in a developing region (Latin America). This ambidexterity or broader managerial and organizational bandwidth would allow them to mitigate significantly the initial costs associated with the liability of regional foreignness when moving to a semiglobal focus.

This paper extends the empirical literature on the ID—P relationship and offers new theoretical insights. Firstly, the findings demonstrate the influence of the country of origin in determining the shape of the ID—P relationship which in the case of Spanish MNEs adopts an M-curve. Secondly, we provide a theoretical explanation and an empirical test on how the firm's geographical focus influences the ID—P relationship at different levels of internationalization. Thirdly, our findings challenge the notion that the risk to over-internationalize may only occur to large, highly internationalized firms which have expanded into several geographical regions. On the contrary, firms with a regional focus and intermediate levels of multinationality do over-internationalize which suggests that the threshold of internationalization is a relative notion that depends not only on the number of countries and their degree of heterogeneity but also on a firm's managerial and organizational capabilities.

This paper has several limitations which at the same time provide opportunities for further research. First, due to limitations on the data available, our ID measures basically capture the 'breadth' (number of countries) and partially the 'depth' (size of the network of foreign subsidiaries) of internationalization. Further, these measures give the same weight to the different countries and foreign subsidiaries. Future studies could use indicators that provide a more accurate measure of the intensive margin of internationalization such as foreign sales to total sales or foreign assets to total assets. In addition, in order to improve the estimates of the models, the number of firms could be expanded by incorporating firms from other databases.

Second, also due to limitations on the data available, we could only examine the relationship between our ID measures and the overall performance of the Spanish parent company. As suggested by some scholars, it would be important to isolate the effects of the performance of home country operations from that of international operations (e.g. by examining return on home assets and return on foreign assets separately) (Verbeke and Forootan, 2012; Nguyen, 2017).

Thirdly, the measurement of the construct ''geographical focus'' only captures the number of regions where the firm has foreign affiliates. Future studies could offer more precise measures by identifying what proportion of a firm's activity is done in each region and what for. Another interesting research avenue refers to the institutional distances (cultural and legal) between the home country and host countries. This would also allow for testing the effects of the degree of institutional homogeneity/heterogeneity within and across geographical regions.

Finally, the model estimation could be improved by adding other control variables not available in SABI. These variables refer principally to the year in which each firm began its internationalization process, the year in which it made its first FDI, and the firm specific advantages such as innovation and new product development capability (measured by the intensity of R&D) or marketing skills (measured by the intensity in advertising).

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Notes

1. For robustness check we also used ROA as a dependent variable and obtained very similar results in terms of the shape of the ID—P relationship, that is, when ID is measured by FS and DIV we obtain an M-curve and when we measured it by NC we find an inverted S-curve which is consistent with the first three stages of the M-curve.
2. We carried out new tests incorporating the temporary effect (years) and the results were maintained in terms of sign, significance and verification test.
3. Like the initial estimates, we carried out new tests incorporating the temporary effect (years) and the results were maintained in terms of sign, significance and verification test.

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