

Title: *A new-endogenous model enabling the inner areas development*

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Abstract

The pandemic situation has highlighted the vulnerabilities and interdependencies between rural and urban communities.

Just think of many cases of citizens returning to inner areas and appreciating more and more living spaces and a cleaner environment, going against the grain, and challenging the polarization process.

This social phenomenon is specular to the new political interests which have been focusing on exploring solutions and policies of economic regeneration in these rural areas, as witnessed by the Cork Declaration (2016). It is a fact that the inner areas dually affect the economic territorial reality: on the one hand, inner areas underpin the territorial development thanks to their intrinsic richness of natural resources, community spirit, and the handing down of their values and identity; on the other hand, the inner areas reveal themselves not self-sufficient because of their incapacity to fulfil their internal demands on their own. Considering that, inner areas continuously request exogenous resources from the urban zones, hampering the economic growth of the whole territorial ecosystem.

This vicious circle of the inner centres is becoming increasingly harmful also for the dramatic demographic situation. Not by chance, the brain drain is now rife and increases the backwardness of these areas with a multiplier effect. It is easy to imagine that politicians are voted by the remaining people and, even they, are old age. So that, the political body interested in running after obsolete requests on the other hand and it is not able to be on track with the current tendencies.

The research aims to support the political and social efforts by understanding the triggering input of political funds for social innovation in rural areas. The study will focus on the municipalities of Southern regions of Italy, such as Puglia, Calabria, Campania, and Basilicata, excluding the islands.

Main topics of the working paper

The territorial divergence has been in the spotlight of public institutions for fifteen years, underlining the GDP difference among European countries, as shown in the last Eighth Report on Economic, Social and Territorial Cohesion of the European Commission (2022). That is why those institutions have started to plan a specific cohesion policy, which includes the disbursement of several funds to foster the development of these zones. Among these, there are two specific public funds, FSE and FESR, disbursed in the period 2014-2020 for the regional development. These two funds belong to the central structural funds of the Union European: the former favours the professional integration of the unemployed and less favoured social categories by financing particular training actions; the latter finances the construction of infrastructures and productive investments for generating employment. These two funds are applied with POR (regional operational programs), which are the tools through which development initiatives and projects on the regional territory can be funded.

To assess the effect of investment in rural development on local development, a panel regression model with municipal fixed effects and spatial correlation will be applied. The period of the FESR and FSE implementation (2014–2020) was divided into three-year periods because the data do not allow for a precise assessment of the intervention's time (fund transfer). That is why it is based on the year the project was concluded. Using 3-year aggregates can help to correct for the imprecision of such measurement.

In line with the famous Tobler's (1970) first law of geography, it should be assumed that the investigated phenomena of cohesion policies are spatially correlated. It is a fact that the economic performance of a municipality depends on local resources and activities and on the condition of the nearby municipalities, which may provide purchasing power, and labor opportunities and create various types of spillover effects reaching beyond their administrative borders. Second, the impact of investment in demography, occupation, education, digitalization, and entrepreneurship in the local development is also likely to be spatially lagged, as any project implemented in one municipality may affect the performance of neighboring communities (Wanda Biedka et al., 2021). Due to the presence of spatial spillovers, the data render traditional OLS estimators become ineffective and biased, thus inviting the use of spatial econometrics. The latter has only recently become interesting in cohesion fund literature (Dall'Erba & Fang, 2017), but has already proven useful (Bourdin, 2019). With the application of a spatial panel model, our study increases the growing popularity of spatial econometrics in cohesion policy studies (Dall'Erba & Fang, 2017). The increased application of such methods stems from the fact that they enable researchers "to proxy for interregional backward and forward linkages, technology spillovers, commuting across regions, and to refute the traditional assumption of independence of the error terms" (Dall'Erba & Fang, 2017, p. 825).

Finally, the spatial correlation may also result from the approach we utilize to disaggregate the value of cohesion policy investment on the local level. Depending on the type of programme in question, we assume that the individual municipal share in projects spanning several municipalities is proportional to either the number of local participants in the total number of the given project's participants (POKL), or to the share of local population in the total population covered by the project (see subsection 4.3 for details). Both approaches may be imprecise and lead to either an overestimation or underestimation of the given municipality's monetary benefits from the project. Such bias may differ across projects, with its scale and direction remaining unknown. Accounting for spatial correlation in the data will help to correct this unknown measurement error.

State of the paper:

The paper is still in progress.

The researchers have collected datasets developed by individual region beneficiaries of the FESR and FSE programs in order to understand how many funds each region has already received. Through these datasets, the researchers have already detected the funds disbursed to each city.

The researchers have already collected the following data of Apulia, Calabria, Campania and Basilicata:

- the demographic state of each city (gender composition, average age).
- the education level considering the number of degrees, diplomas, and other education levels of each city.
- occupation level, considering the number of employed people in each city.
- the number of new enterprises in each municipality.
- Some difficulties finding digitalization details for each city.

Due to the state of the paper, the authors will present this working paper to receive some valuable suggestions from the participants to create a complete and high-impact paper for the research field during the conference.

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