1. Introduction

Many national and regional governments have introduced policy measures for attracting foreign direct investment. The central rationale for directing government support at foreign firms is that multinational corporations (MNCs) will channel unique foreign knowledge, procedures and capabilities to the host country and that these assets will eventually also become available to domestic firms. If these “spillovers” occur, domestic firms would be strengthened in their competitiveness.

However, empirical evidence for the presence of such spillovers from foreign subsidiaries to domestic firms has been mixed at best. Part of the explanation is that the advantages of knowledge spillovers from foreign MNC subsidiaries are often outweighed by the increased competition that MNCs bring to the host country. This competition can occur in the product market but also in factor markets where domestic firms may, for example, no longer be able to compete for top local talents if MNCs can offer higher salaries or richer job prospects. An optimal host country policy mix would therefore aim at attracting foreign MNCs without reducing the competitiveness of local firms. The present policy brief builds on a recent study designed to provide insights to this end.¹

In this study, foreign and domestic firms’ knowledge search and deployment activities are compared within a host market setting. Knowledge search activities could, for example, include co-locating with leading universities, joint research projects with suppliers or product development in collaboration with advanced users. Examples of knowledge deployment include activities such as advertising, educating and training local wholesalers, retailers and

clients about the advantages of what a firm has to offer. It can also include sending experts to technology advisory boards or standard setting committees. The applied framework offers several advantages as it allows for a separate economic assessment of knowledge search and deployment activities and places the efforts of foreign and domestic firms into a geographically confined market space. First, focus on an activity-level allows for the separation of those specific activities that influence the acquisition of expertise within a host market and those efforts that focus on the deployment of firm-specific expertise towards the host market. Secondly, the host market perspective enables a direct comparison between foreign and domestic firms. Relying on a geographically confined market enables a comparative assessment of knowledge search and deployment efforts between foreign and domestic companies. Thus, differences in their effectiveness can be identified. Thirdly, focusing on firms’ relative competitiveness is helpful in order to identify whether foreign firms’ knowledge sourcing efforts are a threat for domestic firms or whether domestic firms possess some strategic leverage to outperform their foreign counterparts. Such an analytical framework provides policy-makers with an instrument to understand when foreign investments are beneficial with respect to knowledge inflows and when they start to jeopardise the competitiveness of local firms. Even more important, it provides empirical evidence supporting the need for a comprehensive policy approach which simultaneously aims at attracting foreign direct investments while strengthening the competitiveness of domestic firms. This has interesting policy implications in relation to various relevant aspects of the Europe 2020 agenda, such as the need to strengthen the competitiveness of European firms in the global economy, by, among other things, promoting and supporting their mobility within the Internal Market, their internationalisation, and their capacity to contribute to and benefit from international knowledge flows. The remainder of this policy brief is structured as follows: The next section provides the theoretical argumentation. This is followed by the empirical results. Finally, we provide key implications for policy-makers, draw conclusions for practitioners, and identify directions for future research.

2. Theoretical Argumentation: Host Market Embeddedness – Asset AND Liability

In order to evaluate the advantages and disadvantages of foreign MNC subsidiaries compared with domestic firms, we apply a host market perspective. In doing so, we go beyond the superficial distinction between foreign and domestic firms. Instead, we argue that the differences between both types of firms emerge based on the embeddedness in the host country. Embeddedness in this sense implies that economic transactions between two actors are embedded in a social and cultural context with partners’ perspectives, interests, and resources mutually adapting over time. A firm that is more embedded in its local context will find it easier to identify promising clients, collaboration partners or scientists. Outside partners will be more likely to share insights with a more embedded firm because they share a language, cultural norms and customs. Foreign MNCs operate by definition in multiple host countries and are inevitably less embedded in any particular host country compared to domestic firms. Secondly, and based on the first insight, we argue that superior embeddedness can be both an advantage and a disadvantage. This distinction does not emerge from whether a firm is foreign or domestic per se but from the type of activity that it engages in. Domestic firms have advantages over foreign subsidiaries when they search for valuable knowledge in their environment. They can draw from an existing network of contacts, making it more likely that they will find promising universities, leading suppliers or clients. It is also probable that these local knowledge sources will be more inclined to share knowledge with domestic firms because they share professional and personal network ties, e.g. through industry associations, personnel mobility or education. However, superior embeddedness of domestic firms can limit the novelty of their knowledge stock. It becomes so efficient
and convenient for these firms to draw from the local knowledge pool that they will be less likely to consider novel inputs from outside of their existing network. Foreign MNCs, though, can channel knowledge across borders. They can draw from a knowledge pool that is unique in the host country. This allows them to offer products and services with a high degree of novelty and consequently high potential for success. Hence, we show that foreign MNC subsidiaries have advantages when they deploy knowledge in the host market, e.g. by offering new products.

Finally, we draw a distinction between strictly domestic firms and domestic MNCs with the latter being defined as multinational corporations with headquarters in the host country. These domestic MNCs are unique in the sense that they have embeddedness in the host country that facilitates their search for new local insights and knowledge. At the same time, they have a network of foreign subsidiaries that keeps the internal knowledge stock updated and unique. Accordingly, we find that domestic firms have advantages when they search for local knowledge compared to foreign MNC subsidiaries but not relative to domestic MNCs. Similarly, foreign MNC subsidiaries have advantages over domestic firms when they deploy new products and knowledge. However, this advantage does not exist relative to domestic MNCs.

3. Empirical Results: Evidence from the Spanish Market

In order to assess the costs and benefits of foreign investment, we perform an empirical study that focuses particularly on firms’ ability to deploy their firm-specific expertise and the ability to search for external knowledge locally in Spain. We base our empirical results on a large sample of manufacturing firms in Spain. 519 of these firms are majority owned by foreign MNCs and 2,172 firms are majority owned by domestic investors. We observe these firms over time (up to 12 years). This time frame and the richness of available data allow us to rule out many alternative explanations, e.g. size effects or technological intensity. Within this empirical setting we explain differences in firm performance based on the firm’s knowledge search and deployment activities. This allows us to interpret differences between domestic firms, domestic MNCs and foreign MNC subsidiaries.

The SEPI Foundation carries out a yearly panel survey of manufacturing firms located in Spain. The survey, named Encuesta sobre Estrategias Empresariales (ESEE, or Survey on Business Strategies) started in 1990 with an agreement between the Ministry of Industry and the SEPI Foundation, which is in charge of the design, completion and analysis of the survey. The ESEE’s population of reference is composed of firms with 10 or more employees within the manufacturing industry. The geographical scope of reference is the Spanish economy as a whole. The unbalanced panel data in the ESEE are probabilistic and stratified by industry, province, and firm size.

The empirical results demonstrate that foreign firms simultaneously face a relative deployment advantage and a knowledge search disadvantage compared to their domestic counterparts.

- **Subsidiaries of foreign companies possess a deployment advantage**: Foreign subsidiaries contribute to a local, national or supranational environment by deploying expertise that is new to the local market environment. Still, the subsidiaries of foreign multinationals only have a deployment advantage compared to strictly domestic companies but not compared to domestic multinationals.

- **Foreign companies’ knowledge search disadvantage**: Foreign companies’ ability to collect and incorporate local market expertise is lower than that of their domestic counterparts. Thus, domestic firms have a strategic advantage when searching for knowledge within their home market context. Domestic firms possess strategic leverage to compete with foreign firms’ superior expertise when they capitalise on their superior embeddedness within host country networks of expertise.

- **Domestic multinationals advantageous knowledge search and deployment integration**: Domestic multinationals have advantages in both knowledge search and deployment in their home market. Foreign MNC subsidiaries, though, experience negative performance effects when they search
and deploy knowledge in the host country simultaneously. This result hints at challenges in the way knowledge has to be condensed and integrated within a foreign MNC.

The results demonstrate that foreign companies’ know-how does not automatically support the local market environment or hurt domestic competitors. Instead, the approach applied here identifies that foreign companies provide novel, foreign expertise for local stakeholders, e.g. consumers, suppliers, etc., and that domestic firms have certain strategic assets that allow them to compete successfully with foreign MNCs. Policy-makers can use this comparative framework applied here in order to assess the value creation of foreign companies within a host market setting.

4. Key Implications

Policy Relevance

Specific policy recommendations: These findings have consequences for targeted policy making. There is a need to tailor policy instruments to particular types of companies and their activities in the host country.

- **Domestic Multinationals**: Our findings indicate that domestic MNCs do not require government support in order to compete in their home markets because they combine local embeddedness with access to international knowledge pools.
- **Strictly domestic firms**: Strictly domestic firms benefit from support measures that leverage their embeddedness with local knowledge sources, e.g. universities or suppliers. These firms can be successful if they develop and strengthen their capacities for working together with external partners, e.g. in developing new products. Policy-makers can support this process by setting incentives for strengthening the professional and personal networks, e.g. through support for local conferences, personnel exchanges or even joint research projects.
- **Foreign MNC subsidiaries**: Foreign MNC subsidiaries, however, draw their strengths from deploying international knowledge, e.g. through new products. This is certainly advantageous for domestic customers as they have access to more advanced products and technologies. From an industrial policy perspective it seems advisable to encourage broader knowledge flows between foreign and domestic firms. This can be in the form of encouraging co-location of foreign and domestic firms or through facilitating personnel mobility.
- **Application of a knowledge search-deployment framework**: The foreign-domestic knowledge search and deployment framework applied here can be a helpful tool in order to identify the threats and assets of foreign investments for a specific host market environment.

General policy recommendations: Beyond the firm-specific policy implications highlighted above, the results of this study also support a more comprehensive policy approach that includes measures focusing on a domestic, international, and supranational perspective.

- **Comprehensive policy approach**: Policy efforts that focus on attracting foreign direct investments should also pay attention to the need to strengthen domestic firms. Both aspects are not exclusive but rather

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**Data.** The panel data are available for the years 1990 through 2003.

**Dependent Variable.** The dependent variable is sales revenue in the Spanish market. Sales growth and productivity are applied as further consistency measures.

**Independent Variables.** We measure knowledge search through external R&D expenditure (see e.g. Cassiman and Veugelers). Deployment activities are measured as firms’ expenditures for activities to promote firms’ expertise. Examples of knowledge deployment include activities such as advertising, educating and training local wholesalers, retailers and clients.

A firm is classified as foreign if more than 50% of its shares are held by foreigners in the year under review. In a second attempt, the foreign variable is narrowed to only those firms that are either wholly foreign- or wholly domestic-owned.

**Measurement.** We estimate the impact of firms’ knowledge search and deployment efforts on next year’s sales revenues with a fixed-effects model. Hence, following prior work on knowledge search activities (e.g. Yli-Renko et al. 2001, Cassiman and Veugelers 2006) we had to ensure that firms are involved in innovation and marketing activities.

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should be seen in an inclusive manner. Policies should be able to both open the domestic market to international competition, thereby benefiting local consumer, and simultaneously supporting domestic firms’ competitiveness. Such an inclusive approach could be achieved by combining policy efforts focusing on attracting foreign investments within the local market, supporting domestic firms’ embeddedness with their local knowledge sources, supporting cross-country knowledge/technology exchange, and establishing the conditions for an increased business mobility within the internal market, which will result in an increased capacity of European firms to compete in international markets.

- **Policy initiatives supporting firms’ internationalisation efforts**: Depending on the expected outcome of public initiatives to support local firms internationalization efforts (deployment of superior capabilities or knowledge transfer towards the home market) policy-makers should consider firms’ relative knowledge search and deployment abilities within a host location and the subsequent limitations. More precise policy instruments could help to strengthen firms’ ability to access foreign knowledge pools for example.

- **Policy initiatives that support an intensive cross-country knowledge/technology exchange** (e.g. policy initiatives at EU level) should consider firms’ relative advantages and disadvantages within a host market setting. Support programmes promoting the joint participation of companies based in more than one Member State could put more emphasis on supporting more effective knowledge search efforts within host locations, through the establishment of institutional platforms like chambers of foreign trade (e.g. EU SME Centre) and using the support of the European Enterprise Network. Support to the establishment of cross-country collaborations that allow for a better understanding and access to local networks (like the ones established in the context of the EU Research Framework Programmes) should continue to be exploited during the next EU multi-annual financial framework.

- **Assets originating from a fragmented European market**: The need to adjust to new foreign market settings and the inherent ability to handle the lack of embeddedness within other European markets is a learning experience that firms can apply in other markets too. Thus, enabling European companies to expand their market activity across national boundaries contributes to the economic performance of European companies within this very European market, and also allows for learning experiences that European firms might use in order to compete globally. This suggests a dual policy approach including national and European policies that complement each other.

**Lessons for Management Practice**

Our findings have several implications for management practice too. Both domestic and foreign firms can optimize their strategies in the host country. Domestic firms should exploit their advantages in searching for knowledge in the host country. Their higher levels of embeddedness provide a competitive advantage for these activities. Foreign MNC subsidiaries, though, can expect to benefit especially from knowledge deployment. However, these advantages only exist if host country rivals are not MNCs themselves.

**Further Research**

In this respect, the results call for additional research efforts in order to better understand why there are significant differences between foreign and domestic firms’ knowledge search and deployment efforts.

We demonstrate the implications of incorporating the activity level by focusing on knowledge search and deployment. This allows us to focus on knowledge as a major theme in MNC research (Kogut and Zander, 1993) and distinguish between the effects of embeddedness on different activities.
However, the embeddedness mechanism and the knowledge aspect do not exhaust the potential realm of differences between domestic and foreign firms’ knowledge sourcing efforts. We encourage studies that explore alternative differences in the activities of domestic and foreign firms, focusing for example on the interdependency between foreign and local knowledge sourcing efforts on firms deployment success within a host market setting.

Moreover, our empirical settings are manufacturing firms in Spain. In particular, the longitudinal nature of the data provides a unique opportunity to study our research question. Then again, Spain is an institutionally and economically developed member of the European Union. We encourage similar studies for other countries. This would provide the opportunity to incorporate the institutional dimension to our theoretical considerations on the effect of embeddedness and the success of knowledge sourcing efforts within host markets.
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