# Comparative Covid Response: Crisis, Knowledge, Politics <u>Interim Report</u>

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# Prologue

Once upon a time, three countries faced a terrible plague. The disease slowly suffocated some while leaving others infected but unharmed. Symptom free, the carriers unwittingly spread the virus as they went about their normal lives. Thousands sickened, then hundreds of thousands. To respond to this dire threat, each country's leaders declared war on the disease. Yet each battled it in its own way, drawing on memories and imaginations of earlier heroic deeds. After a year, the Planetary Council convened to definitively determine which country had done the best job to fight the plague, and it summoned a citizen from each land to bear witness.

"In my country," the first citizen began, "the ruling party was initially reluctant to act, and its public health authorities questioned the evidence that the threat was serious. But once they decided the danger was real, they attacked the disease with military precision. They mobilized the full force of the state—soldiers, doctors, neighbors, drones and smart phones—to find and isolate every carrier of the disease. The army enforced a nationwide lockdown until infections stopped rising. Once the plague had been contained, ongoing testing suppressed small, local outbreaks. Soon the disease was completely eradicated. Citizens once again could go about their business, and prosperity reigned throughout the land. Looking to the future, the ruling party decreed that all citizens should henceforth wear a Health Security Bracelet to monitor their interpersonal contacts and environmental exposures to any threat. Party authorities remarked that the Health Security Bracelet may help manage future security threats of other kinds."

"In my land," sighed the citizen of the second country, "we remember war, poverty, and the prying eyes of the secret police. We know well the dangers of disunity and the horrors of unchecked power. We came together to fight the virus, seeking to protect everyone, preserve stability, and negotiate our differences. Our leaders and scientists talked often. As the severity of the threat grew clear, we closed our borders, but too late to keep the virus out. Seeking a measured response, we took progressively stronger actions as the disease spread, ultimately locking down the country. Alas, many citizens died before we brought the disease under control, and we mourn them all. The state spent vast sums to keep people in their jobs, and slowly we reopened our economy, and people began to return to normal life. Soon, however, a second wave hit, bringing new challenges. As deaths rose, a new lockdown began, which some resisted. New negotiations are underway, and we are hopeful that pandemic fatigue will not break our commitment to solidarity. Whatever griefs are in store, we know we'll emerge stronger because we faced them together."

The third country could not agree on a spokesperson, so the Council picked an observer from a neighboring land to provide a neutral report. "Even before the plague struck," the reporter began, "the citizens were divided into two warring camps, the Reds and the Blues. Each side distrusted the other's claims about the

disease, and each believed its view of the plague was based on irrefutable truth. The Reds denied the threat was serious, or even real: a common cold, they scoffed, or just a hoax to scare us. Based on authoritative science from the best universities, the Blues predicted millions of deaths and sought to lock the country down for the collective good. The Reds opposed the lockdown, arguing that people should decide for themselves what risks to accept. The country's economy faltered and unemployment skyrocketed. Since the Reds and the Blues could agree on nothing, they did nothing. The plague spread. Lives and jobs were lost. Political hatred grew. Protesters marched on the capitol, brandishing guns."

After each country had spoken, the Council prepared to deliberate.

"Our task," the Chair began, "is to determine which country had the best outcome."

"Obviously," proclaimed a confident voice, "the country with the lowest number of deaths was the most fortunate."

"But age-adjusted!" interjected another. "The deaths of the young surely count more than the deaths of the old."

"Not so! A human life is a human life," cried a third.

Over the growing din, a fourth voice broke through. "Come to your senses! Immediate deaths are just the surface effect of this plague. Economic disruption destroys lives too, and its effects will last."

"What about the children?" said a fifth. "Their isolation? Their interrupted schooling? Their trauma? What will this do to their mental health, their future earnings, their ability to form relationships?"

"But those effects won't be known for years," replied a sixth. "We must only consider what we can convincingly count now."

"No! We are morally obliged to make best guesses!" the Chair urged.

"On what basis? This catastrophe is without precedent!"

"I cannot believe that no person here has raised the matter of liberty!"

"Or domestic peace. Do none of you think that that matters?"

"It does matter," the Council Chair conceded. "But what matters most? Health? Prosperity? Liberty? Peace? That is what we are here to determine."

"Is there an objective answer?" said another voice. A long pause followed.

"In which country would you choose to live?" a quiet voice asked.

At a loss how to address these questions, and frustrated by its failure to identify a winner, the Council adjourned, with no plans to reconvene.

# **Comparative Covid Response: Crisis, Knowledge, Politics**

# I. Introduction

This report provides a preliminary distillation of Comparative Covid Response: Crisis, Knowledge, Politics (CompCoRe) – a cross-national study of the policy responses of 16 countries across five continents. Led by a team based at Harvard, Cornell and Arizona State Universities, CompCoRe is a collaborative undertaking involving more than 60 researchers from around the world. The participating countries are Australia, Austria, Brazil, China, France, Germany, India, Italy, Japan, the Netherlands, Singapore, South Korea, Sweden, Taiwan, the United Kingdom, and the United States. Additionally, teams from Indonesia and Peru, as well as an Africa Group, are included as CompCoRe affiliates.<sup>2</sup>

The emergence of the novel coronavirus SARS-CoV-2 in 2019 presented the world with unprecedented challenges. Faced with fast-moving events, scientific and social uncertainty, and tight coupling of public health and economic systems, decision makers struggled to avert catastrophic outcomes. Global institutions such as the World Health Organization (WHO) provided important, if sometimes controversial, leadership, but national governments emerged as far and away the most important loci of decision making and policy implementation. As a result, policies were far from uniform, and countries with differing institutions, research traditions, cultural commitments, and routinized ways of decision making<sup>3</sup> pursued their own directions.

Grounded in the field of Science & Technology Studies (STS),<sup>4</sup> but incorporating interdisciplinary expertise from law, public policy, and the social sciences, CompCoRe is examining the politics and policies of Covid-19 decision making in the study countries. We pay special attention to national efforts to identify reliable epidemiological and biomedical knowledge; make difficult public health decisions; manage the economic fallout of the pandemic; and build the political support needed for effective implementation. Cross-national comparison offers a powerful method for identifying and explaining similarities and differences among the countries, for promoting societal learning, and for deriving policy-relevant insights.

A year into the Covid-19 pandemic, many are asking which country did best at managing the crisis and produced the best outcomes. This comparative study shows that these are the wrong questions, and, given the scale of the disruptions,

<sup>&</sup>lt;sup>2</sup> CompCoRe is exchanging information and ideas with researchers in the affiliate countries. This report is based on the 16 participating countries.

<sup>&</sup>lt;sup>3</sup> Sheila Jasanoff, *Designs on Nature: Science and Democracy in Europe and the United States* (Princeton, NJ: Princeton University Press, 2005).

<sup>&</sup>lt;sup>4</sup> Ulrike Felt et al., eds., *The Handbook of Science and Technology Studies*, Fourth (Cambridge, MA: MIT Press, 2017).

they are being asked prematurely. We identified five common fallacies that our study refutes. To learn from this crisis, future policymakers must abandon these fallacies and use the findings as a guide to developing more robust and resilient responses.

# II. Five Fallacies

# Fallacy 1: A playbook can manage a plague.

Our study shows the opposite:

- Playbooks presume performers will play their prescribed parts.
- A playbook works only if key actors agree it is the right play.
- If politics changes, players may throw out the script and play a different game. For example: Taiwan successfully played the SARS playbook. Germany played the reunification and 2008 financial crisis scripts to manage its economy well. The US administration disregarded the Ebola playbook and played a different game.

# Fallacy 2: In an emergency, politics takes a backseat to policy.

Our study shows the opposite:

- Emergencies amplify preexisting conditions in economic and political systems.
- In polarized societies, crises aggravate divisions such as racial and economic disparities, political hyper-partisanship, and distrust of governing elites (e.g., Brazil, India, US).
- In consensual societies, crises reinforce preexisting solidarity: people temporarily set aside differences and support policies for the collective good (e.g., France, Japan, Germany, Netherlands, Singapore).

# Fallacy 3: Indicators of success and failure are clear and outcomes can be well defined and objectively measured.

Our study shows the opposite:

- Outcome measures are always value-laden, always contested, and always erase important features of their context.
- Performance measures are often contradictory, and experts disagree about which ones are right or important.
- Which indicators seem salient changes over the course of a crisis.
- How outcomes are perceived depends on which indicators are used.
- Choosing indicators to evaluate policies is therefore a political decision.

# Fallacy 4: Science advisors enable policymakers to choose the best policies. Our study shows the opposite:

- In crisis situations, technical knowledge is subject to interpretation and experts rarely speak with one voice.
- In many countries, conflicting expert advice is the norm not the exception (e.g., Brazil, Netherlands, UK, US).

• Trust in official advice correlates with trust in government (e.g., Germany, Netherlands, Singapore).

# Fallacy 5: Distrust in public health advice reflects scientific illiteracy. Our study shows the opposite:

- Vigorous debates about the "facts" occur between experts, and not only between experts and lay people (e.g., Italy, Netherlands, UK, US).
- Estimates, models, numbers, predictions, and overconfident expert recommendations based on evolving data can change rapidly during a crisis (e.g., Ferguson on epidemiology [UK], Fauci on masks [US]).
- Vaccine hesitancy stems in part from cultural experiences with medicine (e.g., exploitation or marginalization).

# III. Puzzles, Paradoxes, and Divergences

A central puzzle of Covid-19 is why some nations have contained the virus almost completely while others have struggled to prevent multiple waves of community transmission. Equally puzzling is why nations with evolved resources to combat a pandemic have sometimes fared worse than countries with fewer resources. A further paradox is why nations with similar systems of government and demographics have experienced the pandemic with significantly different political and economic repercussions. In sum, confronted with the same phenomenon—a pandemic caused by a novel virus—countries have diverged in how they perceived the problem, what resources they mobilized to tackle it, how much political buy-in they achieved, and to what extent they contained the disease and its economic fallout.

The pandemic will continue for some time. Nevertheless, the preliminary findings outlined here provide tantalizing insights into why Covid-19 has produced different outcomes in different places, how policymakers can better manage national responses in the months ahead, and what we must do to strengthen national and global systems for future health emergencies.

- United States: Despite the impressive US achievements in biomedicine and extensive planning for pandemic preparedness, the US record in addressing the public health crisis of Covid-19 is among the worst in the world, as evidenced by absolute incidence and fatalities, ongoing economic disruption, and extreme political disarray.
- Germany: Effective response at the national level kept per capita incidence in Germany lower than in many of its neighbors throughout the multiple waves of transmission that struck Europe. In contrast to the US and Brazil, the German economic response emphasized preserving jobs and economic relationships with the result that stability and social order were largely preserved. Emergency measures were broad and inclusive

- and did not produce significant controversies around science or policy of the sort seen in many other nations.
- Taiwan: Quick action by a junior health ministry official who heard of the Wuhan outbreak on Twitter on December 31, 2019 led health authorities to intercept inbound flights that same day and helped stop the spread of Covid-19 in Taiwan, an island nation, almost immediately. Authorities have to date identified 776 cases of Covid-19 and 7 deaths. Expected GDP growth for 2020 dropped from 2.5% to 1.1%, but it still left Taiwan in the rare position of projecting positive growth for the year.
- India: With the second highest number of cases and the third highest number of deaths in the world, India has been hard hit by Covid-19. Yet the absolute numbers do not tell the full story, which would have to account for large regional differences in reported case-fatality rates. A unique element of the Indian response was a sudden and drastic lockdown that drove tens of millions of migrant workers back home to their villages, encountering severe hardships on the road and facing uncertain long-term economic prospects. India's economic recovery may be far more problematic than recovery from the disease, where India as a major vaccine manufacturer enjoys technological advantages.
- Netherlands: The Dutch Prime Minister announced an "intelligent lockdown" aimed at controlling the virus but not the citizen, who could be trusted to be reasonable and follow expert advice in an appropriate manner. This response contrasted with the total lockdowns of Southern Europe and the no-lockdown approach of Sweden. This "intelligent lockdown" worked well initially, but by the second wave of cases in the fall, progress was largely undone, causing the Netherlands to pivot its response sharply, especially with regard to masks.
- China: After disastrous inaction during the first crucial weeks of the outbreak when authorities in Wuhan suppressed information and international health authorities were not welcomed, the central Chinese CDC implemented a policy of containment with military precision. The advanced machinery of digitalized state surveillance was mobilized, and millions of citizens were tested and checked daily for fever. Treatment in designated hospitals, combined with partly electronic contact tracing, brought the disease under control, and subsequent small, local outbreaks were successfully suppressed.
- **Brazil:** Taking a cue from the public posture of Donald Trump, President Jair Bolsonaro scoffed at the virus and pushed for a politically infeasible policy of "vertical isolation," seeking to target those most at risk while keeping the economy open. In the ensuing controversies, a publicly trusted health minister was fired for supporting quarantine measures imposed by

governors and mayors, but denounced as economically ruinous by Bolsonaro. His successor resigned within weeks. Brazil's Covid-19 death toll rose to be second highest in the world.

- United Kingdom: Despite having a universal public health system beloved and trusted by its citizenry, the UK's per capita case count remains among the highest in the world and its own Prime Minister was hospitalized with Covid-19 at a moment of immense debate about appropriate containment policies. The government's official source of science advice, the Science Advisory Group for Emergencies (SAGE), was challenged by an unofficial group that dubbed itself Independent SAGE, or "indieSAGE" for short, 5 which became an oppositional voice calling for more stringent public health action than the Tory government pursued.
- Australia: In contrast to other federal systems, especially the US, the Australian government pulled together a unified national response to the pandemic. For the first time, the prime minister established a National Cabinet<sup>6</sup> that included the heads of all the states and territories, without regard to party membership to coordinate a "wartime" response. Strict lockdowns, international and domestic travel restrictions, social distancing, and testing, contact tracing, and isolation kept incidence and mortality (908 deaths) to low levels.

# **IV. Comparative Method: Three Coupled Systems**

Our study demonstrates that the "war" against the Covid-19 pandemic poses challenges in *three interlinked systems*: public health, the economy, and politics. Because public health, economy, and politics are interlinked and "tightly coupled" systems, problems in any of these domains tend to spill over into the others. Policymakers cannot safely intervene in any of these domains in isolation without consideration of the others. Controlling a highly contagious virus spread by people who often are asymptomatic poses formidable difficulties. At the same time, states have faced the problem of managing the worst economic shock since the Great Depression, especially at a time when the scars from the 2008 financial crisis were not yet fully healed. The pandemic also posed serious political problems, including the difficulty of building public support and legitimacy for policy decisions that turned normal life on its head. Yet it also offered political

<sup>&</sup>lt;sup>5</sup> "Independent SAGE," January 6, 2021, <a href="https://www.independentsage.org/">https://www.independentsage.org/</a>.

<sup>&</sup>lt;sup>6</sup> Tom Burton, "National Cabinet Creates a New Federal Model," March 18, 2020, <a href="https://www.afr.com/politics/federal/national-cabinet-creates-a-new-federal-model-20200318-p54">https://www.afr.com/politics/federal/national-cabinet-creates-a-new-federal-model-20200318-p54</a> bar.

<sup>&</sup>lt;sup>7</sup> Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (New York, NY: Basic Books, 1984).

<sup>&</sup>lt;sup>8</sup> Adam Tooze, *Crashed: How a Decade of Financial Crises Changed the World* (New York, NY: Viking, 2018).

opportunities for various actors, affecting election outcomes in countries including France, India, Taiwan, and the US.

Just as the virus found and exacerbated preexisting medical conditions in individual bodies, so the pandemic found and revealed preexisting weaknesses in the body politic, exploiting and aggravating them. Wherever there were structural weaknesses in the health, economic, and political systems when the pandemic began, the difficulties of coping with the virus significantly worsened them. By the same token, countries benefited from structural changes that promoted resilience in response to prior experience. Owing to the importance of the United States, not to mention its unexpectedly poor results in controlling the epidemic, the US case is especially worth examining in this framework. Below, we compare the United States with selected countries to illuminate some of the ways in which the virus "exploited" preexisting weaknesses in each of the three interlinked systems.

### A. Public Health

The incidence of and mortality from Covid-19 vary greatly among the 16 study countries, but in both countries that did well and countries that did poorly by these metrics, the pandemic disclosed preexisting weaknesses. The United States and Singapore illustrate this point. Despite the impressive US achievements in biomedicine, and despite extensive planning for pandemic preparedness, the US record in addressing the public health crisis of Covid-19 is among the worst in the world. Systemic weaknesses in the US health system are to blame. These include the lack of a health insurance system that covers all Americans, chronic underinvestment in elder care, and structural inequalities that produced high vulnerability among essential workers, Black Americans, the poor, and underserved rural communities. The decentralized structure of the public health system, which devolves public health authority to the 50 states and to subordinate units such as counties or municipalities, caused delays and gaps in data collection, produced conflict between levels of government, and undermined the authority of public health officials and a deterioration in the felt sovereignty of public health.

Singapore's Covid-19 response, by contrast, is widely seen as a public health success; yet it also provides an especially clear illustration of the way the pandemic strikes systemic weak spots even in countries with low mortality. Building on recent experience with SARS and H1N1, Singapore established a task force in January to "coordinate a whole-of-government, whole-of society response." Testing and treatment were generally free of charge, contact tracing and extensive disease surveillance were implemented, masks were mandatory, and a "circuit breaker" lockdown was imposed in April. For the first few months, the

<sup>9</sup> Andrew Lakoff, Unprepared: Global Health in a Time of Emergency. (Oakland, CA: University of California Press, 2017).

<sup>&</sup>lt;sup>10</sup> Donald A. Barr, *Health Disparities in the United States Social Class, Race, Ethnicity, and the Social Determinants of Health* (Baltimore, MD: Johns Hopkins University Press, 2019).

number of cases in Singapore was low enough that it was touted as a model response which other countries should emulate. However, during the spring and summer the virus ran rampant in the crowded "dormitories" housing low-wage migrant workers from India and Bangladesh. As of mid-September, 54,000 of the country's 58,000 cases were among dormitory residents, but mortality remained low, with fewer than 30 deaths overall.

# **B.** The Economy

The pandemic hit the United States at a time of exceptional prosperity but it nevertheless produced devastating results. The US was experiencing record low unemployment and years of growth after recovering from the 2008 financial crisis. The pandemic precipitated an unprecedented economic shock, with unemployment reaching 14.7 percent in May and the GDP shrinking 9.5 percent on a quarterly basis. Major stock market indexes crashed. Congress and the Trump administration swiftly rolled out a series of stimulus packages, providing a total of \$2 trillion to households and to some companies to retain their workers on payroll. These actions prevented large-scale corporate defaults, and stock markets returned to pre-crisis levels.

However, preexisting socioeconomic conditions, notably inequalities in wealth, income, and opportunities, as well as weak protections for labor, soon led to controversies. Critics argued that the sum paid to households was too small and that the federal government was giving too much money to large corporations rather than smaller, local employers. Payments to companies with connections to the Trump administration inspired charges of crony capitalism. Debate crystallized around whether the economic recovery would be V-shaped, with the rebound benefiting all, or a bifurcated K-shaped, with the rich doing well while economic conditions for the majority of citizens continued to decline. By late summer, national debate about economic policy centered on providing a second round of stimulus, and millions descended into poverty. A compromise agreement was reached in late December, regarded by many as too little too late.

In Brazil, the pandemic began when the country was in the midst of a weak recovery from its historic 2015-2016 recession, the worst in its history. Unemployment stood at about 12%. These preexisting economic weaknesses were severely aggravated by the economic shock of the pandemic, which damaged the recovery significantly. The Brazilian Federal Government, through the central bank, estimated a drop in GDP of 4.7% in 2020. The first trimester saw a drop of 2.5% and a fall of 9.7% in the second. With the reopening of commerce and services and ongoing "emergency aid" to vulnerable families, GDP growth rose to 7.7% in the third. Public debt approached 100% of GDP. The prospect of emergency aid ending in December caused concern for many families and economic sectors. Unemployment in Brazil increased by 34% compared to May. There are debates over the fiscal risk of maintaining the aid, as well as political disputes about how such decisions are being made.

In contrast to the US and Brazil, the German economy proved to be relatively resilient against the economic impact of the pandemic. Like the US, Germany was enjoying record low unemployment and years of sustained, though slowing, economic growth since 2010. While the GDP shrank nearly 10% on a quarterly basis in the second quarter and the German stock market crashed, unemployment remained the same. The Merkel government swiftly passed a supplementary budget and established an economic stabilization fund to protect the national economic structure. These emergency measures were broad and inclusive. In addition to providing enhanced welfare benefits to citizens and a lifeline to small and mid-sized businesses, emergency measures ensured that there would be no corporate bankruptcies and mass layoffs. The *Kurzarbeit* program, which subsidizes wages during downturns to prevent layoffs, was ramped up and requirements were loosened. Corporations facing liquidity shortages were supported through loan guarantees and capital investments. Furthermore, economic help was not limited to bailing out large corporations such as Lufthansa, even if such aid generated much media attention. In the name of maintaining solidarity and sustaining the social fabric, the policy also protected such workers as actors and freelance music teachers. Finally, the German response was not solely inward looking. In direct contrast to its response to the global financial crisis and the ensuing Eurozone crisis, Germany extended its commitment to economic solidarity to include the fiscally vulnerable economies of the European Union.

Because the German response was built on not only a widespread consensus but also an economy with relatively benign preexisting conditions, the response did not produce any significant controversies. The Merkel government was able to expand the scope and ambition of its initial emergency measures in the summer, thus maintaining low levels of unemployment and poverty rates and enhancing the likelihood of a strong economic recovery. Even more significantly, German economic response did not restrict itself to ameliorating the short-term consequences of the pandemic. Policymakers also sought to design the economic response to ensure that the German economy would come out of the crisis with the long-term investments necessary for a green and modernized economy with increased productivity.

#### C. Politics

In the United States, the pandemic unfolded in a deeply polarized polity and significantly exacerbated political conflict. Political leaders proved unable to unify the nation to address the public health challenges. The Trump administration seemed at times to be exploiting the divisions for political gain, with an eye to the November election. Disputes fell out along party lines, with Republicans charging that impeachment proceedings in early 2020 had hobbled the administration's pandemic response efforts, while Democrats called attention to a xenophobic and anti-scientific response that underestimated the seriousness

of the infection from the start. The sole example of a major policy that both parties supported was the first round of economic stimulus measures in the spring.

The federal structure of the US government interacted with divisions in the polity, producing ongoing disputes about the allocation of essential equipment and services among different levels of government. Conflict over federalism and constitutional authority erupted around lockdown and mask mandates, voting practices, school closures and economy reopenings. In one extreme episode, on October 13, members of a right-wing militia opposed to public health mandates were arrested for plotting to kidnap the Democratic governor of Michigan and to put her on trial for her lockdown policies. Racial justice issues, already evidenced by Covid-19 mortality statistics, boiled over as a video of the police killing a defenseless Black man sparked nationwide protests.

Paralleling the US case in some respects, in India the pandemic heightened political cleavages along the lines of preexisting conditions: religious division, giving rise to spurious claims of a Muslim plot waged through the coronavirus; and economic disparities between urban and rural and rich and poor that came into sharp relief during a lockdown that forced millions of migrant workers to walk sometimes hundreds of miles to their home villages without transport, food, drink, or essential health care.

Even in richer countries, the pandemic brought to light and exacerbated economic and political divisions. In Italy, conflicts over decision-making prerogatives between regional administrations and the central government were partly responsible for the failure to contain the virus at the initial epicenter of the outbreak in Bergamo. In Germany and Sweden, right-wing and libertarian groups found some new grounds for mobilization in opposition to government policies on issues such as school closings and mask mandates. In France, where Islamic alienation has long been a threat to the ideal of *laïcité*, a couple of high-visibility terrorist murders reignited tensions over the meaning of French citizenship, complicating President Emmanuel Macron's efforts to invoke a shared conception of Frenchness. In Japan, despite low incidence and mortality rates, prior political scandals reduced public confidence in government policies, while victims were stigmatized for not caring for themselves. And in China, the pandemic provided cover for the central government to address a preexisting conflict and clamp down on Hong Kong's pro-democracy movement.

# V. Measures for Managing Public Health

For more than 100 years, modern states have agreed that one of their core imperatives is to protect public health. That goal justified extraordinary grants of

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<sup>&</sup>lt;sup>11</sup> Toward the end of the first wave, Sweden's extreme-right party, the Sweden Democrats, strongly criticized the Public Health Agency for not recommending the use of masks in the community. Strikingly, this was the opposite of what the extreme-right demanded in some other countries, including Germany and the US.

**Table 1: Frames and Modes of Intervention** 

	Targeting the Virus	Targeting Social Practices
Metaphoric frame	Virus as foreign invader	Citizens and social practices as domestic threat
Typical Measures	Border controls Personal protective equipment (PPE) Isolating vulnerable individuals Herd immunity Miracle drugs Vaccines	Social distancing in public Limiting private gatherings Mask mandates Domestic travel restrictions Lockdowns of economies & social life, school closings Combating vaccine hesitancy
Sources of expertise	Clinical medicine, virology, cellular biology, genomics  Epidemiology, mathematical modeling, social and behavioral science	
Imagined mechanism of action	Technological fixes "Silver bullet" solutions	Citizen compliance to limit spread
Intrusiveness	Low	High

power to health officials, such as the power to demand vaccination and impose quarantines. Indeed, one can without exaggeration speak of the public health apparatus as enjoying almost state-like authority, or "public health sovereignty." From this perspective, citizens are seen as biological entities, whose bodies and behavior must be controlled to prevent widespread infection in a community.

To control the pandemic, public health officials in all of our study countries instituted the same suite of measures. These measures can be divided into two salient modes of intervention, though they vary considerably in their details. The *biomedical* mode frames the *virus as a foreign invader* that attacks the individual body and the national population. Its entry must be blocked by erecting impenetrable walls, such as personal protective equipment (PPE) or border controls; or it must be defeated after entry through biomedical means, such as medications or vaccination. The second mode brings the problem home to

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<sup>&</sup>lt;sup>12</sup> Sheila Jasanoff, "Pathologies of Liberty. Public Health Sovereignty and the Political Subject in the Covid-19 Crisis." Cahiers Droit, Sciences & Technologies, no. 11 (November 30, 2020): 125–49.

people's behavior. It frames *citizens and social practices as a domestic threat* that can spread disease within the community and nation. This threat must be controlled through measures such as social distancing in public spaces, limiting the size of gatherings, and locking down the economy and social life. In effect, these two framings underwrite two quite different types of public health measures: those *targeting the virus* and those *targeting social practices* (Table 1).

Public health sovereignty comprises measures of both types, but each mode of intervention is based on different forms of technical knowledge. Measures targeting the virus rest most heavily on such fields of expertise as clinical medicine, virology, cellular biology, and genomics. In contrast, measures targeting social practices rest most heavily on epidemiology, mathematical modeling, and the social scientific aspects of public health expertise. In several countries, conflicts appeared among diverse expert perspectives, leading to conflicting recommendations or guidance (e.g., Italy, Japan, UK).

The two modes of intervention imagine how these measures will achieve their goals in different ways. Measures that target the virus emphasize technological fixes, such as protective equipment, therapies, or vaccines, and they tend to imagine successful "silver-bullet solutions," such as a miracle cure, a vaccine, or simply stopping the virus at the border. Measures targeting social practices, on the other hand, involve imposing restrictions on personal and group behavior that disrupt the lives of much of the population. These measures are also likely to generate the most controversy. Political subjects are not simply biomedical entities but also, as many states have discovered, citizens with interests, rights, and ways of imagining their relationship with the state independent of the strictures of public health controls. Policy leaders frequently misjudged the feasibility of social interventions, especially as the pandemic dragged on. A key finding of this comparative study is that policymakers need to tailor the design of social interventions in relation to salient features of their political contexts.

# VI. Classifying Countries: Control, Consensus, or Chaos

How has the effort to manage the three intersecting systems comprising pandemic policy—public health, economy, and politics—played out around the world?

Analyzing the responses of the study countries to date reveals three broad—and dramatically different—patterns, connecting policies and outcomes across the health, economic, and political systems. Some countries have achieved a coherent response and significant degree of *control* over the situation in all or most of the three arenas of health, economy, and politics. Notably, this category includes democratic as well as authoritarian states. Some countries achieved basic policy *consensus* about how to proceed, although ongoing health concerns entailed

**Table 2: Classifying Countries: Three Examples** 

	Control (Taiwan)	Consensus (Germany)	Chaos (United States)
Health	Uncontested public health sovereignty Learning from SARS and H1N1	Negotiated public health sovereignty National research & advisory system Corporatist medicine	Contested public health sovereignty  Competing political and biomedical subject
Economy	Minimal restriction No lockdown Negative effects mainly from networked economy	System stabilization Job protection Learning from 2008	Market stimulus Direct cash relief Controversial bailouts
Politics	Statist approach High public approval of Covid response Victory for incumbent party in local election	Corporatist approach Committed to risk aversion and stability	Pluralist with high polarization Distrust in expertise Conflict between center and states

significant economic hardship. In still a third group of countries, policy *chaos* prevailed, with extensive conflict over policy goals and measures in all three systems. This classification is schematic, and a country's overall experience of the pandemic will not completely conform to these ideal types. It is also important to reiterate that the situation is rapidly evolving, so any country's place in this schema may change. Italy, for instance, attempted a consensus approach that progressively turned into policy chaos as stringent lockdown measures were not backed up by sufficient economic stimulus to support the most affected sectors. Nevertheless, classifying countries into these three categories provides a useful, high-altitude comparison of the patterns of national experience.

Table 2 sketches the differences between control countries, consensus countries, and chaos countries, using Taiwan, Germany, and the United States as exemplars of each. Not all of the features of these three countries will be found in all countries we have classified as similar; nor, in federal countries, are these characteristics distributed across the entire nation (e.g., Kerala represents a consensus approach in India, classified here as a chaos country).

### A. Control Countries

Taiwan provides an example of a control country in which a statist policy response, dominated by public health expertise, was able to achieve control in all three arenas. Learning from its experience with SARS and H1N1conditioned Taiwan's response. Public health sovereignty was largely uncontested, and a command-and-control model was instituted. Soon after China announced on January 9 that the infectious agent was a new coronavirus, Taiwan listed Covid-19, like SARS, as an infectious disease that calls for special response. On January 20, the government established a Central Epidemic Command Center to coordinate information and resources. After the first case was confirmed on January 21, 2020, the government gradually introduced border control, contact tracing, and mask rationing policies. Social distancing guidelines were added in April. As of late December, Taiwan had identified 797 cases of Covid-19 and 7 deaths.

Taiwan's economic response involved relatively minimal intervention. Although the government did not lock down the economy, some sectors such as the travel and hotel industries experienced a big downturn. The government passed a stimulus package amounting to \$300 billion in April, with the goals of containing Covid-19, bailing out businesses, reducing unemployment, and revitalizing the economy. Expected GDP growth for 2020 dropped from 2.37% to 1.56%, but it still left Taiwan in the rare position of projecting positive growth for the year. Regarding politics, the government enjoyed high public approval for its response. The vice premier, who was known for his work with the CDC, ran for mayor of Kaohsiung city and won handily.

Other control countries with somewhat similar stories include China, Singapore, and South Korea.

### **B.** Consensus Countries

Germany nicely illustrates the pattern in which a country with a corporatist political system, led by a grand coalition between opposition parties, achieved a relatively strong consensus in support of an active, social democratic response to the challenges of the pandemic. Germany delegated public health policy to established scientific authorities, especially the Robert Koch Institute, and grounded public debate in general appeals to rationality and social solidarity. Beginning in March, Germany instituted familiar measures such as closing its national border, partially locking down businesses and the educational sector, and mandating masks in buildings, public spaces, and transportation. Compared to other countries, there was relatively little public controversy about the strength of the scientific evidence or the role and composition of expert bodies (all of which were familiar, long institutionalized entities). Nor did German leaders or the public question the idea that scientific reason should be the guiding principle for policy.

On the economic front, Germany swiftly mobilized extensive relief measures, taking on new national debt after a decade of debt reduction. The initial aid package, equal to an estimated 60% of GDP, considerably exceeded those of other countries (e.g., the US at approximately 12%). Recalling previous periods of disastrous instability, relief policy sought to maintain economic and social stability by preserving employment and sustaining the relationships that undergird the economy. Rather than putting money into individual pockets as direct cash relief, the German *Kurzarbeit* scheme, as noted earlier, prevented lay-offs by nationalizing company salaries, and seeking to avoid economic harm at the company level before it trickled down to the individual worker. The goal was to prevent major disruptions to companies (who could retain their workers), employees, families, and the political climate, rather than mitigating income loss and decline in demand.

Controversy about public health and economic policy measures remained limited, although there was some debate about the role and compensation of "essential workers," corporate bailouts, and the consequences of uncontrolled digitalization. In the fall, with a second wave emerging, controversy grew about the need for a second lockdown. Germany instituted a "lockdown light," over protests against new Covid-19 restrictions. As the Christmas holidays approached, Angela Merkel gave an emotional speech admonishing citizens to refrain from holiday travel and gatherings.

Other consensus countries displaying similar response patterns include Australia, Austria, France, Japan, the Netherlands, and Sweden.

# C. Chaos Countries

The United States is the leading example of a country in which policy chaos was the prevailing pattern. In a pluralist polity marked by polarization and political hyper-partisanship, disputes developed at multiple levels of government: between the national government and states, between states and municipalities, and between the House and the Senate. Public health sovereignty was bitterly contested. Most conflict fell out along party lines, with Democrats seeking to protect the health of the biomedical subject with severe restrictions on economic and social life, and Republicans seeking to preserve the liberty of the political subject by keeping the economy open and letting individuals choose how much risk to bear for themselves.

Regarding economic policy, an initial consensus that the pandemic demanded a massive response led to passage of a stimulus package. But the goals of this program—to stimulate demand and provide relief to the unemployed—differed from those of the social democracies of Europe. In a country where companies make limited investments in their employees and often do not endeavor to retain their workforce during downturns, the economic package did not emphasize

preserving workers' ties to their companies. (It appears that the funds provided for the Paycheck Protection Program, which offered loans to address this goal, were not used up precisely for this reason.) Ongoing debate about a second stimulus package began in the summer and continued till late December when Democrats and Republicans reluctantly reached a compromise that satisfied no one.

Other chaos counties displaying similar patterns of political division and inaction or incoherent action include Brazil, India, Italy, and the UK.

# VII. The 21st Century Social Compact

What accounts for the wide discrepancies in the efficacy of responses to the pandemic across the categories of control, consensus, and chaos countries? Differences in GDP per capita is not the explanation, given the divergent experiences of wealthy countries such as Germany, Japan, and the United States. Small island nations like New Zealand, and on a larger scale Taiwan, may find it easier to reduce coupling to global flows, but size and distance from other countries do not begin to explain the scale of the observed outcomes across our study. Nor can indicators of national scientific capacity or pre-pandemic assessments of preparedness account for these differences. The Global Health Security Index ranked the US number one in the world. Instead, one must take a perspective grounded in political theory and Science and Technology Studies (STS) and look to the structure and strength of each nation's social compact.

The *social compact* traditionally refers to prevailing understandings of the proper relationships among citizens and between citizens and the state. These understandings may be formally codified in law, built into institutions and routine practices, or grounded in unwritten social norms. Regardless of their form, these understandings address basic constitutional questions. What are the fundamental obligations of the state to its citizens? How is authority to make decisions delegated and to whom? What are the rights, obligations, and proper roles of citizens? To justify decisions that constrain the polity, what forms of public reasoning, including kinds of argumentation and evidence, are required? Since citizens will never completely agree on the nature of the good or the allocation of power and resources, how are binding settlements reached without irreparably fracturing the social order, in short, to achieve justice?

Constitutional scholars have long focused on the delegation of political authority. In the 21<sup>st</sup> century, STS scholars have argued, this familiar form of delegation must be supplemented by explicit recognition of the delegation of *epistemic* 

<sup>14</sup> Sheila Jasanoff, States of Knowledge: The Co-Production of Science and Social Order. (New York, NY: Routledge, 2004); Stephen Hilgartner, Clark Miller, and Rob Hagendijk, Science and Democracy: Making Knowledge and Making Power in the Biosciences and Beyond. (New York, NY: Routledge, 2015).

<sup>&</sup>lt;sup>13</sup> GHS Index. "The Global Health Security Index." Accessed January 7, 2021. https://www.ghsindex.org.

authority. <sup>15</sup> This authority already exists in modern societies, but it is too often merely tacit, and the pandemic crisis points to many reasons why it needs to be made more explicit. This would require societies to ask: Who in a given political system is granted the authority to provide the knowledge and evidence used to make public decisions, and on what basis? The answers and their implications will vary. While all modern nations rely heavily on technical expertise, the ways in which expertise is mobilized differ markedly. For example, nation states have their own ways of determining which sources of expertise to draw on when experts disagree, a common occurrence in fast-moving, high-uncertainty situations. <sup>16</sup> Societies also establish the limits of delegation to experts: for example, in allocating authority for decisions about health and medicine between physician and patient or between public health officials and the citizen. In the 21<sup>st</sup> century, the routine and expected ways that a polity makes such determinations are crucially part of the social compact, and should be recognized as such.

### A. The State and the Citizen

Central to the social compact is the way people imagine proper relations between the state and the citizen. These normative visions shape the opportunities and limits that policymakers confront when they seek to engage their citizens. Singapore, the Netherlands, and the US provide useful contrasts on this point. In Singapore, the relationship between the state and the residents of the country with respect to policymaking is highly paternalistic, with the state possessing the authority and credibility to impose measures for the sake of broad social welfare without extensive public input. Massive public health programs—stabilized through public education, incentives, and fines—along with generous income support were established in order to keep everyday life and the economic sphere running as close to pre-pandemic times as possible. Singapore adopted these policies through its signature top-down style. That approach imagines a Singaporean citizen with civic virtues who cares for family and the broader community, particularly the elderly and vulnerable, and trusts the government to act in the best interests of the country as a whole by carefully considering all salient information.

The Netherlands represents a stark contrast to this vision of citizen-state relations. As the pandemic accelerated in the Netherlands in March, Prime Minister Mark Rutte appealed to an imagined Dutch citizen who is rational, educated, and capable of exercising appropriate judgment. Rutte announced an "intelligent lockdown" aimed at controlling the virus but not the citizens, who could be trusted to be reasonable and follow expert advice in an appropriate manner. Rutte contrasted the "intelligent lockdown" with both the total lockdowns of Southern

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<sup>&</sup>lt;sup>15</sup> J. Benjamin Hurlbut, Experiments in Democracy: Human Embryo Research and the Politics of Bioethics. (New York, NY: Columbia University Press, 2017); Brice Laurent, Democratic Experiments: Problematizing Nanotechnology and Democracy in Europe and the United States. (Cambridge, MA: MIT Press, 2017).

<sup>&</sup>lt;sup>16</sup> Sheila Jasanoff, Designs on Nature: Science and Democracy in Europe and the United States. (Princeton, NJ: Princeton University Press, 2005).

Europe and the no lockdown approach of Sweden. The immediate result of this invocation of the Dutch citizen was widespread compliance, a drop in cases, and increased support for the government. In the longer term, however, under the pressure of pandemic fatigue, the Netherlands experienced a second wave and some say a less intelligent lockdown, though a new law enacted through parliamentary initiative ensured that future emergency measures would be democratically accountable.

The polarized politics of the US expressed two competing imaginaries of the relationship of the American citizen to the state.<sup>17</sup> One vision emphasized the state's benevolence and its role in safeguarding the health and wellbeing of the citizen, expressing a communitarian vision of biomedical subjects jointly committed to protecting society. The other imaginary envisioned a nation of autonomous, if atomized, individuals, stressing the importance of preserving citizens' liberty against overly intrusive government. In the context of these diametrically opposed visions, none of the nation's leaders could (or even sought to) build a unified polity, and two opposing camps of citizens maintained a bitter struggle about the right response to the pandemic.

# **B.** Mobilizing Expertise

In responding to the pandemic, the ways in which countries mobilized expertise and delegated authority differed considerably. Even among wealthy democracies that share many similarities, such as Germany, France, and the UK, instructive differences are found. The German pattern of delegating epistemic authority to well-established institutions such as the Robert Koch Institute was not followed in neighboring France, although it was in Sweden. The Macron government established a new presidentially-authorized Covid-19 *conseil scientifique*, which included ten medical scientists with expertise in public health, two social scientists, and the president of ATD Fourth World. Controversies arose about the *conseil scientifique*, including questions whether its proximity to the presidency constricted its capacity to generate independent opinions and whether too many members were versed in epidemiology as opposed to other scientific disciplines. Similar controversies arose in Japan with regard to the purpose-built "Expert Meeting" convened to advise on the crisis.

The UK followed yet a third pattern, with a source of contrarian expertise taking shape. The government's official source of science advice, the Science Advisory Group for Emergencies (SAGE), was challenged by an unofficial group that dubbed itself Independent SAGE, or "indieSAGE" for short. Led by the former Chief Scientific Adviser, Sir David King, indieSAGE commanded considerable media attention, becoming a loud, and some say confusing, oppositional voice calling for more stringent public health action than the Tory government pursued.

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<sup>&</sup>lt;sup>17</sup> Sheila Jasanoff and Sang-Hyun Kim, eds. Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power. (Chicago, IL: University of Chicago Press, 2015).

# VIII. Key Findings

These are necessarily emergent, and hence tentative, but each is backed by a growing database.

# 1. Success and Failure Are Contested (and Moving) Targets

Which countries have succeeded and which have failed in their efforts to control the coronavirus crisis? There are no straightforward indicators that everyone agrees on. All measures are contested and subject to multiple interpretations, and they are not comparable across sectors. Partly, one's stand depends on the arena—health, economy, or politics—in which one is assessing success, but ambiguity reigns in each. This study cannot provide definitive answers along all of the axes of comparison, but broad conclusions can be drawn about national performance in the first year of the Covid-19 emergency (see Appendix A, Country Case Studies; see also Appendix B, Statistical Overview). If success implies generally positive performance in all three systems—health, economics, and politics—then control countries performed best and chaos countries worst in the short term, but it would be premature to draw up a balance sheet of the full costs and benefits of each type of approach.

In the health arena, questions center on the appropriateness as well as quality of the measures. Various measures are in wide use and cross-national performance varies depending which ones are selected: absolute incidence and mortality, case-fatality rates, excess deaths, numbers of tests and vaccinations, hospital and ICU overload, surges, or distributive effects of disease on demographic groups, including especially vulnerable populations. On each measure, there are unresolved questions about the meaning and reliability of the numbers, especially the number of infections and deaths from Covid-19. These have not been systematically recorded everywhere, starting with the earliest days of the crisis.

In the economic arena, the biggest questions relate to the speed and shape of the recovery, as well as the appropriateness of the measures. Is the key indicator GDP, employment statistics, regional and sectoral impacts, or the stock market? What about distributive effects, partly captured in questions about the recovery's shape: will it be a V or a K, for example, the latter reflecting increased inequality and discrepant outcomes across categories of race, gender, and class? Time is a profoundly uncertain variable. How soon will things return to normal, and will it be the same normal or a new normal that, for example, takes account of the environment through a green recovery or ensures greater equality? Time also matters for data collection and interpretation, as often interlinked effects in both the health and economic sectors may not be felt for months, years, or even decades.

In the political arena, the questions are more vague and the answers still less certain and evolving. Is public satisfaction the right measure? If so, how should

we evaluate a country like Japan, where health impacts have been relatively light, the economic recovery slow, and public satisfaction low despite politicians' attempts to conform policy to poll numbers?<sup>18</sup> What about India, with high disease incidence, relatively high total morbidity and mortality, and massive economic damage to vulnerable populations, but support for Prime Minister Narendra Modi's government still surprisingly strong? Or China, where an authoritarian regime scored major successes in virus control and won back public approval with a strong economic recovery, but tightened its grip on Hong Kong?

Our study cannot provide definitive answers to questions of success and failure involving multiple variables and moving targets. Our findings show, however, that policymakers should not become fixated on monotonic measures or metrics that look only at one arena, do not take time into account, and overlook long-term social and political consequences. In our study, success implies generally positive short-term performance in all three arenas.

# 2. Politics Makes Policy, Not Policy Politics

In a crisis, does policy dominate politics or does politics dominate policy? This question is familiar to any first-year public policy student. It matters here because the answer goes to the heart of an effective response. Politics and policy are seen as opposite faces of the coin of governance. Politics is messy, contested, and driven by power, ideology, values, passions and vested interests. Policy by contrast strives to be expert, rational, efficient, balanced, and fact-based. Therefore, for policy to succeed, a space must be carved out within which policymaking is kept somewhat apart from the immediate demands of politics.

Our study shows that this separation was significantly more difficult to achieve and maintain in some countries than in others because of cross-national differences in the ways that policy connects to politics. Most generally, the virus found and revealed three "preexisting conditions," structural weaknesses in each system that obstructed effective policy response: (i) weak or decentralized public health infrastructure, including data collection; (ii) economic inequality; (iii) political alienation and lack of trust in government. In reverse, where effective policies were in place in response to prior disease or disaster experiences, it was as if antibodies were activated to help fight off a new infection faster and in more targeted ways.

In many ways, the US case is an outlier. By conventional preparedness measures, the US system was positioned to respond most effectively to the crisis. Since the emergence of HIV-AIDS during the Reagan administration, every US presidency has faced the possibility that an infectious disease epidemic will arise during its watch. Both George W. Bush and Barack Obama oversaw the development of plans to tackle just such a contingency. Yet the handling of the coronavirus crisis

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<sup>&</sup>lt;sup>18</sup> In Africa, too, initial health statistics were less dire than in Northern countries, but economic consequences may be far more so and may take years to recover from.

has been called the Trump administration's biggest policy failure. Why did the careful planning of earlier administrations fail?

A simple answer that has gained wide currency is that the US administration did not respect science. This explanation is inadequate. At every step in the crisis, the Trump administration called upon experts: through the Vice President's coronavirus task force, its leader Dr. Deborah Birx, the NIH through Dr. Anthony Fauci, the CDC, and other routes. The problem was not the lack of expertise in the White House or associated with state governors' mansions, but the choice of which experts to call upon and the reasons for choosing some over others – a choice motivated by political calculation, not a desire to save lives. The US case speaks eloquently to the value of better shielding important health science and policy agencies against the vagaries of partisan politics.

Countries that (i) effectively centralized their information-processing channels, (ii) enacted timely and effective measures to protect economic relations in equitable ways, and (iii) secured people's trust in those measures performed better than those that did not. Thus, in the UK, lack of policy coherence on Downing Street allowed a distinct, and confusing, scientific advisory mechanism to spring up, led by a former national science adviser. By contrast, Germany experienced little in the way of public challenges to the government's expert claims and predictions. Protests occurred in the second phase of restrictions but they did not focus primarily on scientific expertise.

Consistent policies proved most difficult to implement, producing chaos, in countries where the public health system was weak or decentralized and/or subject to political interference. In India, the government's sudden imposition of a lockdown may have been driven by political considerations and is widely believed to have caused untold human misery and possibly spread the virus, not controlled it. Brazil's top-down dismissal of the significance of the virus produced the prerequisites for policy chaos.

The rich-poor distinction does not correlate well with performance during the crisis. In a highly interconnected world, every country on earth had access to the same expert findings on the coronavirus. Poor countries were not, in that sense, knowledge-poor, though they may have lacked other forms of institutional capacity; nor did rich countries have an innate advantage in that their policymakers knew more than counterparts in less economically developed parts of the world. Instead, politics defined a national "willingness to act" in concert.

# 3. The Social Compact Matters

The coronavirus crisis demanded not merely policy from above but acquiescence, vertically compelled or horizontally enforced, from almost all citizens in order to make policy mandates work. In turn, especially in consensus countries, citizen compliance depended on public perceptions that action was justified and

reasonable. Countries with traditions of acting in concert against social problems and countries with histories of deference to public authorities fared better on compliance than countries lacking either or both.

In some countries, leaders were able to invoke a shared vision of the good and reasonable citizen, with the result that defiance was rare and consensus was the norm. In the Netherlands, Prime Minister Rutte specifically called upon citizens to abide by what some termed an "intelligent lockdown," with less stringent restrictions on individual freedoms than in some other countries. In one remarkable display, the Black Lives Matter demonstrations in the Hague and Rotterdam obeyed social distancing after an initial uncontrolled protest in Amsterdam. Sweden and to some extent Germany similarly called on citizens to do the right thing, with Angela Merkel invoking the sacrifices of World War II to rally her country behind a severe Christmas lockdown. In Britain, too, memories of wartime solidarity (invoked by Queen Elizabeth in an April 2020 speech) reconciled people to a regime of "shared sacrifice" and caused scandal when high-level officials such as former Chief Adviser to the Prime Minister Dominic Cummings violated the common rules.

In Asia, prior experience with infectious disease outbreaks conditioned people to wear masks (e.g., Japan, Taiwan, South Korea) and levels of trust in government expertise were relatively high (e.g., China, Singapore). In India, it was arguably less of trust in expertise than habits of deferring to government edicts that led to the huge displacement of migrant workers back from cities to villages with virtually no protests. However, subsequent large-scale farmer mobilization called attention to the latent political instabilities underlying the surface consensus.

The US case illustrates in purest form how a hyper-partisan (rather than shared) conception of citizenship contributed to a chaotic crisis response. One version of citizenship, paralleling in many ways Europe's social democratic societies, accepted stringent restrictions because of almost unquestioning deference to public health authorities. Another version, however, distrusts government in all matters and prizes individual risk-taking. Holders of this latter vision, actively aided and abetted by Trump's aggressive public performances and social media messaging, took to the streets and the courts to fight public health mandates and won some notable victories. In a deeply fractured polity, it remains to be seen whether the Biden administration's calls for national unity can overcome these rifts by invoking neutral expertise.

# 4. Public Health Interventions Should Not Be "Either-Or"

Broad lessons are emerging from our comparative study about how public health policies must change to produce better integrated global responses across highly divergent health, economic, and political systems.

# Leaders must better integrate two modalities of public health interventions.

Public health measures followed two broad modalities relying on different forms of scientific expertise: first, attempts to target the virus itself in its interactions with human bodies, drawing mainly on molecular biology and clinical medicine; and second, drawing on epidemiological expertise, attempts to control human behavior likely to spread the disease. Responses worked best when these measures—biological and social—operated in tandem. Attacking the virus through biological knowledge alone proved inadequate, not least because knowledge itself was continuously in flux for this novel disease.

# Evidence base for biomedical measures must be strengthened.

The failures of the biological path are clearest in the cases of border shutdowns and policies to build herd immunity. Except in the case of China and tightly controlled island nations like Taiwan and Singapore, attempts to stop the virus at national borders failed for multiple reasons. In the US case, the ban on travel from China was incomplete and did not address influxes from Europe. By contrast, China's containment policy kept even Chinese citizens from returning home in violation of the national ban on cross-border travel. The Biogen super-spreader event in Boston, estimated to have caused as many as 300,000 infections nationwide, exemplifies the size of the gaps in US containment strategies.<sup>19</sup>

Inadequate knowledge of transmission paths played a role in other countries as well. A former French health minister admitted under parliamentary questioning that initial models had not taken note of direct flights from Wuhan to France.<sup>20</sup> Other knowledge gaps that compromised early biological containment included questions about how readily the virus spread through airborne transmission, whether asymptomatic carriers such as schoolchildren could infect others, and how long an infected person remained contagious.

Several nations toyed with building herd immunity as a means of avoiding total economic lockdown, but in each case unknown unknowns defeated this largely model-based strategy. In Sweden, deaths rose higher than in neighboring Scandinavian countries partly through a failure to protect nursing home residents. In the UK, expert disagreement about the interpretation of data and modeling, accompanied by policy vacillation, led to confusing public statements and backtracking about the extent to which the government supported a herd immunity strategy. In the US, the White House considered herd immunity at the urging of a Stanford physician and health policy expert but backed off when other

https://www.nytimes.com/2020/12/11/us/biogen-conference-covid-spread.html.

<sup>&</sup>lt;sup>19</sup> Michael Wines and Amy Harmon. "What Happens When a Superspreader Event Keeps Spreading." *The New York Times*, December 12, 2020,

<sup>&</sup>lt;sup>20</sup> Chloé Hecketsweiler and Solenn de Royer, "Commission d'enquête sur le Covid-19 : au Sénat, Agnès Buzyn et Sibeth Ndiaye sous le feu des critiques." *Le Monde.fr*, September 24, 2020, <a href="https://www.lemonde.fr/politique/article/2020/09/24/commission-d-enquete-sur-le-covid-19-au-senat-agnes-buzyn-et-sibeth-ndiaye-sous-le-feu-des-critiques">https://www.lemonde.fr/politique/article/2020/09/24/commission-d-enquete-sur-le-covid-19-au-senat-agnes-buzyn-et-sibeth-ndiaye-sous-le-feu-des-critiques</a> 6053388 823448.html.

experts suggested this policy might produce disastrously high mortality rates.<sup>21</sup> In India, some argued that forcible displacement of large populations, as a result of the lockdown, had initiated a de facto policy of letting the virus take its course, producing herd immunity. The cost was the second highest global toll of coronavirus cases, burdening the country's already stressed public health infrastructure.

### Evidence base for social measures must be built from scratch.

Non-Pharmaceutical Interventions, while undoubtedly powerful ways to stop transmission, are also among the least tested and understood measures in public health. More learning is needed on how to deploy them effectively in different national contexts. Countries that simultaneously implemented controls on the virus and on social practices generally fared better. Examples include Australia, China, Germany, Singapore, South Korea, and Taiwan—although most have experienced second waves necessitating further painful restraints on economic and social activity. The evidence required for more fine-grained evaluation of these hybrid approaches is still accumulating, and further study of them must be one of the most important research agendas coming out of the pandemic. Crucially, future studies of social measures must integrate STS, sociological, anthropological, political, and behavioral expertise, disciplines that historically have not played a sufficiently influential role in working with public health experts or medical authorities.

# 5. Protect Jobs, Not the Pocketbooks of the Unemployed.

While all countries rose to the challenge of mitigating the economic impact of the crisis with emergency response packages, their approaches diverged considerably. A broad distinction can be drawn between countries that sought, in one policymaker's term, to put the economy into a "deep freeze," and those who sought to provide relief by offering short-term benefits to unemployed individuals.

One source of variation has to do with the nature of learning from past experience. In Europe, memories of the 2008 financial crisis and the Eurozone crisis, coupled to a center-left preference for government supported employment stability, led policymakers to guard against job loss. Countries concluded that relief in the form of (partial) salary replacement was no more expensive than massive unemployment benefits. And this approach reduced the risk of sector-specific losses, such as in the restaurant, travel and hospitality industries. Germany's controversial bailout of Lufthansa, with the government acquiring a

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<sup>&</sup>lt;sup>21</sup> Yasmeen Abutaleb and Josh Dawsey. "New Trump Pandemic Adviser Pushes Controversial 'Herd Immunity' Strategy, Worrying Public Health Officials." *Washington Post*, August 31, 2020, <a href="https://www.washingtonpost.com/politics/trump-coronavirus-scott-atlas-herd-immunity/2020/08/3">https://www.washingtonpost.com/politics/trump-coronavirus-scott-atlas-herd-immunity/2020/08/3</a>

stake in the national flag carrier's future operations, illustrates some of the ideological difficulties in this approach.

In the waning days of 2020, the US passed its second, markedly curtailed \$900 billion relief package, far smaller than most economists advised and Democrats wanted, but far larger than Republicans had been prepared to concede. While the impact of the measure cannot be evaluated, the discourse mirrored the classic right-left division in American politics between those unwilling to provide government "handouts" to individuals or companies and those insisting on aid designed to keep people housed, fed and protected from falling below the poverty line. This resurrection of longstanding ideological battle lines is symptomatic of our study's basic finding that coronavirus responses tend to find and reveal weaknesses in the systems that need to be activated in a time of crisis – in this case the fault line of polarization in the US body politic.

# 6. A New Globalism—Renewing the Social Compact

A pandemic etymologically is a condition that affects *all the people*, in this case a disease that has sickened many tens of millions and taken more than 1.7 million lives around the world. The economic, social and political impacts of the Covid-19 pandemic, and the technological and economic efforts undertaken to deal with it, will be felt for decades if not generations, with the most adverse consequences likely falling on those with the fewest resources to meet them. If any set of events demands a coordinated, worldwide response, this would seem to be a paradigm case. But Covid-19 struck a world in transition and—just as it did in the case of nation states—the disease found and revealed salient weaknesses in global institutions. To confront another such crisis in the future, global institutions will have to be reimagined and even reinvented.

While our study did not focus on the performance of global institutions as such, the pushes and pulls of national and global orders were very much in evidence – nowhere more so than in the Trump administration's abrupt withdrawal from the WHO announced in May 2020. That action, widely criticized by the public health community, may not be valid under US domestic law and is likely to be rescinded by the incoming Biden administration. It did, however, send a powerful signal that not everything is rosy in the garden of globalism enacted in the aftermath of World War II. The Bretton Woods vision of "one world" government needs to be rethought in the light of scientific and technological, economic, and political developments of the past 70 years. <sup>22</sup> Our study offers some specific pointers to the challenges that will have to be confronted, and resolved, on the path toward a new globalism for the 21<sup>st</sup> century.

(Dordrecht: Springer Netherlands, 2003).

<sup>&</sup>lt;sup>22</sup> Ulrich Beck, *World at Risk*. (Cambridge, UK; Malden, MA: Polity, 2008).; Sheila Jasanoff, "In a Constitutional Moment: Science and Social Order at the Millennium." In *Social Studies of Science and Technology: Looking Back, Ahead*, edited by Bernward Joerges and Helga Nowotny.

A networked world. Turn of the century revolutions in information and communication, coupled with the fall of the Iron Curtain, have led to a world in which the top-down model of command-and-control government increasingly has yielded to a more networked vision of governance, calling for public-private collaborations and drawing on social media and big data on unprecedented scales. Institutions of the new globalism, such as a reconceptualized WHO, will need to consider how to adapt to a regime of networked governance.

Ethics and science. The development of the Pfizer-BioNTech Covid-19 vaccine illustrates some of the contemporary challenges of medical production and delivery that have strained the capacity of existing global institutions. On the one hand, an invention by scientists of Turkish origin trained in Germany, developed by an American company led by international executives, and first approved for use in Britain illustrates the overwhelming opportunities for beneficial innovation in a networked world. On the other, the concurrent rise of "vaccine nationalism," with rich countries preemptively acquiring large stockpiles, exemplifies the ethical dilemmas and pitfalls of global pharma. One does not need to refer to *The Constant Gardener* to recall the abuses perpetrated in developing countries through unethical clinical trials.<sup>23</sup> Supply chains that mobilize cheap production in developing countries to deliver drugs to rich countries raise additional ethical and political dilemmas that again call for global attention.

**Standardization.** The worldwide Covid-19 response was hampered by disparate national and subnational systems of counting and recording illness and death statistics. Rectifying this problem will require significant coordination of a sort that only global institutions are in a position to provide. However, such coordination demands that these institutions be seen as legitimate and not captive to the interests of their major funders. Standards, moreover, function within a moral economy,<sup>24</sup> and the political and social dimensions of standard setting will need to remain front and center.

Funding and support. The Trump administration gained considerable domestic political traction by claiming that the postwar global institutions were "unfair" to US interests, especially in light of the relative size of the American contributions to their maintenance. The future legitimacy of globalism depends on being able to counteract such rhetoric effectively, which in turn will call for new funding and governance models in a time when wealth is being ever more concentrated in fewer countries and still fewer hands.

A global social compact. For a global governance regime to achieve even minimal standards of political legitimacy, democratic buy-in will have to be

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<sup>&</sup>lt;sup>23</sup> Kaushik Sunder Rajan, "The Experimental Machinery of Global Clinical Trials: Case Studies from India." In *Asian Biotech: Ethics and Communities of Fate*, edited by Nancy Chen and Aihwa Ong, 55–80. (Durham, NC: Duke University Press, 2010); Adriana Petryna, *When Experiments Travel: Clinical Trials and the Global Search for Human Subjects* (Princeton, NJ: Princeton University Press, 2009).

<sup>&</sup>lt;sup>24</sup> Lawrence Busch, *Standards Recipes for Reality* (Cambridge, Mass: MIT Press, 2013).

secured. This will demand new approaches to international deliberation, in forums and with discourses that have yet to be developed. Our study makes it abundantly clear that—on this axis in particular—monotonic principles such as "follow the science" or "nudge people to make rational choices" will not do the job. What is needed is more like an ongoing global constitutional convention, inviting the *demos* of the world to re-envision what kind of world it wants. The playbook for that convention remains to be written, and it will need to be the work of all disciplines, all nations, and all the imaginative talents that can be set free in the citizenry of our interconnected world.

# IX. Hard Truths

Five conclusions, expressed below as hard truths and bookending the fallacies identified earlier in the report, emerge from this study with particular force.

# Hard Truth #1: Misreading the world exacts a high price.

At a minimum, our study indicates that the field of public health as a whole has undertheorized, in sociological and political terms, the actual world into which its guidance flows. All countries involved in our study have confronted the problem of persuading publics to accept unpopular restrictive measures. With the global rise of "Covid fatigue," and Northern nations facing a winter surge in cases, the need for such messaging has become even more acute than in the earliest days of the crisis. The price of this misreading of the world can be steep if good policies are short-circuited by public rejection, whether in the context of flattening the curve or vaccine hesitancy. It has been tempting for expert bodies to resort to univocal policy messages, often expecting science's institutional authority to compel public compliance. Our study shows why such monotonic messaging is not adequate to the task. It is also common for policymakers to latch on to single indicators for evaluating preparedness, progress, or success. This study cautions against such reductionist readings of the world and calls for a more holistic and self-aware attention to how policy problems are conceptualized.

# Hard Truth #2: Trust in science is not equivalent to trust in public health expertise.

Unlike scientific research, the public health system wields enormous regulatory power over human bodies. During a pandemic, public health mandates range from compulsory testing and vaccination to reporting requirements, restraints on movement, quarantines, and even restrictions on who can be treated for disease (e.g., through triage). Our study demonstrates that trust in a nation's public health system is contingent on the specifics of each country's institutional arrangements. For example, in the UK, almost universal support for the National Health Service (NHS) led to episodes of public thanksgiving—opportunistically joined in by Boris Johnson following his successful treatment for Covid-19. This ritual reinforced the sense of an imagined national community and spirit of shared

sacrifice that secured public compliance early in the pandemic. In the US, by contrast, a century-long history of constitutional arguments against public health intrusions resurfaced in a proliferation of Covid-related lawsuits. This burst of litigation attests to the ongoing tension between the power of the public health regime and claims of individual liberty.

# Hard Truth #3: Distrust of public health expertise is wrongly attributed to scientific ignorance or disinformation.

In the US, the conventional wisdom blames opposition to mask-wearing and support for untested Covid-19 treatments on scientific illiteracy and malicious disinformation. Our study shows, however, that culturally specific reasons for distrust exist and should be identified and addressed to secure compliance with responsible public health regimes. <sup>25</sup> A history of medical neglect and research misconduct, for instance, has left Black Americans deeply suspicious of public health claims and increased the likelihood of vaccine hesitancy among racial minorities.<sup>26</sup> In the Netherlands, a self-aware citizenry, confident of its capacity to make reasoned health choices, challenged the reasonableness of the government's mask mandate. In the UK, a growing sensitivity to the interpretive flexibility of science led to the formation of a unique alternative body to the official Scientific Advisory Group for Emergencies (SAGE). In India, the rising tide of Hindu nationalism fed rumors of a Muslim-induced "coronajihad" while also intensifying Muslim distrust of government policies. Rhetorics of persuasion vary across countries and do not translate well across political cultures. It follows then that public health messaging needs to address the specificities and contingencies that underlie particular national and subnational orientations toward public health. This point has significant implications for pandemic response in the emerging post-Covid world order.

# Hard Truth #4: A universal "Playbook" is not the answer.

The Obama administration left its successor a thoughtful playbook for how to address a pandemic. The fact that this playbook was not followed underlines a basic weakness of this policy approach. To be effective, a playbook demands players who are willing to perform the play and respectful audiences who understand and accept the need for the play to be performed. Both were lacking in the US case. This study indicates that a pandemic requires a far deeper appreciation of how the efficacy of clinical and behavioral public health guidance intersects with politics. As the Covid-19 crisis repeatedly demonstrated, the spread of a pandemic contains twists and turns that no one could have predicted and that converted what might have remained a self-contained outbreak in China into a raging phenomenon that sickened 77 million people and claimed at least 1.7

<sup>26</sup> Keith Wailoo. Dying in the City of the Blues: sickle cell anemia and the politics of race and health. (Chapel Hill, NC: University of North Carolina Press, 2014).

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<sup>&</sup>lt;sup>25</sup> Brian Wynne, "Misunderstood Misunderstanding: Social Identities and Public Uptake of Science." *Public Understanding of Science* 1, no. 3 (July 1, 1992): 281–304.

million lives in 2020. Its economic consequences remain untold and very likely will afflict the poor far more than the rich, at scales ranging from local to cross-national. Long-term health consequences remain similarly unclear. Major factual controversies likewise remain unresolved, such as whether the virus was natural, jumping from bats to humans, or was a lab-generated construct accidentally released into the environment. The policy implications of the two scenarios would be markedly different.

## Hard Truth #5: Resilience is more important than planned public health guidance.

Supplementing the playbook, pandemic response strategies would do well to borrow from learning in other disaster contexts that have underscored the need to develop resilient systems. In the coronavirus crisis, the systems that performed well, even exceptionally, are the ones primed into preparedness by earlier crises, not necessarily of the pandemic kind, and equipped with redundancies and shock-absorbing mechanisms. Thus, biomedical researchers and the pharmaceutical sector had already put huge effort into studying virus outbreaks and were able to mobilize this expertise in the face of a new challenge—to be sure with significant assistance from the public till. The European Union was able to muster the economic expertise gained in trying to manage the 2008 financial crisis and the Eurozone crisis. And as Angela Merkel herself noted in a (for her) unusually emotional pre-Christmas speech, German citizens had learned solidarity and sacrifice the hard way in World War II, but those attitudes were there to be activated in the face of this altogether different crisis.

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#### References

- Barr, Donald A. Health Disparities in the United States Social Class, Race, Ethnicity, and the Social Determinants of Health. (Baltimore, MD: Johns Hopkins University Press, 2019).
- Beck, Ulrich. World at Risk. (Cambridge, UK; Malden, MA: Polity, 2008.)
- Burton, Tom. "National Cabinet Creates a New Federal Model," March 18, 2020. https://www.afr.com/politics/federal/national-cabinet-creates-a-new-federal-model-20200318-p54bar.
- Busch, Lawrence. Standards Recipes for Reality. (Cambridge, MA: MIT Press, 2013).
- Felt, Ulrike, Rayvon Fouche, Clark A. Miller, and Laurel Smith-Doerr, eds. The Handbook of Science and Technology Studies, Fourth Edition. (Cambridge, MA: The MIT Press, 2017).
- GHS Index. "The Global Health Security Index." Accessed January 7, 2021. https://www.ghsindex.org/.
- Hilgartner, Stephen, Clark Miller, and Rob Hagendijk. Science and Democracy: Making Knowledge and Making Power in the Biosciences and Beyond. (New York, NY: Routledge, 2015).
- Hurlbut, J. Benjamin. Experiments in Democracy: Human Embryo Research and the Politics of Bioethics. (New York, NY: Columbia University Press, 2017).
- "Independent SAGE." Accessed January 7, 2021. https://www.independentsage.org.
- Jasanoff, Sheila. States of Knowledge: The Co-Production of Science and Social Order. (New York, NY: Routledge, 2004).
- Jasanoff, Sheila. "In a Constitutional Moment: Science and Social Order at the Millennium." In *Social Studies of Science and Technology: Looking Back, Ahead*, edited by Bernward Joerges and Helga Nowotny. (Dordrecht: Springer Netherlands, 2003).
- Jasanoff, Sheila. Designs on Nature: Science and Democracy in Europe and the United States. (Princeton, NJ: Princeton University Press, 2005).

- Jasanoff, Sheila, and Sang-Hyun Kim, eds. *Dreamscapes of Modernity:*Sociotechical Imaginaries and the Fabrication of Power. (Chicago, IL: University Of Chicago Press, 2015).
- Jasanoff, Sheila. "Pathologies of Liberty. Public Health Sovereignty and the Political Subject in the Covid-19 Crisis." Cahiers Droit, Sciences & Technologies, no. 11 (November 30, 2020): 125–49.
- Lakoff, Andrew. Unprepared: Global Health in a Time of Emergency. (Oakland, CA: University of California Press, 2017).
- Laurent, Brice. Democratic Experiments: Problematizing Nanotechnology and Democracy in Europe and the United States. (Cambridge, MA: MIT Press, 2017).
- Perrow, Charles. Normal Accidents: Living with High-Risk Technologies. (New York, NY: Basic Books, 1984).
- Petryna, Adriana. When Experiments Travel: Clinical Trials and the Global Search for Human Subjects. (Princeton, NJ: Princeton University Press, 2009).
- Sunder Rajan, Kaushik, "The Experimental Machinery of Global Clinical Trials: Case Studies from India." In *Asian Biotech: Ethics and Communities of Fate*, edited by Nancy Chen and Aihwa Ong, 55–80, (Durham, NC: Duke University Press, 2010).
- Tooze, J. Adam. Crashed: How a Decade of Financial Crises Changed the World. (New York, NY: Penguin, 2019).
- Wailoo. Keith. Dying in the City of the Blues: sickle cell anemia and the politics of race and health. (Chapel Hill, NC: University of North Carolina Press, 2014).
- Wynne, Brian. "Misunderstood Misunderstanding: Social Identities and Public Uptake of Science." *Public Understanding of Science* 1, no. 3 (July 1, 1992): 281–304.

# Appendix A

**Country Case Studies** 

#### Australia

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Submitted: December 31, 2020

#### Introduction

The first cases in Australia were identified on January 25, 2020, and the border with China was closed on February 1. The Australian Health Sector Emergency Response Plan for Novel Coronavirus was activated on February 25. The first fatality was on March 1. After some initial resistance from the Prime Minister, stringent lockdowns came into force nationally from mid-March. They included banning large indoor and outdoor gatherings such as sports events, closing all international borders and imposing quarantines on permanent resident and citizen arrivals, closing schools and universities (and moving instruction online), and shutting businesses deemed "non-essential," although with exemptions. Test, trace, and isolate strategies were pursued in all jurisdictions. States restricted travel between states, generally against the wishes of the Federal government, and even limited travel within states.

From mid-May, with 98 deaths recorded nationally and a decline in case numbers. lockdowns were progressively eased, with schools reopening, and restrictions on the size of gatherings and regulations covering retail and hospitality slowly easing. From late June, one state (Victoria) was showing signs of a second wave and it enforced a second, severe, lockdown on July 7. This included a night-time curfew, strict limits on leaving one's home, closure of most businesses and schools, restrictions on travel from Melbourne to regional Victoria, mandatory mask-wearing outdoors, and prohibition on visiting others or receiving visitors at home. In late October 2020, these restrictions started to ease as case numbers fell. Small outbreaks have since occurred in two states. Overall, cases and fatalities were low compared to other countries, with 28,408 confirmed cases and 909 deaths (3.54 per 100,000) recorded by December 31. Ninety percent of deaths occurred in one state (Victoria) and in aged care facilities. The early response was characterized by bipartisan consensus, although tensions later emerged between the federal (national) government and state (regional) governments, with states controlling the public health response, lockdown restrictions, and borders, whilst the federal government controlled fiscal support. The official strategy was to contain the virus, although an elimination goal was implicit.

Some of Australia's specificities influenced the degree of controversy over the response. There is a strong health advisory network within the government, but independent science advice is less institutionalized by comparison with many Western countries. This meant that differences in expert opinion have generally not been played out in public. One exception was the Australian Academy of Science's call for transparency in the

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modeling used to justify business-as-usual prior to the March lockdown. Following that, the eminent Group of Eight (Go8 Australia) delivered an expert opinion to the federal Chief Medical Officer, setting out a rationale for lockdown while acknowledging areas of dissent. Issues such as mask-wearing have proven relatively uncontroversial in Australia. Polls show a high level of trust in experts, although social media suggests an undercurrent of doubt about the existence and severity of Covid-19. There has been little change in existing anti-vaccination sentiment among a minority, even as public policy is heavily emphasizing vaccine solutions.

The public health response has been largely led by the six state Premiers and two territory Chief Ministers, and their Chief Health Officers. Health officers have made regular joint public appearances with state and territory leaders to communicate key messages. Input provided by their expert advisors has generally not been widely contested. But this may yet change as the New South Wales decision to allow spectators at a Sydney sporting event, despite a late December outbreak, is proving controversial. With the exception of the federal Chief Medical Officer in the first phase and decisions around international borders, the federal government has been largely secondary in the public health response, but very active in regard to fiscal and economic policy, as well as vaccine pre-ordering. The role of civil society has been important, notably in migrant communities rendered vulnerable by lockdowns and in leading the containment response in Indigenous communities.

#### **Public Health**

The Australian strategy aims at containment of the virus at very low levels, but in practice is closer to one of elimination. Even the smallest single-digit community outbreak can lead states to adopt strong measures. Containment has particular resonance for Indigenous communities in light of the historical impacts of European settlement. A notable aspect is the leading role played by Indigenous public health experts who were previously marginalized in top-down pandemic planning in 2009.

Health care in Australia is largely funded federally but managed by states and territories. The health care system has been able to effectively manage serious Covid-19 cases without being overwhelmed, although more routine activities, such as cancer screening, suffered early in the lockdown. Informal and subcontracted workers have been most susceptible, and poorer households and migrant communities are overrepresented in cases and deaths.

The Australian Principal Health Protection Committee (AHPPC), comprising state and territory Chief Medical Officers, the federal Chief Medical Officer and invited experts, has been deeply involved in examining epidemiological evidence and advising governments. With limited exceptions, its work has not been controversial. Controversy has instead centered on several aspects of the public health response, especially the role of preexisting, structural conditions. First, the handling of quarantine has been contentious. International arrivals (mainly returning citizens) are required to quarantine in an approved facility for 14 days. Lax application of the rules led to early outbreaks spreading from cruise liners. Leaks of the virus from quarantine facilities have resulted in community transmission, especially in Victoria. These are currently the subject of a Commission of Enquiry. At issue are poor management of quarantine by the Victorian state government, and the use of sub-contracted private security companies using untrained security guards across multiple venues, and the handling of exemptions (e.g.,

for airline crews, celebrities and VIPs). Questions about the federally regulated labor market have also arisen.

Secondly, management of aged care and residential facilities has been controversial in light of disproportionately high death rates. Given the dependence on informal labor moving between facilities, labor market issues also arise. Responsibility is controversial, as the sector is regulated by the federal government (which has encouraged loosely regulated private sector care), but the states have to manage the health consequences. Thirdly, test, track and trace (TTT) system controversies have been mainly around its management and effectiveness in Victoria, rather than its importance. Fourth, controversy over lockdowns reveals fragilities rooted in sociocultural and economic inequalities. An abrupt "hard" lockdown in Victoria of nine public housing towers provoked criticism of the state government's treatment of disadvantaged and migrant communities. Controversy over schools (which largely abated, with schools re-opening) and inter-state border openings (which remain contested) reveal vulnerabilities faced by some families (e.g., in home-schooling, mental health, and in maintaining relationships of care).

#### **Economy**

The pandemic has seen significant but uneven economic damage to such sectors as travel and tourism, hospitality, and higher education. There has been a rise in unemployment, with returning jobs often being more precarious and more part-time than previously. However, the overall economic contraction has been less than expected. The federal government initially injected substantial amounts to alleviate economic stress. These included funds to businesses to encourage them to keep employees on the payroll (JobKeeper), a temporary boost to unemployment benefits (JobSeeker), support for specific sectors (e.g., aviation), and policies to provide childcare, offer accommodation for the homeless, ban evictions, supply food, and support telehealth. Most of these packages are now being dialed back, inspiring ongoing controversy especially in relation to unemployment. Smaller sums have been committed by the States, including to cover lost wages for individuals who test positive and must isolate.

A National Covid-19 Coordinating Committee (NCCC), mainly comprised of business leaders close to the center-right Liberal-National Coalition government, was established to plan for post-pandemic economic policies. The federal government accepted its controversial proposal to deregulate and expand gas extraction.

We highlight three further controversies. First, the transparency and scope of JobKeeper payments. While JobKeeper did keep many people on payroll, some companies also used it to boost dividend payouts to shareholders. Importantly, it did *not* cover large numbers of people on temporary visas and in irregular employment (e.g., workers in arts, hospitality, and parts of retail), and some institutions were specifically excluded (e.g., universities). Civil society groups have mobilized support for people rendered vulnerable. Second, JobSeeker payments to those seeking work have been continually rolled back. Although Covid-19supplements boosted existing unemployment benefits and pushed recipients above the poverty line, these are now being wound back to previous levels. Onerous conditions are being reintroduced for those seeking work which, if not met, result in withdrawal of the benefit. Third, the federal government's strategy for economic recovery centers on controversial tax cuts and deregulation.

#### **Politics**

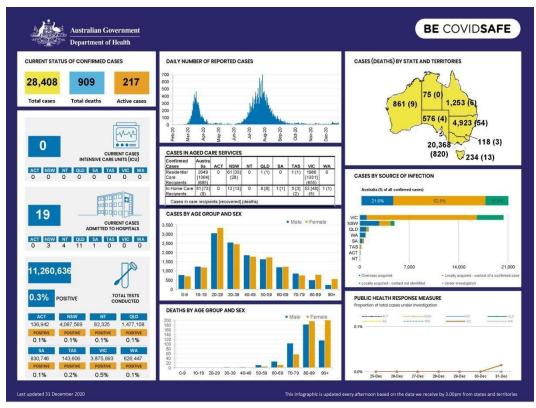
Displays of national unity were initially prominent, with opposition politicians limiting their criticism, and the Prime Minister forming for the first time a "National Cabinet" with state premiers from different parties. A general consensus (albeit with differences on details) formed about closing international borders, the stay-at-home call in mid-March, and the need for substantial borrowing and expenditure on job support payments. This consensus is breaking down, especially as the Victorian state government (Labour) and the federal government (Liberal-National) clashed over the second wave. Tensions are prominent between most states and the federal government over state border closures and management of aged care. The impact of labor market deregulation on the pandemic crops up repeatedly. US influence is strong in Australian politics and there are indications of importation of Q-Anon thinking on the far Right.

#### Citizens and the State

The main policies imagine a citizenry that is self-interested, and will comply with directions, but which expects the government to cater to its prejudices. JobSeeker payments were boosted because of the assumption that putting the never-before-unemployed on the existing low-level benefits would be electorally unacceptable. In general, people have been more public-spirited than imagined by (especially right-wing) politicians. Libertarian protests against strict regulations have been relatively small, and people have largely complied with mask-wearing and physical distancing regulations.

How citizens imagine themselves is a harder question. The notion of Australians as disobedient and skeptical of authority ("larrikins") runs deep, but this myth is being challenged by an emerging account of Australians as rule-followers. There is significant evidence of increases in public incidents of racist abuse, attributed partly to inflammatory rhetoric of some politicians and a lack of cultural diversity in the media. Again, civil society groups have mobilized in response. Together with examples of Indigenous leadership and work by mutual aid and migrant justice groups, this underlines the key role of civil society in pandemic response.

#### **Australian Covid-19 Statistics**



**Source:** Australian Government Department of Health. "Coronavirus (COVID-19) at a Glance – 31 December 2020." Australian Government Department of Health. Australian Government Department of Health, December 31, 2020.

 $\frac{https://www.health.gov.au/resources/publications/coronavirus-covid-19-at-a-glance-31-december-\underline{2020}.$ 

#### Austria

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Submitted: December 30, 2020

#### Introduction

At the beginning of the pandemic, strong solidarity and an alignment across political parties facilitated consensual policymaking in Austria. As the pandemic continued, however, the initial consensus eroded and conflicts developed about a number of policies. SARS-CoV-2 started spreading in Austria (8.9 million inhabitants) in late February 2020 and has gone so far through two major waves. Since the spring, the pandemic has had a firm grip on the domestic economy and the health care system. The Austrian National Bank<sup>29</sup> expects real GDP losses of about 7.5% in 2020 as a whole, while growth of about 4% is forecast for 2021 and 2022. The Austrian public health care system is generally perceived as robust, covering more than 99% of the population. However, the pandemic challenged it significantly, most visibly in elderly care, but also regarding hospitalizations and social inequalities in health.

On March 16, 2020, having reached 1,200 cases, Austria adopted its first six-week lockdown (including quarantine for the region of Tyrol). Numerous measures to support individual citizens and businesses "no matter what the cost" were also announced. These represented a complete deviation from the zero-deficit logic proclaimed in previous policy. Daily governmental press conferences cast their announcements in a language of "team Austria" and "closing the ranks," performing solidarity across all parties and all societal groups. By the end of March, the peak of the first wave was reached (approximately 8,500 active cases), dropping to 1,000 active cases in early May. With numbers remaining low until early July, the government presented itself as having successfully managed the crisis, praising the stability and quality of Austria's health care system.

However, well before the numbers started to rise again in July, the political alliances crumbled, and political decision-making was questioned. Critics argued that the promised financial aid did not arrive fast enough and was not fairly targeting all those in need, and experts (including legal experts) publicly disagreed about how to act in the face of the pandemic. In this less consensual climate, Austria entered a much stronger second wave, reaching a peak in mid-November 2020 with more than 90,000 active cases (nearly 4,000 in hospitals and 700 in ICU beds). At times, Austria was among the countries showing the highest rates of infections per 100,000 population in Europe, a fact rarely mentioned publicly. While an increase in testing to 30,000 tests per day was often used to explain the climbing case numbers, this could not account for the dramatically rising numbers of

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<sup>&</sup>lt;sup>29</sup> "Current information on the corona pandemic," Oesterreichische Nationalbank, accessed January 7, 2021, <a href="https://www.oenb.at/Publikationen/corona.html">https://www.oenb.at/Publikationen/corona.html</a>.

deaths, from a total of about 750 in mid-September to 6,086 at the end of December 2020. As a consequence, Austria entered into lockdowns of varying degrees starting in November 2020—the most recent from December 26, 2020 until January 18, 2021 in the hope of preventing a third wave.

#### **Public Health**

The public health measures undertaken in response to the Covid-19 pandemic in Austria were: "lockdowns" with differing degrees of restriction, mask requirements, social distancing, manual tracing and a "Stopp Corona App," testing (including mass testing), and (recently) vaccination. While lockdowns were generally accepted as an important intervention to stop the pandemic, they also raised a number of hotly debated issues. Six contested issues point to the challenge of weighing different values against each other. First, in the early phase, visits to elderly care homes were forbidden, which led to severe forms of social isolation of elderly people in the name of protecting them from the pandemic. Second, the consequences of closing schools for children and changing to distance learning in the name of stopping the pandemic was seen as creating serious disadvantages for those coming from less privileged social backgrounds (lost generation discourse). Third, the wearing of masks was initially challenged because experts did not agree on the usefulness of this intervention. However, this has – with minor protests – moved to the background. Fourth, while manual tracing through public health authorities was not challenged, the "Stopp Corona App," as well as the obligation to leave personal data when visiting restaurants, created heated debates over data protection concerns. Fifth, intense debates are underway about whether obliging citizens to get a test to be released from lockdown is an indirect way of forcing people to get tested. Finally, vaccine hesitancy and outright opposition to vaccines is currently being fueled publicly by the right-wing party.

Gradually, we also witnessed a shift in the indicator for the pandemic moving from being the number of infected people to the number of deaths and, above all, to the number of ICU beds occupied (which reached 60% at the height of the second wave) which became the indicator for a threat to the health care system.

#### **Economy**

In economic policy, the Austrian government launched a Corona response package<sup>30</sup> with the aim of preventing insolvencies and undesirable takeovers from abroad and keeping the economic situation as stable as possible. However, these relief packages, after initial approval across political parties, caused political controversies as the pandemic advanced. Many of these measures had to be approved by the European Commission under its "Temporary Framework for State aid measures to support the economy in the current COVID-19 outbreak" (2020/C 91 I/01), causing debates because these supports had "externally" defined limits. The measures mainly consist of (1) a hardship fund—for situations not covered by the other measures, such as independent workers (€2 billion); (2) the Corona relief fund—supporting companies that have suffered a massive drop in

<sup>&</sup>lt;sup>30</sup> "Coronavirus (COVID-19): Find Latest Worldwide Updates, Outbreak, Confirmed Cases, Deaths of Coronavirus – NDTV," accessed January 7, 2021,

https://www.ndtv.com/coronavirus/fullcoverage; "Corona-Hilfspaket Für Die Wirtschaft," WKO.at, accessed January 7, 2021,

https://www.wko.at/service/corona-hilfspaket-unternehmen.html.

sales, with costs for employees covered by the Public Employment System (€15 billion); (3) tax deferrals (€10 billion); (4) additional funds for the Public Employment Service (AMS) to finance subsidies for short-time work (> €5 billion); and (5) additional funds for the health care system—due to a considerable drop in obligatory contributions to the health care system (no official figures published). A number of other measures, such as lowering income tax and providing incentives for investment, were also put in place.

While in the beginning of the pandemic the number of unemployed people rose rapidly by over 200,000, the massive use of state supported short-time work succeeded in keeping the increase in the unemployment rate relatively low. Approximately 1 million people preserved their jobs by doing short-term work. Measures to stabilize the labor market were also seen as supporting private consumption, which had dropped sharply in the first few months of the crisis due to the latent job insecurity.

The Austrian National Bank sees these economic interventions as ideally following a three-phase logic: (1) a "freezing phase" to safeguard the basic economic structure, followed by (2) a "thawing phase" meant to stimulate the economy again, and finally (3) a "renewal phase" that will use the crisis to improve economic resilience and push a digitization agenda. Economists also point to the potential emergence of a rather counterintuitive situation in 2021: due to government aid the number of company insolvencies went down by 41.5% in 2020. However, insolvencies are expected to rise steeply in 2021, once Corona economic support packages stop. This might shift some of the economic problems into the next year. So far there has been little public debate about how the debt the state assumes will be reimbursed.

#### **Politics**

Political decision-making during the pandemic shows a stronger than usual performance of evidence-based policymaking. However, rather quickly, the composition of the expert bodies (e.g., the lack of social science expertise) was criticized. Furthermore, the models used to forecast potential pandemic developments and justify interventions into citizens' lives gradually came under scrutiny. At no point did Austria have a single agency that took the lead in advising the government, and no single expert or scientist became the public face of the pandemic. This has advantages and drawbacks. One advantage is that the government kept possible interpretations open. However, at the same time the multiplicity of experts weakened the clarity in justifying decisions and rendered political messages blurry at times.

Political communication mainly happened through very frequent press conferences. While in the beginning of the pandemic there seemed to be an alignment across all parties, this solidarity soon vanished and led to quite intense conflicts in parliament, as well as in the media, between the ruling conservative-green coalition and the opposition.

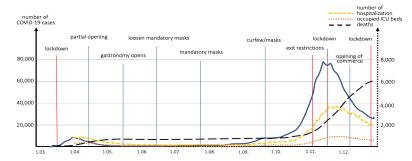
While public health measures were generally accepted, recurrent debates unfolded about the degree to which they should be surveilled and, in the case of lockdowns in the worst case, forcefully implemented by the police. This question opened important debates about the limits of democracy and the rule of law in pandemic times. And it has triggered some public protests against Covid-19 measures, mainly from the right-wing parties, those who deny the very existence of the virus, and those who oppose vaccination.

Austria has mainly acted through regulations passed by the Federal Minister of Health (short: BMSGPK), based on the newly adopted COVID-19 Measures Act and the Epidemics Act 1950.<sup>31</sup> Measures such as restricting access to public space and non-essential stores, locking down certain towns, obliging people to wear a mask, restricting gatherings and events, and requiring people to maintain a one-meter distance from those outside their household have been heavily criticized by legal scholars and the general public alike. In legal challenges, the Austrian Constitutional Court (VfGH) found no violations of fundamental rights;<sup>32</sup> however, it did find that the Federal Government had not always met the requirements of the principle of equal treatment (regarding re-opening of non-essential stores)<sup>33</sup> and the rule of law (regarding restricting access to public space).<sup>34</sup> In addition, the VfGH ruling explicitly stated that the government or the responsible minister must determine the relevant circumstances of any lockdown measure and record and file the related fact-finding process.<sup>35</sup>

#### Citizens and the State

Political communications made a considerable effort to invoke solidarity, constructing an imagined "responsible and reasonable citizen." This citizen is expected to follow regulatory interventions and government recommendations with the aim of serving the collective good. However, panel survey data with citizens show that the situation is more complex and ambivalent (March-December 2020). These data indicate that the majority follows and supports most of the measures, while at the same time the overall trust in the government as a key actor has dropped considerably. Also, vaccination readiness has considerably decreased during the past months.<sup>36</sup>

#### **Austrian Covid-19 Statistics**



Source: Based on graphs published on <a href="https://orf.at/corona/daten/oesterreich">https://orf.at/corona/daten/oesterreich</a>.

https://viecer.univie.ac.at/corona-blog/corona-blog-beitraege/blog87/.

<sup>&</sup>lt;sup>31</sup> Federal Law Gazette I 2020/12, last amended by Federal Law Gazette I 2020/138; Federal Law Gazette I 2020/12, last amended by Federal Law Gazette I 2020/104.

<sup>&</sup>lt;sup>32</sup> VfGH 14.07.2020, G 202/2020-20 ua: right to property; VfGH 14.07.2020, V 363/2020-25: freedom of movement, private and family life, freedom to carry out a business.

<sup>&</sup>lt;sup>33</sup> VfGH 14.07.2020, V 411/2020-17, paras 89, 91 ff: re-opening of non-essential stores.

<sup>&</sup>lt;sup>34</sup> VfGH 14.07.2020, V 363/2020-25, paras 64 ff.

<sup>35</sup> VFGH 14.07.2020, V 411/2020-17, para 74.

<sup>&</sup>lt;sup>36</sup> On trust in government, see: "Corona-Dynamiken 13 - Die Dynamik der Demokratiezufriedenheit und des Vertrauens in die österreichische Bundesregierung während der COVID-19-Pandemie."

https://viecer.univie.ac.at/corona-blog/corona-blog-beitraege/corona-dynamiken13/.; On vaccination hesitancy, see: "Blog 87 - Die Erosion der Impfbereitschaft in der österreichischen Bevölkerung," accessed January 7, 2021,

#### Brazil

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#### Introduction

Brazil's policy response to Covid-19 has been marked by extensive controversy and deep political and partisan divisions, along with ongoing contention over the balance between state control versus individual freedoms and responsibilities. Since early in the pandemic, President Jair Bolsonaro and the Federal Government denied that the threat was serious, while opposition leaders, health and policy experts, specialists in universities, and the mainstream media advocated a robust public health response. Bolsonaro and his supporters opposed lockdowns and endorsed hydroxychloroquine, whereas his critics saw in Brasilia's lack of action a paradigmatic example of governmental dysfunction, both political and ideological. Bolsonaro advocated for "vertical isolation" (the isolation only of the elderly and especially vulnerable), while former health minister Luiz Henrique Mandetta argued for "horizontal isolation" (more general quarantines and social distancing). These controversies spilled over into a political crisis between the executive branch and the Supreme Court, and also between federal and state authorities, over questions of who has the responsibility and mandate to cope with the crisis.

To address the pandemic's effects, the government spent more than BRL\$ 411.83 billion, a substantial portion of which was allocated to emergency aid for vulnerable families (BRL\$ 600 per family per month), with some funds also used to assist states and municipalities. Some of these funds were used to strengthen the public health system and build field hospitals, most of which were demobilized when infections slowed down in September and October. Brazil now faces a second wave, thoroughly unprepared to provide mass vaccination despite having relevant expertise and experience. As the end of the year approached, the uptake of and access to vaccines became hotly contested issues. Overall, Brazil's response mobilized critics of the current government's extremist positions, while also galvanizing Bolsonaro's supporters, who denounced lockdowns, compulsory vaccination, and China for its role in the pandemic.

#### **Public Health**

Brazil has the second-highest number of deaths associated with Covid-19 of any country in the world. As of December 16, there were almost 7 million officially reported cases and over 180 thousand deaths. The outbreak of Covid-19 exposed pre-existing

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Brazil

weaknesses in Brazil's public universal health system, the *Sistema Único de Saúde* (SUS), including chronic underfunding, lack of truly universal access, and inequalities between public and private systems. Since February, two ministers have left the Ministry of Health due to disagreements with President Bolsonaro. The current minister, General Eduardo Pazuello, was appointed more for his alleged experience in logistics than for any previous experience in health. Controversies over social isolation practices centered on constitutional disputes about which levels of government had the authority to impose restrictive measures. With the approval of a Public Health Emergency of National Interest (Ordinance No. 188) and a national law (No. 13.979), state and municipal authorities were authorized to impose isolation and quarantine to prevent the spread of the virus. In a decision intended to guarantee the autonomy of states and municipalities, the Brazilian Supreme Court ruled that the Federal Government, on the one hand, and states and municipalities, on the other, have complementary powers to implement health-related policies. This decision created political tensions between branches and tiers of government with respect to the opening and closing of businesses, services, and schools.

Amid a strong second-wave of infections beginning in October, hospitalizations and deaths have risen, and restrictive measures are being intensely debated. Since the UK and other countries began approving vaccines in December, the question of which vaccines to approve and how to implement mass vaccination have become controversial in Brazil. The country has deals to obtain the Oxford-AstraZeneca vaccine (with Fiocruz) and CoronaVac (Sinovac-China and Butantan Institute in São Paulo State). Adding to the contention, Bolsonaro's public statements are inspiring growing anti-China and anti-vaccination sentiments, even as the Federal Government encounters increasing pressure to lead mass vaccination efforts across the country.

#### **Economy**

The decline in economic activity had a significant impact on Brazil's already weak recovery from the historic 2015-2016 recession, then the worst in its history. In May, the Brazilian Federal Government, through the Central Bank, estimated that the GDP would drop 4.7% in 2020 (later updated to 6.5%). The first trimester saw a GDP drop of 2.5%, while it fell 9.7% in the second, with public debt approaching 100% of GDP. A majority of public spending was directed to pay for "emergency aid" for vulnerable families. This policy—although a 180-degree turn from the economically liberal policies Bolsonaro advocated in his election campaign—proved highly popular, including in places such as Northeastern Brazil where Bolsonaro had previously struggled to win popular appeal. With the reopening of commerce and services and the extension of the payment of emergency aid, Brazil's GDP rose by 7.7% in the third trimester of 2020. Unemployment in Brazil has increased by 34% in December compared to May, reaching a level of 14.6% (July-August-September 2020, according to IBGE) with ongoing debates over the fiscal risk of maintaining the aid. Economic controversy now surrounds the question of whether to continue emergency aid past December when it is set to end, which has caused concern for many families and economic sectors. Debate also continues over the paths to economic recovery, which some see as only possible through mass vaccination.

Brazil

#### **Politics**

The Covid-19 pandemic exacerbated pre-existing political conflicts in Brazil, including along fault-lines expected to be of strategic importance in the 2022 elections. A very public dispute between Bolsonaro and João Doria, the governor of São Paulo State and a potential presidential candidate, seems to anticipate the upcoming election. Bolsonaro critics point to a devaluation of expertise and scientific evidence, a pattern of (unqualified) military personnel replacing (experienced) experts in key ministries, and an overall lack of leadership from the Executive branch. They describe this as direct interference in technical institutions like ANVISA, Brazil's Health Regulatory Agency, with politically loyal, yet unqualified staff replacing genuine experts. Bolsonaro also made public statements equating concern with Covid with weakness throughout the pandemic and sought to discredit the World Health Organization (WHO) and health specialists inside and outside Brazil. Bolsonaro's critics see these public statements as an additional challenge layered on top of the disease itself, increasing mistrust in previously respected institutions and raising doubts about previously successful policies, especially mass vaccination.

In addition, there have been tensions between branches of government at the federal level—as well as between national, state, and municipal governments—over the flexibility and intensity of measures to control the virus. While the president has advocated for less restrictive measures, many state governors and municipal mayors have defended policies of social isolation and closing businesses, services, and schools. Some secondary controversies have been largely silenced, such as criticism of the higher death rates among black citizens, in the periphery of cities, and among the poor.

#### Citizens and the State

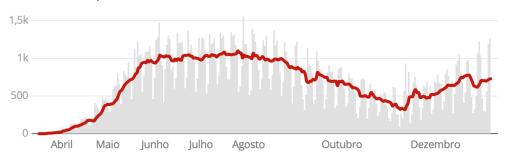
Government policy and the wider discourses on the pandemic imagine two ideal types of citizens. One type of citizen trusts science and specialist advice and follows it as a way to express social solidarity, for example, by using masks to protect others while staying home and avoiding large gatherings. The other type is imagined as a patriot, typically a Bolsonaro supporter who trusts in Bolsonaro himself and follows the president's guidance, for example, by trusting hydroxychloroquine while distrusting vaccines.

These ideal types are situated in a highly polarized environment where pre-existing tensions in the polity have structured responses to Covid-19. One part of the population imagines itself as vulnerable to illness and death and in need of protection emanating from global and locally certified science. The other part imagines itself as vulnerable economically and in need of stimulus to fuel the economy, as well as needing to defend freedom against a global plot led by China. Evidently, there is no obvious borderline between these two "structures of feeling," and many people may embrace parts of both imaginations.

#### **Brazilian Covid-19 Statistics**

### Mortes por Covid-19 confirmadas por dia

Total de mortes por dia em barras



Fonte: Consórcio de veículos de imprensa a partir de dados da secretarias estaduais de saúde

**Source:** "Sem Dados De SP, Brasil Tem 968 Mortes Por Covid-19 Registradas Em 24 Horas," G1, December 16, 2020,

https://g1.globo.com/bemestar/coronavirus/noticia/2020/12/16/casos-e-mortes-por-coronavirus-no-brasil-em-16-de-dezembro-segundo-consorcio-de-veiculos-de-imprensa.ghtml.

#### China

Maximilian Mayer, *University of Bonn*<sup>38</sup> Kunhan Li, *University of Nottingham Ningbo China* Ningjie Zhu, *University of Nottingham Ningbo China*  Submitted: December 30, 2020

#### Introduction

The Chinese party state deployed a broad range of epidemiological and informational control measures in response to the outbreak of Covid-19. Although Wuhan became the first epidemic epicenter due to a failure of China's early warning system, subsequent measures almost completely suppressed the domestic spread of Sars-CoV-2. As of December 30, 2020, China has 96,592 confirmed infections and 4,784 Covid-19 fatalities, 65.7 cases and 3.3 deaths per million. Chinese media and public opinion now view the pandemic as a problem outside of Chinese borders. The Chinese Communist Party (CCP) shifted its narrative from initially trumpeting an all-out "people's war" against the virus towards celebrating the triumphant victory of the socialist model. Yet, official responses to the spread of Covid-19, including restrictions of international mobility and extensive surveillance measures, caused domestic controversies some of which challenged the government's approach.

Public reactions to the death of Dr. Li Wenliang led to a rare official recognition of mistakes, putting the Chinese political system—consolidated by a powerful move towards re-ideologization under the presidency of Xi Jinping—under pressure. However, these controversies did not precipitate a political crisis of the party state. In spite of initial failures, and despite vocal international critique, the pandemic has actually allowed the CCP to increase domestic political legitimacy. A self-confident CCP promotes "wolf warrior" diplomacy and has moved on to post-pandemic planning for greater technological autonomy and increased domestic consumption, finalizing its next five-year plan as most countries continue to struggle with massive second or third waves. Despite a strong sense of victory domestically, authorities remain on high alert. The ubiquitous use of health codes, occasional local implementation of new suppression protocols, and stricter rules for persons and certain products entering China is a reminder to Chinese citizens that the pandemic is far from over elsewhere.

#### **Public Health**

On December 30, 2019, a ProMED-mail for the first time shared news with international infectious disease experts about an "unexplained pneumonia" in Wuhan. On January 11, researchers from Shanghai published the draft genome of the virus. However, in Hubei province, the national warning system failed in the crucial first three weeks of January. Local party leaders prevented critical information from reaching CDC experts in Beijing and waited to implement adequate measures to stop to spread. Only after Dr. Zhong

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China

Nanshan made the fact of human-to-human transmission public on January 20, did the central CDC step in and radically change response policies across the country. Millions were put under a harsh lockdown regime in Wuhan and adjacent cities. Other provinces, even with few cases, including Zhejiang, Guangzhou and Beijing, also introduced strict mobility restrictions. Due to the scarcity of tests in January and February, official Covid-19 numbers are likely an underestimate.

The key elements used to suppress the virus and by and large go back to normal conditions by early April include obligatory quarantine for all confirmed and suspected cases, massive resource mobilization for contact tracing (partially electronic), publicly funded PCR mass testing, and full public coverage for obligatory professional treatment of even non-symptomatic patients in designated hospitals. This approach focused primarily on top-down control, including an overnight shift to online learning in schools and universities, with a strong emphasis on individual responsibility to follow state-mandated rules (e.g. universal face mask wearing, quarantine procedures, health codes). Crucial for its implementation was public trust in government and a coordinated approach which mobilized local party branches, police, the military, and support from digital platform firms. The national lockdown from January to March was stricter than that of other countries, though it had local differences depending on the epidemic situation.

After April, Chinese authorities implemented and subsequently escalated strict requirements for entering the country. To contain further local transmissions in major cities new emergency protocols were implemented for testing millions to trace a limited number of infections in less than two weeks while implementing surgical and brief lockdowns, for instance in Qingdao, Chengdu, Beijing, Dalian, and Tianjin. Aside from a few temporally and geographically limited lockdowns, restrictions to individual mobility and assembly were largely lifted after mid-April. Domestic travel and tourism have resumed fully. Schools and universities, which switched to virtual teaching in February 2020, reopened in April/May with few locally defined preventive measures in place. Though authorities remain vigilant—introducing e.g., travel restrictions for Beijing for Chinese New Year 2021—the great majority of China's population enjoys unrestricted mobility inside the country. A vaccine made by Chinese companies got official approval on December 31, but vaccination already began in September 2020. By the end of 2020, more than one million persons were vaccinated. China's public health response will likely steer the country through the pandemic relatively unscathed even if it continues for another year. The country is also now much better prepared for future epidemics, both organizationally and technically.

#### **Economy**

In light of an economic contraction of 6.8 percent during the first quarter of 2020, the Chinese government employed a range of measures to stabilize the economic situation. After lifting the 3.5-month national lockdown, the Chinese economy experienced a V-shaped recovery, including third-quarter GDP growth of close to five percent. In 2020, China will be the only major economy to have positive GDP growth. This recovery was made possible by diverse policies including targeted subsidies for SMEs as part of 1 trillion RMB (approximately \$153 billion) in special treasury bonds issued in July, digital

China

coupon programs, and reduced mandatory reserve ratio for banks by the Central Bank that freed up 550 billion RMB in the financial system. By the end of May, the total amount invested for direct epidemic responses by all government levels had reached 162.4 Billion RMB (roughly \$25 Billion). The digital economy experienced especially strong growth as China's drive for digital innovations in education, medicine, and finance became more ambitious during the crisis. Digital platforms played a role in efficiently subsidizing small enterprises. For instance, between 19 April and 13 May, the local government issued vouchers for 28 million RMB via Tencent's WeChat platform to private citizens in Wuhan alone, generating 320 million RMB worth of consumption. Meanwhile, China strived to increase its global economic integration. It has agreed with the EU on a new framework for investment and is among the signatories of the RCEP trade agreement, which opens the free trade area across Asia pacific without the participation of the US. As other Asian countries also controlled the pandemic relatively effectively, the entire region can be expected to quickly return to higher growth rates.

#### **Politics**

The authoritarian nature of China's government involves a complicated relationship between public debate about controversial topics and censorship and propaganda. The CCP allows some room for dissent as long as the authority and legitimacy of the party-state itself is not questioned. During mid-January and early February 2020, a first controversy occurred as the normally tight official narrative control by state media became loosened for a short period. Although security organs later imprisoned "citizen journalists" who issued independent video footage and analysis on Covid-19, initially there was an unusually frank online debate. The death of Dr. Li Wenliang, who raised initial alarm about the novel virus on social media, reignited a heated debate about the failure of the national epidemic warning system and information repression that could not be buffered by propaganda for several weeks. Ultimately, the party state changed its narrative concerning Li from "criminal whistleblower" to pandemic "hero" while promising a reform of the warning system and the introduction of a new biosecurity law. A Chinese "Chernobyl" did not materialize.

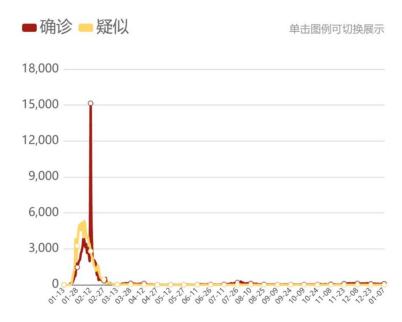
By early March, the propaganda apparatus engineered a discursive shift. The CCP formed a new central storyline that emphasized the heroic success of its struggle, especially in comparison to other countries, and created a triumphant sentiment that was only reinforced by heavy international criticism of China. Controversies about digital health codes and restricted cross-border mobility played out against the background of this triumphant narrative. The Chinese leadership takes full credit for success and, despite some economic disruptions and the disaster in Wuhan, enjoys significant trust from the large majority of Chinese in its ability to handle a pandemic and guarantee societal stability. Comparing the CCP's comparisons of China's successful policies with the escalating crises in countries like the US, Brazil and the UK are politically highly charged, fostering pandemic nationalism that now dominates Chinese public discourse. Months of patriotic propaganda about the successful pandemic response have generated a heightened sense of nationalism, even as mistrust of China from other societies has increased and the country's international image has suffered greatly, especially after China was accused by the US and Australian administrations of failing to contain the virus almost in the precise moment when Chinese leaders acknowledged their failures

and local party leaders were sacked. This may have far-reaching impacts on international relations long after the pandemic.

#### Citizens and the State

Dr. Li Wenliang asserted "there should be more than one voice in a healthy society. I don't agree with the use of public power to overly interfere." The outpouring of public mourning for Dr. Li and support for leading experts such as Dr. Zhong indicate an aspiration among many Chinese to limit the overreach of state power and push back against speech restrictions. In fact, it was Dr. Zhong Nanshan who broke the truth about human-human transmission, contradicting local officials in Wuhan, and thereby helped to initiate a radical shift of government policy. But Covid-19 controversies reveal contradictory imaginations of good citizenship, including contested expectations of how Chinese stranded abroad should behave as ideal citizens and the scope of personal data protection during health emergencies. The official narrative imagines the perfect citizen as one who obediently follows mobility restrictions, abides by intrusive digital surveillance measures and daily temperature reporting. This is particularly evident from the extensive surveillance regime in the Western province of Xinjiang. But on the other hand, while the pandemic gave rise to imaginations of Chinese citizens as digitized bodies which can be smoothly subjected to the machinations of both social credit systems and platform capitalism, the State Council also marked pandemic surveillance and data collection as exceptional, drafting new regulations to strictly limit the storage of personal information collected during future epidemics.

#### **Chinese Covid-19 Statistics**



**Source:** Wang-Yi News, "(China) Virus Report (Covid 19)," accessed January 8, 2021, https://wp.m.163.com/163/page/news/virus\_report/index.html?\_nw\_=1&\_anw\_=1

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Submitted: December 29, 2020

#### Introduction

France confirmed its first case of Covid-19 on January 24, 2020 and, as of December 23, 2020 recorded more than 61,000 deaths. President Macron affirmed the success of the governmental response when he declared in June that "the State held firm," but a parliamentary inquiry released in December identified several failures in managing the crisis. The initial official reaction to the crisis was to reassure the public that the virus was contained, but the strategy gradually shifted to localized constraining measures. Macron announced a national lockdown (*confinement*) in a television address on March 16, 2020. During the confinement all schools and universities would operate remotely, only places selling goods deemed "essential" would remain open, remote work would be mandatory when feasible, and official forms would have to be used to leave one's home. The lockdown was initially scheduled for two weeks but was extended until May 11, 2020. A transition period followed the *confinement* during which a 100km limit was introduced for any travel within the country. On July 3, 2020, Jean Castex, who had been in charge of planning for and organizing the post-lockdown phase, became Prime Minister.

While public health experts warned about the risk of a "second wave" as early as the spring and throughout the summer, it did not materialize until early fall. In October, the number of cases and hospitalizations grew significantly, forcing the government to adopt additional measures, like mandating curfews in cities across the country. On October 28, Macron announced a second confinement, similarly organized as the first, which lasted until December 15. Since then, a national 8pm curfew has been in place, lifted only for Christmas Eve. A number of topics have been controversial throughout the crisis, including the availability and types of masks and tests, the structure of the economic relief package, and the government's response approach. The shortage of masks was widely discussed in the early phases of the pandemic, and the relevance of hydroxychloroquine promoted by controversial figure Didier Raoult became a major

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<sup>40 &</sup>quot;Adresse aux Français", June 14, 2020

https://www.elysee.fr/emmanuel-macron/2020/06/14/adresse-aux-francais-14-juin-2020, last accessed January 3<sup>rd</sup>, 2021).

<sup>&</sup>lt;sup>41</sup> "Rapport de la commission d'enquête pour l'évaluation des politiques publiques face aux grandes pandémies à la lumière de la crise sanitaire de la covid-19 et de sa gestion", Rapport N°199, Sénat, Session ordinaire de 2020-2021.

<sup>(</sup>https://www.senat.fr/fileadmin/Fichiers/Images/redaction\_multimedia/2020/2020-Documents\_pdf/20201210-Conf\_presse\_Covid\_19/20201210\_rapport\_CE\_Covid\_\_tome\_1\_conf-presse.pdf, last accessed January 3<sup>rd</sup>, 2021).

subject of contention. Overall, many of these debates raise the issue of the appropriate way of producing and using public health expertise in the French democracy.

#### **Public Health**

France's public health response was based on a newly created advisory body, the *Conseil Scientifique*, which acted as the main source of scientific advice to the government. Because this approach was a response to a call for scientific neutrality in policy decisions, it set aside already existing scientific and policy institutions. This caused coordination issues, and a wider debate about the legitimacy of institutions in the French *démocratie sanitaire* (health democracy). The response to the pandemic was initially limited to isolating individual cases, but it rapidly changed scale in mid-March. The government introduced a national lockdown on March 17, initially scheduled for two weeks and later extended until May 11. Despite these measures, the country experienced difficulties in the health care sector, with more than 42,000 deaths in hospitals and more than 19,000 in care homes (as of December 23). While the lockdown decision was generally accepted, other governmental initiatives were more controversial.

The availability and efficiency of face masks were topics of contention early in the crisis. The government did not initially encourage the use of face masks, as they were in short supply until the end of the first lockdown period. Aside from challenges meeting the demand for masks and other personal protective equipment, the most visible controversy regarding public health has been linked to the public presence of Didier Raoult. A critic of randomized controlled trials already well known in the academic world, Raoult quickly gained additional public notoriety as he promoted the use of hydroxychloroquine. As he became a regular critic of the French government's response to the crisis, Raoult questioned the scientific credentials of the scientific council and its ties with the pharmaceutical industry. His social media presence significantly grew during the first months of the crisis and journalists identified connections between some of his supporters and the yellow vest movements.<sup>42</sup>

#### **Economy**

The response to the economic consequences of the pandemic (including those due to the national lockdown) was characterized by the central role of the state and public affirmation of its power to affect economic life. The government launched a series of initiatives, most of which were already part of the infrastructure of the French welfare state. Partial unemployment benefits were added to the list of state guarantees, and President Macron stated on March 12 that the state would protect its citizens "whatever it costs" ("quoi qu'il en coûte"). Additional measures included provisions for companies to delay the payment of their expenses and state-guaranteed loans. Public investment

<sup>&</sup>lt;sup>42</sup> William Audureau and Assma Maad, "Une Exploration De La "Raoultsphère" Sur Facebook," Le Monde.fr (July 3, 2020),

https://www.lemonde.fr/les-decodeurs/article/2020/07/03/une-exploration-de-la-raoultsphere-sur-facebook 6045017 4355770.html

<sup>&</sup>lt;sup>43</sup> "Adresse Aux Français, 12 Mars 2020," elysee.fr, March 12, 2020, <a href="https://www.elysee.fr/emmanuel-macron/2020/03/12/adresse-aux-francais">https://www.elysee.fr/emmanuel-macron/2020/03/12/adresse-aux-francais</a>.

plans were introduced at national (€100 billion or \$122 billion) and European (€750 billion, or \$912 billion) levels.

While the necessity for the state to intervene directly to support the economy and alleviate the most important consequences of the crisis was generally accepted, certain topics proved controversial.

The government promoted remote work, a practice widely implemented. Still, some sectors, like construction, proved difficult to classify. Remote work was implemented in less constraining ways during the second lockdown period. Debate also surrounded activities deemed "essential," and therefore exempted from lockdown rules. Bookstores, cultural organizations, and social spaces proved to be particularly contentious sites during the first, and especially, the second lockdown period.

Macro-economic policy was another significant point of disagreement, especially regarding the definitions, terms, and conditions of public investment. French citizens debated whether public investments ought to target "transformative" objectives such as transitioning to green energy or relocating strategic industrial activities in France. Other hot button issues included the economic nature of relief packages, including the so-called "corona bonds," which allowed the European Central Bank (ECB) to issue debt obligations specifically to answer the pandemic and the hypothetical option to cancel crisis-related public debt.

#### **Politics**

In France, the crisis hit right after several months of social unrest, which had challenged President Macron's position as a reformer able to act beyond party politics. The yellow vest movements of 2018-2019 were followed by nation-wide strikes against a proposed reform of the pension system. In this context, the pandemic response became a test of the government's ability to act in ways seen as attuned to public concerns and capable of adaptation to local circumstances. The initial measures the French government undertook in March 2020 (e.g., closure of schools and restaurants, then national lockdown) were presented as expert-based decisions dependent on national unity and were generally accepted.

As part of his effort to build consensus, Macron consulted with the heads of political parties represented in the Parliament. These consultations were discussed in the media in relation with the organization of the first round of municipal elections, which was confirmed for March 15. Holding these elections proved to be a controversial decision because of the associated risks and strikingly low voter turnout. The measures introduced by the government required a special legal status defined as a state of health emergency. In this context, the role of the Parliament in the pandemic, from organizing its daily operations to counterbalancing executive action, appeared problematic. The Senate (where the center-right *Les Républicains* is the majority party) and the National

Assembly (where Macron's *La République en Marche* is the majority party) disagreed about the extent of parliamentary control over the government.<sup>44</sup>

The ability of a centralized French state to account for the variety of local expectations and specificities was a key topic of discussion. The *Conseil d'Etat* ruled in April 2020 that a local mayor could not introduce a mask mandate because it risked "harming the consistency of national measures and of prevention messages." In June, the second round of the municipal elections saw the Green Party winning several large cities, where it emphasized local and participatory responses to global issues. The post-lockdown phases of the crisis have seen a new emphasis on territorial adaptations. The government rated cities and other local areas according to their level of pandemic risks. Local curfews were introduced accordingly on October 18 for eight metropolitan areas and extended on October 24 to 54 *départements*. The possibilities for local adaptations disappeared when Macron announced a second lockdown on October 28, but has again gained traction in late December.

#### Citizens and the State

The initial official response to the pandemic was framed in the terms of war ("we're at war" was a leitmotiv of Macron's March 16, 2020 speech). Within this framing, the national response to the crisis imagined a well-organized society within which roles were neatly defined and responsibilities carefully allocated, from care workers duly celebrated every day at 8 pm to workers in charge of running the economic sectors deemed "essential." The notion of "responsibility" was put forward, to invite the general public to follow the rules and accept the official message originating from the scientific council's advice.

After the end of the first lockdown period, the conceptualization of French citizens became more complex. References to the rational individual who "does not give way to conspiracy theory, obscurantism and relativism" (as Macron stated in a November speech) competed with expectations that people permanently adapt to constantly evolving and often unclear official messages about rules to follow.<sup>47</sup> These understandings of attentive and reactive publics can be contrasted with perspectives centering "citizen science" and originating from certain health professionals, including some prominent members of the *Conseil Scientifique*. In April, president of the Scientific Council Jean-François Delfraissy, an HIV specialist who had had direct experience of working with patient groups, argued in favor of a "renewed vision of health democracy" and officially called for "the inclusion and participation of society in the response to Covid-19." In December, Prime Minister Jean Castex asked the Economic, Social and Environmental Council to set up a "citizen council" on vaccination.

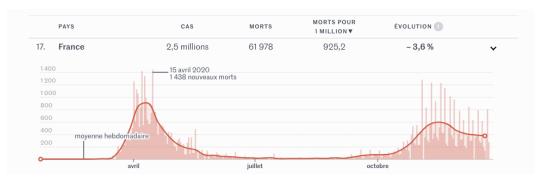
<sup>&</sup>lt;sup>44</sup> "État D'urgence Sanitaire : L'Assemblée Nationale Refuse De Donner Au Parlement Les Moyens De Contrôler L'exercice Par Le Gouvernement De Ses Pouvoirs Exceptionnels - Sénat," Accessed January 8, 2021, <a href="https://www.senat.fr/presse/cp20201030b.html">https://www.senat.fr/presse/cp20201030b.html</a>.

<sup>&</sup>lt;sup>45</sup> Conseil d'Etat, Ordonnance du 17 avril 2020, N°440057.

<sup>46 &</sup>quot;Adresse Aux Français, 16 Mars 2020," elysee.fr, March 16, 2020,

https://www.elysee.fr/emmanuel-macron/2020/03/16/adresse-aux-francais-covid19. 47 "Adresse Aux Français, 24 Novembre," elysee.fr, November 24, 2020, https://www.elysee.fr/emmanuel-macron/2020/11/24/adresse-aux-francais-24-novembre.

#### French Covid-19 Statistics



**Source:** Jérémie Baruch et al., "Coronavirus : Visualisez L'évolution De L'épidémie En France Et Dans Le Monde," Le Monde fr (Le Monde, May 5, 2020), https://www.lemonde.fr/les.decodeurs/article/2020/05/coronavirus age mortalite departements

 $https://www.lemonde.fr/les-decodeurs/article/2020/05/05/coronavirus-age-mortalite-departements-pays-suivez-l-evolution-de-l-epidemie-en-cartes-et-graphiques\_6038751\_4355770.html.$ 

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Submitted: December 27, 2020

#### Introduction

Germany registered its first official Covid-19 infection on January 27, 2020. The first major countermeasures were taken in late February and early March. The Federal Ministries of Health and the Interior launched a joint federal crisis committee, "Gemeinsamer Krisenstab BMI/BMG," on February 27. The Robert Koch Institute (RKI), the central government agency with authority to collect and publish public health data, released a national pandemic plan on March 4 and canceled large events on March 10—just one day after Germany's first reported Covid-19 related death. Subsequently, Germany adopted stricter measures such as closing the national borders, a partial lockdown of businesses and educational institutions, mandatory use of masks in buildings, public spaces, and transportation, mandatory quarantine and testing for incoming travelers, and the release of a Corona-Warn-App by the government.

Germany's "rational" pandemic response during the first half of 2020 has been portrayed as a success story rife with lessons for other countries by many analysts and pundits abroad. Yet, following a country-wide reopening in the summer, Germany was hit hard by a second wave. Yet, federal and state governments only agreed to a "lockdown light" on October 28, still confident about the successful first wave strategy and the desire for national consensus. Restaurants, bars, entertainment venues, and sports facilities closed, and all gatherings were limited to a maximum of 10 people while shops and schools remained open. However, these measures quickly proved insufficient. This failure, acknowledged by Merkel in an emotional speech on December 9, resulted in a strict lockdown from December 16 onwards, with the closure of all non-essential shops and contact-services and a partial closure of schools.

#### Public Health

Germany's public health response was characterized by a consistent pattern of delegation of policy questions to scientific authority (especially the RKI) and a general appeal to rationality and solidarity. Therefore, there was relatively little public controversy about the epistemic authority of expert bodies such as the RKI, the National Academy of Science Leopoldina or the National Bioethics Council, all of which were well institutionalized. Rare occasions of media controversy (e.g., tabloids singling out

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Christian Drosten, Germany's most visible scientist and government advisor, for criticism) received considerable public and government pushback.

Germany's daily new infections in the first wave plateaued on March 27 with 6,933 cases—much lower than many of its neighbors in absolute and relative terms of laboratory confirmed cases and deaths—and a swift decline of cases began in mid-April. The highest number of daily infections in the second wave was on December 23 (31,652 cases), with Corona-related deaths peaking at 952 per day. Throughout the pandemic, German debates on public health policy success focused almost exclusively on one science-based metric: the so-called "7-day incidence." The reliance on this one-dimensional indicator underscores a strong focus on science as the basis of a supposed societal consensus while also hinting at an unwillingness to consider alternative definitions of risk for the German population.

#### **Economy**

The pandemic had substantial impacts on the German economy even though the country has been spared from economic calamity. The registered unemployment rate, calculated based on registrations in public employment services, ticked up only 1% from the pre-Covid-19 low of the post-financial crisis boom, reaching 6%. An estimated 820,000 jobs were lost in the first two quarters, and the economy shrank by 14.3%. Yet, the economy rebounded by 10.8% in the third quarter, and the labor market stabilized. The impact of the pandemic is widely assumed to be more persistent than initially predicted in spring, with pre-crisis employment and GDP levels not expected until mid-2022.

Germany's economic relief measures—seen by most European countries and others such as Japan as a model for managing the economic effects of the pandemic—were swift and forceful. The *Kurzarbeit* ("short-time work") furlough scheme that Germany has relied on for decades, and that had stood the test of the global financial crisis of 2008, was expanded on March 9. Initial state-level stimulus packages (total of €10 billion) were announced by the federal states of Bavaria and North Rhine-Westphalia on March 19—two states whose conservative prime ministers have been vying for Merkel's successorship in the 2021 elections. These were followed by a large federal stimulus bill on March 23 (€156 billion) that was expanded on May 22 to a massive €1,173 billion package, €820 billion of which is in federal loan guarantees.

To prevent economic disruption, Germany took on new national debt after a decade of debt reduction. According to some estimates, the total stimulus package exceeded 60% of GDP. In mid-July, Germany also took a leading role in negotiating the EU economic aid package (£1.9 trillion). In contrast to the 2008 financial and subsequent Eurozone crises, Germany changed its position on the issue of joint European debt in the "Corona crisis." After some foot-dragging in the spring, Merkel's coalition reversed its position in the summer, approving the proposal for the European Union to issue "Corona bonds" to finance Southern countries' economic policies against the pandemic. The European aid package also took pressure off the European Central Bank (ECB) whose extensive bond purchase programs were found to be disproportional and potentially unconstitutional by the Federal Constitutional Court of Germany, on the basis that ECB's unconventional crisis interventions effectively amounted to fiscal and broader economic policies.

Germany's economic response reflects a desire for preserving social and economic stability at all costs. The *Kurzarbeit* scheme aims to catch economic harm at the company level before it trickles down to workers. This is consistent with a public imagination in which the Weimar Republic hyper-inflation and mass unemployment crisis of the 1920s, post-WWII reconstruction austerity, and the staggering costs of reunification still loom large. Germany's relief measures cover all types and sizes of economic agents from freelance musicians to multinational corporations. Finally, to protect its key national assets in key industries, the German federal government also provides recapitalization packages to select companies. The recapitalization is financed by the Economic Stabilization Fund (*Gesetz zur Errichtung eines Wirtschaftsstabilisierungsfonds*, or *WStFG*), a special fund that provides financial support to German companies affected by the coronavirus outbreak.

Overall, the scale, comprehensiveness, and relative fairness of the German response, combined with its relative success, meant that Germany's economic policies have remained mostly uncontroversial. Exceptions do exist, however: A key controversy was the mass layoffs in May and June by the national airline Lufthansa. This stirred criticism, since both the airliner and its parent company, Deutsche Lufthansa AG (DLH), were set to be recapitalized under a €9 billion relief package, €3 billion of which were loans under the guarantee of the German state. The measure was approved under the State aid Temporary Framework (adopted by the European Commission on March 19, 2020 and amended on April 3 and May 8, 2020). Other criticisms included the lack of conditions tied to aid packages (e.g., environmental goals related to travel or mobility), the dismal compensation of precarious "essential workers," and the relative imbalance between the bailouts of corporations and the support for the arts and culture sector.

#### **Politics**

The German Covid-19 policy reflects a political culture committed to rational and consensual responses on the one hand and a deep aversion to risk and the disruption of social and economic stability on the other. This dual commitment is enshrined in corporatist governance arrangements that cover everything from epistemic questions on the collection, interpretation, and visualization of scientific data and the institutionalization of bioethics advice, to the *Kurzarbeit* scheme and corporate bailouts. Moreover, Germany has been governed by a "Grand Coalition" formed by the country's two largest parties, and this has prevented overt political polarization. Left- and right-wing opposition in the Parliament remained weak, though the second wave led to a rise in populist protests associated with Germany's "Querdenker" ("lateral thinker") movement. This group includes coronavirus-skeptics and anti-lockdown protesters alongside right-wing extremists and conspiracy theorists, claiming the Covid-19 pandemic and long-established laws aimed at halting the pathogen's spread infringe on citizens' liberties.

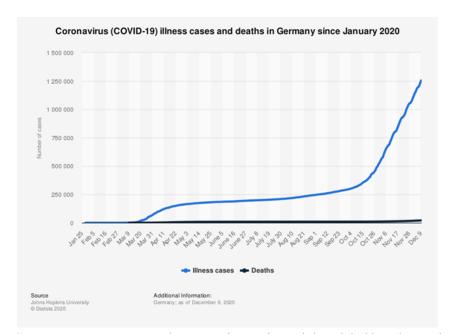
#### Citizens and the State

Across the board, adherence to lockdown measures was framed as a matter of necessity ("without alternative"), with Chancellor Merkel leveraging her dual image as a scientist

and the nation's "mommy" ("Mutti") to appeal to reason and solidarity. For example, Merkel and other government officials repeatedly couched the protection of elderly people in terms of civic duty, with Merkel referring to them as "grandma and grandpa" ("Oma und Opa") in speeches when appealing to rational self-restraint. The narrative guiding health, social, and educational policies is based on the social-democratic principles of equity and solidarity. Measures such as school closings were attentive to those who are most vulnerable to the adverse effects of restrictions in order to "leave no one behind." The principles of avoiding societal polarization and enhancing solidarity also guide bioethical issues such as triage and vaccine distribution.

The lockdown was initially framed as the "hour of the executive," with an appeal to a shared sense of urgency to justify the centralization of administrative authority in the federal government. Yet it raised concerns about the violation of civil and fundamental rights, data protection regulations, and the right to informational sovereignty of German citizens. Over the summer, the German government began rethinking the pandemic in terms of citizen rights, consent, and responsibility. Merkel framed the pandemic as a challenge to democracy that requires reciprocity: lockdown measures are "only acceptable and bearable if the reasons for the restrictions are transparent and comprehensible, if criticism and objections are not only allowed, but demanded and heard."

#### German Covid-19 Statistics.



**Source:** Dong E, Du H, Gardner L. An interactive web-based dashboard to track Covid-19 in real time. *Lancet Infect Dis*; published online Feb 19. <a href="https://doi.org/10.1016/S1473-3099(20)30120-1">https://doi.org/10.1016/S1473-3099(20)30120-1</a>.

<sup>&</sup>lt;sup>49</sup> "Regierungserklärung Von Bundeskanzlerin Merkel," Regierungserklärung von Bundeskanzlerin Merkel, accessed January 7, 2021, <a href="https://www.bundeskanzlerin.de/bkin-de/aktuelles/regierungserklaerung-von-bundeskanzlerin-merkel-1746554">https://www.bundeskanzlerin.de/bkin-de/aktuelles/regierungserklaerung-von-bundeskanzlerin-merkel-1746554</a>.

#### India

Leo F. Saldanha, Environment Support Group<sup>50 51</sup> Bhargavi S. Rao, Environment Support Group Submitted: December 27, 2020

#### Introduction

India confirmed its first Covid-19 case in the southwestern state of Kerala on January 30, 2020. The following months witnessed a surge of cases reaching a high weekly average of 93,000 in mid-July. At the end of 2020, the weekly average dropped sharply to 20,414 cases. In all, over 10 million people have been infected, of whom 250,000 remain active. About 150,000 have succumbed to the disease.<sup>52</sup>

India's early response to the crisis has been called a "lockdown without a plan." In the weeks following the first confirmed case, Covid-19 spread rapidly across major metropolitan regions. Multiple crises emerged: overcrowded hospitals, lack of medical support systems, overworked health care workers and state and local governments overwhelmed by the challenges. In an effort to stop the spread of the disease, the Central Government first restricted travel from China, then extended a ban on all international arrivals. Various state governments also took steps to stop public gatherings. Prime Minister Narendra Modi formed an advisory committee to guide the country's response, in which Niti Aayog<sup>53</sup> member V.K. Paul and K. Vijay Raghavan, Principal Scientific Advisor to the Prime Minister, played key roles.

Prime Minister Modi's first major domestic action took the form of a "Janata Curfew" (People's Curfew) on March 22. He called on people to stay home through the day and step out in the evening to clap, ring bells and bang vessels to acknowledge services rendered by frontline Covid-19 "warriors." Far from driving home the message of physical distancing, these events gathered large crowds. A couple of days later Modi came on TV at 8 pm and announced an unprecedented nationwide lockdown from that very midnight. Initially imposed for 21 days, the lockdown was subsequently renewed several times.

Shutting down the country on four hours' notice caused unprecedented chaos and created a humanitarian crisis of epic proportions. Worst affected were migrant workers who, lacking local social support and without any reliable help from the Government, chose to walk hundreds of kilometers back to their villages as there was no transport. Carrying their meagre belongings, and often also kids and elders, millions walked in the harsh Indian summer. The Government later told Parliament that it did not have data on how

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<sup>&</sup>lt;sup>51</sup> The authors thank Malvika Kaushik for research support in preparation of this summary.

<sup>&</sup>lt;sup>52</sup> Abantika Ghosh, The Print, 16 December 2020, https://theprint.in/health/india-is-missing-about-90-infections-for-every-covid-case-latest-govt-analysis-shows/567898/.

<sup>&</sup>lt;sup>53</sup> Niti Aayog is a policy think tank of the Government of India set up in place of the Planning Commission of India.

many returned to their villages. Independent estimates, however, suggest at least 10, perhaps even 20 million. Hundreds died of exhaustion, starvation, and horrific accidents; of how many actually perished, there is no accurate estimate. The predominantly pro-establishment electronic media chose not to cover the extent of the migrant crisis as a failure of Modi's policy.

The Supreme Court was approached repeatedly to tackle this humanitarian crisis, but its response was unsympathetic. In early April Chief Justice of India S. A. Bobde asked: "If they are being provided meals, then why do they need money for meals?" When asked again to direct an indifferent government to act to support migrants in distress, as scores were reportedly dying in mid-May (in peak summer), Justice L Nageswara Rao speaking for the Supreme Court asked: "How can we stop migrants from walking?" Justice A. P. Shah, who retired as Chief Justice of Delhi High Court, vigorously criticized the Supreme Court, saying the "Court's duty is more onerous in times of crisis." Only in June did the Supreme Court make a categorical statement about the crisis. Focusing on the widespread abuse of police power employed against migrants walking home, the Court called for a humane response. 57

#### **Public Health**

With public health spending receiving a mere 1% of the nation's budget, India ranks 184 out of 191 countries in spending on health.<sup>58</sup> A health system already in crisis was further burdened with having the deal with the pandemic. With an estimated 60% of health costs typically borne by patients, Covid-19 accentuated the economic risks of falling sick. Due to widespread public anger, state governments were forced to step in and direct private hospitals to reserve a proportion of beds to deal with the Covid-affected at regulated prices. Yet, there were frequent reports of patients being turned away as they could not afford the treatment.

https://theprint.in/opinion/pov/my-lord-migrant-labourers-need-more-than-just-food-just-like-we-a ll-do/398508/.

<sup>&</sup>lt;sup>54</sup> Prashant Dixit et al., "My Lord, Migrant Labourers Need More than Just Food, Just like We All Do," ThePrint, April 9, 2020,

<sup>&</sup>lt;sup>55</sup> Radhika Roy, "How Can We Stop Them From Walking?": SC Refuses To Entertain Plea For Migrants On Road," Live Law, May 15, 2020,

 $<sup>\</sup>underline{https://www.livelaw.in/top-stories/sc-refuses-to-entertain-plea-for-migrants-on-road-156803?from-login=559551.}$ 

<sup>&</sup>lt;sup>56</sup> "Watch: 'Supreme Court Has Let Down Migrant Workers, Vulnerable,' Says Justice A.P. Shah," The Wire, accessed January 8, 2021,

https://thewire.in/law/watch-karan-thapar-interview-justice-ap-shah.

<sup>&</sup>lt;sup>57</sup> Pti, "SC Takes Note of Excess against Migrant Workers, Says They Needs to Be Dealt Humanely," Deccan Herald (DH News Service, June 9, 2020),

 $<sup>\</sup>underline{https://www.deccanherald.com/national/sc-takes-note-of-excess-against-migrant-workers-says-the}\\ \underline{v-needs-to-be-dealt-humanely-847522.html}.$ 

<sup>&</sup>lt;sup>58</sup> FE Online, "Budget 2020 Expectations for India's Healthcare Sector," The Financial Express (The Financial Express, February 1, 2020),

https://www.financialexpress.com/budget/budget-2020-expectations-for-indias-healthcare-sector/1842519/.

India

By mid-May hospitals across cities in India were overflowing with Covid-19 patients. Mumbai, Ahmedabad and Delhi were worst hit, and Hyderabad, Chennai and Bangalore followed. As state after state collapsed under the burden, Kerala stood out as the exception. Relying on decentralized governance systems built over decades, with Panchayats (rural local governments) and municipalities (urban local governments) forming the fulcrum of the response, the state organized relief to reach every family, focusing attention on the needs of elders and other vulnerable communities. The model was heralded globally<sup>59</sup> for its compassionate approach and rigorous employment of the strategy of "trace, quarantine, test, isolate and treat." Kerala appeared to have stopped the pandemic in its tracks, but infections bounced back as soon as travel restrictions were lifted, and millions returned home.

#### **Economy**

Prior to the Covid-19 lockdown, India's manufacturing, infrastructure and real estate sectors were suffering from slow growth. This situation substantially worsened during the lockdown. The combination of these factors resulted in an unprecedented economic crisis as indicated by the staggering free fall in economic growth to -25% and the skyrocketing of the unemployment rate to 25% in the second quarter of the year. As the central government realized its strategies to tackle the pandemic were not working, and that the nationwide lockdown was causing an unprecedented economic collapse causing a massive unemployment and livelihood crisis, the country was opened up in a series of "unlocking" events from late May. Finance Minister Nirmala Sitharaman also announced a \$265 billion stimulus package. As a result, the economy bounced back by 22% and the unemployment rate fell below pre-pandemic levels (6.5%) in the third quarter.

The extent of the economic crisis, however, is likely to be far worse. As of 2018, 90% of India's working population was in the so-called "informal sector," and therefore official statistics very likely vastly underestimate the economic damage, especially at a time when it has become ever more challenging to collect survey data due to the social disruption caused by the pandemic. Moreover, informal workers are unlikely to benefit from the stimulus and do not have a social safety net to fall back on.

#### **Politics**

Interlocking political crises offered little scope for deliberate and meaningful political debate about steps adopted in tackling the pandemic. Covid-19 hit India at a time of massive nationwide protests against discriminatory amendments made to the Citizenship Act (CAA) in December 2019 by Modi's Hindu nationalist government.<sup>61</sup> Ignoring

<sup>59</sup> "Responding to COVID-19 - Learnings from Kerala," World Health Organization (World Health Organization), accessed January 8, 2021,

https://www.who.int/india/news/feature-stories/detail/responding-to-covid-19---learnings-from-ker ala.

Go Liz Mathew, "Health Minister K K Shailaja on Kerala's Covid-19 Success: 'Our Strategy Is Trace, Quarantine, Test, Isolate and Treat'," The Indian Express, June 19, 2020, <a href="https://indianexpress.com/article/explained/kerala-health-minister-k-k-shailaja-teacher-covid-19-6">https://indianexpress.com/article/explained/kerala-health-minister-k-k-shailaja-teacher-covid-19-6</a> 456240/.

<sup>61</sup> When it goes into operation, this law would require Indian Muslims to prove their citizenship.

India

nationwide protests against CAA and global calls for proactive action to tackle Covid-19, Modi organized the "Namaste Trump" event to welcome US President Trump and his entourage in mid-February, involving events where over 100,000 gathered in a single stadium such as one in Ahmedabad. While Modi was busy hosting Trump, horrific communal riots broke out in Delhi against Muslims for their opposition to CAA. The Prime Minister made no effort to stop rioting.

Other controversies soon arose. States complained that they were not sufficiently consulted, as expected in a federated system of governance and also charged the Center with not sharing tax revenues to help tackle the pandemic. Amplifying the domestic crisis, a violent India-China border standoff threatened the breakout of war between the two countries. This was eventually handled diplomatically, but it had an economic fallout as Modi retaliated with a wide-ranging ban on Chinese apps (including the very popular TikTok) and imposing a variety of restrictions on trade with China. Concurrently, the Modi administration rammed through major reforms in farm laws, widely criticized as pro-corporate and anti-farmer.

The bitterly contested November elections in Bihar were a litmus test for Modi. The campaign was conducted in a manner that largely ignored the restraints demanded for tackling Covid. It was as though there was no pandemic in Bihar. Modi's Bharatiya Janata Party-led coalition barely scraped back into power, indicating that failure to tackle the migrant crisis may have played an important role. As 2020 came to a close, over 200,000 farmers from several North Indian states gathered outside Delhi, demanding the repeal of the farm laws. As the Delhi police refused to allow them into the city to protest, farmers blockaded highways leading into the capital. Modi has repeatedly said the farm laws will not be repealed. The farmers have refused to leave. Meanwhile, the delivery of an effective vaccine has been mired in a series of controversies, including allegations of "medical colonialism" because the very poor are given trial vaccines without due consent, and allegations that the vaccine was improperly approved.

#### Citizens and the State

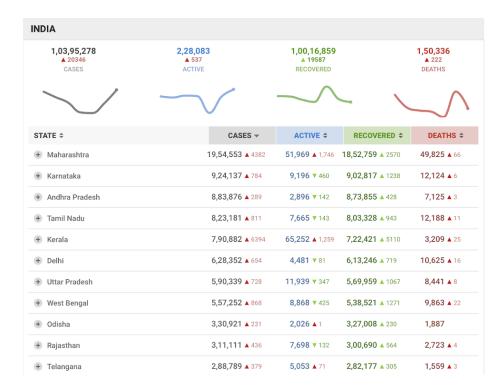
A review of advisories and policies to tackle Covid-19 reveals that interventions are extensively focused on attending to middle class needs and emergencies. The middle classes have largely been supportive of governmental efforts in tackling the pandemic and have responded positively to the Prime Minister's messages. Rural areas largely fell outside the focus of policymakers, with exceptions in some states (e.g., Kerala and Tamilnadu). Farming communities and informal workers found essentially no government support in dealing with the consequences of the pandemic and were actively damaged by the unplanned lockdown. There have been some belated responses in addressing the needs of urban poor, as when consequences of lack of attention surfaced through a sharp increase in infections, as with Dharavi slum in Mumbai, or when there were protests against lack of care. On balance, the urban poor, farming and informal

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<sup>&</sup>lt;sup>62</sup> See, for instance, advisories issued by the Union Ministry of Home Affairs, under the Disaster Management Act, 2020 "Circulars for Covid-19: Ministry of Home Affairs," Ministry of Home Affairs | GoI, accessed January 8, 2021, <a href="https://www.mha.gov.in/notifications/circulars-covid-19">https://www.mha.gov.in/notifications/circulars-covid-19</a>.

sectors, and migrant laborers have been forced to assume that they are on their own in dealing with the pandemic and its consequences.

#### **Indian Covid-19 Statistics**



**Source:** "Coronavirus (COVID-19): Find Latest Worldwide Updates, Outbreak, Confirmed Cases, Deaths of Coronavirus – NDTV," accessed January 7, 2021, https://www.ndtv.com/coronavirus/fullcoverage.

#### Italy

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Submitted: December 28, 2020

#### Introduction

Italy was the first country in Europe to be severely affected by the pandemic, and the first to impose a nationwide lockdown. It thus attracted considerable international attention, with observers seeking to understand both why Italy had been hit so early and so forcefully by the virus, and whether drastic measures restricting individual and corporate freedoms were possible in a liberal democratic society. Controversies progressively emerged in regard to the effectiveness of pandemic management at various levels of governance as well as the limits and legitimacy of governmental authority. In particular, the government was criticized for its perceived over-reliance on opaque expert advice, the widespread use of administrative decrees, untimely economic responses, and the lack of parliamentary involvement.

#### **Public Health**

Beginning in March 2020, two weeks after the first patient died of Covid-19 on February 20 in the northeastern city of Padua, parts of Northern Italy were put under lockdown, which was soon extended to the whole country. During the first wave unfolding through the spring, Italy had one of the strictest lockdowns in Europe, with even outdoor walks discouraged and legally limited to a distance of 200 meters from home. Initially, most deaths occurred in Northern regions, notably Lombardy, Piedmont, and Emilia Romagna., where controversy emerged over the early management of the pandemic—in particular, the timing of the lockdown in Nembro and Alzano Lombardo, two highly industrialized towns in Bergamo, the province that suffered among the highest coronavirus death rates in the world.

Critics alleged that public authorities should have locked down the towns as much as two weeks sooner, attributing the delay to economic pressures. Different levels of government (mostly national and regional) blamed each other, creating additional controversy over who had authority to impose a lockdown. As reports circulated that the government's main expert advisory body appointed *ad hoc* for the pandemic, the *Comitato Tecnico Scientifico* (CTS), had advised sealing off the two towns, pressure grew on the government to publish its confidential minutes, which eventually confirmed the reports. The Bergamo district attorney is conducting an ongoing investigation against unknown defendants to determine whether "involuntary homicide" and "involuntary epidemic" charges can be brought against a confidential list of suspects (which likely includes members of the regional government). The investigation is also looking into the lack of disinfection procedures in the Alzano hospital at the end of February and into the

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Italy

mismanagement of care homes in Lombardy, where administrators allegedly concealed the spread of the virus, did not follow safety measures, and admitted Covid-19 patients from hospitals without isolating them.

The lockdown was lifted in May, and cases substantially decreased during the summer, ranging between 100 and 300 daily cases nationwide in July. The second wave reached Italy in the second half of October. The government implemented a tiered system of containment measures, tailored to the evolving severity of the pandemic in each region. However, regional governors soon challenged the 21 indicators devised since April by the CTS (e.g., infection rate, saturation level of ICUs), and used by the government to establish regional restriction tiers. In particular, the President of the Calabria region appealed against the government's decree (*Decreto del Presidente del Consiglio dei Ministri* [DPCM] 3 November 2020), which placed the region in the strictest tier, before the administrative tribunal of Lazio, but the appeal was rejected. All the while, experts with distinct backgrounds, notably virologists and hospital directors, routinely engaged in heated debates on mainstream and social media, mostly around the appropriateness of the measures that were, or ought to be, implemented to contain the pandemic (e.g., when the lockdown should be lifted).

Public debates over the vaccination campaign - which started on December 27, 2020 - have mostly revolved around whether it will be carried out swiftly and efficiently, and whether Italy will receive enough doses compared to other EU countries. Prime Minister Giuseppe Conte has ruled out the possibility of making the vaccine compulsory, although many claim it should be, at least for certain professional categories such as physicians. Vaccine hesitancy—traditionally high in Italy—has not found many prominent defenders, though it finds channels of expression in alternative and social media. Although Domenico Arcuri, Italy's special commissioner for the Covid-19 emergency, has acknowledged that migrants and refugees are entitled to the right to health as much as Italian citizens, and they are also regarded as a vulnerable group, it is not clear whether they will be included in the early rollout of the vaccination program.

#### **Economy**

Italy has been severely hit by the economic downturn. In 2020 Italian GDP is expected to decrease by 8.9%. While the unemployment rate remains high yet relatively stable at 9.8%, the overall employment rate saw a 1.7% drop compared to the previous year, owing to the rise in the number of inactive people. The government's economic response has been a phased and piecemeal approach, through a number of policies that earmarked around €100 billion (about \$120 billion, or 6.1% of GDP) in direct subsidies, mostly targeting workers (€35 billion) and businesses (€40 billion). Measures include a temporary suspension of layoffs and redundancy fund, small one-off allowances to self-employed workers, and the delay of some fiscal payments. In addition, €100 billion in loan guarantees have been provided to businesses, self-employed workers and professionals.

The economic response has come under intense criticism, with an emphasis on its *timing* and *modalities*. The government was criticized for acting too slowly, playing catch-up instead of realizing from the outset the foreseeable magnitude of the crisis. Overly

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bureaucratic modalities of resource allocation were also contested, as they significantly delayed access to funding by citizens and businesses. Policies implemented by other countries (e.g., Germany and Switzerland) were often publicly invoked as counterexamples of swifter and more effective interventions. The government was also perceived as too reliant on technocratic and unaccountable expert committees, which were said to duplicate and bypass parliamentary prerogatives. Perhaps the biggest political-economic controversy unfolded around the design and uptake of EU schemes such as the European Stability Mechanism (ESM) and the Recovery Fund. These were presented by the government as indispensable tools for the Italian economic recovery, while critics pointed to the heavy political "conditionalities" attached to these instruments (reducing the space for democratic control in future economic policies) and their lack of economic rationale in a context where the government is able to borrow from markets at advantageous rates.

#### **Politics**

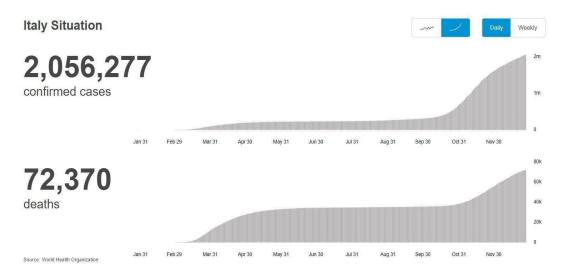
On the political front, a controversy unfolded around the declaration of a national state of emergency on January 31, 2020, and the exceptional powers that it entails for the executive branch, as the state of emergency is not set out under the Constitution, but pursuant to the Civil Protection Code. In July, the government extended the state of emergency until October. This prorogation was challenged by opposition parties on the grounds that the strict emergency had ended and, therefore, exceptional executive powers were no longer warranted. The democratic legitimacy of such a long extension of the state of emergency, unprecedented in the history of the Italian Republic, and its impact on the democratic constitutional order, were also contested (among other concerns, they could be invoked to justify a postponement of regional and local elections). In October, upon the unfolding of the second wave, the state of emergency was further extended until January 31, 2021, which is the maximum one year period allowed under the Civil Protection Code.

The broad powers exerted by the executive expanded, affecting many different economic sectors, and discontent mounted across the political spectrum. In Parliament, majority parties contested the concentration of power within the Presidency of the Council of Ministers, raising threats of a political crisis. Restrictive measures adopted to contain the second wave aroused public opposition, provoking (sometimes violent) protests across the country, in stark contrast with the relatively peaceful implementation of the first lockdown. Many observed that these decrees (in particular, DPCM 3 November 2020) selectively and arbitrarily targeted only certain trades (such as bars and gyms), and questioned the scientific significance of the 21 criteria that were set out in April and applied to establish the stringency tiers. Although these measures were criticized by several regional presidents and mayors across the country, inclusion in the red tier was unsuccessfully judicially challenged only by the President of Calabria (see *supra*). However, local administrative tribunals had to decide on the mandatory use of masks (Lazio) and the regional orders to close schools (e.g. Puglia).

#### Citizens and the State

The implementation of the first lockdown measures during the Covid-19 emergency promoted a different way of imagining Italian citizens. In contrast to the shadow often cast by European and Italian institutions upon Italian citizens, namely that they lack adequate scientific knowledge, they tend not to abide by the rules and are insufficiently responsible and morally accountable, the Covid-19 response entailed the constant involvement of citizens and the reliance, not only on their responsible behavior but also on their capabilities to make sense of scientific knowledge and to implement it correctly in their daily practices. Notably, the overall legal imagination about how to implement safety norms in response to the Covid-19 outbreak has been dominated by a soft law approach entailing a strong delegation in the production of knowledge and normativity to citizens. Indeed, even though norms remain backed by a sanction, the actual assumption is that citizens' compliance primarily depends on their sense of individual and shared responsibility. Moreover, citizens have been implicitly endowed with a personal interpretative space towards the uncertainty ushered in by this soft law approach, in order to make the meanings and goals of the legal norms appropriate to specific contexts. In other words, citizens have been individually asked to act in more or less strict ways in different situations according to their own nuanced legal judgment within the "framework" of the law.

### **Italian Covid-19 Statistics**



**Source:** "Italy: WHO Coronavirus Disease (COVID-19) Dashboard," World Health Organization (World Health Organization), accessed January 7, 2021, https://covid19.who.int/region/euro/country/it.

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Submitted: December 28, 2020

#### Introduction

Japan's Covid-19 response has generally been considered satisfactory, if not a resounding success, with relatively low confirmed numbers of cases and deaths (227,385 and 3,348, respectively, as of December 30; population 125.7 million). In late January, the government classified Covid-19 as a "designated infectious disease," legally allowing compulsory hospitalization of confirmed cases. But much of Japan's response relied on non-binding requests and behavioral guidelines. The government thus placed primary responsibility on individuals and organizations and obscured the accountability of policymakers. Policies were devised in an ad-hoc, incremental manner, as central and local governments contended with overlapping epidemiological, economic, political, and social concerns, responding not only to influential indicators and projections, but also polls of political approval, social media, and geopolitical developments. Rather than invoking shared principles or consistent strategies, values and interests were calibrated to produce short-term responses to changing circumstances.

Until the "third wave" began in November, Japan confidently reported the success of the "Japanese model" in keeping the pandemic under control without strict lockdowns. Initiatives in spring and summer included a request to close all schools, postponing the Olympics, and declaring a Covid-19 "state of emergency." In revising the law on infectious disease in March, Japan did not make binding lockdowns possible. Hence the state of emergency remained a bricolage of requests and guidance to "refrain from" activities and business operations. The government also provided emergency cash relief, masks, and market incentives. Restrictive, targeted use of PCR tests and spending subsidies to encourage travel amid the winter surge were among the most controversial elements of the response. As the notion of "coexistence" with the virus and a "new normal" in lifestyles spread, pandemic fatigue and complacency contributed to a lack of urgency during the third wave. Voluntary approaches became less effective, and this prompted discussion on introducing legally binding measures. Throughout the pandemic, those infected or at higher risk of infection were often socially stigmatized. Cases of harassment against medical professionals and their families and visitors from high-case areas like Tokyo were reported, and those diagnosed with Covid-19 faced social pressure to apologize for contracting it.

#### **Public Health**

Japan's public health response was shaped by expertise from diverse areas, shared worries about limited medical resources, and the political leadership that at times prioritized its economic and political concerns over expert advice. It relied heavily on voluntary prevention measures disseminated and encouraged via public messaging.

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Mask-wearing was common from the start. The new advisory panel ("Expert Meeting") and its successor ("Subcommittee"), which included seasoned pandemic specialists who helped lead World Health Organization efforts, social scientists, and practitioners, produced homegrown expertise and guidelines for Japan.

From early on, Japan's measures consisted of controlled use of PCR tests, retrospective targeting of outbreak "clusters," restricting entry, and publicizing the importance of (a) avoiding the "three Cs" (closed spaces; crowded places; and close-contact setting), (b) good ventilation, and (c) refraining from contagion-prone activities. These reflected concerns about maximizing limited medical resources and about risks of airborne transmission, as well as concerns (based on the 2009 H1N1 experience) that easily accessible testing may overwhelm the healthcare system. Many feared that people would swarm hospitals and clinics and spread the virus further, leading to hospitalization of too many and collapsing the system. Public outcry over the lack of access to tests was intense, with critics also questioning why Japan deviated from the emerging global norm (promoted by WHO) that stressed testing. In response, globally trained experts argued that these tactics were suitable for Japan and warned against overreliance on tests, even as PCR and other tests became more available over the summer. While advisors received accolades for their work, their trustworthiness was also questioned on predictable grounds. The left criticized them for being too lenient and too close to the government, while the right criticized them for being too restrictive.

Since November, the numbers of new cases, deaths, and severe cases continued to set new records. (Cumulative cases exceeded 100,000 on October 29, then 200,000 on December 21, albeit partly due to increased testing.) Strains on medical professionals and institutions became untenable, particularly in hard-hit areas like Hokkaido and Osaka, and the government requested reduced business operations and urged utmost caution and restraint. Still, social activity remained high and numbers of cases and deaths grew. Demand rose for more restrictive policies, now with penalties. Spending subsidies, particularly "Go To Travel," begun in July to encourage tourism, emerged as highly controversial. Despite mounting concerns that increased tourism contributed to a sharp spike in some areas, Prime Minister Yoshihide Suga and his allies denied a link for weeks, until Suga finally announced its suspension in mid-December. Mixed messages of restraint and encouragement diluted the sense of urgency. Meanwhile, tests became considerably more accessible, through official (municipal health systems) and private (medical facilities, test centers, at-home kits) channels. Vaccines were not seen as an urgent issue, but as something to watch in 2021 as other countries grapple with safety, efficacy, and allocation.

## **Economy**

Different sectors and strata experienced the pandemic's economic impacts very differently. Indicators showed a mixed picture. GDP was expected to contract by 5.2% for 2020-21 FY (better than OECD average) and the unemployment rate was higher at 2.4-3% (still among the lowest in OECD). The Nikkei fully recovered from a plunge in the spring, hitting a 30-year high in December 2020. These numbers mask the intensifying burdens on workers and households, increased poverty, widened inequalities, and closure of numerous small businesses. Even though small and medium enterprises represent the majority of Japan's employment and value added, Japan's economy is often envisioned though large global corporations, which had significant internal reserves and maintained their workforce. This contributed to the narrative that the economy was

weathering the pandemic. The government requested voluntary self-restraint of businesses and activities instead of lockdowns, and also approved three extra budgets totaling over 70 trillion Yen (\$670 billion) to fund various Covid-19 programs for FY 2020-21. They included one-time stipends (\$900 for each resident; \$9,000-18,000 to small businesses and freelancers), "Abenomasks" (two per household), and stimulus packages ("Go To" campaigns to incentivize travel and consumption). Critics argued that voluntarily reducing work should come with better compensation and that consumption incentives only aid the well-off.

During the third wave, voluntary approaches faced challenges. Many businesses were pressured to close or downsize earlier, but during the winter surge more of them opted to keep usual operations to survive. "Go To Travel" became particularly controversial, as ties between LDP leaders and the travel industry became well known. As the stock market and the manufacturing sector steadily recovered, small businesses continued to struggle, and a few large corporations (e.g., airlines) were dealt a severe blow. In the last months of 2020, fears about large companies starting to cut jobs as their internal reserves depleted became more pronounced in the national economic discourse.

#### **Politics**

LDP, the ruling party, dominated the pandemic response with its emphasis on the economy and individual responsibility, while opposition parties and groups had an important but limited impact on Covid-19 policies. Prime Minister Shinzo Abe addressed the pandemic as some of his earlier scandals drew renewed public attention and opposition scrutiny. His approval rate plunged to a record low, and his administration's handling of Covid-19 consistently received low approval. Taking office in September, Prime Minister Suga was quickly involved in a scandal: He intervened in the process for appointing researchers to the Science Council of Japan, Japan's leading academic society. This unprecedented move and his refusal to explain the rationale incited severe criticism that drew analogies with the pre-war fascist era. Suga still enjoyed a brief period of approval, but his popularity plummeted as the virus continued to spread and he refused to let go of his flagship "Go To Travel" program. Critics contended that the drop in the approval rate, rather than public health advice or concerns, nudged him to suspend the campaign. The Tokyo gubernatorial election, the 2021 Olympics, and the rights of foreign residents were further sources of contention.

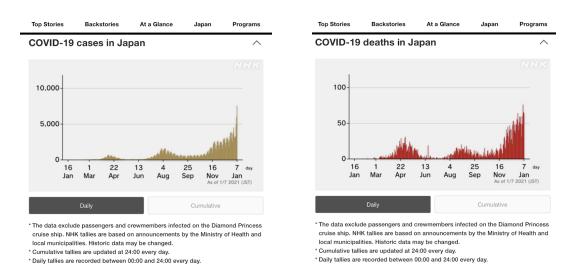
The pandemic also produced tensions between the central and local (prefectures, cities, municipalities) governments, as some of the latter significantly deviated from the former's approaches. Local political leaders created their own countermeasures, such as providing more PCR tests and PPE and implementing local emergency orders. Tokyo clashed with both the central government and the rest of the country, as the capital became the country's hot zone. The third wave further contrasted prefectures and municipalities taking initiatives and succeeding in containing the disease with those that were floundering. Some governors and mayors emerged in the national spotlight, receiving accolades (e.g., Wakayama) or critiques (e.g., Osaka).

## Citizens and the State

In a political environment compared to the pre-World War II era by those on the left, the conservative LDP embodies nationalism and neoliberalism and sees science as a tool for both. LDP leaders imagine ideal Japanese persons to be docile, trusting of the

government, respectful towards its requests, and willing to make sacrifices for the collective in times of emergency, not asserting their rights while still being responsible for their own health and economic well-being. In other words, the state imagines the Japanese people less as citizens than as subjects. Importantly, this is internalized by many Japanese, who see individual rights and freedom as emblems of selfishness and privilege, and a burden to society. Some opposition parties, social movement activists, and academic researchers advocate an alternative concept of the Japanese citizen. In their view, ideal Japanese citizens are skeptical of political authority and trusting of sound science. They are capable of critical and independent thinking and of advocating for themselves and for the socially vulnerable. While both visions share an essentializing view of science as objective and universal, the LDP model sees science and expertise as tools to advance their politics, while the latter believes that experts should be independent of politics and serve the public.

## **Japanese Covid-19 Statistics**



Source: "Current Situation of Infection, December 22, 2020," Current Situation of Infection, December 22, 2020, accessed January 8, 2021,

https://www.niid.go.jp/niid/en/2019-ncov-e/10088-current-situation-of-infection-december-22-202 0.html.

#### Netherlands

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Submitted: December 31, 2020

#### Introduction

The first Covid-19 patient in the Netherlands was identified on February 27, 2020. Subsequently, the Dutch approach has gone through several phases: first, a hope for rapid control, which failed when testing and tracking facilities proved inadequate; second, an "intelligent lockdown" that got wide citizen buy-in; and third, a period of fraying consensus in which splits appeared across levels of government, types and sizes of business, groups of experts, age groups, and social groups (e.g., families with school children). At the end of 2020, the country was in a "near total lockdown," as Covid-19 infections peaked and hospitals were once again at risk of collapsing under pressure.

#### **Public Health**

Dutch government advisors in the public health institute (RIVM) and its Outbreak Management Team (OMT) were not surprised when the virus surfaced in the Netherlands. Given previous experiences (HIV, SARS, and MERS), experts hoped to come to grips quickly with a local outbreak, but tracking facilities proved inadequate. The virus spread too fast and through too many entry points. Hospitals and intensive care units (ICUs) were flooded with new patients, starting with the Southern provinces, and shortages afflicted everything: doctors, nurses, and support staff as well as testing facilities, ventilators, face masks, protective gear, and much more.

On March 16, Prime Minister Rutte addressed the nation in a well-received televised broadcast framing what became known as the "intelligent lockdown." His aim was to unite and mobilize the country. Rutte assured his audience, "Whatever happens, …, we won't let you down" The government's top priority would be to provide protection and healthcare to all citizens, especially the vulnerable, but to succeed, collaboration and solidarity would be required from all citizens. Further, the government would do everything in its power to ensure that companies would not "go under" and people would keep their jobs.

The lockdown was labeled "intelligent" to advance a somewhat chauvinistic sense of national identity and to distinguish it from the vertically controlled "total lockdowns" pursued in Asian countries, Italy, and Spain, but it also departed from Sweden's no-lockdown approach. Second, it was intelligent because based on scientific evidence and on citizens' ability to intelligently assess public health policies in terms of fairness, evidence, necessity, and functionality. Generous economic policies were presented in the following days.

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Frequent press conferences by the prime minister and by relevant ministers helped to broadcast the approach and its progress. So did web-streamed recordings of parliamentary debates and decisions. A 24/7 race to expand hospital and ICU facilities was closely followed by the media, and medical personnel were cheered on and thanked in spontaneous initiatives. Leaders of the national healthcare effort and lead virological and epidemiological experts became familiar household faces through frequent appearances in talk shows.

Within three weeks, the lockdown approach seemed to have succeeded. Phased unlocking began, but unlocking also opened up space for review, critique and controversy. Problems and limitations of the "intelligent lockdown" surfaced and were hard to repair:

- Because the legal basis for imposing behavioral restrictions is very limited, even
  in emergency situations, and threatens to conflict with constitutional freedoms,
  the government often restricted itself to giving "(urgent) advice" instead of
  issuing formal rules and sanctions. Only in November was a new law enacted to
  provide a stronger legal basis for lockdown measures.
- Translating limited knowledge about a new virus into rules and regulations for human behavior and social practices opened up ample opportunities for questions about lack of evidence and scientific proof. A government proud of its critical and self-conscious citizens could not assume that the public would easily concur with its reasoning.
- The OMT was dominated by medical specialists, epidemiologists, microbiologists and healthcare managers, and it tried to achieve consensus in closed deliberations. This led experts from different disciplinary backgrounds to feel excluded. A breakaway group established an alternative advisory forum advocating a more open and participatory approach and generated reports and recommendations divergent from the OMT's.
- The entire process was hampered by well-publicized delays and technical problems, such as the shortage of medical equipment and slow introduction of mass testing. The Netherlands will be the last in the EU to start vaccination.

At the end of the summer, the virus slowly made a comeback, but the government waited, arguing that it could be beaten if people would strictly follow existing rules. In September the second wave was officially acknowledged. A limited lockdown helped to dampen the speed of reproduction but proved insufficient. So, in another address to the nation, on December 14, the prime minister announced that a "near total lockdown" would take immediate effect, lasting through January 19, 2021.

#### **Economy**

The government was indeed ready to do "whatever it takes" to keep the economy afloat, to protect the livelihoods of all, and to avoid social chaos and disorder. Apart from the generous sums of money made available, emergency measures were defined and introduced with impressive speed. Equally impressive was the government's commitment not to burden support packages with detailed bureaucratic and time-consuming application and review procedures. Help came first, accountability later. Firms were told

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that they would have to be open for inspection and might have to return (part of) the money.

The NOW policy, under which the government compensated employers who suffered a loss of more than 20% of their revenue on condition that all personnel would remain employed, was a convincing and smart move. Similarly, the so-called TOZO scheme, targeting "freelancers" (i.e., the self-employed and gig workers) proved effective. People in this category could receive basic financial support up to the "social minimum." The TOZO scheme underscored that support was not just directed at participants in the "old economy" but was all inclusive. Extra money was also made available for the arts, i.e., museums, concert halls, theatres, orchestras and artists.

The support packages were initially meant for a limited time but could be renewed or replaced upon review by expert advisors and consultation with relevant stakeholders, including representatives of labor unions and employer organizations. The government was keen to secure the support of stakeholder representatives, and social partners were happy to collaborate.

One important criticism was that companies might survive because of government support instead of proving themselves economically viable. The government held from the start that it would gradually shift the support criteria to see whether recipients were sufficiently prepared (and preparing!) for the future 'post-Covid-19' world. Another point of debate was whether recipient companies should be required to take major social and environmental goals into account in their reopening strategy, but the government remained reluctant to mix discussions of future preparedness with immediate crisis management.

## **Politics**

Although the government followed the OMT's advice closely most of the time, it also diverged from the OMT if other experts and professionals disagreed about the evidence and if stakeholder representatives questioned the balance between fairness, necessity, and functionality. Striking examples were the debates about face masks and the controversy whether to close primary schools or keep them open.

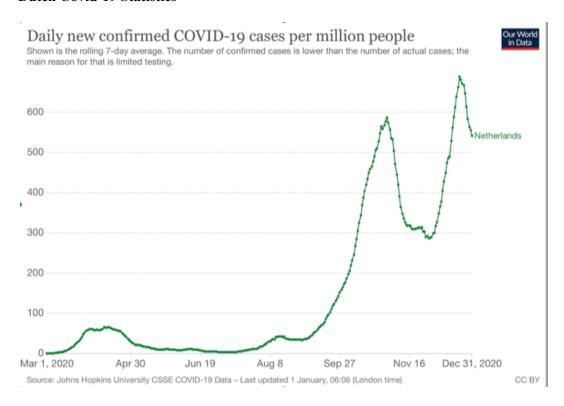
The Dutch parliament adjusted its work to comply with the intelligent lockdown. Many activities were postponed, members started to work from home as much as possible and via Zoom meetings, but both the House and the Senate were determined to continue exercising their representative, controlling, and legislative duties and functions, especially with respect to the government's handling of the Covid-19 crisis and its economic consequences. Frequent plenary meetings of the House on this issue and the informational meetings of the relevant House committees were live streamed and reported in the media.

The government's overall policy approach was endorsed by a broad majority, including by opposition parties and their members. On the fringes, right-wing populist and radical left-wing parties were the most critical, but other parties including members of the coalition also contributed to fierce and sometimes angry confrontations with the government about the sluggishness of the response, the quality of evidence, policy mistakes, ignoring at-risk groups, and unclear and confusing communications as well as inconsistencies in the avalanche of rules.

The House took note of the problems mentioned above and played a strong and constructive role, with a special eye to securing citizens' rights and freedoms, but also with the goal of defending representative democracy and the public acceptability of emergency politics. For example, for months the government had failed to draft acceptable emergency legislation with respect to Covid-19 despite mounting public, legal and political pressure. In the summer, parliament took over and addressed the problem with the help of critics, including legal experts from academia. Only two weeks before the second lockdown a new law robustly authorizing emergency action was in place.

This example of parliamentary activism indicates that the pandemic may well leave Dutch politics stronger, better prepared for the future, and more confident in its virtues of openness and debate. Political lessons are being learned, applied, and—one hopes—remembered. If so, we are watching the birthing pains of pandemic social intelligence.

#### **Dutch Covid-19 Statistics**



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#### Introduction

The Singaporean government capitalized on public trust, a supermajority in parliament. and a media infrastructure aligned with the state's interests to decisively tackle the Covid-19 pandemic early on. With free testing, quarantine facilities, and treatment for its inhabitants, along with contact tracing on every confirmed case, the virus was largely kept at bay. Stimulus packages, totaling over \$75 billion (20% of GDP), curbed job losses and protected businesses from free-fall. A "circuit breaker" was introduced in April and was lifted in June, during which non-essential workplaces were closed and people were asked to leave homes only for essential needs (all at the threat of fines and even visa cancellations for foreign workers). Singapore's worst crisis was a series of infection clusters in the packed dormitories of low-wage migrant workers, largely from India and Bangladesh, that began in April. This outbreak quickly morphed into a political crisis that revealed the importance of containing the virus for the legitimacy of the political order. However, the fact that the people affected were not Singaporeans but low-wage migrants kept apart spatially and symbolically, and that the crisis was brought under control by September, meant that the government managed to retain its legitimacy. Overall, life largely resumed a degree of normalcy for Singaporeans, though temperature checks, the use of tracing apps, masks, and physical distancing remain mandatory.

### **Public Health**

With its rapid emergency public health interventions, Singapore initially gained the reputation of a model response. It had a pandemic preparedness plan already in place from its past experience fighting SARS and H1N1. To coordinate "a whole-of-government, even a whole-of society, response" to Covid-19,<sup>67</sup> a multi-ministry task force, headed by the Minister for Health and the Minister for National Development, was set up in January. Surveillance was the cornerstone of this plan: each confirmed case triggered rapid and comprehensive contact tracing, and temperature checks and the use of tracing apps were mandatory at public spaces. To prevent the development of outbreaks, a sentinel surveillance programme was used to test patients with influenza-like symptoms in clinics, and a wastewater-based Covid-19 monitoring pilot program was implemented in worker dormitories. Testing and treatment were mostly free, removing financial disincentives for test avoidance. As of December 23, there have been over 58,000 cases in total, but only 29 deaths. In terms of case-fatality ratio (0.0005%) and deaths per

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<sup>&</sup>lt;sup>67</sup> Lawrence Wong, 2020. "Multi-Ministry Taskforce on Wuhan Virus." Accessed on 23 December 2020.

https://www.facebook.com/LawrenceWongST/posts/multi-ministry-taskforce-on-wuhan-virusthe-wuhan-virus-situation-has-escalated-s/3376886192352700/

100,000 population (0.51), Singapore has been one of the most successful countries in managing the pandemic.<sup>68</sup>

One controversial measure was the introduction of wearable contact tracing tokens. When the government found out in June that its contact tracing app TraceTogether did not work on iPhones, it decided to distribute wearable tokens to all residents. Although the government emphasized that the token was not a tracker, considerable opposition built online, and a change.org petition was launched. Entitled "Singapore says 'No' to wearable devices for COVID-19 contact tracing," the petition has received more than 50,000 signatures as of December. A poll by YouGov in June showed 43% were unwilling to carry or wear the token. Yet, the government was undeterred. After distributing the tokens to 10,000 seniors in June, it launched a nation-wide rollout in September and convinced Singaporeans to use the technology through a public education campaign. As of the end of December, more than 70% of Singaporeans are participating in the TraceTogether program.

On April 7, Singapore introduced a "circuit breaker" period during which Singaporeans were advised to stay at home and were allowed to leave only for delineated essential reasons. Masks were made mandatory outside the home in mid-April and continue to be so. First-time offenders of the stay-at-home orders and mandatory mask policy were fined \$\$300, with repeat offenders facing higher fines and prosecution (some foreign workers even had their visas cancelled). Non-essential workplaces were shut down. The government has been easing restrictions on movement and association in phases (Phase 1 began on June 1 and Phase 2 on June 19). The third and final phase is set to begin on December 28.

Following the recommendations of the Expert Committee on Covid-19 Vaccination (set up on November 12), the government decided to make the vaccine available to everyone for free on a voluntary basis. The Health Sciences Authority approved the Pfizer-BioNTech vaccine and the first shipment is expected to arrive by the end of December, while other vaccines like those from Moderna and Sinovacare will arrive in 2021. Priority will be given to healthcare workers, frontline personnel, the elderly, and those vulnerable to the virus. The government has committed to obtain enough vaccines by the third quarter of 2021, so anyone who opts in should be vaccinated by the end of the year.

## Economy

The government pursued an economic policy strategy to shield the economy from the Covid-19 shock as much as possible, but Singapore was not exempt from the fallout. As GDP contracted by 13.2% in the second quarter, the unemployment rate rose to 2.8%. Upon the Ministry for Trade and Industry's gloomy forecast that the shock would erase "the growth generated over the past two to three years," <sup>69</sup> the government passed four stimulus packages with a size around \$75 billion (20 percent of GDP) between February

<sup>&</sup>lt;sup>68</sup> Johns Hopkins University, 2020. "Mortality Analyses." Accessed on 31 December 2020. <a href="https://coronavirus.jhu.edu/data/mortality">https://coronavirus.jhu.edu/data/mortality</a>

<sup>&</sup>lt;sup>69</sup> Subhani, Ovais, 2020. "Singapore's Recession Deepens With Worst Ever Quarterly Contraction Of 13.2%." *The Straits Times*. Accessed on 23 December 2020. <a href="https://www.straitstimes.com/business/economy/singapore-lowers-2020-gdp-forecast-to-between-5-and-7-as-economy-plunges-worse-than">https://www.straitstimes.com/business/economy/singapore-lowers-2020-gdp-forecast-to-between-5-and-7-as-economy-plunges-worse-than</a>

and May (with extensions in August and October). The stimulus packages were aimed at saving jobs and businesses. This included billions in cheap loans and loan guarantees to companies, tax rebates and deferrals, suspension of certain contractual obligations, cash payments to self-employed persons, rebates and waiver of the foreign worker levy, and "tourism credits" to incentivize domestic tourism. While the stimulus restored economic growth to 9.2% in the third quarter, it was not sufficient to reverse the contractionary trends in labor markets as the unemployment rate reached 3.6%.

In addition to the stimulus, the government directly targeted labor markets to freeze the pre-pandemic economy as much as possible. For example, under the Jobs Support Scheme, the government funded between 25% to 75% of the first \$\$4,600 of gross monthly wages until August 2020 and 10% to 50% in the subsequent 7 months. For Singaporean citizens and permanent residents in lower- to middle-income households who lost jobs or faced income loss, grants up to \$\$700 a month for three consecutive months were made available. The government also pledged to create about 40,000 jobs under its SGUnited Jobs initiative and announced a new SGUnited Traineeship program to co-fund 80% of the allowance for 21,000 new positions specifically created for recent graduates and 4,000 positions for mid-career job seekers. Finally, a policy of "responsible retrenchment" was enforced to minimize job losses and to favor Singaporeans over foreign workers if those job losses occurred. As a result, non-residents made up almost nine out of ten of the labor market contraction, with the resident employment level remaining near its pre-pandemic level at the end of the third quarter. To

#### **Politics**

In April, Covid-19 tore through Singapore's crowded migrant dormitories housing low-wage migrants predominantly from India and Bangladesh—as of December 23, nearly 95% of the 58,000 cases in total have been dormitory residents. The government was caught off guard, but leapt into action. It guaranteed the workers paid leave, isolated dormitories, escalated testing, and ensured food and medical care were provided. In an attempt to maintain a sense of normalcy among Singaporeans, the local cases reported by the government were partitioned into "cases residing in dormitories" and "cases in community," emphasizing the spatial and symbolic separation of the two groups. Nevertheless, complaints from activists and migrants themselves flooded social media, criticizing delayed meals, overflowing rubbish bins, and unsanitary conditions. A change.org petition, titled "Protect our migrant workers from Covid-19," argued that the government's proposals were inadequate and made suggestions ranging from large-scale testing and reducing living density to guarantee wages and establishing channels for obtaining feedback from migrants. As of December, the petition has received more than 80,000 signatures. A YouGov poll in May showed 87% of Singaporeans believed migrant living conditions "need to be more strictly regulated" although employers were blamed more than the government.<sup>71</sup> Unsurprisingly, even as restrictions on movement and

<sup>&</sup>lt;sup>70</sup> Ministry of Manpower, 2020. "Labour Market Report 3Q 2020." Accessed on 23 December 2020.

https://www.mom.gov.sg/newsroom/press-releases/2020/1217-labour-market-report-3q-2020

<sup>&</sup>lt;sup>71</sup> YouGov, 2020. "Two thirds of Singaporeans believe government is doing enough for migrant workers." Accessed on 23 December 2020.

https://sg.yougov.com/en-sg/news/2020/05/14/two-thirds-singaporeans-believe-government-doing-e/

association were eased for Singaporeans, migrants living in dormitories continue to face harsher restrictions and more intrusive surveillance.

In early July, a few days before the general election, Dr. Paul Tambyah, a member of an opposition party and the president of International Society of Infectious Diseases, argued that the Singaporean response to Covid-19 had been poor compared to the SARS epidemic. In particular, he blamed the ministerial task force for not deferring to the medical task force as it had done during SARS. The government invoked the Protection from Online Falsehoods and Manipulation Act against this statement, claiming all its decisions were "guided by the Ministry of Health and its medical professionals." He narrowly lost his race for a parliamentary seat during the general election held on July 10.

At the elections, the ruling People's Action Party secured 61% of the popular vote and 83 of the 93 elected seats. The rest of the elected seats went to the Workers' Party. The leader of the Workers' Party, Pritam Singh, was officially appointed Leader of the Opposition, a position filled for the first time in Singapore's history. The Prime Minister Lee Hsien Loong has repeatedly made an explicit connection between the political stability of his party's rule and effective governance, arguing that it was precisely its uninterrupted stay in power that has allowed for the kind of long-term planning that enabled it to guide Singapore successfully through the Covid-19 crisis. However, the opposition's historical electoral success is indicative of a growing sympathy for the Workers' Party's alternative political program and promises.

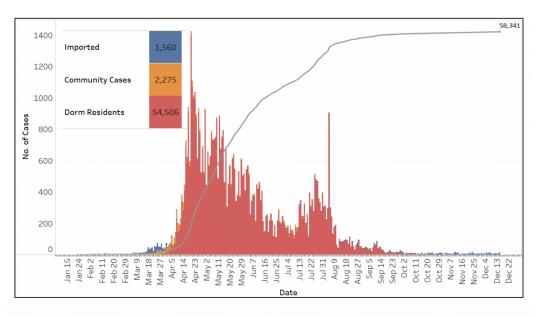
#### Citizens and the State

The Singaporean state's conception of its relationship with its residents remains top-down, with the state possessing the authority and credibility to impose measures for social welfare. Extensive public health and economic policies were implemented without public consultation and sometimes even in the face of public caution against certain policies. Despite not being formally consulted, these measures largely were not controversial with most of the public due to the long-standing trust in government and its competence. The Singaporean government, thus, does not see itself as merely implementing the will of citizens, but as bearing the responsibility and authority to act on behalf of a populace that continues to trust it with power.

<sup>&</sup>lt;sup>72</sup> Ministry of Health, 2020. "Joint MOM-MOH Statement On The Issuance Of Correction Directions Under The Protection From Online Falsehoods And Manipulation Act (POFMA) Against National University Of Singapore Society (NUSS), The Online Citizen Asia (TOC), CNA And New Naratif." Accessed on 23 December 2020.

https://www.moh.gov.sg/news-highlights/details/joint-mom-moh-statement-on-the-issuance-of-correction-directions-under-pofma-against-nuss-the-online-citizen-asia-cna-and-new-naratif

# **Singaporean Covid-19 Statistics**



**Source:** Ministry of Health, 23 December 2020 Daily Report on COVID-19. Accessed 23 December 2020 from

 $https://www.moh.gov.sg/docs/librariesprovider 5/local-situation-report/situation-report---23-dec-20\\ 20.pdf$ 

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Submitted: December 31, 2020

#### Introduction

With a total of 60,740 confirmed cases and 900 deaths (from a population of 51 million) on the last day of 2020, South Korea's response to the Covid-19 pandemic remains one of the greatest success stories in the world. Although the country has recently faced a third wave with daily new confirmed cases hovering around 1,000, this looks miniscule compared to the numbers in the US and European countries. Since overcoming the first wave in early March, South Korea has been held up as a shining example of "flattening the curve" without imposing draconian restrictions on political and civil liberties such as travel and speech restrictions (the measure taken by China) *and* without resorting to massive lockdowns (the path taken countries like Italy and the U.S.). Yet such a narrative—based on a simple binary of success or failure in terms of the numbers of confirmed cases or deaths—can be deceiving. If we adopt a broader and more contextual perspective and examine the ways in which the very success or failure of the government's response has been conceived and contested in South Korea, a far more complicated story emerges.

Behind the facade of the country's apparent success, conflicts and instabilities have been latent from the beginning, especially around issues such as public *versus* for-profit healthcare services, socio-economic inequity and injustice, privacy and civil rights, and the proper role of experts in public policy. Therefore, it is essential to critically examine how policy decisions on Covid-19 have been made in South Korea and ask: With what social and political visions were decisions made? What roles infectious disease and public health experts played in that process? To what extent did these decisions reflect the demands and needs of so-called "essential workers" on the frontlines of the pandemic and of those who have been suffering most from economic downturns? And how did Covid-19 policies approach other vulnerable groups such as migrant workers, LGBTQ communities, and pockets of ultra-religious groups? The answers to such questions will problematize South Korea's supposedly successful containment of Covid-19 and show that the country's success is not as self-evident as it may appear.

## Public health

Buoyed up by global praise, the Korean government wasted no time narrating the story of its response under the name of "K-response" (K-banyeok, meaning a Korean way of preventing and controlling infectious disease) as if it might be advertised like "K-pop" and "K-drama." *All about Korea's Response to COVID-19*, a book published in October by the government for this purpose, underlines Korea's mature democracy and

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technological innovativeness. "Guided by our past experiences with infectious diseases such as MERS and SARS," it explains, "we have firmly adhered to the principles of openness, transparency and civic engagement from the very beginning of the outbreak." The government's strategy is then presented under the rubric of "3Ts:" robust diagnostic *testing* to confirm positive cases, rigorous contract *tracing* to prevent further spread, and *treating* those infected at the earliest possible stage.

In contrast to Western countries, South Korea's response to pandemic has been relatively smooth and effective, albeit not without some up-and-downs. Neither panic buying of food and toilet paper nor street demonstrations against masks have been reported, as citizens have shown a high level of trust in the government's leadership. Korea has also maintained borders and society open without a blanket entry ban and mandatory lockdowns. The government has relied on peoples' voluntary participation in developing public health strategies. What is not quite evident, however, is how important policy decisions have been made among diverse groups of medical and scientific experts and different ranks of government officials.

The case in point is the role played by the Korea Disease Control and Prevention Agency (KDCA), formerly Korea Centers for Disease Control and Prevention (KCDC). In the pandemic response, KDCA served as a boundary organization allowing civilian and governmental experts to work together during the pandemic. Some key components of K-response were impromptu innovations conceived and implemented by civilian experts working with KDCA in response to urgent situations. (Most notably, these included commercial development of test kits, drive-through screening stations, and residential treatment centers for those confirmed to be Covid-19 positive, but have mild symptoms and do not need to be hospitalized.) In September, this success resulted in promotion of KDCA to the agency level, which granted the organization more autonomy and resources. Its Commissioner Jeong Eun Kyeong, who has also been in charge of the government's transparent and science-based communication, is so widely respected and trusted that she became a Fauci-like figure.

Yet, on key policy issues that go beyond the jurisdiction of KDCA—e.g., the level of travel restrictions, the implementation of social distancing measures, the strengthening of regional public health systems, and the development and purchase of vaccines—the decision-making process has not been fully transparent. Too often, only the final decisions were released to the press without much explanation. In several important policy decisions, even Commissioner Jeong appeared to stay in the background. For example, the government's keen interest in weakening social distancing measures to keep the economy open as much as possible seems to have overruled her strong warnings about the potential of expanded Covid-19 spread. As a result, though not always publicly visible, the government's public health policies have frequently led to serious controversies among medical societies, scientific communities, government ministries, and public health advocacy groups.

## **Economy**

South Korea's economic performance during the pandemic has been fairly good. The expected decline in GDP for 2020 is just over 1%, the lowest among the OECD

<sup>&</sup>lt;sup>74</sup> Task Force for Tackling COVID-19, Ministry of Foreign Affairs, Republic of Korea, *All about Korea's Response to COVID-19* (2020) <a href="http://www.mofa.go.kr/eng/brd/m\_22742/list.do">http://www.mofa.go.kr/eng/brd/m\_22742/list.do</a>.

countries, and the unemployment rate has remained relatively stable, oscillating around 4%. The government has injected a stimulus to the economy with four supplementary budgets in 2020, worth 67 trillion KRW (about \$60 billion, or 3.5% of GDP), and it has rolled out an ambitious 5-year investment plan under the name of the "Korean New Deal" (114 trillion KRW, or \$100 billion). This plan aims to create about 2 million new jobs in the digital and green sectors and provide a social safety net to ease pains of the structural transformation. Private consumption has rebounded with retail sales boosted by a 31% surge in online shopping on an annual basis, and exports bounced back with semiconductors and automobiles leading the way.

There is a broad consensus in South Korea that the economic hardships of the poor, unemployed, low-income workers (in particular, precarious and contingent workers), self-employed, and the owners of small-businesses are one of the major problems caused by the Covid-19 pandemic. But the current government as well as mainstream political forces (both liberal and conservative) seem to believe that sustaining South Korea's industry-led economic growth model is the most effective way to alleviate these hardships. The focus of stimulus packages, thus, has been primarily on revitalizing industrial production.

The decisions on social distancing measures illustrate this well. In April, the government set up the Daily Life Quarantine Committee, chaired by the Minister of Health and Welfare, to discuss the coordination and implementation of these measures. Through this committee, several infectious disease and public health experts, who had closely collaborated with the KCDC, continuously warned against prematurely easing restrictions. As already noted, however, the Korean government prioritized keeping the economy floating, and the Central Disaster and Safety Countermeasures Headquarters—the highest-level government committee presided by the Prime Minister—largely ignored the advice of these experts. While the KDCA argued for the need for strict social distancing, their influence on the final policy decision has been limited. Most public health advocacy groups believe that the Prime Minister took the advice from the Ministry of Strategy and Finance more seriously than that from the Commissioner of KDCA or infectious disease community.<sup>75</sup>

## **Politics**

In South Korea, the politicization of the pandemic is manifested in three different forms. The first is a typical politicking over what can be called the *Covid-19 scoreboard*. The ruling party capitalized on its success in preventing and controlling the disease and thereby won April's general election in a landslide while the opposition party responded with the condemnation of what could, should, and might have been done whenever bad news emerged. To keep the political momentum alive after the elections, the ruling party, then, promoted the success of the K-response worldwide. The recent surge of confirmed cases, in contrast, has provided the opposition with an opportunity to criticize the government's policy for its reliance on the K-response too much as well as for the failure to improve the worn-out public health infrastructure and make vaccines ready for use in time.

<sup>&</sup>lt;sup>75</sup> Private communications with activists working for the Korean Federation Medical Activist Groups for Health Rights and other public health advocacy groups.

The second form of politicization is related to *realpolitik* in East Asia. Keen on rearranging Chinese President Xi Jinping's postponed visit to Seoul due to the pandemic in April, President Moon's administration has kept Xi's official visit as a key item on the diplomatic agenda. Critics suspect that Korea's decision not to impose a total travel ban from China, a measure undertaken by many other countries, stemmed from this desire for building a strong political and economic partnership with China. <sup>76</sup>

Finally, the third is the *politics of suppressing* the conflict between human rights and public health interventions. This is a subtle form of politicization, as it essentially implies *depoliticization* of societal concerns under the rubric of efficient crisis management. It is evident that neither the ruling party nor the opposition parties emerged as the champion of protecting the human rights of those who often became the target of blame, most notably, Chinese students, non-mainstream Christian groups, and members of the LGBTQI+ community. The stigmatization of these groups has never been the main concern of scientific and medical experts or policymakers. It has drawn attention only from social scientists and journalists.

#### Citizens and the State

During the Covid-19 pandemic, science and democracy have been jointly translated into two actionable civic virtues in South Korea. The public as well as political leaders across the ideological spectrum have displayed a high degree of respect for KDCA Commissioner Jeong, trusting her daily updates and supporting her public health recommendations such as wearing masks and maintaining social distancing (though sometimes ignoring her advice in key policy decisions, as noted earlier). Although some concerns were initially raised over privacy in extensive contact tracing, Koreans accepted the public sharing of that information after a few technical adjustments were made to ensure anonymity. It is evident that if "K-response" is a story of success, it owes much to the public's voluntarism and their trust in expertise. This reflects the social imaginary of science and democracy in South Korea, which has undergirded the country's economic and political development since the armistice of the Korean War in 1953.

Yet, what democracy? What science? It should also be noted that disagreements are subtly or publicly suppressed in the name of "safety for all" or "freedom for all," and that some dissenting voices (and warnings) from scientific, medical, and public health experts (e.g., preparation for the possible surge in cold weather) have been easily ignored by the government. Not surprisingly, the tenet of K-response has come to be questioned, or even undermined, as South Korea rides the third wave this winter. Now, the procurement and delivery of vaccines for all has emerged as the biggest political challenge.

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<sup>&</sup>lt;sup>76</sup> "Don't be so much into Xi Jinping's visit to Korea," *Dong-A Ilbo* (Feb. 28, 2020) <a href="https://www.donga.com/news/dobal/article/all/20200228/99927590/1">https://www.donga.com/news/dobal/article/all/20200228/99927590/1</a>; "Why is the government so much into Xi Jinping's visit to Korea?" *The Korean Economic Daily* (Dec. 7, 2020) <a href="https://www.hankyung.com/politics/article/202012079206i">https://www.hankyung.com/politics/article/202012079206i</a>.

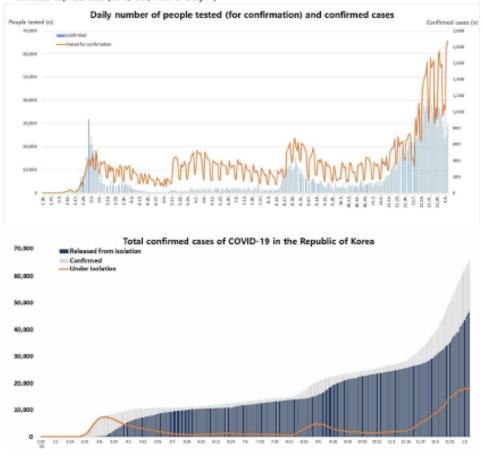
#### **Korean Covid-19 Statistics**



## Overall case and test status as of 0:00 today (cumulative since 3 January 2020)

Period (since 3 Jan)	Total	Tested positive (PCR)				Testing in	Tested negative
		Confirmed	Discharged from isolation	Under isolation	Deceased		(PCR)
As of 0:00 5 January 2021 (Tues)	4,439,3601)	64,978 <sup>1)</sup>	46,172	17,799 <sup>1)</sup>	1007	193,751	4,180,631
As of 0:00 6 January 2021 (Wed)	4,504,868	65,818	46,995	17,796	1,027	192,082	4,246,968
Difference	+65,508	+840	+823	-3	+20	-1,669	+66,337

1) Corrected duplicate data (Jan 5, 0:00, Point of Entry -1)



Source: Coronavirus disease 19(COVID-19) Ministry of Health and Welfare, "Coronavirus Disease-19, Republic of Korea(COVID-19)," Coronavirus disease 19(COVID-19), accessed January 7, 2021,

http://ncov.mohw.go.kr/en/tcmBoardView.do?brdId=12&brdGubun=125&dataGubun=&ncvContS eq=4580&contSeq=4580&board\_id=&gubun=.

<sup>\*</sup> Based on case data reported to the KDCA \*\* Tasting in progress includes number of completed tests with negative results that are being recorded with delays % Figures subject to correction based on findings from epidemiological investigations

#### Sweden

Tobias Olofsson, *Lund University*Andreas Vilhelmsson, *Lund University*Maria Hedlund, *Lund University*Åsa Knaggård, *Lund University*Shai Mulinari, *Lund University*<sup>77</sup>

Submitted: December 23, 2020

#### Introduction

Sweden's relatively relaxed policies have been widely debated both at home and abroad. However, the Swedish response was far from the *laissez faire* experiment it has been made out to be. The Swedish strategy reflects a well-established tradition of governance, including in areas of public health and infectious disease, in which a relatively large ecosystem of independent agencies plays a central role in shaping and implementing policy. Furthermore, Swedish law does not allow the government to declare a state of emergency or to enforce lockdown-style measures unless the country is at war. Instead, the Swedish strategy, largely outlined by the Public Health Agency and other agencies and organizations at the national, regional and local levels, focused mainly on individual responsibility, encouraging individuals to follow public health recommendations, and employers, businesses, and other organizations to make it possible for individuals to do so. In addition, the government put forth numerous alterations to existing legislations in order to push for further social distancing. Because the Public Health Agency is responsible not only for disease control but for public health in general, its policies were guided by a principle of proportionality that sought to balance epidemic control measures against risk of excessive social and economic disruption and to protect public health and well-being in general, including against the potentially negative public health effects of measures intended to limit viral spread.

The government also introduced varied interventions to support the economy, businesses and those experiencing unemployment in the wake of the pandemic. The Swedish approach has been controversial, in part because it departed so markedly from those of many other European countries, at least during the first pandemic wave. Controversy has focused on the government's reliance on the Public Health Agency and on the role and responsibilities of other key actors on national, regional, and local levels. As the epidemic has worsened, there has been increasing debate on a possible introduction of legislation that would allow the government to assume a more interventionist role.

## **Public Health**

Sweden saw its first confirmed case of Covid-19 on January 21. As more cases emerged, the Public Health Agency requested the government to classify Covid-19 as a disease dangerous to the public and to society, allowing state and regional-level actors to take stronger measures to halt the spread of disease. Initial policies treated the epidemic as an exogenous threat, encouraging people returning from known risk-areas to self-isolate. As infections increased, policies expanded to include limiting public gatherings, advising

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Sweden

against travel, barring visitors to elderly care facilities, requesting that businesses ensure patrons can maintain physical distancing and good hand hygiene, and recommending upper secondary schools and universities to switch to remote learning while keeping the rest of the school system open.

The public health response focused primarily on (1) protecting the elderly and vulnerable, and (2) flattening the curve to minimize strain on health care services. The strategy emphasized evidence-based and precautionary interventions, and implementation was delegated to politically independent national, regional and local agencies in accordance with the Swedish governance tradition. Two key agencies were the Public Health Agency, which assembled data and available knowledge, and the National Board of Health and Welfare, which, among other things, coordinated personal protective gear (PPE) provisions for the 21 regions responsible for providing health care.

There was little controversy over the use of scientific evidence. Instead, controversy has been over what conclusions should be drawn from evidence—not on the evidence per se. A good example of this is the persistent debate concerning whether the public should be encouraged (or even required) to wear face masks in public areas. The Public Health Agency has been reluctant to introduce such recommendations, citing inconclusive evidence and a fear that masks may lull people into a false sense of security. Instead, the agency has favored a strategy emphasizing social and physical distancing over face masks, a position that has elicited substantial criticism from experts, Swedish academics, and members of the political opposition, who have demanded a stronger mask policy. Finally, on December 18, the Public Health Agency announced a recommendation that face masks should be used in public transport during rush hours.

Some aspects of the system of distributed responsibility for public health have themselves become a locus of controversy. A commission launched by the government to evaluate the Swedish Covid-19 strategy drew attention in their December 15 report to pre-existing vulnerabilities in Swedish care provisions that compromised protection of the elderly and vulnerable, particularly fragmentation between municipalities responsible for care provisions, and the large number of care providers (public and private) and regions responsible for health care. This configuration of institutions, in combination with a decentralized system, low staffing and lack of reasonable working conditions for personnel in the care sector, was said to limit the ability of care providers to effectively coordinate.

## **Economy**

The impact of the pandemic shock on the economy was severe during the first wave. In the second quarter, GDP dropped by 8%compared to the first quarter of 2020. While GDP recovered some (up 4.9%) in the third, there have been significant impacts to the economy, with unemployment rates up to 8.5%. In response, the government launched a series of interventions including enabling businesses experiencing losses of 30 to 50%to apply for financial support, increased governmental equity financing in innovative sectors, the government assuming economic responsibilities for sick-leave payments, and the introduction of a system for short-term, temporary lay-offs. As of December 2020, Parliament has approved interventions amounting to 345 billion SEK (\$41 billion) with an additional 300 billion SEK (\$36 billion) in guarantees and 635 billion SEK (\$77 billion) in liquidity support across 2020 and 2021. While relatively uncontroversial, these interventions were criticized by members of the political opposition who argued that the

Sweden

government did not do enough to support businesses through the crisis. In addition, the government has also been criticized for not doing enough to alleviate impacts on the hospitality, culture, sports, and other sectors struggling because of the restrictions on public gatherings.

#### **Politics**

The pre-existing configuration of institutions and organizations in the Swedish political sphere shaped the Covid-19 response. The Swedish government is relatively small while its ecosystem of independent agencies is relatively large and plays a central role in shaping and implementing policy. There are also three levels of government with different responsibilities and whose autonomy and extensive freedom to manage their own affairs is a cornerstone of Swedish governance. However, as the epidemic worsened, the government sought and was granted extra decision-making powers to put in place extraordinary measures such as limiting the right to free assembly by introducing limitations on groups and public events. Controversy was initially focused on the role of the government in Sweden's management of the pandemic. Calling on the government to take an interventionist role, critics argued that it was hiding behind its agencies and had not done enough to curb the spread of the virus. Over time, the debate has shifted to focus on the division of responsibility between political levels, as evidenced by the first report put forth by the government's Corona Commission. This includes to what extent the government should intervene at the regional and local levels during crises.

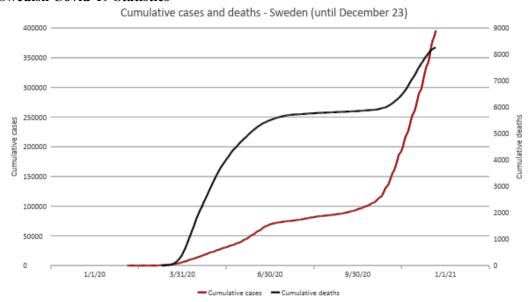
Another salient controversy was the decision not to close schools for children under 16. Public health authorities determined that there was insufficient evidence that children under sixteen significantly contribute to the spread of Covid-19 to justify closing schools. They determined that the potential benefits were not proportionate to the great costs to the well-being and education of children and to healthcare and other important services if essential workers were forced to remain at home to care for children. Similarly, they determined that shifting high-school and university aged students online would be less harmful to the students while the epidemiological benefits were likely to be greater because older students are more likely to contribute to crowding in public spaces and on public transport.

#### Citizens and the State

The main policies put Swedish citizens at the heart of the Covid-19 strategy. Citizens were seen as responsible for their own actions, which, if correctly managed, would be sufficient to flatten the curve. Citizens were also imagined as unwilling to undergo a harsh, prolonged or repeated lock-down. Thus, the Swedish strategy was presented as more tenable. It also took a more expansive view on public health as related to citizens' well-being and health, rather than focusing narrowly on Covid cases and deaths. As a result, it imagined children and the elderly differently from other citizens. Children were largely exempt from many of the recommendations and restrictions based on the judgment that they do not significantly contribute to the spread of Covid-19 and that their well-being would be much harmed by requiring them to restrict their behaviors. The elderly were largely framed as victims to be protected from the spread, rather than active agents to be involved in implementing the strategy. This image of elderly people as victims at risk is illustrated in the recommendation that those aged 70 and older avoid close contact with anyone outside of their household and by the temporary prohibitions on visits to elderly care facilities. However, these recommendations and restrictions

also illustrate the continuous balancing between disease control and a more expansive view of public health. For example, in October, the Public Health Agency revoked the recommendations that elderly people self-isolate after observing psychological strain and reduced well-being among elderly people caused by isolation.

## **Swedish Covid-19 Statistics**



**Source:** Cumulative cases and cumulative deaths (produced internally) based on Public Health Agency data (The Public Health Agency of Sweden (2020) Aktuellt Epidemiologiskt Läge, Stockholm: The Public Health Agency of Sweden).

#### Taiwan

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Submitted: December 30, 2020

#### Introduction

Small case numbers made exhaustive contact tracing possible and helped to prevent community transmission in Taiwan. The country did not have any lockdowns and schools and universities operated without interruption. Large events, such as conferences, conventions, concerts, parades, and religious festivals, resumed after June. As of December 27, 2020, Taiwan confirmed a total of 785 cases and 7 deaths. Of these, only 56 cases were locally contracted. The latest case was confirmed on December 22 and left Taiwan with a record of 253 days without locally contracted cases (since April 12). Taiwan is widely acknowledged to have had a particularly successful pandemic response.

Taiwan's initial Covid-19 response began as early as December 31, 2019, based on information TWCDC gathered from social media monitoring, a mechanism Taiwan gradually developed based on experiences with past pandemics. Given the island's proximity to and close economic ties with China, analysts predicted Taiwan to be the most affected country in this pandemic. Ironically, Taiwan's troubled relationship with China may have contributed to the early timing of Taiwan's responses, as well as citizens' acceptance of centralized prevention efforts. Despite receiving occasional criticism of measures as excessive and potential power overreach, the government was satisfied with its performance on public health measures and enjoyed high public approval. Mobilized by the government, as well as boosted by increasing international attention and a sense of pride, citizens shared an aspiration to keep infection numbers low. While this commitment contributed to compliance, it also generated a lot of pressure for individuals under quarantine or in occupations of higher risks.

#### **Public Health**

Taiwan's central government delegated power to an expert-led taskforce. As a result, its responses were met with a high level of citizen compliance. Past pandemic experiences also contributed to citizens' awareness and the government's institutional capacity, which included a monitoring system designed for early intervention. On January 10, immediately after China identified the source of the pandemic as a new type of coronavirus, Taiwan listed Covid-19 as a category of infectious disease that would authorize the government to take special prevention measures. By January 20, Taiwan established the Central Epidemic Command Center (CECC) to coordinate information and resources. The members on the CECC advisory panel included experts trained in infectious disease, pediatrics, thoracic, virology, and public health. The CECC hosted regular press conferences to inform the public of new cases and communicate public health knowledge—a ritual that helped CECC to earn public trust. The government presented its Covid-19 responses as transparent, democratic, and as a contrast to China's

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authoritarian approach and draconian lockdown. These claims did not go uncontested, as the CECC decisions often relied on the advisory panel, whose member list was not disclosed, leading to accountability concerns.

Taiwan's Covid-19 responses targeted the virus and social practices. Taiwan began banning flights from Wuhan in late January and eventually closed the border to foreigners in mid-March. The border measures were followed by strict quarantine enforcement, mandatory stays at quarantine hotels when an adequate environment was lacking at residence, and mandatory centralized quarantine for higher-risk groups. To enforce quarantine, the CECC connected the immigration data and the national health insurance data. Whenever a patient with recent travel history to affected regions checked-in. healthcare providers received an alert. Anyone entering the country had to register a cellphone with the quarantine enforcement, which monitored their compliance by triangulating location information from cell tower data. The so-called "big data" Covid-19 response strategy and its pervasive use of personal data led to privacy concerns. Even though there was no evidence that pervasive use of data contributed to the pandemic control, a great majority of citizens readily accepted this tradeoff. Taiwan implemented a series of mask-related public health measures beginning in late January. including an export ban, rationing, and requisition. Mask policies were overall uncontested, and mandatory masking and social distancing guidelines were introduced in April and relaxed in early June. A three-month winter prevention program which took effect in December again mandated mask-wearing in certain locations.

Capacity concerns arose about testing and vaccines, although the debate took place primarily among experts and gained little traction among the public. As mass testing for residents, healthcare professionals, and ordinary people became more common in other countries, public health scholars urged the CECC to do more testing in order to formulate the future containment and mitigation policies. The CECC has consistently refused, citing concerns that false-positives would burden the healthcare system, and that false-negatives would increase infection risk. CECC's position was partly related to its reliance on the two-week quarantine as the most cost-effective prevention measure. At the same time, Taiwan's low number of cases may have also inadvertently slowed domestic vaccine research, which only entered phase II in December 2020. Taiwan's precarious international status also raised uncertainty in vaccine acquisition. As of December 2020, Taiwan signed an agreement with Covax and is still finalizing deals with major providers.

## **Economy**

The government's economic response aimed to assist companies with financial difficulties, reduce unemployment numbers, and facilitate the continuous flow of goods and cash. The economic challenges varied by sector, and unsurprisingly businesses serving international travelers suffered the most. Congress approved a special bill to authorize relief and stimulus measures on February 25, 2020 with an initial \$3.55 billion special budget to provide relief to affected businesses. On April 14, a stimulus package of \$35.22 billion was approved to minimize the crisis, bail out businesses, and revitalize the economy. Nevertheless, some sectors were left out of government relief, such as hostess clubs - the only businesses mandated to shut down in spring when cases peaked. As the Democracy Progressive Party (DPP) holds majority in the administration and the

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legislature, these measures faced few controversies. The predicted economic growth rate of 2020 reduced from 2.37% to 1.56%, and then readjusted to 2.54%. It should be noted that pandemic control is only one cause of economic growth; other contributing factors include the relocation of Taiwanese manufacturers in China back to Taiwan, as well as the US-China trade war, which gave the Taiwanese semiconductor manufacturing industry a special edge in the global market.

#### **Politics**

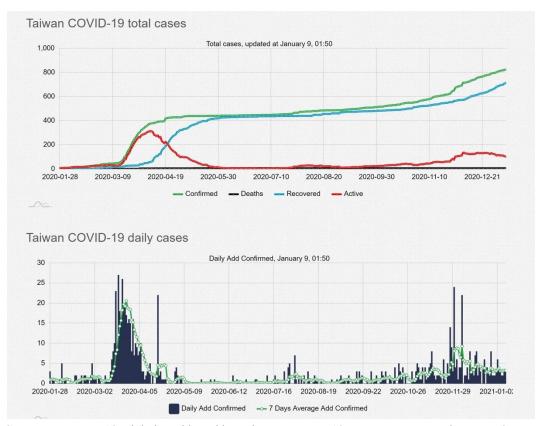
Geographic proximity and economic ties with China may have nudged Taiwan toward a more precautionary and proactive strategy in its Covid-19 responses. Past experiences with China's SARS cover up, Chinese interference in Taiwan's elections, the revelations of Uyghur suppression, and the political turmoil in Hong Kong led many Taiwanese to be wary of the CCP. Taiwan held its presidential and congressional election on January 11, 2020. The DPP candidate Tsai, Ing-Wen (incumbent) defeated the populist and China-leaning Kuomingtan candidate Han, Guo-Yu. Han held the lead earlier in the campaign, but Tsai's support rate steadily rose after Hong Kong protests began in June 2019. The DPP also continued to have the majority in Congress and there was no power transition at the height of the pandemic. Han lost his mayorship in a recall election in June, likely due to his close ties with China, absence from municipal governance during the campaign, and unsatisfactory local Covid-19 responses. Vice-premier Chen, Chi-Mai, who had worked closely with CDC since January, left the cabinet to run for the Kaohsiung city mayor election in August and won. It was believed that his leadership in pandemic control had earned him national popularity and political support for the mayor election. The public showed great satisfaction in the government's Covid-19 responses. with over 90% respondents rating them as good and very good.

## Citizens and the State

Taiwan's effective responses mobilized people to comply with government measures and guidelines. The Ministry of Health and Welfare (MoHW) identifies "citizens' good etiquette" as one key factor of Taiwan's success. Here "good etiquette" means citizens' understanding of and active cooperation with the government's policies and measures. This image of ideal citizens downplays the strict regulations and severe punishment for violators. Taiwan appears to be a caregiver state, which is kind to its law-binding people. For this reason, Taiwan's Covid-19 governance has been characterized as "benevolent paternalism," meaning that the government only provided healthcare, compensations, and services when citizens submissively followed the rules, and yet was reluctant to reflect on its own transgressions of democratic principles.

China is an important factor, as well. Taiwanese citizens who were notorious for being vocal about their pro-China positions while nevertheless enjoying their universal health care benefits in Taiwan were heavily criticized. One group caught in the fire of these nationalist and loyalty politics is Chinese spouses of Taiwanese citizens and their children who visited China during the outbreak. Children who are residents but without Taiwanese citizenship faced difficulties when they tried to return to Taiwan. During the pandemic, the government as well as society at large may have enhanced a sense of Taiwanese solidarity, but at the cost of these families.

## **Taiwanese Covid-19 Statistics**



**Source:** "COVID-19 Global Dashboard by Taiwan: COVID-19," COVID, accessed January 8, 2021, https://covid-19.nchc.org.tw/dt\_005-covidTable\_taiwan.php?language=en.

## **United Kingdom**

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Submitted: January 4, 2021

#### Introduction

By most conventional measures, the UK appeared well positioned to successfully ride out the pandemic. Its failure to do so demands explanation. Why did a country with a strong national health service, world-class biomedical science, finely-tuned advisory structures, and sophisticated strategies for pandemic preparedness end up with one of the highest rates of Covid-19 incidence and mortality (as of January 4, 2021, the UK had reported 2,713,563 cases, the 6<sup>th</sup> highest national tally,<sup>80</sup> and 75,315 deaths, the ninth highest on a per capita basis)?<sup>81</sup> Economic damage has also been severe, with a sharp drop in GDP in the spring.

The pandemic coincided with the end of the four-year Brexit process, which destabilized long-established relationships with the UK's closest neighbors and left the country deeply politically divided. The political and policy challenges of Covid became entangled with post-Brexit narratives of a country needing to carve its own policy path. The government initially claimed to be "following the science:" an approach that denied the role of competing values in assessing highly uncertain evidence, and ultimately undermined the credibility of official expertise.

A climate of complacency, weak leadership, policy hesitancy, vacillation and presumptions of national exceptionalism, contributed to inconsistent framing of public health goals, as well as inattention to the practical details of test and trace schemes, PPE supply chains, social care systems, and border controls. As it entered 2021, the UK was experiencing a third wave of Covid cases, exacerbated by a more infectious variant of the virus, with record numbers of hospitalizations, and a renewed full-scale national lockdown. Accelerated rollout of the Pfizer-BioNTech and Oxford AstraZeneca vaccines offered the only light at the end of the tunnel.

#### Public Health

The UK's public health response was initially slow, grounded in the tacit assumption that the experiences of China and Italy were of limited relevance. The government, advised by its Scientific Advisory Group for Emergencies (SAGE), concluded that a Wuhan-style lockdown was not warranted. Prime Minister Boris Johnson shook hands with Covid-19

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<sup>&</sup>lt;sup>80</sup> John Elflein, "Coronavirus Cases Worldwide by Country," Statista, January 6, 2021, https://www.statista.com/statistics/1043366/novel-coronavirus-2019ncov-cases-worldwide-by-country.

<sup>&</sup>lt;sup>81</sup> Raynor de Best, "COVID-19 Deaths per Capita by Country," Statista, January 7, 2021, https://www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants

patients in hospitals, and on March 12, as more than 60,000 people packed into the stands of the Cheltenham racecourse, held a press conference, flanked by his Chief Scientific Adviser and Chief Medical Officer, in which he defended his decision not to enter a lockdown, declaring that "at all stages, we have been guided by the science."<sup>82</sup>

Scientific advisers to the government created confusion by talking publicly about herd immunity and "behavioral fatigue", suggesting that the scientific evidence was aligned behind its minimalist approach. Ministers and scientists were later forced to clarify that herd immunity was not the policy. New modeling published on March 16 by Neil Ferguson's group at Imperial College London predicted hundreds, rather than tens, of thousands of deaths if the pandemic was not suppressed. On March 23, the Prime Minister, in a televised address, turned what had been a request into an order: "From this evening, I must give the British people a very simple instruction. You must stay at home." As if reinforcing his point, Johnson announced on March 27 that he had tested positive for Covid, and was subsequently hospitalized in intensive care.

Schools and non-essential shops were closed, and citizens were only allowed to leave their homes for exercise. Neil Ferguson later claimed that had the lockdown come a week earlier, the mortality rate could have been halved. As the number of cases dropped through the spring, a phased reopening took place, with pubs and restaurants reopening in early July. In the fall, as a second wave took hold, the government again locked down the country for a month in November (but kept schools open) and introduced a set of tiered, regional restrictions. Again, critics argued that this lockdown came too late, increasing harm to public health and the economy. An envisaged loosening of restrictions over Christmas was then overwhelmed by a third wave of the pandemic, heightened by a novel and more infectious strain of the virus, which led to unprecedented numbers of new cases and hospitalizations. This prompted a third national lockdown, including of schools and universities, announced on January 4, 2021, and expected to run at least until mid-February. Hopes of a return to normality in the spring are now pinned on a rapid rollout of the Pfizer-BioNTech and Oxford AstraZeneca vaccines to the most vulnerable groups by mid-late February.

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<sup>&</sup>lt;sup>82</sup> 10 Downing Street Prime Minister's Office, "Prime Minister's Statement on Coronavirus (COVID-19): 12 March 2020," March 12, 2020,

 $<sup>\</sup>underline{\underline{https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-12-march-2020}.$ 

<sup>83 10</sup> Downing Street Prime Minister's Office, "Prime Minister's Statement on Coronavirus (COVID-19): 23 March 2020," GOV.UK (GOV.UK, March 23, 2020), https://www.gov.uk/government/speeches/pm-address-to-the-nation-on-coronavirus-23-march-202

https://www.gov.uk/government/speeches/pm-address-to-the-nation-on-coronavirus-23-march-202 0.

<sup>&</sup>lt;sup>84</sup> Elisabeth Mahase, "Covid-19: What Have We Learnt about the New Variant in the UK?," The BMJ (British Medical Journal Publishing Group, December 23, 2020), <a href="https://www.bmj.com/content/371/bmj.m4944">https://www.bmj.com/content/371/bmj.m4944</a>.

<sup>&</sup>lt;sup>85</sup> 10 Downing Street Prime Minister's Office, "Prime Minister's Address to the Nation: 4 January 2021," GOV.UK (GOV.UK, January 4, 2021),

https://www.gov.uk/government/speeches/prime-ministers-address-to-the-nation-4-january-2021.

## **Economy**

The pandemic coincided with economic uncertainty wrought by Brexit. Initial policy responses saw Covid as an acute emergency rather than a chronic problem. Government introduced several loan guarantee schemes, grants, and tax relief measures in order to prevent bankruptcies, a job retention scheme to avoid redundancies, and direct income support to the self-employed.

GDP fell 19.8% in the second quarter. 86 With the gradual opening of the economy in the summer, the government sought to stimulate demand and build consumer confidence with an "eat out to help out" subsidy scheme for the restaurant industry. The unemployment rate climbed to 4.8% in August, but much of the economic shock (combined with fallout from Brexit) will likely be felt in 2021 and beyond. In November, the Government announced the extension of the job furlough scheme into March 2021.

#### **Politics**

The intensification of nationalism around Brexit played a role in shaping UK responses to the pandemic. Assumptions of exceptionalism meant that lessons from overseas were largely ignored and policies focused on protecting homegrown institutions, such as the National Health Service, even to the point of hubris. When the UK became the first nation to approve the Pfizer vaccine, the UK education secretary claimed "we've obviously got the best medical regulator. . . . Much better than the French have, much better than the Belgians have, much better than the Americans have...because we're a much better country than every single one of them."

Despite government claims to be "led by the science," there was no discernible linear push from science to policy. Scientific models and assessments were shaped and framed by a sense of what was economically and politically possible. For example, John Edmunds, a leading member of SAGE, said that the impact of introducing China-style lockdown policies in the UK was not modeled in March 2020 "because it didn't seem to be on the agenda." The language of "following the science" created a brittle edifice of scientific knowledge. Uncertainties were profound, but a consensus was maintained through the downplaying of those uncertainties of the normative commitment that we were "all in this together." Perceived violations of the rules attracted intense media

<sup>&</sup>lt;sup>86</sup> United Kingdom Bankruptcies, 1975-2020, https://tradingeconomics.com/united-kingdom/bankruptcies.

<sup>87 &</sup>quot;Coronavirus: UK Got Vaccine First Because It's 'a Better Country', Says Gavin Williamson," December 4, 2020, <a href="https://www.bbc.co.uk/news/uk-politics-55175162">https://www.bbc.co.uk/news/uk-politics-55175162</a>.

<sup>&</sup>lt;sup>88</sup> Stephen Grey and Andrew MacAskill, "Special Report: Johnson Listened to His Scientists about Coronavirus - but They Were Slow to Sound the Alarm," April 7, 2020, https://www.reuters.com/article/us-health-coronavirus-britain-path-speci-idUSKBN21P1VF.

<sup>&</sup>lt;sup>89</sup> Warren Pearce, "Trouble in the Trough: How Uncertainties Were Downplayed in the UK's Science Advice on Covid-19," Nature News (Nature Publishing Group, October 13, 2020), <a href="https://www.nature.com/articles/s41599-020-00612-w">https://www.nature.com/articles/s41599-020-00612-w</a>.

<sup>&</sup>lt;sup>90</sup> Liam Wright, Andrew Steptoe, and Daisy Fancourt, "Are We All in This Together? Longitudinal Assessment of Cumulative Adversities by Socioeconomic Position in the First 3 Weeks of

interest, particularly when the Prime Minister's high-profile political advisor Dominic Cummings refused to resign following a breach of lockdown, which in turn undermined public trust in the government's policies. <sup>91</sup> As the consensus started to fracture, the credibility of scientific advice itself came under attack. Figures on the left and the right stoked and polarized debates between lockdown proponents and lockdown skeptics within the scientific community, and there was fierce criticism of a perceived lack of transparency surrounding the membership and advice provided by SAGE. This in turn prompted former Government Chief Science Adviser, Sir David King, to form a rival group that dubbed itself Independent SAGE. <sup>92</sup> Although it had no official standing, this group commanded considerable media attention, and became a prominent advocate for more stringent public health action on lockdowns, face coverings, and restrictions in schools and universities.

In late 2020, the government shifted the spatial dynamics of its pandemic policies, winding down the national lockdown in favor of localized restrictions guided by infection data. While this placated some, mainly rural, areas with lower infection rates, it also empowered local government leaders to dispute central government policies on financial support, with Andy Burnham, Manchester's mayor, arguing that northern regions of England were "canaries in the coalmine for an experimental regional lockdown strategy." These changes further eroded any sense of common purpose, with spatially differentiated policies exacerbating long-standing resentments over regional inequalities.

## Citizens and the State

Once the government abandoned its early minimalist strategy, public statements sought to invoke an imagined citizenry committed to a shared struggle and solidarity akin to wartime. Johnson called Covid the "most urgent shared endeavour of our lifetimes... We are in this together and together we will prevail." This response was anchored in scientific authority, and in the National Health Service (NHS), which was used to unite British people in a shared imagination of citizenship. The government's initial slogan was not to "protect lives" or to "protect the economy" but instead to "protect the NHS." During the first lockdown, at 8pm every Thursday evening, millions of people came onto

Lockdown in the UK," Journal of Epidemiology & Community Health (BMJ Publishing Group Ltd, September 1, 2020), <a href="https://jech.bmj.com/content/74/9/683.abstract">https://jech.bmj.com/content/74/9/683.abstract</a>.

<sup>91 &</sup>quot;The Cummings Effect: Politics, Trust, and... - The Lancet," accessed January 8, 2021, https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31690-1/fulltext.

<sup>&</sup>lt;sup>92</sup> 2020 Kai KupferschmidtMay. 11 et al., "U.K. Government Should Not Keep Scientific Advice Secret, Former Chief Adviser Says," Science, May 11, 2020, <a href="https://www.sciencemag.org/news/2020/05/uk-government-should-not-keep-scientific-advice-secret-former-chief-adviser-says">https://www.sciencemag.org/news/2020/05/uk-government-should-not-keep-scientific-advice-secret-former-chief-adviser-says</a>.

<sup>&</sup>lt;sup>93</sup> Greg Heffer, "Coronavirus: Leicester Lockdown 'Unnecessary' If Data Had Been Known Earlier, Says City's Mayor," Sky News (Sky, July 16, 2020), <a href="https://news.sky.com/story/coronavirus-leicester-lockdown-unnecessary-if-data-had-been-known-earlier-says-citys-mayor-12029450">https://news.sky.com/story/coronavirus-leicester-lockdown-unnecessary-if-data-had-been-known-earlier-says-citys-mayor-12029450</a>.

Peter Walker et al., "Boris Johnson's Covid Plan in Turmoil after North-West Leaders Refuse Tier 3," The Guardian (Guardian News and Media, October 15, 2020), <a href="https://www.theguardian.com/world/2020/oct/15/no-agreement-on-manchester-and-lancashire-lockdown-says-hancock">https://www.theguardian.com/world/2020/oct/15/no-agreement-on-manchester-and-lancashire-lockdown-says-hancock</a>.

the streets to "clap for carers." This performance of solidarity took politicians by surprise, as did the extent of public compliance with new rules. After his own hospitalization, Prime Minister Johnson publicly thanked the NHS, naming specific caregivers, for saving his life.

Beneath these grand performances of public solidarity, and efforts to present Covid as a collective experience, new data were emerging which revealed that the disease and government policies designed to manage it had disproportionately impacted the lives of already marginalized citizens. Case and mortality rates for Black and Minority Ethnic communities were shown to be up to 4.3 times higher than their white counterparts. Age-standardized mortality for those in the most deprived areas of England, largely in the north of the country, was up to 2.4 times higher than for those in the least deprived areas. South unequal distributions of pandemic impacts reflected and reinforced long-standing inequalities within British society. Compounded by changes to government policy from collective to more individualized messages—reflected in a rhetorical shift from "stay home" to "stay alert"—and the implementation of regional lockdowns, the pandemic has intensified the fracturing of publics across intersecting dimensions of race, social class, and geography in ways that even a shared allegiance to the NHS is unlikely to overcome.

<sup>95 &</sup>quot;Disparities in the Risk and Outcomes of COVID-19."

 $<sup>\</sup>underline{https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/892085/disparities \underline{review.pdf}$ 

<sup>&</sup>lt;sup>96</sup> "The English Indices of Deprivation 2019."

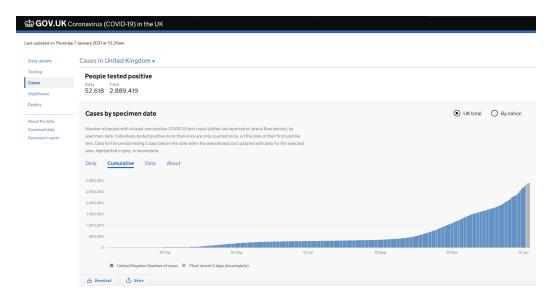
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/835115/IoD2019 Statistical Release.pdf

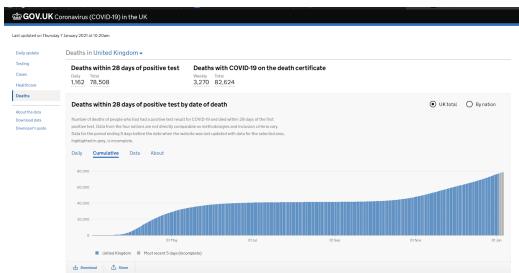
<sup>97 &</sup>quot;Disparities in the Risk and Outcomes of COVID-19."

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/892085/disparities\_review.pdf

<sup>&</sup>lt;sup>98</sup> Richard Blundell et al., "COVID-19 and Inequalities," *Fiscal Studies* 41, no. 2 (June 2020): 291–319, <a href="https://doi.org/10.1111/1475-5822390.12">https://doi.org/10.1111/1475-5822390.12</a>.

## **British Covid-19 Statistics**





**Source:** "Official UK Coronavirus Dashboard," Daily summary | Coronavirus in the UK, accessed January 8, 2021, <a href="https://coronavirus.data.gov.uk/">https://coronavirus.data.gov.uk/</a>.

#### **United States**

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Submitted: January 7, 2021

#### Introduction

The pandemic struck the United States at a time of exceptional political polarization, which made coherent policymaking difficult. The country confirmed its first case of Covid-19 on January 21, 2020 in Washington state. As the number and rate of infections rose, the federal government issued several initial policies, including shutting down travel to and from China and issuing an emergency use authorization for diagnostic tests. Aside from allocating federal funds to help alleviate the stress on the health care system and the economy and to support vaccine development, the US mostly relied on state and local governments to control the pandemic. In a context of political differences, the decentralized nature of the US federal system further complicated decision making. Tensions among levels of government gave rise to a number of public controversies spanning the public health, economic, and political spheres.

Lockdowns in the spring led to significant controversies over reopening and other measures, with Republican-leaning states reducing restrictions earlier than Democratic ones. This pattern of divergence repeated itself in numerous arenas—school and business closures, restrictions on mobility, and mask mandates—throughout 2020. The debates over lockdown orders and mask mandates inspired protests and legal action. While governors and mayors who mandated mask-wearing and stay-at-home orders privileged stopping infection rates as the most important public health goal, resistance to these mandates questioned expert authority and emphasized the effects of shutting down the economy on people's lives.

Partisan division coalesced around competing views of the risks posed by the pandemic, with the right characterizing public health interventions as overreactions that inflicted unwarranted economic damage and violated individual rights, and the left supporting strict public health interventions and blaming an out-of-control epidemic on underreaction, irresponsible behavior, and rejection of science-based policy by conservatives. A significant second wave in the fall and winter was taken as confirmation of both views, as cases exploded but mortality rates decreased. Competing interpretations of data colored by partisan fissures and decentralized governance made a coherent national strategy impossible, even as it intensified bitter division. The impact on the economy was severe with the unemployment rate skyrocketing, consumption plummeting, and inequalities exacerbated. By year's end, the unemployment rate was 6.7% and 40 million faced eviction from their homes even as stock markets were at all-time highs. A presidential election unfolded amidst an out-of-control pandemic. A significant increase in mail-in voting, especially by Democrats, elicited vocal allegations of voter fraud from President Trump before and after the election and a sustained but (officially) unsuccessful campaign to delegitimize the results.

#### **Public Health**

The US public health response failed to control the virus, and the country had among the worst public health outcomes in the world (6,490 confirmed cases and 110 deaths per 100,000 population). A number

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of preexisting conditions in US institutions and politics contributed to this outcome. The US public health system suffered from chronic underinvestment, and its extreme decentralization, with authority resting in the states, cities, and counties, weakened its capacity for a comprehensive response. An ambitious pandemic preparedness strategy focused on controlling infectious agents, containing foreign outbreaks, and smothering domestic incursions, downplaying sources of systemic vulnerability such as weak healthcare infrastructures, especially for poor and marginalized people. The federal response was often chaotic and contradictory, with President Trump reluctantly calling for lockdowns even as he encouraged citizens to resist them.

The administration responded to a botched roll-out of testing by the CDC by calling upon the private sector to develop testing capacity, but a significant number of the privately developed tests proved unreliable. Decentralized and uncoordinated responses at state and local levels, combined with the intense polarization of US politics and confusing messages from President Trump, produced wide variation in state-level policies. A cascade of public health controversies unfolded about the proper role of the federal government around testing, stay-at-home orders, mask orders, school closures and even protocols for case and death counts and projections. Controversy generally pitted concerns about imposing restrictions on the sovereignty of the individual and the market against the authority of public health officials to impose restrictions in order to reduce community spread. Underlying the debate about case and death counts were conflicts over the extent of failure and allocation of blame, issues that became charged with racial politics following the on-screen killing of George Floyd, a Black man, by a white police officer in Minneapolis. A federally supported, accelerated vaccine development process, generating two FDA approved vaccines by December, offered a ray of hope that was dimmed by worries about vaccine resistance and a fragmented and slower than expected rollout of the vaccination program.

### **Economy**

The pandemic began during a period of economic expansion and low unemployment, also marked by rising inequality of income, wealth, and employment opportunities. The weakness of the US social welfare system contributed to the economic vulnerability of much of the population. The initial impact of the pandemic on the economy was unprecedented, as unemployment reached 19.7% in May and GDP shrank 9.5% (on a quarterly basis) in the second quarter. Despite the 7.5% GDP rebound in the third quarter, the economy stabilized 2.8% below its pre-pandemic level, with the unemployment rate standing at 6.7% in November. The shock initially had a significant impact on the financial system. Major stock market indexes crashed, the US Treasury market and other critical short-term funding markets froze as investors panicked. While policymakers did not have contingency plans specifically designed for mitigating the economic impacts of a pandemic, they quickly adapted lessons drawn from the 2008 financial crisis. The Federal Reserve slashed interest rates down to the zero-bound level and launched a new round asset purchase program to buy \$700 billion a month until the economy recovered. As of December, the Fed had injected \$2.7 trillion into the economy through this program, dwarfing its so-called "quantitative easing" operations from the previous decade. In addition to providing emergency liquidity directly to financial institutions, monetary authorities also set up over half a dozen emergency lending facilities to backstop debt markets not only for financial institutions, but also for non-financial corporations, state and local governments, and non-profit organizations. The Trump administration and Congress swiftly rolled out a series of stimulus packages, providing a total of \$2 trillion to households and to some 5.2 million companies to retain their workers on payroll.

The initial stimulus package, combined with the Fed's interventions, prevented large scale corporate defaults, and stock markets returned to pre-crisis levels, reaching all-time highs by year end. However, preexisting socioeconomic conditions, notably inequalities in wealth, income, and opportunities were exacerbated, eliciting controversy. Critics argued that the sum paid to households was too small and that the federal government was giving too much money to large corporations compared to smaller, local

employers. Payments to companies with connections to the Trump administration inspired charges of crony capitalism. Debate ensued about whether the recovery would be V-shaped, with the rebound benefiting all; a bifurcated K-shaped one, with the rich doing well while the majority of citizens continued to struggle; or a U-shaped, slow recovery, similar to the one that followed the Great Recession of 2007–2009. As millions descended into poverty and the effects of the stimulus waned by September, hopes for a V-shaped recovery dwindled. By fall, negotiations over a second round of stimulus had collapsed, with Democrats calling for protecting vulnerable citizens and sectors from economic hardship, and Republicans construing additional stimulus as an intrusion into the market that would disincentivize work and saddle the nation with high debt. A second, smaller stimulus bill was passed after the election in the last days of 2020, with many observers arguing it was too little too late. In December, the economy experienced a loss of 140,000 jobs for the first time since April, giving further credence to fears of another U-shaped recovery.

### **Politics**

The stresses of the pandemic significantly deepened existing political divisions. President Trump made little effort to unify the nation, instead fomenting conflict and partisanship in anticipation of the presidential election. Divisions echoed through all three branches of government at the highest levels. For instance, a split decision of the US Supreme Court characterized public health restrictions on houses of worship as an assault on the constitution, and dissents characterized the decision as a judicial transgression of public health sovereignty. Divisions extended beyond political and economic policies to dramatically divergent interpretations of the severity of the pandemic itself—and thus of public health responses as either legitimate and virtuous governance or as violations of civil liberties and an assault on the economy. Compliance with mask mandates became a symbol of political identity and deference to versus rejection of scientific authority. These divisions defined the presidential race, with Trump holding large rallies of unmasked crowds, and an ultimately victorious Biden-Harris campaign claiming that the election was a referendum on science in which science had prevailed. In response to the pandemic, Democrats encouraged early voting and voting by mail while Trump asserted that this would lead to significant electoral fraud. After November 3, Trump capitalized on razor-thin margins in key battleground states to level accusations of voter fraud and delegitimize the electoral results. Numerous Republican officials at the highest levels of government reinforced these accusations. As daily Covid deaths reached new highs, a mob of Trump supporters, incited by the sitting president, stormed the Capitol building during congressional certification of the election results.

#### Citizens and the State

The polarized politics of the United States exacerbated two competing, and partisan, visions of the relationship of the American citizen to the state. One vision emphasized the state's benevolence and its role in safeguarding the health and well-being of all citizens, expressing a communitarian vision of citizens as biomedical subjects jointly committed to protecting society. The other envisioned a nation of autonomous, if atomized, individuals, stressing the importance of preserving citizens' liberty against overly intrusive government. In the context of these diametrically opposed visions, none of the nation's leaders attempted to build a unified polity. Two opposing camps of citizens maintained a progressively more bitter and, at times, explosive struggle, with pandemic-induced frustrations intensifying political division and public discontent.

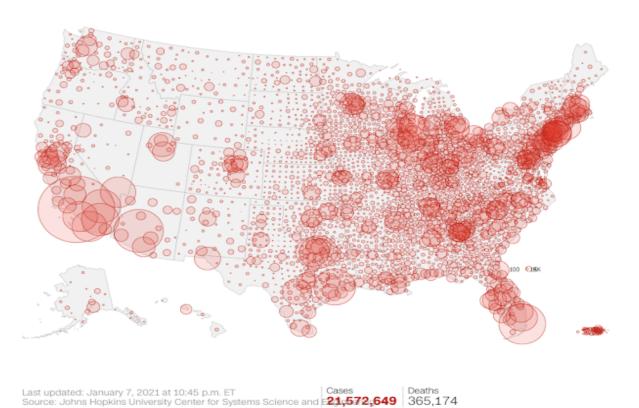
### **American Covid-19 Statistics**



### **Tracking Covid-19 cases in the US**

Since January 2020, novel coronavirus has spread to nearly every state and territory

By Sergio Hernandez, Sean O'Key, Amanda Watts, Byron Manley and Henrik Pettersson, CNN
Last updated: January 7, 2021 at 10:45 p.m. ET



**Source:** "Tracking Covid-19 Cases in the US," CNN (Cable News Network), accessed January 8, 2021, <a href="https://www.cnn.com/interactive/2020/health/coronavirus-us-maps-and-cases/">https://www.cnn.com/interactive/2020/health/coronavirus-us-maps-and-cases/</a>.

# Appendix B

Statistical Overview

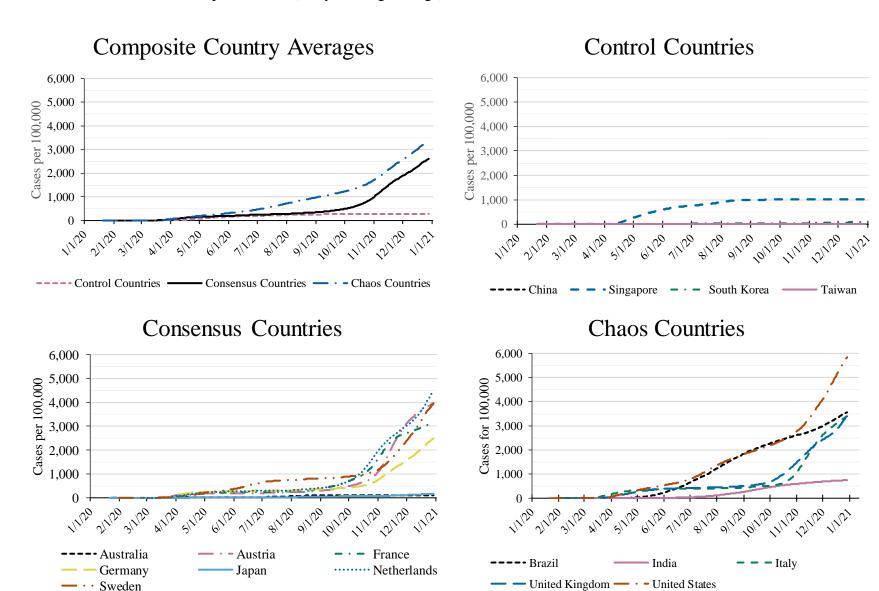
## **Public Health Impacts**

Key Public Health Statistics as of December 30, 2020

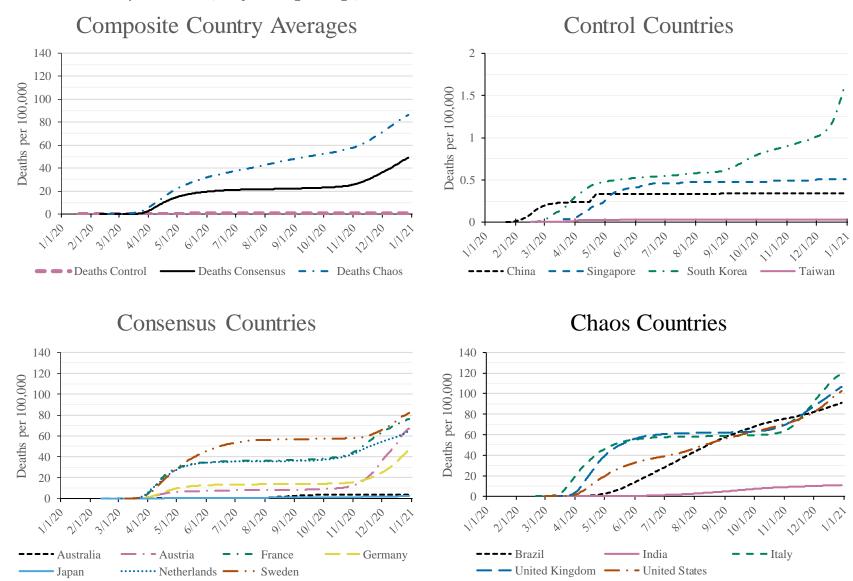
	Confirmed Cases	Deaths	Cases per 100,000	Confirmed Deaths per 100,000	2019 Population (Millions)
Australia	28,405	909	112	4	25
Austria	357,902	6,149	4,032	69	9
Brazil	7,619,200	193,875	3,610	92	211
China	95,876	4,781	7	0	1,398
France	2,657,624	64,508	3,197	78	83
Germany	1,741,153	33,230	2,596	50	67
India	10,266,674	148,738	751	11	1,366
Italy	2,083,689	73,604	3,456	122	60
Japan	231,271	3,243	183	3	126
Netherlands	798,592	11,417	4,607	66	17
Singapore	58,569	29	1,027	1	6
South Korea	60,740	900	117	2	52
Sweden	437,379	8,727	4,252	85	10
Taiwan	797	7	3	0	24
United Kingdom	2,440,202	72,657	3,651	109	67
United States	19,740,772	342,318	6,014	104	328

Key Public Health Statistics: Quarterly Figures Controlled for Population

	Confirmed Cases per 100,000			Deaths per 100,000				
	Mar 31	Jun 30	Sep 30	Dec 30	Mar 31	Jun 30	Sep 30	Dec 30
Australia	18.0	31.2	106.8	112.0	0.1	0.4	3.5	3.6
Austria	114.7	200.1	504.8	4,031.8	1.4	7.9	9.0	69.3
Brazil	2.7	664.3	2,279.5	3,610.1	0.1	28.2	68.2	91.9
China	5.9	6.1	6.5	6.9	0.2	0.3	0.3	0.3
France	62.9	245.7	728.8	3,196.8	4.2	35.9	38.5	77.6
Germany	107.1	291.4	436.8	2,596.4	1.2	13.4	14.2	49.6
India	0.1	42.8	462.0	751.4	0.0	1.3	7.2	10.9
Italy	175.5	399.0	522.2	3,455.7	20.6	57.7	59.5	122.1
Japan	1.8	14.7	66.2	183.2	0.1	0.8	1.2	2.6
Netherlands	73.1	291.3	726.9	4,607.4	6.0	35.4	37.3	65.9
Singapore	16.2	769.8	1,012.8	1,026.9	0.1	0.5	0.5	0.5
South Korea	18.9	24.9	46.2	117.5	0.3	0.5	0.8	1.7
Sweden	47.0	660.4	902.9	4,252.4	3.7	53.6	57.3	84.8
Taiwan	1.4	1.9	2.2	3.4	0.0	0.0	0.0	0.0
United Kingdom	58.1	426.8	682.1	3,651.1	3.7	60.6	63.2	108.7
United States	58.5	801.8	2,200.5	6,014.1	1.6	38.9	63.1	104.3



### Cumulative Deaths per 100,000 (7 day moving average)

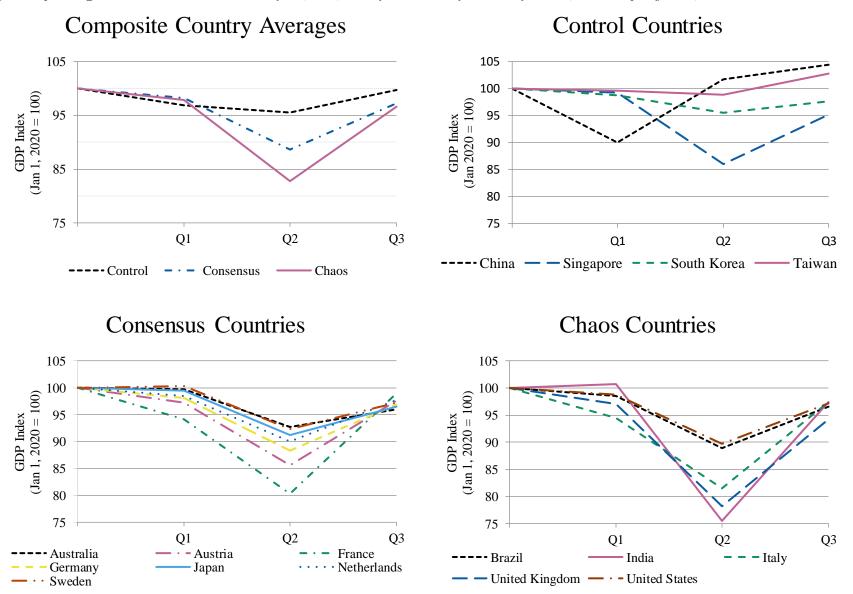


## **Economic Impacts**

The Impact of the Pandemic on Economic Activity

	Quarterly Growth (Quarter to quarter basis; seasonally adjusted)			Cumulative Growth for the Year (Based on Quarterly Growth Rates)		
	First Quarter	Second Quarter	Third Quarter	First Quarter	Second Quarter	Third Quarter
Australia	-0.3	-7	3.3	-0.3	-7.3	-4.0
Austria	-2.8	-11.6	12	-2.8	-14.4	-2.4
Brazil	-1.5	-9.6	7.7	-1.5	-11.1	-3.4
China	-10	11.7	2.7	-10.0	1.7	4.4
France	-5.9	-13.8	18.7	-5.9	-19.7	-1.0
Germany	-1.9	-9.8	8.5	-1.9	-11.7	-3.2
India	0.7	-25.2	21.9	0.7	-24.5	-2.6
Italy	-5.5	-13	15.9	-5.5	-18.5	-2.6
Japan	-0.5	-8.3	5.3	-0.5	-8.8	-3.5
Netherlands	-1.5	-8.5	7.7	-1.5	-10.0	-2.3
Singapore	-0.8	-13.2	9.2	-0.8	-14.0	-4.8
South Korea	-1.3	-3.2	2.1	-1.3	-4.5	-2.4
Sweden	0.3	-8	4.9	0.3	-7.7	-2.8
Taiwan	-0.5	-0.7	3.9	-0.5	-1.2	2.8
United Kingdom	-3	-18.8	16	-3.0	-21.8	-5.8
United States	-1.3	-9	7.5	-1.3	-10.3	-2.8

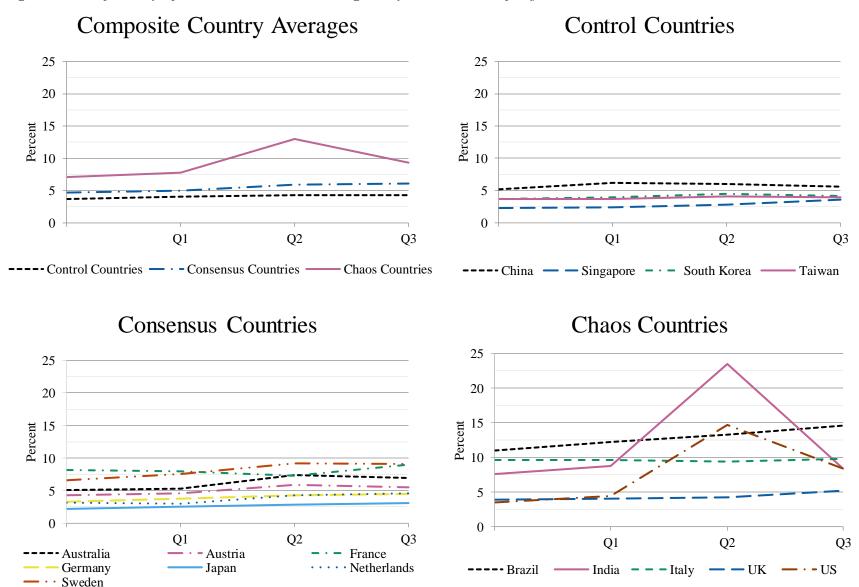
Quarterly change in the Gross Domestic Output (GDP), compared to the previous quarter (seasonally adjusted)



## Quarterly Unemployment Rate (Seasonally adjusted)

	2019	2020				
	Fourth Quarter	First Quarter	Second Quarter	Third Quarter		
Australia	5.1	5.3	7.4	7		
Austria	4.3	4.6	5.9	5.5		
Brazil	11	12.2	13.3	14.6		
China	5.2	6.2	6	5.6		
France	8.2	8	7.3	9		
Germany	3.3	3.8	4.3	4.5		
India	7.6	8.8	23.5	8.4		
Italy	9.6	9.6	9.4	9.8		
Japan	2.2	2.5	2.9	3.1		
Netherlands	3.2	3	4.3	4.6		
Singapore	2.3	2.4	2.8	3.6		
South Korea	3.7	4	4.5	4.2		
Sweden	6.6	7.6	9.2	9.1		
Taiwan	3.7	3.7	4.1	4		
UK	3.9	4	4.2	5.2		
US	3.5	4.4	14.7	8.4		

Highest Monthly unemployment rate reached within a given quarter, seasonally adjusted. 1 2



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<sup>&</sup>lt;sup>1</sup> Measures of unemployment based on administrative data (registered unemployment rate) are not available for all the countries compared in this report. This report uses survey-based harmonized unemployment rates. As a result, these graphs, especially for the consensus and chaos countries, systematically underrepresent the damage. Underestimation also results from measurement error (e.g., by the US Bureau of Labor Statistics) categorizing temporarily laid off workers as employed when they should have been classified as unemployed. Without this error, the peak US unemployment rate in the second quarter would have been 19.7% not 14.7%. Finally, the harmonized method considers persons unemployed only if they are actively looking for employment. Given the scale of the economic damage, harmonized unemployment does not capture those who abandoned the workforce for pandemic-related reasons, such as the inability acquire third-party child and elder care.

<sup>&</sup>lt;sup>2</sup> Because Singapore does not produce monthly unemployment data, the report uses quarterly estimates for this country.