A 'mobilize and transition' strategy could reduce Covid-19 mortality while cushioning the economic decline

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While the human toll of the COVID-19 pandemic has been apparent for some time, the economic picture is now starting to come into greater focus. Initial unemployment claims in the United States jumped from 280,000 to almost 3.3 million for the week ending March 21, then doubled to over 6.6 million for the following week. By way of comparison, weekly unemployment claims have never previously exceeded 700,000 in the history of the recorded data. The S&P 500 Index reached a record high in mid-February, then lost a third of its value in a month. Congress passed a $2 trillion stimulus bill on March 27, one quarter of which allows for loans and grants to firms under the discretion of the Secretary of the Treasury. And the Federal Reserve invoked the "unusual and exigent circumstances" clause of Section 13(3) of the Federal Reserve Act to break out of its usual shackles and channel credit to (non-bank) firms, states, and municipalities.

The plan seems to be to drastically scale back economic and social activity and wait for the pandemic to pass, in the hope that it will do so in about two or three months, with a rapid return to normalcy thereafter. A statement by Secretary of Labor Eugene Scalia on the unemployment numbers exemplifies this thinking; he observes that the stimulus bill "provides incentives and funding for businesses to keep their workers on payroll, so that, as soon as possible, we can spring back to the strong economic conditions we enjoyed just weeks ago."

But what if three months is not enough, and we see ebbs and flows in confirmed cases over one or two years, in concert with the relaxation and tightening of social distancing measures? The social, political, and economic implications of this would be dire. And what if changes in the composition of demand for goods and services are enduring, with less expenditure on travel and lodging and more on public health and distance learning for years to come? Then a large-scale reallocation of workers and capital across sectors will be needed even after the threat has passed, and a return to the pre-crisis status quo will not be possible in any case.

An alternative paradigm, which we call mobilize and transition, allows for a return to active participation in economic life for some portion of the population long before the pandemic has been fully contained. The goal is to use an initial period of aggressive social distancing of up to three months in order to build out the infrastructure of pandemic preparedness and management that countries like Taiwan and Singapore have used to maintain far greater control over Covid-19 than we have managed. We mobilize in order to transition to being a society with the kind of pandemic resilience that permits maximal mobility for as large a portion of the population as possible even when the pandemic is ongoing.

This strategy involves large-scale testing, on the order of several million individuals per day, in order to partition the population into those who are believed to be safe and those whose status remains undetermined. It involves two regimes, which we call find the safe and find the virus, with transitions between regimes being contingent on epidemic trajectories and economic conditions.

In the find the safe regime, those with a recent negative disease test or a serological test indicating immunity can return to the workforce, entering occupations for which there is intense demand. This will require

credible verification of safe status. Testing would be focused on those in the health and care professions, first responders, sanitation workers, and those connected with production and delivery of food and other essential goods and services. And it would include those who are willing and able to enter or re-enter these occupations without the need for extensive training, and those who could provide such training as is deemed necessary.

The find the virus regime involves broad-based testing in order to find and isolate those who are infected, and to warn and recommend testing for their contacts. In order to make best use of scarce testing resources and personnel, those with greatest likelihood of carrying the virus should be prioritized for testing, and this determination could be based on location, occupation, demographic characteristics, and proximity to others who have recently tested positive.

There is a useful analogy here to the literature on police stops and searches, where differences across groups in contraband recovery rates (or hit rates) are viewed as a diagnostic test for discrimination. A non-discriminatory police department seeking to maximize, say, weapon recovery should conduct searches in such a manner as to equalize marginal hit rates across identifiable subgroups of the population. That is, the likelihood of weapon recovery should be independent of group membership among those who are close to the threshold for a search. Translating this to the case of testing, the targeting of individuals should be such that the likelihood of testing positive is roughly equalized across locations, occupations, and demographic groups, at least among those who have been recently tested. If a location is turning up more positives than another at the margin, resources would be better used by shifting to the former at the expense of the latter. Such adjustments require extensive mobile testing capability.

Innovative use of mobile technologies can facilitate more finely targeted

testing, while preserving privacy and civil liberties. For example, an app developed by MIT researchers collects location data every five minutes and stores it locally without any identifying information. Anyone testing positive can transfer this data to a health professional, who can upload it to a central server, again with all identifying information redacted. This allows intersections to be traced, and people who have crossed paths with those who have tested positive to be warned, even though their personal data never leaves their phone without their permission. Other related applications are under development.

One essential feature of the proposed strategy, and indeed any strategy under current conditions, is the universalization of mask use, subject to availability of supply. Widespread mask use has helped limit contagion in many Asian countries, but the practice remains far from universal in the United States. The meaning of mask use needs to be transformed through public messaging [9] by civic and political leaders, so that it is associated with altruism and civic responsibility instead of carrying the stigma of sickness or fearfulness.

We believe that the mobilize and transition strategy will result in lower mortality from the disease while cushioning the decline in output and employment and leading to a more rapid recovery with a very different allocation of workers and capital across sectors relative to the pre-pandemic period. But the economic hardship will nevertheless be extraordinary, with double-digit unemployment rates for several months, if not years. Social support therefore has to be an essential component of the strategy. The stimulus bill allows for some cash payments to households, but this could be routinized in the form of a basic income and distributed through individual accounts at the Federal Reserve. The latter would be a radical departure from current practice, but these are indeed "unusual and exigent circumstances" under which the central bank has the power—and indeed the responsibility—to take steps that may have been unimaginable in quieter times.

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