From local to global, and return: Geographical Indications, FDI and the internationalisation of rural areas in Europe

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Abstract — Do Geographical Indications (GIs) convert regions of origin into attractive destinations for agribusiness related FDI? Using a novel panel dataset, this paper applies state-of-the-art policy evaluation methods to estimate the impact of GIs in attracting agri-food related FDI towards European areas over the 2003-2019 period. Results show that areas capable of developing space-sensitive models of production actively endorsed by a formal institutional regime (the EU GI scheme) are more likely to attract FDI than their counterparts. GIs are particularly effective in attracting FDI in rural areas, where investiment attraction is particularly needed, and from inside the EU, where regulatory asymmetry is lower.

Keywords **-** Foreign Direct Investments, Geographical Indications, agri-food, internationalization

INTRODUCTION AND LITERATURE

been changing the role and the nature of rural areas. Although agriculture is still one of the main sector in rural economy, diversified activities have highlighted rural areas as places of opportunities beyond only agriculture. The competetivness of rural areas is highly depend on their capacity to preserve intangibles peculiarities and convert them in drivers of sustainable long-term development, due to their impossibility of being replicated elsewhere (European Commission, 2021a). Cultural, historical and traditional know-how are crucial in this process. The growing international competition has increased the incentive of preserving local expertise and history to avoid that one-of-a-kind local products will be crushed by industrialized global competitors (Raimondi et al., 2020). Geographical Indications (GIs) offer a unifying framework and a legal basis for this process (FAO, 2021).

GIs are considered as a win-win policy for farmers, consumers and local actors. Reading through the policy and academic literature points to relatively well-identified a unique set of socio-economic benefits of GIs not only for farms' performance and premium pricing (Huysmans and Swinnen, 2019), but also for rural development (Crescenzi et al., 2021) and socio-economic and environmental sustainability (Vandecandelaere et al., 2018). At the global level, GIs guarantee product tracing, authenticity and differentiation, allowing traditional modes of production to persist amid food standardisation (UNCTAD, 2019). As stated by Crescenzi et al. (2021), GIs are, in fact, a unique case of informal institutions that are thereafter translated into a globally recognized formal regulation. GIs can have therefore relevant implications for territorial internalization, but with some relevant exceptions (Huysman, 2020; Raimondi et al., 2020), but to date the subject has thus far mainly been investigated through studies focusing on national trade flows (e.g, Curzi and Huysmans, 2021) and there is scarce evidence in the literature on the effects of GIs on the internationalization of local areas. Even less is known about the channel through which GIs can spur territorial openness at the local level. In this context, this paper contributes by evaluating the role of GIs in attracting Foreign Direct Investment (FDI) at the territorial level. The hypothesis tested is whether areas capable of developing space-sensitive models of production actively endorsed by a formal institutional regime (the EU GI scheme), eventually experience better performance in terms of territorial openness (FDI attraction) than others. FDI is a central component of territorial openness being international transfers of capital through which a firm based in one country controls the ownership of economic activity in another country, becoming a "local firm". Europe is one of the primary destinations for FDI in both agricultural and agri-food sectors (EC, 2020). The investment effort in areas acknowledge with GIs can be explained by three main reasons: (1) the opportunity of of entering new markets which can be reached only investing in GIs' region of origin, (2) the socio-cultural benefit generated by the embedded specific expertise of which GIs are a guarantee, (3) spill-over economic opportunities beyond the specific production (i.e., tourism).

RESEARCH DESIGN AND METHODOLOGY

To address the research questions, we adopt an integrated framework, which systematically links local assets and socio-cultural features with global connectivity, and apply state-of-the-art policy evaluation methods.

The analysis is conducted at the NUTS3 level over the 2003-2019 period. The sample accounts for a balanced panel of 1,114 NUTS3 observed for the longest available period, from 2003 (the starting year of FDI data collection) to 2019 (the most recent year with both complete Eurostat and FDI data). Operationally, we use Generalised Propensity Score (GPS) to compare the FDI dynamics of EU NUTS3 acknowledged with a different number of GIs. The analysis is developed at the NUTS3 level, which is the most disaggregated level available to have a representative spatial distribution of FDI. As stated by Crescenzi et al. (2021), given the rule of assignment of GIs using the most disaggregated data is crucial since the so-called region of origin refers to an area often significantly smaller than regions or countries.

We focus on European countries, where the GIs quality scheme has born, and on agri-related FDI,

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which refers to the agribusiness oriented sectors that might have been affected by GIs.

Regarding data, this paper leverages a newly-developed dataset that reconstructs the time-space variability of all EU GIs at the territorial level.

Information on GIs has been collected from the individual codes of practice of each GI (source: eAmbrosia website, European Commission). The database was completed by a set of contextual information on socio-economic environmental conditions of each LAU mainly obtained from Eurostat Regional Structure Business Statistics (EUROSTAT) and spatial data managed by Geographical Information Systems. Data on FDI comes from the fDi Markets-Financial Times databases, which have been geo-localised starting from the information on the area where each investment project is located available. Regarding the treatment, given that the majority of NUTS3 has had at least 1 GI since 2003, we use a continuous treatment variable defined as the average number of GIs of the NUTS3 LAUs weighted by the number of LAUs belonging to the NUTS3. In a such setting composed of continuous outcomes and multivalued treatments, the GPS helps to control for possible sources of self-selection and endogeneity bias as well as to isolate the impact of GIs from other observable cofounding comparing units that are similar in their observable determinants of "treatment intensity" (Hirano and Imbens, 2004). After estimating the GPS by regressing our measure of GI treatment on a set of observable characteristics, we estimate the dose-response function assessing whether there is a causal link between GIs and FDI. FDI is captured with different measures: (i) the absolute value of agribusiness related FDI ($ millions), (ii) its share on the Gross Value Added (GVA) and (iii) the share of agribusiness related FDI on all industries FDI. As new job opportunities are also often associated with FDI, we estimate the effect of GIs also on (i) the jobs directly created by the new Agribusiness related FDI project weighted by the GVA and (ii) the total number of jobs created by FDI in all industries.

Results and conclusions

Results show that, overall, GIs have positive impacts on FDI: GIs allow local economic systems characterized by spatially-embedded productions to attract more agri-business oriented FDI and to generate new job opportunities. This is particularly true for rural areas. The acknowledgement of a formal status to productions that are the expression of historical know-how and high-quality reputation generates systematic links transforming socio-cultural assets, natural and human peculiarities as well as local expertise into global connectivity also in the case of those sectors (agri-food) and areas (rural) where investors' operational bottlenecks are more widespread. This finding is particularly relevant, given that the majority of GIs are produced in rural areas and that rural areas, on average, are characterized by lower level of FDI attraction and global connectivity after the 2008 economic crisis. With regard to employment opportunities, the effect of GIs become significant only when we look at the entire agri-food related activities. Results suggest that the share of new jobs created by FDI in agri-food related activities seems to increase more in areas particularly specialized in GI productions than in other areas. The effects are indeed strongest for high-specialised GIs areas.

Thanks to foreign investments, the positive dynamics that GIs activate may support rural economies by avoiding the degradation of the primary sector, and, at the same time, promoting an inter-sectorial reorganisation towards diversified activities. Embedded expertise and territorial specialisation become the core drivers of local spill-overs enhancing the development of the entire economy.

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