

'Smart containment' can save lives, shorten the recession—but requires better testing

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Selective quarantine can reduce the number of COVID-19 deaths while lessening negative economic impacts, say researchers in a working paper published recently by the *National Bureau of Economic Research*.

In "The Macroeconomics of Epidemics," Northwestern University economists Martin Eichenbaum and Sergio Rebelo, along with economist Mathias Trabandt of the Free University of Berlin, propose a solution they call "smart [containment](#)," which they say leads to a much smaller recession and fewer deaths than under the "simple containment strategy," which is closer to existing policies in which containment applies equally to everyone, regardless of their health status.

Under "smart containment," infected people don't work. This policy means that susceptible people can work without the risk of becoming infected. Because so many people are working the economy does not suffer in any meaningful way from a recession. Moreover, the overall death toll of the epidemic is very small, with the number of infected

people declining monotonically from its initial level to zero.

"We were surprised by the large potential gains from 'smart containment' policies which impose selective quarantine measures based on people's health status," said Eichenbaum, the Charles Moskos Professor of Economics in the Weinberg College of Arts and Sciences. "Compared to cruder lock-down policies, 'smart containment' produces a small recession and much fewer deaths from the epidemic. These results highlight the importance of quickly developing reliable tests to check whether people are infected or have recovered from the infection."

The economists' projection that maintaining social-distancing measures before the U.S. hits its peak in infections would "save roughly half a million lives" garnered national headlines last month when President Trump contemplated reopening the economy by Easter—April 12—in the wake of the COVID-19 pandemic. The president has since extended the social distancing guidelines through April 30.

The projection is based on a model that vaccines and treatments don't arrive before the epidemic is over and healthcare capacity is limited.

Said Eichenbaum: "Our model suggests that containment measures will have to extend beyond April 30 and is very clear that the longer [policy](#) makers take to implement containment measures, the more severe the recession will be and the more people will die."

While abandoning containment policies prematurely leads to an initial [economic recovery](#), it also leads to a large rise in infection rates, thereby causing a new, persistent recession.

The reaction to the working paper has been very enthusiastic and supportive, Eichenbaum said.

"We received numerous comments and suggestions, as well as many invitations to give seminars and share our work," he said. "We were approached by teams of epidemiologists, as well as institutions like the OECD (The Organization for Economic Co-operation and Development) and the World Bank suggesting joint research and ways to extend our framework."

The researchers are currently extending their model to study various COVID-19-related forces that will affect the long-run performance of the economy.

"These forces include otherwise well-functioning firms going bankrupt, the destruction of supply-side chains and the impact of long unemployment spells on workers' future employment prospects," Eichenbaum said.

More information: Martin Eichenbaum et al. The Macroeconomics of Epidemics, (2020). [DOI: 10.3386/w26882](https://doi.org/10.3386/w26882)

Provided by Northwestern University

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