

Heterogeneous determinants of regional location choices for foreign direct investment by multinational firms

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Appendix Valorization Addendum

Foreign direct investment is widely recognized as an important contributor of economic growth as it expands the capital base of recipient countries, can help solving the problem of unemployment through the creation of new job opportunities, and allows the introduction of advanced technologies, new methods of management, communication and marketing, which could in turn increase the productivity of domestic firms.

Given the importance of foreign direct investment for recipient countries, policy makers are increasingly competing between each other in order to attract an always higher share of it. Different policies focused on creating an atmosphere conducive to foreign investments and the provision of facilities and incentives to foreign investors have been put in place in the recent past. It is thus not surprising that a lot of attention has been given to the understanding of the location determinants of foreign direct investment with the aim to provide useful insights for policy makers. Indeed, by observing past location decisions made by multinational enterprises, researchers can highlight what are those country or region characteristics considered to be relevant by investing firms. This in turn, may help policy makers wishing to attract higher share of foreign direct investment to create more effective targeted policies.

This dissertation firstly contributes to inform policy makers by examining the location determinants of foreign direct investment made by firms operating in service industries. Indeed, despite a great body of literature dealing with the location of FDI, most of the empirical studies have focused on investments made into the manufacturing sector while only few studies have considered service firms and their location choices (Iammarino and McCann, 2013). This is rather surprising given the importance of the service sector in today's economy. Indeed, as shown by the 2011 World Development Indicators, the service sector has been responsible for 71% of global GDP in 2010. Moreover, most of the existing studies have either analyzed a single service industry or the whole service sector. Both approaches provide limited insights into the location characteristics attracting FDI in service. On the one hand, single industry studies do not allow to draw general indications on the values that different MNEs operating in different service industries attach to specific locational attributes. On the other hand, those studies that analyze the whole service sector tend to neglect the heterogeneity characterizing the different industries within it (Py and Hatem, 2009).

This dissertation thus contributes to inform policy makers by showing that, disregarding the service industry considered, a high level of flight connectivity and a more open market attract FDI in service. Therefore, policies aimed at lowering trade barriers and increasing the level of flight connectivity can be an effective tool to attract FDI in service. However, when two characteristics of

service industries (customer orientation and tradability) are considered, location determinants vary. In particular, the dissertation shows the importance of industrial clients for service firms operating in industries focused on serving industry clients which supports the idea that these firms are not “footloose” (Castellani et al, 2016; Nefussi and Schkellnus, 2010; Wernerheim and Sharpe, 2003). This has important implications for policy makers. Indeed, policies aimed at attracting service firms operating in industries focused on serving industry clients may prove to be ineffective without a pre-existing demand arising from client firms. At the same time, the dissertation shows that location determinants are different for investments made by service firms operating in tradable and not tradable industries. This suggests that policy makers wishing to attract tradable service investments will need to strengthen the educational system to help workers develop the competences and skills required in these industries.

The dissertation also contributes to inform policy makers focused on attracting foreign direct investment in R&D. In particular, foreign R&D investments appear to be attracted by the presence of universities engaging in academic research that is relevant for the industry needs of the incoming MNEs. Nonetheless, the dissertation shows that locational drivers differ if one considers the type of R&D investment, namely foreign direct investments in research and foreign direct investments in development. In particular, the dissertation shows that while the presence of universities that are more focused on engaging in patenting activities and have a focus on applied research attracts more investments in development, the presence of universities focused on publishing basic research with a high quality tends to attract more investments in research. This suggests that tailored policies aimed at strengthening the given profile of each university can ease the formation of local specialized clusters of science and R&D activities.

The dissertation also shows that the quality of academic research is highly valued by foreign firms investing in R&D. This suggests that policy makers can increase the attractiveness of host regions by allocating more budget to those universities where researchers publish with more impact: budget allocation based on research quality through competitive research funds may have tangible benefits for host regions. In addition, the dissertation shows that the quality of both basic and applied research is highly valued by investing firms. Therefore, for policy makers, the dissertation underlines the importance to provide resources also to those universities focused on producing high-quality basic research.

Finally, the dissertation contributes to inform policy makers by showing that proximity to highly agglomerated and congested locations increases the attractiveness of less agglomerated locations for investing firms. This underlines the

importance for local authorities of considering these broader geographical interactions for their development strategies. More specifically, the dissertation shows that even less agglomerated locations may emerge as attractive destinations for MNEs given the lower level of congestion characterizing them. However, the attractiveness of these locations appears to be conditional on the possibility for MNEs to benefit from agglomeration economies present in other proximate and highly agglomerated locations. This suggests that policy makers responsible for the economic development of these locations may attract more foreign investments by increasing the level of connectivity with highly agglomerated and proximate locations.

This dissertation has also important contributions for the existing literature dealing with the location determinants of foreign direct investments. In particular, despite the great deal of attention that the existing literature has given to the role played by agglomeration economies in attracting FDI, only few authors have been able to empirically identify the actual benefits associated with agglomeration economies, i.e. greater access to specialized suppliers, greater access to specialized labor, knowledge spillovers and finally access to greater specialized demand. (Alcacer and Chung, 2014; Glaeser and Kerr, 2009). The dissertation contributes to the existing literature by employing for the first the time a recent agglomeration framework due to Glaeser and Kerr (2009) within the context of R&D and service investments. The importance of adopting this framework arises from the fact that it allows the precise identification of the different benefits associated with agglomeration economies. Therefore, for those scholars focusing on agglomeration economies, the adoption of this framework may provide more clear insights.

The dissertation also uncovers various sources of heterogeneity that existing literature dealing with the location determinants of foreign direct investments has failed to recognize. In particular, the dissertation contributes to the existing literature by showing that locational drivers differ depending on the type of R&D investment. At the same time, it shows that also academic research is heterogeneous with respect to quality, specialization in scientific domains and focus (basic vs applied research). In the context of location decisions made by MNEs operating in service industries, the dissertation shows that locational drivers for service investments differ depending on the characteristics of the industry of the investing firm. At the same time, the dissertation also shows that one of the main important drivers for MNEs operating in service industries, demand, is heterogeneous. In particular, distinguishing between demand originating from final consumers and demand originating from industry clients, the dissertation shows different responses from investing MNEs, especially if the different characteristics of service industries are considered. Finally, the last

source of heterogeneity that the dissertation uncovers is the one that characterizes the geographic reach of one of the main important determinants of FDI, agglomeration economies. Indeed, while previous literature has already found that agglomeration economies are not as geographically circumscribed as usually assumed, none has so far examined the actual spatial range associated with the different benefits arising from agglomeration economies.

More in general, this dissertation contributes to the existing literature dealing with the location determinants of foreign direct investments by showing that, depending on the type of investment considered, several sources of heterogeneity need to be considered in order to provide more precise and meaningful results.