James K. Galbraith, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin: This is a useful paper in several respects. It brings together available comparative information in a compact and accessible way, and confirms by statistical summary what epidemiologists and common sense already knew, that the least-cost way to suppress the coronavirus is to break the chain of transmission by effective social distancing, since person-to-person transmission at short range through the air is the major vector of infections. This is the main message of the paper; it is not news but reinforcement, which in a moment of global emergency is what the situation requires.¹

A second important contribution is in demonstrating by how much the Asia-Pacific region dominates the North Atlantic region in pandemic control, as measured by transmission rates and death rates. Sachs attributes this mainly to public health measures, especially personal hygiene and mask-wearing, with limited recourse to lockdowns, implying that the heavy economic costs can be largely avoided, or any way minimized, if the public health basics are quickly implemented and broadly observed. Here I am not sure he is entirely correct. China imposed a draconian lockdown on Hubei and quite severe restrictions on the entire country, with among other things strict rationing of egress from residential apartment complexes. Yet mainland China figures as just one observation in this analysis, alongside much smaller entities such as Hong Kong, Taiwan and Singapore. The fact that it was possible for Korea to control the epidemic with limited lockdowns does not establish that it would have been possible for China to do the same—or still less the United States.²

¹ Sachs begins with an off-hand remark that COVID-19 is more severe than a number of earlier epidemics, including AIDS. This is doubtful; at its onset AIDS also had no vaccine or effective treatment, presymptomatic individuals did transmit the virus, and although transmission required exchange of bodily fluids, the syndrome itself was at first and for a long time invariably lethal. COVID-19 is more infectious but much less severe, with most infections largely recovered within a month’s time, so far as we know now. COVID-19 is more serious economically, to be sure, because it has provoked the large-scale public-health response that was never considered necessary (nor would it have been) in the case of AIDS.

² The peculiar features of the American economy in this respect will be discussed later in this note. It is clear enough, however, that the more draconian the lockdown and other measures, the more quickly the virus can be suppressed, and therefore the shorter the period before an economic and social recovery may begin.
Although the verdict that the Asia-Pacific region has outperformed the North-Atlantic appears sound, one should be wary of drawing facile cultural inferences. Within Asia, Japan’s performance on R(t) does not appear to be much better than the United States or Canada, whereas the Philippines, Indonesia, and India all rank toward the bottom of the R(t) league tables at the time of reporting. Meanwhile, Denmark, Norway, and Finland appear to be doing well while not (according to Table 2) invoking low-cost control measures. Outside the data set, Cuba stands out as a case of significant success against the epidemic in the Americas, and outside the regions under review it appears that Argentina has done, so far, better than Brazil, for instance. In short, much remains to be explored, as the paper acknowledges.

On death rates, among the variables that are included, there is room for skepticism as to what, exactly, they show. Sachs writes: “the difference of having 2.8 hospital beds per 100,000 in the United States and 8 hospital beds per 100,000 in Germany would account for 158 deaths per million higher in the United States than in Germany out of an actual difference of 245 deaths per million.” This attribution seems most unlikely, given that in the United States, and apart from some serious concerns early on, mainly in New York, there was never an actual shortage of hospital beds, nor even of ventilators, anywhere. The fact is—as New York discovered—there is no hard cap on hospital beds and it is easy to set up new ones where they are required. The difference in death rates caused by this variable has to be due to something else.

The paper notes the vulnerability of elderly populations and the significance of the age distribution in determining overall mortality from COVID-19. It calls for special protections for high-risk groups and states, correctly, that “this special protection has not generally been implemented.” This is a gentle understatement. In New York, we now know, COVID-19 was introduced into nursing homes by a policy of discharging infected hospital patients to convalesce in those homes. In California, COVID-19 was introduced to a major prison, San Quentin, by the transfer of infected prisoners to the facility. We also know that in Belgium, perhaps properly treated as an outlier, hospitals simply refused to accept

3 A field hospital with about 3,000 beds was quickly added in New York City at the Javits Center, and then got little use.

4 For example, one might argue that a low overall bed-count indicates a higher risk of overcrowding in some hospitals, with resulting higher in-hospital infection rates and pressure on the ability to deliver care, leading to higher mortality rates. But this is open to the obvious objection that hospitals only become over-crowded when a large part of their customer base is already sick—possibly due to comorbidities and old age. Differences in mortality rates by hospital might yield some insight into this question, provided one had access to good information about differences in patient condition from hospital to hospital. It may also be that the purpose of hospital care is quite different in different countries. In China, for instance, field hospitals were established as quarantine/isolation facilities, whereas in the United States and other advanced countries, hospitalization is largely reserved for those needing specific care that cannot be provided on an outpatient basis, such as, in the case of COVID-19, oxygenation or ventilation.
the elderly, leaving them to die in their care facilities. Whether in various instances such
custom was incompetence, negligence, or willful malfeasance is a question that may take
many years to settle.

The vast differences (so far) in death rates from COVID-19 also call out for the examina-
tion of other variables. In particular, one may wish to know about the potential protective
effect of the bacille Calmette-Guerin (BCG) vaccination for tuberculosis, and the potential
protective effects of other vaccines, such as for measles, mumps, and rubella (MMR) or
pneumonia, both recently discussed in the press. In the case of BCG, indicative compar-
isons have suggested that it may help account for the low death rates in India, and in South
America for part of the death-rate difference between Ecuador, which does not require the
vaccine, and Argentina, which does. The fraught question of hydroxychloroquine, which
is part of the standard-of-care for early-onset infections in India and elsewhere, should also
be part of a comprehensive analysis of this kind, however politicized that issue may be in
the United States.

The paper spends a fair amount of space totting up the contribution of excess deaths,
morbidity, and economic disruption to losses of GDP. This seems less useful, in part be-
cause the evaluation of human life is conceptually awkward; in part because GDP is a flow
whereas the value of lost life is a stock; and in part because the purely economic losses de-
pend heavily on how long the disruptions endure and how resilient the various underlying
economies are, both of which are highly speculative at this point.5 One can also quibble
about the accounting. For example, although it is true that the pandemic has direct costs
in deaths, disabilities, and medical care, a strict accounting on the same principles would
have to count as savings for the costs that will not be incurred later on for the treatment
of comorbidities such as diabetes, hypertension, and cardiovascular disease, and indeed
the cost of care for the elderly who might otherwise have lingered in nursing homes for
additional years. Likewise, one would have to count as a benefit the reduction in traffic
accidents, workplace accidents, and so forth, due to the lock-down. But one should also
remember that sickness and medical treatment are a plus, not a minus, for GDP; adding the
costs of health care to the losses of production seems sensible from a welfare standpoint but
is not in relation to GDP; if everyone were perfectly healthy and health care costs went to
zero, GDP would fall, not rise, ceteris paribus.

The full picture of why and how those Asia-Pacific countries—and a few elsewhere—have
managed to succeed so far, while the generally wealthier countries of the North Atlantic

5 Sachs postulates a uniform effective lockdown period of 120 days, but this is only an assumption
for purposes of estimation. There is no reason to think that lockdowns will work equally well, let
alone in any standard time frame, in different social and economic settings around the world. We
return to the problem of resilience at the end of this note.
region have, so far, largely failed to bring the epidemic under control, may elude the potential of a simple country-level regression analysis. A number of factors come to mind.

The first is the existence of centralized public-health authorities within well-demarcated boundaries. In both the United States and the European Union, the major powers to respond to the emergency were and are vested in subcontinental political units—states and municipalities in the United States, nation-states within the borderless EU. This fact led necessarily to a disparity in responses across units, no doubt compounded in the U.S. case by the bungling of the federal authorities, and in the EU case by the absence of authorities at the European level. So long as the borders between administrative units remained open—as they have in the United States throughout—it is impossible for any jurisdiction to control the epidemic definitively. In contrast, as Sachs notes, each of the Asian states with the best results was able to close down cross-border travel or to subject any arrivals to strict protocols, and China was able to shut down travel across provincial borders as well. Thus, the virus, once suppressed, largely remained so. Sadly, for the world as a whole, this cannot happen until it happens everywhere.

Second, whereas Sachs stresses the importance of testing, contact tracing, and isolation, it appears that the most successful public-health interventions relied most heavily on contact tracing and isolation and not so much on testing, which is limited by slow response times and uncertain false-positive rates.\(^6\) Simple shoe-leather epidemiology, checking for symptoms, following up contacts, and isolating the ill, seem to have done the job in Hong Kong and Cuba.

Third, and perhaps most elusive, there is the structure of economic globalization and its consequences for the response capabilities of the wealthier West as against the middle-income countries of the East. China and Vietnam were able to raise mask-wearing to a universal practice because they could ramp up production in a hurry—in China capacity rose from 15 million masks per day to 110 million masks per day in just three weeks in February; over 3,000 firms made the switch using existing capital equipment and workforces. No such miracle was available to countries that had largely outsourced production at that modest technological level. Hence the richer countries, both in the United States and Europe, were plagued by shortages affecting not only ordinary citizens, but also health care workers directly exposed to infections on a daily basis.

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\(^6\) When testing is widespread while the true incidence of the disease of the disease is low, then even a small false-positive rate will generate a majority of false-positive results, quickly clogging up isolation facilities with uninfected people. For instance, with a 3 percent infection rate and 95 percent testing accuracy, almost two-thirds of the positive results will be false. In fact, so far as I’m aware, we do not know the precise accuracy of the various tests.
In terms of the economic costs, the structure of globalization has two further consequences for the advanced countries. The first is a mismatch between the available instruments of economic policy and the structure of demand for the output of the most advanced manufacturing, resource and services sectors. Advanced countries produce global investment goods. Aircraft are a canonical example: The demand for new planes is global and will not revive while half or more of all existing airworthy aircraft are parked on the ground. Hence “stimulus” at the national level cannot save the industry. Similarly, though for different reasons, the oil industry in North America depends on the global price, and cannot survive a global glut in relative supply.

The other characteristic of advanced globalization is that the structure of employment in the wealthiest economies skew away from manufacturing and essential services, and toward the provision of services that are essentially superfluous and, in a crisis, dispensable. Restaurants, bars, concert halls, casinos, spas, resorts, coffee shops, massage parlors, boutiques, gyms, nail and tattoo salons, colleges and universities, elective health care—these activities and not factory work have become the income- and job-providing mainstays of the wealthiest countries. But in a crisis consumers find they can live without most such activities, and when the jobs disappear, so do the incomes that have, in recent decades, mutually supported these ethereal constructions of economic life. Hence the most advanced countries—here represented by the North Atlantic region and especially the United States and the UK—suffer both economic losses and social stresses that are, in some ways, more intractable than those felt in less-wealthy countries. In much of Asia, the core manufacturing activities are in the consumer sector, and are wholly responsive to domestic demand.

One further consideration is the role of fixed financial obligations, especially in the United States. Rents, mortgages, utility bills, student loans, credit card debt, and health care debts are embedded features of the life of a wealthy country. As with all leverage, what raises the living standard reduces the margin of safety. And this amplifies the retreat from superfluities and the likelihood that even when/if the pandemic recedes, the advanced economies will be left in a depressed state, requiring deep structural and financial reforms before they can meet the needs of their citizens in a satisfactory way.

7 Also, many if not all of these activities involve close person-to-person contact and therefore a significant risk of coronavirus transmission, so that shutting them down is not an optional element in a containment strategy.

8 It also seems a fair observation that the wealthier countries have more spare capacity in living space and survival options. Middle-income householders in America live largely in detached homes, with ample kitchens and private yards; they can more readily forgo eating and ordering out, or the use of public spaces. This increases the fragility of service activities that in Asia are more indispensable, and therefore a more resilient element of economic life.
Thus, the assumption in this paper of a “temporary closure” of the economy, followed by a recovery, may be inappropriate for the United States and other advanced economies. While middle-income consumer-goods-producing countries may return to their previously normal economic activities reasonably soon, even without large-scale public-sector “stimulus” packages, in the wealthiest countries large infusions of cash are required merely to keep the financial sector (and the landlords) from a meltdown over the inability of householders to pay their debts. But such measures will not succeed in reviving demand, neither for the advanced investment goods that must sell on world markets, nor for the amenities and frills that have come to dominate the employment prospects of ordinary workers. The West, therefore, is in for a rough ride.

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**Iikka Korhonen Comment on Comparing COVID-19 Control in the Asia-Pacific and North Atlantic Regions**

**Iikka Korhonen, Bank of Finland:** It is a great pleasure to comment on this exciting research paper on the determinants of the spread (the standard reproduction rate) and effects (deaths per million) of the COVID-19 virus in a large cross-section of countries as well as over time (from mid-March to mid-June 2020).

My comments should obviously be read with the passage of time in mind. I am writing this in mid-August, two months after, the end of the data sample used in the paper. The events, the pandemic, and also research related to COVID-19—whether economic or medical—are surging ahead by leaps and bounds practically every day. Therefore, I can offer comments also because I have access to data and research that could not be available to the author. For example, the situation in Hong Kong seems to be now much more precarious than it was in June. (And, when my comments are published, some of the statements and/or speculations could very well appear quite foolish to the future reader. . . .)

Having said that, I endeavor to offer some comments and suggestions for future research as well as some speculations about the efficacy of various policies in trying to counter the pandemic and its disastrous effects on the economy.

My first comment relates to the behavior of $R(t)$, the basic reproduction rate of COVID-19. It is very volatile, and crosses threshold of one several times in most countries, both up and