Title

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Abstract
Public health responses to the Covid-19 pandemic have been markedly different in several countries. We argue that part of this difference could be explained by channels typically studied in behavioral economics (such as overoptimism, representativeness heuristic, etc.) We develop a theoretical model of the interaction between the government and the citizens that encompasses two phases, before and after the ‘lockdown’. In the pre-lockdown phase, the government fears taking extreme measures too early because of their economic costs and protests from the citizens. Crucially, biases in the perception of the pandemic (by both government and citizens) exacerbate this problem. These biases are also connected to the inability of governments to learn from countries that are more advanced in the progression of the pandemic. In the post-lockdown phase, we build a SEIR (susceptible-exposed-infected-recovered) model of contagion, allowing for endogenous choices by citizens in regards to their personal protection, and therefore an endogenous rate of contagion. Citizens make their decisions based on payoffs that depend on the fraction of others engaging in personal protection (social norms), as well as actions taken by the government. We show that the government can nudge citizens (through information, strategic placement of hand-washing locations, etc.) towards a Pareto-optimal equilibrium in which there is high take up of protective measures, a low contagion rate, and a faster recovery. We calibrate our framework to the case of Spain, simulate the curves of contagion and produce counterfactual predictions, and compare the development of the crisis (and potential future scenarios) with other countries in Europe and Asia. In conclusion, including a behavioral component to models of contagion and crisis management is crucial to understand the progression of the pandemic and to develop effective measures to overcome it.

Data description
We use national official statistics, WHO's situation reports and ECDC's data about the number and timing of infected individuals in each country, in order to calibrate the parameters of the model.
JEL codes for the project
I12, I18, D9, C72

Key-words
Covid-19, SEIR model, behavioral economics.