

## COVID-19: Highlighting the Japanese Affliction of Indecision

The spread of COVID-19 has highlighted the challenges faced by Japan's system of medical care in a crisis. We must look back on the policy responses put in place to date and learn the lessons that will enable us to prepare for the next crisis.

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#### How Should We Apply the Lessons Learned From Japan's Responses to COVID-19? - Digitalization Allowing the Acquisition of Data in Real Time Will Be the Key -

Yasufumi Kanemaru

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Pressure on Japan's system of medical care has represented a problem since the initial stages of the COVID-19 pandemic, and it is a problem that has not yet been fully resolved. Amendments have been made to the Infectious Disease Control Act and the Act on Special Measures for Pandemic Influenza and New Infectious Diseases Preparedness and Response, but these have not been as effective as desired. In order to prepare for the next pandemic, we must examine the policy responses put into place thus far and learn from them. What are the lessons to be learned from Japan's measures in response to COVID-19? What must we do in order to reform the nation's system of medical care? In this issue of *My Vision*, we put these questions to frontline personnel responsible for steering the course of medical care in Japan, in addition to an overseas expert in the field of innovation and public value.

Keywords...Judgments in emergency situations, digitalization, redesigning the state

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Former member of the House of Representatives

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Honorary President, Japan Medical Association / President, Yokokura Hospital

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Sunao Manabe

Representative Director, President and CEO, Daiichi Sankyo Co., Ltd.

Keywords...Development of R&D infrastructure, strengthening of industrial competitiveness, control tower, drug research ecosystem

##### COVID-19 and Public Sector Capacity

Mariana Mazzucato

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Keywords...Public sector capacity for crisis management, investment in ability to govern, 21st century needs

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## About This Issue

# How Should We Apply the Lessons Learned From Japan's Responses to COVID-19?

– Digitalization Allowing the Acquisition of Data in Real Time Will Be the Key



## Yasufumi Kanemaru

Chairperson, Nippon Institute for Research Advancement (NIRA) / Chairman and President / Group CEO, Future Corporation, Inc.

The COVID-19 pandemic has caused severe damage and economic harm throughout the world. At the same time, it has also brought to light problems that Japan's social and political systems have faced for many years. With this in mind, what has been mistaken in Japan's response, and how should the nation approach such situations in the future? In this issue of *My Vision*, we explore the direction to be taken in our response to future pandemics with five experts in diverse fields.

## Essential Emergency Decisions and Digitalization

Japan first experienced the shock of COVID-19 in February 2020, when the cruise ship “Diamond Princess” berthed at Yokohama. As the situation in Wuhan and the world more generally was being communicated via the Internet and SNS, we saw personnel from Japan's Ministry of Health, Labour and Welfare board the ship in suits, while members of the nation's Self-Defense Forces went aboard in protective clothing. The contrast in approaches displayed here highlighted the difference in awareness of the crisis being faced in Japan's initial responses to COVID-19. The important thing in this case was the decision on the existence of an emergency. Dr. Yasuhiro Suzuki, Vice-President of the International University of Health and Welfare, indicates below the necessity for authorities to make the transition to an “emergency mode” in the event of a pandemic, and I also endorse this view.

In addition to this, we must also consider a delay in digitalization. The Diamond Princess had approximately 3,700 passengers and crew, including foreign nationals, and thus represented a treasure trove of valuable data on, among other things, the status of health and the status of the spread of the infection of those on board. However, the Ministry of Health, Labour and Welfare officials who conducted the onboard investigation collected this data on paper and compiled it in Excel. When the survey personnel received inquiries from the Prime Minister's Office and the news media, they were forced to print out Excel sheets in order to respond. In addition, public health centers continued to employ faxes in sending reports, creating a bottleneck in the imparting of information. Because no digital system allowing rapid response to an emergency had been prepared in advance, Japan's response was entirely analogue, relying, inefficiently, on input from large numbers of people. A delay in the payment of the government's lump-sum COVID-19 benefit was due to the same factor. It was also not possible to utilize Japan's “Individual Number Card” and its associated system, for which “points” had been offered to promote uptake. Seeing the difference between their own nation's response and responses in the rest of the world, Japanese citizens were profoundly disappointed.

## Effective Utilization of Online Medical Care and Development of Vaccines and Therapeutic Drugs as an Aspect of National Security

While it is a temporary measure, a Cabinet decision taken on April 7, 2020 makes it possible to provide online medical care following a patient's initial visit. Yoshitake Yokokura, President of the Japan Medical Association at the time this decision was taken, was understanding of the need for online medical care. However, there has been strong opposition from local medical associations, and even today, when a trajectory towards making this system permanent has been established, it is made little use of. There are still numerous issues that remain to be resolved before online medical care can become a hybrid tool and is able to be used as a service that is taken for granted in the standard medical armamentarium, and not merely a measure to be adopted during the COVID-19 crisis.

This resistance is not limited to online medical care. For example, in the UK, it was made possible for vaccinations to be performed even by members of the general public after a certain amount of training. In Japan, however, under the existing law, only doctors, or nurses under the direction of doctors, are responsible for vaccinations; not only are members of the public not permitted to offer vaccinations, but even pharmacists are barred from providing them. It will be necessary to address the rebuilding of Japan's medical system, including making amendments to the Infectious Diseases Control Act and the Medical Practitioners' Act, to ensure that valuable medical personnel and facilities such as public hospitals, private practitioners, and pharmacists can be utilized in order to take effective measures against infectious diseases.

Yasuhisa Shiozaki, a former member of Japan's House of Representatives, emphasizes the necessity for the exertion of political leadership in order to create a "control tower" to function in a crisis. The only way to realize this will be for the government to appropriately explain the situation to the public and win over public opinion.

Up to the present, Japan has procured vaccines, medical devices such as respirators, and masks from overseas as required. The COVID-19 crisis, however, has caused the foundations of this focus on "value for money," on the purchase of the requisite items at a low price, to crumble. As Sunao Manabe, Representative Director and CEO of Daiichi Sankyo Co., Ltd., indicates below, securing these resources is strongly tied to national security. In addition to the spontaneous occurrence of a pandemic resulting from an infectious disease, we must also consider the possibility of bioterrorism using a viral agent. Responses to viruses, including the development of vaccines, therapeutic drugs, and relevant medical devices, represent a significant business risk and are difficult for individual companies to make commercially viable. In recent years, funding for fundamental research at Japan's universities has also been cut, meaning that the nation's research capacity has undergone a noticeable decline.

In addition to adopting budgetary measures based on a long-term perspective, the government should review its procedures for granting permissions in states of emergency in order to allow researchers and companies to engage in research and development with a sense of security.

## **The Government Must Invest in Order to Improve Governance**

Mariana Mazzucato, Professor of Economics of Innovation and Public Value at University College London, points out below that "state capacity to manage a crisis is dependent on the cumulative investments that a state has made in its ability to govern," a view that I wholeheartedly agree with. When the Japanese government has promoted regulatory reform, it has been a significant aspect of policy to rely on the private sector to take responsibility for a number of services. However, response to a pandemic is a crisis response that is far from the capacity of the economic rationality that characterizes commercial enterprises to deal with.

Even in the case of public hospitals, the reduction of medical expenses should not be the main focus; what is necessary is not only reform of governance as it relates specifically to public hospitals, but also a systemic redesign that includes consideration of crisis response and a level of investment that is commensurate with this. For example, hospitals that are part of national universities should be regarded as core hospitals in their regional areas. If another pandemic was to occur, resources such as specialists and other medical staff and medical equipment could be concentrated in these hospitals. Strategies that would involve, again for example, having normal in-patients transferred to private hospitals, should be formulated in each of Japan's regional areas. The only way to ensure that we respond as agilely as necessary to the crisis represented by a pandemic will be to conduct investments and to make preparations from the very first.

I would also wish to emphasize once more the importance of digitalization. No matter how much we revise laws or change the structure of organizations, if real-time data is not readily available, it will not be possible to take appropriate actions in response to a crisis. Whether a virus or a missile attack, appropriate decisions cannot be made in the absence of data, and in such a case, no matter where the responsibility for taking action was placed, it would not be possible for the necessary actions to be taken. We must assume that Japan will come under threat, and redesign the approach of the state based on that assumption.

Expert Opinions

## Exert Political Leadership to Establish an Emergency “Control Tower”



**Yasuhisa Shiozaki**  
Former member of the  
House of Representatives

In the event of a large-scale epidemic of an infectious disease, it is essential for us to switch over from “normal thinking” to “emergency mode.” The problem with Japan is that despite the fact that the government recognizes the current situation as a disaster-level emergency, it has not been able to establish an emergency system in which it functions as a “control tower.” In an emergency, a new division of roles between the national and regional governments is required, one which differs from the system in place in normal times, and laws must be amended and institutions changed for that purpose. A control tower system was finally mentioned in the government’s Basic Policy in June this year, but it is too late for the concept to be deliberated in the ordinary session of the Diet next year. If officials do not take responsibility, it will

be necessary for politicians to display leadership and make changes precisely because we face an emergency situation.

It has been indicated that the reason we cannot secure hospital beds is that we have an insufficient number of doctors and nurses. This is mistaken, however. The issue is the fact that the national and prefectural governments can only make request-based demands on medical institutions; they do not have the authority to give orders. The law should be amended to enable the national and prefectural governments to give instructions and orders in the event of an emergency. Even national hospitals, “advanced treatment hospitals,” and hospitals affiliated with the Japan Community Health Care Organization (JCHO) offer an extremely limited number of beds. It is the role of political leadership to correct this situation.

That said, the threatening approach of publishing the names of hospitals if requests are not responded to is simply misguided bullying, in particular in the area of community health care, which is built on relationships of trust. When the government requests hospitals to accept infected patients, the focus should be on public hospitals that have capacity to spare. In addition, if a regional government is unable to set up temporary medical facilities, i.e., “field hospitals,” (which is now a responsibility of regional governments), the national government should have the ability to establish them directly.

The fact that response to infectious diseases in Japan is focused on health centers, a situation that has continued since the Meiji era, also represents a problem. Even if a GP wants a patient displaying symptoms to have a PCR test, it is first necessary to seek the judgment of a health center. The necessity for examinations and hospitalization is judged by health center staff who do not possess appropriate medical qualifications, and there is also an insufficient number of staff. If “public health” services concentrated in health centers continue to be situated as a higher priority than clinical medical care provided by regional medical institutions and doctors, lives that could be saved will be lost. It is necessary for regional health centers and medical personnel to work together, and to do so in an organic fashion.

Mr. Shiozaki has served as Chief Cabinet Secretary, Minister of State for the Abduction Issue, and Minister of Health, Labour and Welfare. He is a graduate of The University of Tokyo’s College of Arts and Sciences, and holds a Master in Public Administration degree from the Harvard Kennedy School. He was elected to the Diet for the first time in 1993 following a period working for the Bank of Japan. Mr. Shiozaki was a member of the House of Representatives for eight terms and a member of the House of Councilors for one term. He is known as one of the leading policy experts in Japanese politics, and has emphasized that the Prime Minister’s Office should take the lead in policy decisions. During his time as Minister of Health, Labour and Welfare, he worked on the enactment of a bill to revise the Health Promotion Act, including measures to prevent exposure to second-hand smoke. Since Mr. Shiozaki’s retirement, considerable regret has been expressed concerning the withdrawal of such a significant presence from the political arena.

Expert Opinions

## It Was Essential to Switch to “Emergency Mode”



### Yasuhiro Suzuki

Vice-President, International  
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and Welfare

If the spread of an infectious disease is of only a certain limited scale, it can be responded to by extending the measures that characterize “normal times.” The current pandemic, however, should have been responded to by switching to “emergency mode”. However, there was no mechanism available to enable this switch in modes. It will be necessary to make clear to the public objective standards for an “emergency mode,” in addition to specifying the responsibilities of the relevant actors, to do away with arbitrary judgments, and to switch from our “normal mode” in a timely manner. Furthermore, responses should be evaluated after the fact, and the conclusions utilized in the next emergency.

In the “emergency mode,” it will be necessary to temporarily centralize authority because it will be essential to judge the ever-changing status of infections in each region of the country and adopt comprehensive measures. However, under the current Infectious Diseases Control Act, the role played by the Ministry of Health, Labour and Welfare, the central government agency in such cases, is limited to the provision of technical advice

and support; it is not possible for the Ministry to offer legally-binding instructions to regional and local governments. This is perfectly acceptable in normal times, but is not sufficient to allow an emergency to be overcome. For example, if a region has its own definition of “critically ill” patients, and its own criteria for reporting on the existence of such critically ill patients, it will not be possible to make accurate decisions in relation to the loan of medical resources or the provision of support from areas in which an epidemic has not spread to areas in which the infection is widespread.

In addition, an emergency such as the one we are now facing demanded that we should break away from the focus on perfectionism that characterizes normal times, but this could not be put into practice. For example, vaccines could have been approved based solely on data from overseas clinical trials, but in December 2020, a supplementary resolution of the Diet decided to review vaccines based on both domestic and foreign clinical trials. As a result of also conducting clinical trials in Japan, the commencement of vaccination was delayed by almost three months. This placed pressure on the nation’s system of medical care, and a considerable number of people died of COVID-19 during this period. Of course we seek to avoid negative effects from vaccines, but in an emergency, we must stop holding onto the idea of 100% certainty as we do in normal times.

And even when an infectious disease has subsided, we must not rest on our laurels, but rather formulate and implement essential measures in preparation for the next wave. It will be necessary to slightly reduce the nation’s number of hospital beds, which is five times that of the United States per capita, and to increase the number of medical staff per bed. In addition, it should be made mandatory for nurses and clinical laboratory technicians to notify the authorities of their current status on a regular basis, as is the case for doctors, dentists, and pharmacists, and a nationwide registration system should be established. Of Japan’s 2.2 million qualified nurses, 700,000 are not currently working in nursing, and we do not even know where they are. Even if they have left their jobs due to marriage or childbirth, some will still be able to come back to work shorter hours. It will be essential to understand the resources that are potentially available in normal times in order to prepare to respond to an emergency.

Following his graduation from the Keio University School of Medicine, Dr. Suzuki joined the Ministry of Health and Welfare (now the Ministry of Health, Labour and Welfare). Among other roles, he has served as an official on dispatch to the World Health Organization (WHO), Deputy Executive Director of the Shingata Infuruenza Taisaku Suishin Honbu, an entity tasked with responding to the H1N1 virus, a Health Supervisor for the Ministry of Defense, and Director of the Health Insurance Bureau of the Ministry of Health, Labour and Welfare. In July 2017, Dr. Suzuki was appointed to a newly-created vice-ministerial post by the Ministry of Health, Labour and Welfare, becoming Chief Medical and Global Health Officer. As a leading medical officer possessing medical qualifications, he has been involved in the creation of Japan’s health care system, and he also offered guidance in the nation’s initial response to the COVID-19 pandemic. Dr. Suzuki retired in August 2020, and took his current position in March 2021.

Expert Opinions

## Build a System of Medical Care Able to “Change Modes” in an Emergency



**Yoshitake Yokokura**

Honorary President, Japan  
Medical Association / President,  
Yokokura Hospital

We did not understand the actual nature of COVID-19 during the first wave that occurred from the end of March 2020; however, before the start of the second wave in July of that year, we were aware that there were numerous asymptomatic patients and patients with mild symptoms, but that symptoms could easily become severe in those with underlying conditions and the elderly. From a clinician’s point of view, at that stage, we should have made the change to the most desirable response: early detection and isolation of infected persons based on medical examinations. In the fourth wave, which came in spring 2021, the number of patients in hotel and home care increased under instructions from the government, but the management of medical care was not sufficiently thorough. Fukuoka Prefecture has assigned doctors and nurses to all its hotels in collaboration with local medical associations. I feel that it would be a good thing if such measures

were put into effect nationwide. In addition, considering that the number of infected patients increased rapidly in the fifth wave that followed, a mechanism that would allow patients to consult with medical professionals regarding their condition by means of a variety of modes of communication, including online medical care, should have been established.

From this perspective, I think that it will be important to entrench the idea of the “family doctor.” Since my time as the President of the Japan Medical Association, I have been working to improve the functions of the family doctor based on the concept of the necessity to re-allocate roles in community medicine. Opposition has been deep-rooted, in part due to issues related to remuneration for medical treatment, and the system has not yet been institutionalized, but I think that this is an issue that should be further discussed in the future.

Medical care in Japan has mainly focused on lifestyle-related diseases in the past several decades. Because of this, there were very few beds available for the treatment of an infectious disease, and the response to COVID-19 was delayed from the initial stages. This was an issue that had become apparent at the time of the spread of the H1N1 virus. Reflecting on that time, proposals were made by a government council in 2010, but the current pandemic arrived without these having been fully implemented. Based on the lessons learned from this pandemic, it will be necessary to reform the medical care system to create one able to rapidly switch to emergency mode in the event of such an emergency. There is a limit to the number of hospital beds that can be added for patients suffering from infectious diseases, and it is clear that there will necessarily be a shortage of beds in the event of a pandemic. We will need to determine in advance the rate of potential conversion from normal beds to beds allowing response to infectious disease in the nation’s regions. Training will also be required for healthcare professionals to enable them to change their approach and their thinking to an emergency footing in the event of a pandemic. The Japan Medical Association and prefectural governments organize medical teams to respond to disasters, and provide them with regular training. It would be a good idea to make it mandatory for these medical professionals to take classes and receive training in practical skills that not only enable them to deal with disasters, but also to respond to infectious diseases. Everyone involved in medical care has a determination to work together in an emergency. It will be important, in normal times, to consider how to establish an effective system of cooperation for these emergency situations.

Following his graduation from Kurume University School of Medicine, Dr. Yokokura worked as a surgeon at the same university. After a period of study at Detmold Hospital in Germany, he succeeded his father (the founder of the hospital) as the President of Yokokura Hospital. While pursuing his medical duties, he became involved in the activities of the local medical association and in 1990 was appointed a Director of the Fukuoka Prefecture Medical Association. Having later become the President of that Association, he served as Vice-President of the Japan Medical Association from 2010, and its President from April 2012 to June 2020. During his tenure, Dr. Yokokura engaged with a variety of issues, for example creating the “JMA Kakaritsuke Physicians Training Program,” which seeks to train and improve the quality of family doctors. He also served as the 68th President of the World Medical Association.

Expert Opinions

## Strengthen Japan's Capability for Research and Development of Vaccines and Therapeutic Drugs as Part of National Security



**Sunao Manabe**

Representative Director,  
President and CEO,  
Daiichi Sankyo Co., Ltd.

I would like to discuss three factors that delayed the development of domestic COVID-19 vaccines in Japan.

The first factor is the weakening of Japan's vaccine industry and its R&D capability. Japan was once one of the world's most advanced nations in terms of vaccine development, but repeated vaccination accidents and losses in cases of government litigation in response to vaccine side effects have engendered reluctance to take up the challenge of new technologies, and vaccine hesitancy among the public has hampered the creation of new markets and businesses development. Second, there was a lack of crisis awareness with regard to infectious diseases before this pandemic. SARS and MERS did not affect Japan directly. During the H1N1 virus pandemic, issues were identified, but after the virus was contained, awareness of a crisis also diminished. The European and American vaccines that were rapidly created following the outbreak of the COVID-19 pandemic have been in research and development for almost 10 years as a national security

measure. Third, Japan has been slow to introduce new technologies in this field. Most Japanese pharmaceutical companies that have achieved success in the area of small-molecule drugs have been slow to shift to biotechnology, the current mainstream in the global industry. Behind this is the fact that a "drug research ecosystem" that could promote introduction of new technologies has not been sufficiently established in Japan. In addition, government financial support for basic research in universities has also been limited.

In order for Japan to create vaccines and therapeutic drugs quickly for future pandemics, I would like to emphasize that it will be necessary to respond to each of the factors mentioned above. First, the "Strategy for Strengthening Vaccine Development and Production Systems," approved and announced by Japan's Cabinet in June 2021, should be rapidly and comprehensively realized, allowing the development of R&D infrastructure in Japan and increasing the business viability of vaccines, thus strengthening the competitiveness of the industry. In addition, in order to enhance public awareness of vaccines, it will also be important to disseminate scientifically correct information, including information regarding the risks of vaccines, in an easy-to-understand manner.

In addition, Japan should position measures to respond to infectious diseases as part of national security and establish a "control tower" function to provide leadership in normal times, looking towards a future pandemic. This control tower would formulate a national strategy for measures to respond to infectious diseases from a comprehensive and long-term perspective. In normal times, it would support technological innovation and the development of human resources through industry-academia-government collaboration in the area of vaccines and therapeutic drugs and promote the development of production facilities and the infrastructure to ensure stable supply. In the event of a pandemic, it would coordinate the relevant ministries and agencies and play a role in promptly delivering vaccines and other essential materials to local governments and medical institutions based on a clear policy.

Further, like the United States, which has been the most successful nation in terms of pharmaceutical development, Japan should create a drug research ecosystem in which every organization and individual necessary to the creation of new drugs, including pharmaceutical companies, venture companies, universities, regulators, and investors, is able to actively interact with each other, increasing the capacity for innovation. It will also be necessary to appropriately evaluate the ability of researchers and the outcomes of innovation. If we cannot, it will not be possible to attract human resources, expand the base of research, and make Japan a true "science and technology nation."

Since joining Sankyo Co., Ltd. (currently Daiichi Sankyo Co., Ltd.) more than 30 years ago, Dr. Manabe has been engaged in research in a variety of fields. Previously Director of Sankyo's Safety Research Institute, following the integration of the company with Daiichi Pharmaceutical Co., Ltd. in 2007, he served as General Manager of the R&D Division's Project Implementation Department, Group Personnel and CSR Manager, and General Manager of the Corporate Strategy Department. Following his appointment as a member of the Board of Directors, he oversaw domestic and overseas sales and marketing. He was appointed Vice President and Representative Director in 2016, and President and Representative Director in 2017. Dr. Manabe has been the President of the Federation of Pharmaceutical Manufacturers' Associations of Japan since May 2021. He holds a Doctorate in Agriculture from The University of Tokyo, a Master of Medical Science degree from the University of Tsukuba, and has been a Visiting Researcher at Ohio State University. Daiichi Sankyo is developing a COVID-19 vaccine for commercialization in 2022.

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Expert Opinions

## COVID-19 and Public Sector Capacity



### Mariana Mazzucato

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The COVID-19 pandemic has presented a massive challenge for governments, from the provision of income support to citizens and aid to struggling companies to the strengthening of health services. In this issue, I discuss the conclusions of the comparative research I conducted with Prof. Rainer Kattel into government responses to the COVID-19 Pandemic across multiple countries (published in the full-length paper “COVID-19 and public-sector capacity”) and the implications for public sector capacity in the “post-COVID” world.

COVID-19 has tested governments’ capacity to lead societies through crisis, affecting countries disproportionately due to differing degrees of preparedness and public sector capacity.

Countries like the US and the UK have realized how vulnerable their production, public health, and supply chains are, while others, such as Germany and South Korea, showed greater resilience due to their capacity to coordinate private-sector activity and ownership of critical health system elements.

One of the biggest lessons is that state capacity to manage a crisis is dependent on the cumulative investments that a state has made in its ability to govern. Prioritizing deregulation, shareholder value, arm’s length regulation, and outsourcing have not worked as well as some predicted. Outsourcing can remain viable only if governments practice foresight and ensure the underlying partnerships are truly in the public interest.

The pandemic has shown the areas which will be critical for governments in the rebuilding of economies and societies, namely the capacity to adapt and learn; align public services and citizen needs; oversee resilient production systems; and govern data and digital platforms. Governments must counteract the hollowing out of public organizations’ ability to oversee these functions.

Creating a symbiotic relationship between states and businesses in the public interest requires a new understanding of the role of the state: that it is responsible not only for fixing markets, but also for co-shaping and co-creating them. The state has been acting as an investor of first resort, catalyzing new types of growth, and crowding in private-sector investment and innovation around future growth areas. The state should therefore ensure societal return from these activities.

One such example would be redirecting the data generated via users of Google Maps and other platforms that rely on taxpayer-funded technologies, to improve public services such as transportation, instead of simply allowing it to be monetized for profit. There is vast potential for governments to steer digitalization away from targeted advertisement and monetizing personal information.

The pandemic and its aftermath offer an opportunity to rethink our policy foundations and align them with the needs of the twenty-first century. Lessons from successful responses to COVID-19 show that building back better and preparing for future crises necessitates substantial investment in dynamic public sector capabilities. We must not let this crisis go to waste.

Mariana Mazzucato is Professor in the Economics of Innovation and Public Value at University College London and Founding Director of the UCL Institute for Innovation and Public Purpose. She is the author of three highly-acclaimed books, The Entrepreneurial State, The Value of Everything, and the newly released Mission Economy: a moonshot guide to changing capitalism. She advises policymakers around the world on innovation-led, inclusive and sustainable growth.