

A Spatial Model of the Spread of COVID-19 and Economic Outcomes

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Many public health crises, including the COVID-19 pandemic share three features: (1) geo-spatial spread, (2) mismeasurement of prevalence, and (3) a coevolution of the condition and economic outcomes, so that a full accounting of the health impacts can only be assessed by accounting for economic impacts. This paper develops and estimates a model with these features. The estimates are then used to simulate trajectories of outcomes under a range of policy alternatives and trace out the health-economic possibilities frontier.