

The economic impact of earthquakes: some evidence from Italian provinces

by Fabrizio Colantoni | Cristina Di Stefano | Maria Gabriela Ladu | Tania Masi | Sapienza Università di Roma | Politecnico di Milano | Università degli Studi dell'Aquila | Università degli Studi G. d'Annunzio

Abstract ID: 38

Inviato: 31/03/2022

Evento: XX Workshop Annuale SIEPI

Argomento: 13. Sostenibilità, economia circolare, ambiente, industria

Parole chiave: earthquakes, italian provinces, natural disasters, synthetic control, value added

Natural disasters such as earthquakes, can cause severe loss of human lives and have direct and indirect economic impacts. However, the existing literature offers inconclusive answers regarding their effect on economic growth. Most studies on natural disasters consider different types of disasters at the same time: very few of them focused on earthquakes. Our aim is to quantify earthquakes' short-term and long-term, economy-wide (provincial level) and sector-specific impacts. This type of analysis could help policymakers to adopt appropriate measures in the aftermath of a disaster. In particular, in this paper, we want to investigate the consequences of three recent earthquakes that occurred in Italy in 2009 ("L'Aquila"), 2012 ("Pianura Emiliana") and 2016 ("Central Italy: Abruzzo, Lazio, Marche and Umbria") using the Synthetic Control Method (SCM). SCM is a data-driven analysis that compares the actual outcome of a unit affected by a shock with a counterfactual outcome, given by the weighted outcome of all potential comparison units that best reproduces the characteristics of the case of interest. SCM allows to follow the path of the outcome variable over time, thereby providing an evaluation of the effect of the event both in the short and long run.