

**ESRC-UKRI grant (ES/V015265/1): The Economic Linkages of Covid-19 Across Sectors and Regions in the UK**

**Policy brief by Professor Fidel Perez-Sebastian**

The project has analyzed a spatial model of inter-regional economic links and disease dynamics and offered important information about the impact across thirty-seven NUTS2 UK regions of anti-Covid-19 policies during the first wave of the pandemic, from the 25<sup>th</sup> of February to the 15<sup>th</sup> of July, 2020.

First, even though the incidence the disease was initially larger in the UK than in the European Union, the project finds that the fight to reduce the infection rates was more successful in the former economy than in the latter.

Second, the spatial model predicts that without the policy reaction in Europe, the number of deaths during the first wave of the pandemic would have been about 4,400,000 larger in the European Union, and about 1,217,000 higher in the UK. In terms of the lives saved per 100,000 inhabitants, the average for the EU27 and the UK equal 202 and 1718, respectively.

Third, on average, across UK regions, the largest gains from European-wide policies where in areas where the volume of deaths was higher, like Berkshire, Buckinghamshire and Oxfordshire, Cheshire, Greater Manchester, Inner London-East, West Midlands, and Essex.

Fourth, the percentage contribution of economic activity to the number of fatalities due to the infection is, on average, around 10%. Hence, even though family and social interactions have a larger weight, the contribution of economic activity is also significant.

Fifth, in the absence of anti-Covid-19 measures in the European-Union, the number of deaths in the UK would have been an 80% larger; they saved about 34 lives per 100,000 inhabitants.

Sixth, UK anti-Covid-19 measures saved 50,620 lives in the European Union, which represents two lives per 100,000 inhabitants. In the UK, this number is much larger; in particular, they saved about 1,200,000 lives or 1,700 per 100,000 inhabitants.

Seventh, interestingly, lives saved as a consequence of UK policies and lives saved due to EU27 policies across the 37 NUTS2 UK regions show a correlation of -0.672. This is a consequence of the importance of social and family interactions for the local transmission of UK policies. It also signals that the policies implemented in other regions worldwide should be considered in other to design region-specific policies.