

# The role of formal and informal institutions for economic resilience: a study on post-2008 shock Europe

by Stefano Ghinoi | Elena Prodi | Francesco Silvestri | University of Greenwich (UK) | Università di Ferrara | Università degli Studi di Modena e Reggio Emilia

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Si prega di strutturare l'abstract nelle sezioni che seguono:

- **Objectives** The contraction of production and trade exchanges experienced by the global economy in the aftermath of the 2008 economic crisis has severely slowed down productivity growth worldwide. However, a growing body of literature has shown that the adverse recessionary impact has occurred unevenly across territories, even within a given country (Bruneckiene et al., 2019). Over the past decades, cross-country empirical analyses have feed into this strand of literature, showing that local structural features play a key role, on the one hand, to mitigate economic distress and social upheaval accompanying the early stages of a recession; on the other hand, they proved to be essential also in the aftermath of a recessionary shock, with respect to the chances and the speed of recovery of territories (Rose, 2007).

The idea that territories behave heterogeneously face to an unforeseen shock has grown around the discussions put forward by economics on the experiences of post 2008 economic recovery in some advanced economies of Europe. In accordance with the ecological classification, the ability of a territory to withstand an unforeseen shock has been conceptualized and referred to as resilience. In a wider sense, resilience has been defined as the faculty of an ecosystem to recover to a new equilibrium status after the disruptions caused by an external shock (Holling, 1973, Common and Perrings, 1992). In economics, the notion of resilience has been applied to describe how a socio-economic system recovers to the former level of performance after a crisis (Briguglio et al., 2019). The 2007-2008 financial crisis has affected European socio-economic system with almost the same magnitude in each area. Nonetheless, the return to pre-crisis levels for GDP, employment, and other economic performance indicators has not occurred likewise, even amongst regions with similar formal institutions and economic structures (Ubago Martínez et al., 2019).

Formal and informal institutions influence “*the decisions of individuals to pursue entrepreneurial activity*” (Gherhes et al., 2018) and therefore have a direct impact on socio-economic systems and on their attitude to resilience. But while the relationship between resilience and structural variables and formal institutions, human capital,

R&D investments, is well known by economic literature (Crescenzi et al., 2016), informal institutions - trust and openness, cooperation, civil participation - and their capabilities to recover the pre-crisis conditions have always been neglected (Rodríguez-Pose, 2020). The purpose of the study is verifying whether different performances in terms of economic resilience are correlated to different levels of institutional endowment, finding if informal elements are more strictly associated with a successful strategy for recovering from a crisis.

### **Methodological approach**

Our analysis is based on a two steps econometric approach. First, we use an ad hoc index to test the resilience of a group of European regions (EU NUTS 2 level) after 2008. This index is then used in an econometric model as a function of regions' centrality and brokerage (network statistics derived from Social Network Analysis; Prell, 2012) and covariates accounting for the presence of trust and openness, as measures of informal institutions, and a set of covariates for testing the effects of formal institutions. The estimation model includes controls such as regional socio-economic drivers.

Economic and administrative data are collected from Eurostat; in particular, we use information about manufacturing productivity, employment, regional accountability, and EU-funded projects (e.g. FP7/Horizon collaborations). Data on regional trust and openness are collected from the European Value Survey, while law and regulations are classified according the institutional structure of each European country. Since data on European NUTS2 regions are structured as a cross-section, the model includes an instrumental variable (IV) based on the approach used by Muscio and Ciffolilli (2020) when working with FP7 data.

### **Expected results**

Regional governments in Europe have an increasingly tangible influence in policy making (Silvestri, Spigarelli and Tassinari, 2020). For this reason, it is relevant to study the attitude to recover the pre-crisis conditions, which we defined resilience, at the regional (NUTS 2) level.

The study correlates the resilience of each territory to a set of variables dealing with the functioning of both formal and informal institutions. We expect to find interesting difference mostly with respect to the role of informal ones, giving useful recommendations to local policymakers.

### **References**

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