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May 14, 2020

Beiträge zur aktuellen Wirtschaftspolitik No. 2020-12

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## **Certified Corona-Immunity as a Resource and a Way Back to Normality: Perspectives for Emerging Markets<sup>+</sup>**

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May 14, 2020  
(1974 words)

The current coronavirus pandemic has put the world in uncharted territory, not only is it a biological event but it is also unfolding as an economic disaster. Consequently, it is imperative to analyze the broad societal and economic impacts [1], taking into account the different underlying characteristics of countries. Implementing a policy that is successful in industrial countries, may not be ideal in emerging or developing countries. This is a classic economic resource problem – scarcity requires that opportunity costs are considered as decision involves trade-offs [2].

### **REASONS FOR THE CORONA-CRISIS**

The Corona-crisis was caused by the virus' severity profile: a combination of serious symptoms affecting people with comorbidities and the virus' high reproduction rate. If the virus had encountered health systems equipped with the necessary resources, there would have been no crisis. The coronavirus would have resembled a severe pandemic influenza pandemic, which may still be the case [3], as COVID-19 has a lower case mortality rate than SARS, which has rates of approximately 10%. Even in countries with generally good health systems, hospitals were at risk of being overwhelmed by the number of critical cases as they lacked the necessary resources. To contain the virus many countries declared a state of emergency, imposing unprecedented travel restrictions and lockdowns in order to avoid triage situations. It is important to note that minimizing cases numbers is not the same as minimizing deaths or maximizing the overall life years saved. Lockdown measures not only

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lead to lasting economic and social devastation but have significant impacts on general health as there is a strong correlation between economic strength (e.g. GDP per capita) and health indicators (e.g. life expectancy) [4]. This includes psychological damage due to quarantine, more deaths due to economic deprivation (e.g. malnutrition or starvation in poor countries) and many lost years of life.

### **IMMUNITY CERTIFICATES AS A ROBUST STRATEGY TO RETURN TO NORMALITY**

While most resources become scarcer during crises, one crucial resource for overcoming the current crisis is growing, i.e. the number of people with SARS-CoV2 immunity is growing. While the number of confirmed cases is comparatively low in many emerging economies, it is likely that unreported cases will be high, as test capacity per capita is low. E.g. India with about 1.3 billion inhabitants had not even half the number of confirmed cases of Spain with about 47 million inhabitants (confirmed cases until May 2020). As such many people may have been asymptomatic, they are unaware that they have some degree of immunity. Even partial immunity would allow them to return to normal economic employment and social activity. Immune people may be the most important resource in the fight against the economic and health impacts of coronavirus. Immune people should be seen as a vital resource as they could voluntarily work to support health infrastructure and return to their full economic potential. As such they must be sought, found, certified, and they must be effectively employed [5].

Immune people must be certain of their immunity status and be distinguishable from non-immune. This requires a reliable and official documentation (e.g. an immunity certificate or a passport). Like any valuable resource, coronavirus immunity must be searched for through broad testing not only for the virus but for antibodies. Antibody tests are cheaper and easier to administer than tests for infection. Comparatively reliable antibody tests with high specificity and sensitivity were released at the end of April 2020. Testing for antibodies will find those who are already immune, certificates will also help by incentivizing individuals to come forward to be tested as there are significant incentives for returning to normal economic and social activities. Healthy people who cooperate with authorities will be rewarded by receiving the certificate and can return to a relatively normal life.

The process of testing and certifying may seem like a complex task, but it is a relatively commonplace management problem, as corporations routinely manufacture and deliver day-to-day products that are far more complex than immunity tests. Incorporating and mobilizing both, public and private organizations will enable this process to be successfully rolled out on

a large scale. Furthermore, the costs of significantly increasing testing for antibodies is substantially lower than the economic damages caused by lockdowns. Moreover, not allowing immune people free movement represents a legal and moral philosophical problem and it prevents them from helping to reduce the crisis burden. We must understand immunity as resource from a health, societal and economic perspective as pandemics (and our reactions to them) exacerbate the general problem of scarcity that always exists in society, falling hardest on those that can least afford it and provide a realistic and gradual way out of lockdowns.

### **IRRELEVANT DRAWBACKS OF IMMUNITY CERTIFICATES**

Uncertainty remains on important aspects of the coronavirus and its consequences, but experience with similar diseases indicates that people who have recovered have some form of immunity. While the duration and the strength of 'natural' immunity is uncertain, we know that a Covid-19 vaccine will not offer 100% protection against (re)infection. Thus, immunity is about reducing the probability of becoming ill or spreading the virus and not offering absolute protection which is impossible - even partial immunity is more advantageous than none, especially to at risk groups (e.g. the elderly). However, what immunity certificates offer is a guaranteed level of information regarding the quality of the certification and some immunity against the coronavirus. Similar to official warranties or guarantees on most products and services, such that a product meets certain safety requirements and coverage from defects. Differing standards for immunity certificates would be required for various activities, e.g. higher standards for care of the elderly versus lower standards for young and healthy people to travel abroad. Government may not be the only provider of issue immunity certificates, as competition between certificate providers would diminish the costs to citizens over time. Alternative providers of immunity certificates could include doctors, laboratories, specialized companies, or NGOs.

Some may argue that immunity certificates increase inequality as the holder of an immunity certificate has an advantage over those without immunity or without credibly certified immunity. However, given the viruses proclivity to hit the most disadvantaged communities, immunity certificates would provide a potential monetary boost to these people. In any case, nay advantage of immunity is short lived as a vaccine or an effective drug for treatment will render the initial gain virtually worthless. Moreover, potential monetary benefits associated with immunity certificates could be partially redistributed by charging a fee for the certificate, but we strongly advocate against such a fee as the non-immune population benefit from an increase in immune people: directly through their work in the

economy and indirectly through normal taxation of their income. Furthermore, society benefits from the fact that each additional immune people contribute to slowing the spread of the disease.

Immunity may be actively produced as individuals may actively seek immunity (preferably under medical supervision) through self-infection, particularly for cohorts (youth) with potentially lower risks of a severe consequence. Even if no certificates exist some individuals will seek immunity through self-infection, but it may be better to assist this action choice with medical supervision and provide certification as a social benefit.

Immunity has value, and the value only drops to zero if immunity does not exist (or everyone is immune) but if that is the case living with the virus becomes the new normal, people will constantly be infected and some of them will die. This would be a return to the days of cholera or tuberculous, and not in line with what we experience in today's world.

### **BEHAVIORAL INFECTION AND BEHAVIORAL CONTAGION**

The virus is not only been a physical infection but created a contagion of the mind which has infected many more, including political decision makers. The economic and social world in which we live is not just an abstract construct but should be seen as an amorphous organic type of structure, that can grow, shrink, and die depending on the prevailing conditions. The 2008 financial crisis started a financial contagion that took off with bankruptcies, that infected banks, then spread from bank to bank resulting in a worldwide financial and economic crash.

Now virus fixation has become a behavioural contagion, infecting the collective consciousness and the political reaction to the health crisis. We observe hastily implemented policies and sudden regulations spreading from nation to nation. These ad hoc policy decisions can result in immense future resources losses and a possible government crisis related to debts and loss of trust. Many decision-makers fail to see that the regulations they impose could directly or indirectly cause far more harm to the health system, the economy, and the lives that they are trying to protect. The secondary effect caused by the overreaction to the pandemic, which may be far worse than the health crisis itself as economic crises cost many lives too.

There will be a substantial number of “statistical lives lost” due to neglecting other facilities, infrastructures, or public good provisions through reallocation or misallocation of resources. It is important to realise that hospitals and health services require a functioning economy, a failing economy results in lower funding to the health care system. Furthermore, such crises allow for insidious side effects such as vast overreach or extension of state power

into aspects of human life that will be very difficult to reverse and may end up taking a further toll on economies.

### **AN OPPORTUNITY FOR EMERGING ECONOMIES**

Available data suggests that people with pre-existing medical conditions are more susceptible to and die from Covid-19. Many pre-existing medical conditions are strongly associated with age. This pandemic could offer a chance for emerging economies to close the gap on the wealthier nations, as the population of emerging economies are on average younger. Thus, decision makers in emerging markets should be cautious in copying and adopting severe lockdown measures as they will have a lower probability of severe or lethal consequences in contrast to Western countries due to youthful populations.

Lockdowns have long-term impacts on more fragile economies, as citizens in emerging economies are prevented from working for their subsistence earnings and they have no substantial savings. They face high risks of losing their jobs, consumption opportunities, their health, their families, and the stability of their society. Plans to shut down public markets threaten the food security, which could create a nutrition crisis and starvation with significant longer-term human costs. Furthermore, closure of public sanitation facilities encourages open defecation and represents a roll back of the gains which have already been made regarding this problem. There is a substantial risk of another health crisis to occur.

Thus, the primary problem facing emerging economies may not be the virus, but the unintended consequences of lockdowns. Rational policy decisions require evaluation of all advantages and disadvantages. Unfortunately, it is debatable if rational decisions were made in some emerging economies. Official figures indicate that in India each year the number of traffic related deaths are estimated to be 100 times higher than the 2500 deaths related to Covid-19 (until May 2020). This is not to imply that Covid-19 deaths should be trivialized but given the scarcity of resources available in a comparatively poor country, trade-offs should be considered wisely. Finally, the virus may have already spread unnoticed in many emerging economies, with the potential for many immune people making lockdowns irrelevant for them.

### **CONCLUSIONS**

It might seem logical to fight a pandemic by going into lockdown, and while some may be happy to suffer the short-term inconveniences of isolation, doing so will impose large economic and social costs. To reduce these costs, we have to realize that immunity is a

growing resource that must be certified with immunity certificates. Focusing on rational policies responses is particularly relevant for emerging economies as they have a unique advantage due to their relatively young populations. Such an opportunity should not be squandered.

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