

## Policy & Institutional Responses to COVID-19: South Korea\*

*Editor's Note: The Middle East and North Africa (MENA) COVID-19 Response Project focuses on governmental public health and economic policy responses designed to combat the spread of the COVID-19 pandemic in MENA countries. In this regard, the project has reviewed efforts by countries outside the MENA region to combat the virus as a means of informing its work more broadly. Here, the successful case of South Korea serves as a best practice comparator for the MENA countries covered in this series. The inclusion of South Korea in this series aims to help MENA policy makers improve response protocols to pandemics and other crises.*

### Summary

While South Korea has suffered from several waves of the COVID-19 pandemic, its public health system has been able to combat outbreaks effectively, limiting their spread and duration. In part, this was managed through restrictions on international travel, school closures, targeted suspensions of public gatherings, and closures of public entertainment venues. The primary focus of the South Korean approach, however, has been a system of testing, contact tracing, and quarantine supported by mobile technology and data analytics. The efficacy of its approach to COVID-19 suppression has been enabled by effective communications with the public and widespread public compliance with masking, physical distancing, and hygiene recommendations. Importantly, South Korea has managed the pandemic without having to implement any economy-wide closures or stay-at-home orders, helping families and businesses weather the economic costs associated with the pandemic.

Given its geographic proximity to China, and significant trade and tourism between the two countries, South Korea was vulnerable to the early spread of the novel coronavirus. The country identified its first imported case on January 20, 2020, with cases escalating rapidly over early- to mid-February when a large cluster was identified among members of a religious group in Daegu. After identifying this cluster, health authorities were able to bring cases down rapidly, from a peak of 851 new cases on March 3. Between mid-March and mid-August, the country kept new cases below 100 per day. While a second wave did emerge in August, health authorities were able to quickly bring cases down through increased testing and contact tracing.

In December, as an exhausted public began easing physical distancing practices during winter holidays, South Korea saw a third wave emerge, with daily cases reaching numbers not seen during the first and second waves. While policy makers considered implementing stay-at-home orders during this third wave, they were able to bring cases down through testing, contact tracing and quarantine coupled with targeted closures of entertainment facilities and religious services and enforced mask mandates. Still, the third wave proved more difficult to control for South Korean

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authorities, and the number of new cases per day remains at nearly 600. Overall, by May 1, 2021, South Korea had confirmed 123,240 cases with 1,833 deaths. While significant, these numbers are low on an internationally comparable per capita basis.

Throughout the pandemic, the relative success of South Korea's approach to combatting the virus has depended on the availability of an effective test for the virus and the efficacy of contact tracing. Towards this end, South Korean health authorities met early with private laboratories, urging them to develop tests and offering rapid regulatory approvals. This effort resulted in the delivery of four effective tests by the end of February 2020. Setting up walk-through and drive-through clinics, authorities were then able to rapidly escalate public testing. Also, South Korea deployed advanced data analytics to support contact tracing, with authorities able to access a wide variety of personal data on infected individuals, including medical records, banking information, and mobile phone location data, as well as closed-circuit television. This allowed them to accurately and rapidly track individuals who had come into contact with infected individuals.

South Korea's approach also depended on public buy-in and trust, which authorities were able to achieve, for the most part, through transparency and openness. In this regard, authorities learned from their experience with Middle East Respiratory Syndrome (MERS) in 2015. With MERS, they had withheld information to avoid creating panic among the public, but the resulting information vacuum was filled by rumor and misinformation. Throughout the COVID-19 pandemic, South Korean authorities have provided the public with updated data on the virus and clear guidelines on how to avoid infection. They have used a variety of media and twice-daily press briefings to ensure public awareness of the threat posed by the virus and actions being taken to mitigate this threat.

In terms of its economic response, South Korea's policy has aligned with that of most Organisation for Economic Co-operation and Development (OECD) countries, with government seeking various fiscal and macro-financial means of alleviating pressures on businesses and families. The strength of South Korea's approach has been the government's ability to target spending towards industries that were particularly hard-hit, as well as to ensure that government finances stimulated consumer spending and broader economic activity. A key example is the design of emergency cash transfer payments: rather than depending on bank transfers or checks, the government offered citizens pre-paid cards or credit card deposits that they had to spend by the end of August 2020, ensuring that citizens spent the money rather than saving it.

With a longer-term focus on rebuilding the economy, South Korea has developed a plan called the Korean New Deal. South Korean officials are seeking to use the Korean New Deal to stimulate investments in advanced technology, upskilling Korean workers, and positioning the country to emerge from the pandemic as a leading player in the data economy and the green economy, rather than using government funding strictly to rebuild the economy. While the Korean New Deal represents an important case of government seeking opportunity in the context of the crisis, evidence of the economic impact of the plan is yet to emerge.

Finally, the South Korean government has garnered criticism for its delayed rollout of COVID-19 vaccination efforts, having started vaccination of frontline health workers and long-term care residents only on February 28, 2021. In part, this delay has been the result of South Korea's laudable commitment to (and dependence on) the international COVAX effort, as well as an interest among South Korean health officials to observe how rollouts proceeded in other countries. At the same time, since summer 2020, officials have sought to negotiate local production deals

between international vaccine manufacturers and South Korean pharmaceutical companies rather than reserving imported doses as other developed countries have done. Recent develops in terms of procurement deals and local manufacturing deals promise an acceleration in South Korea’s efforts to reach herd immunity by the end of 2021.

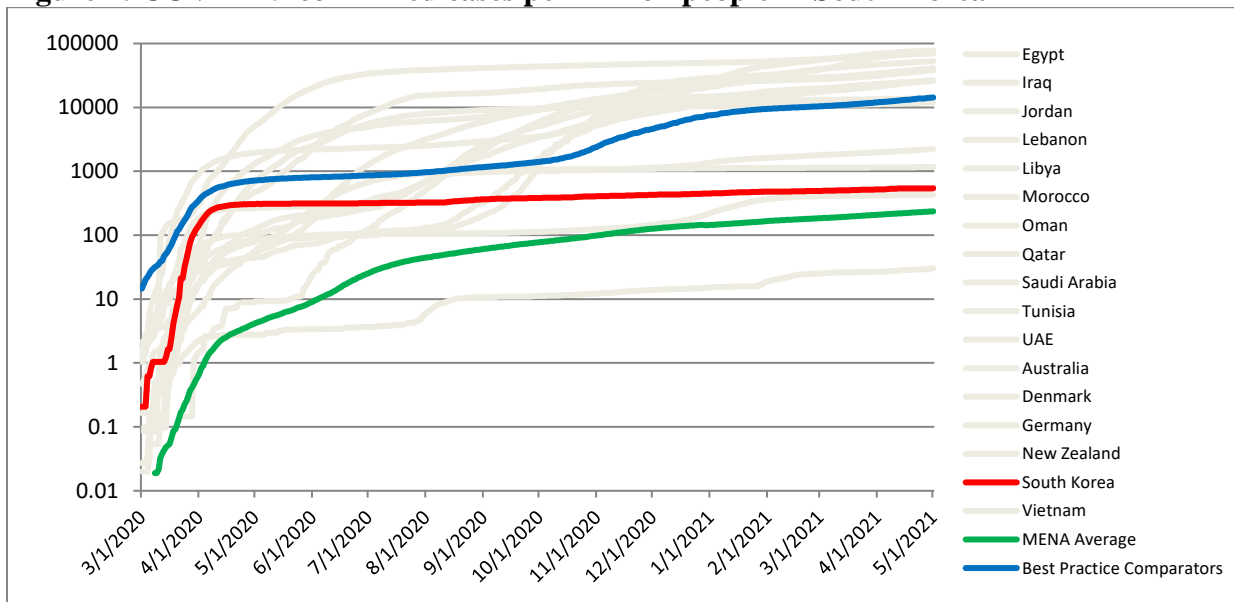
**General Information**

<i>Indicator</i> <sup>1</sup>	<i>May 1, 2021</i>
Confirmed COVID-19 Cases:	123,240
COVID-19 Related Deaths:	1,833
COVID-19 Recovered Patients:	113,356
COVID-19 Tests Administered:	8,798,176
People fully vaccinated:	236,188

Source: Korea Disease Control and Prevention Agency

The figures below explore South Korea’s efforts to combat the COVID-19 pandemic, providing a comparison of performance and outcomes with other countries reviewed in this series. Figure 1 and Figure 2 compare outcomes in terms of total confirmed cases and deaths over the course of the pandemic. Figure 3 documents South Korea’s expansion of testing over time. Figure 4 compares the strictness of governmental responses to the pandemic over time using the Oxford COVID-19 Government Response Tracker’s Stringency Index.<sup>2</sup> The index is a composite measure of responses related to school closures, business closures, and travel bans, although it should not be construed as an indicator of the *effectiveness* of the government response. Using this index, Figure 5 tracks the strictness of South Korea’s policy response against daily confirmed cases, allowing for an analysis of how closure policies have shifted with changes in virus incidence.

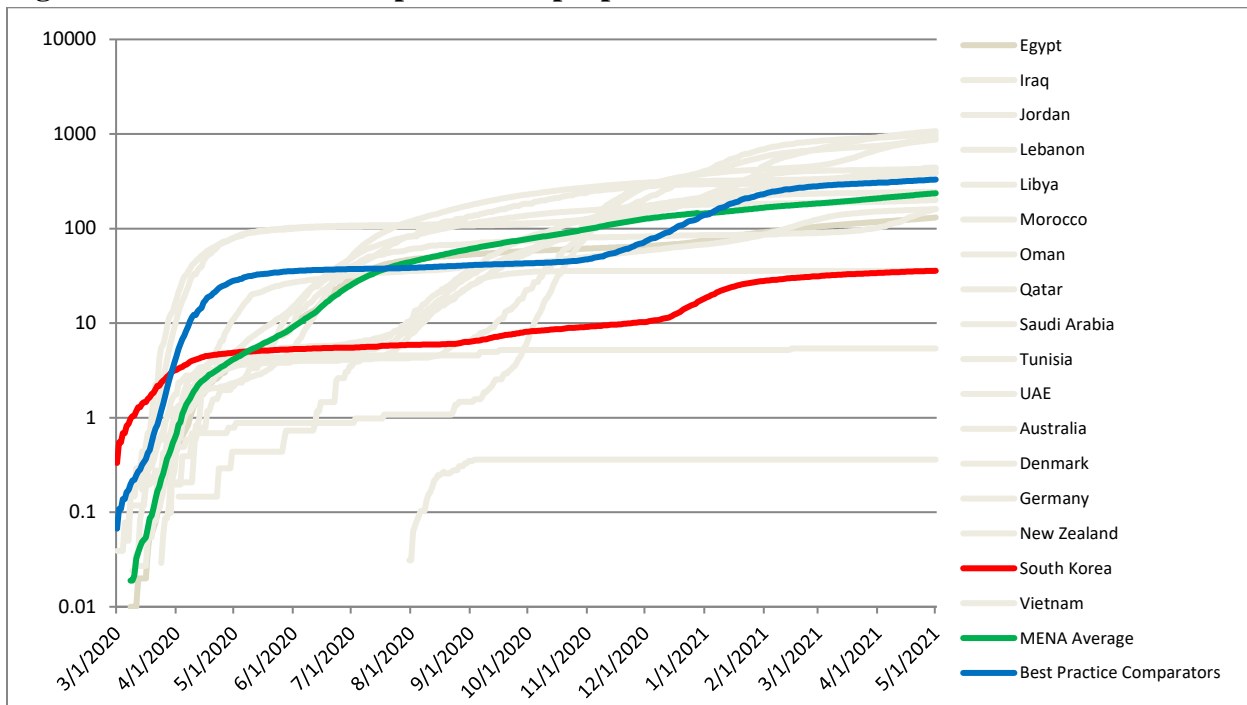
**Figure 1: COVID-19 confirmed cases per million people in South Korea<sup>3</sup>**



Source: Our World in Data

Note: MENA Average is a population-weighted average of MENA countries for which data exists, including Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Tunisia, the United Arab Emirates, and Yemen. The Best Practice Comparators average is a population-weighted average of Australia, Denmark, Germany, New Zealand, South Korea, and Vietnam. To compare specific countries identified in this graph, the reader should consult the case studies for relevant countries in this publication series.

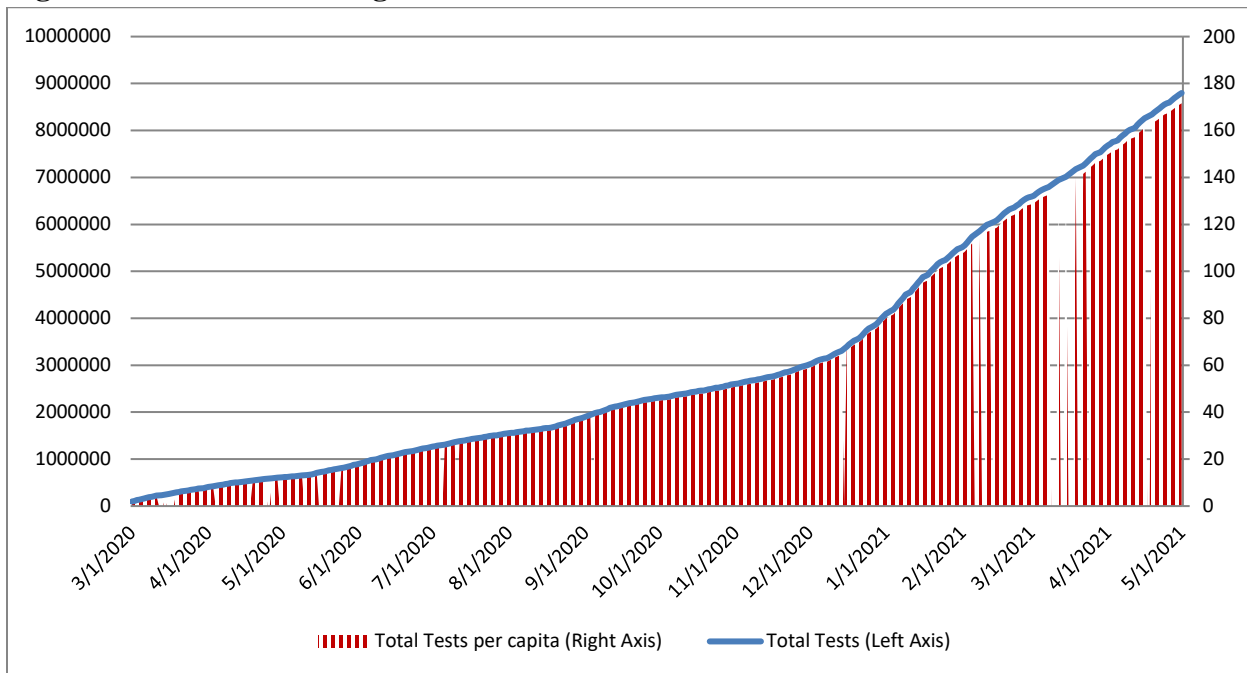
**Figure 2: COVID-19 deaths per million people in South Korea<sup>4</sup>**



Source: Our World in Data

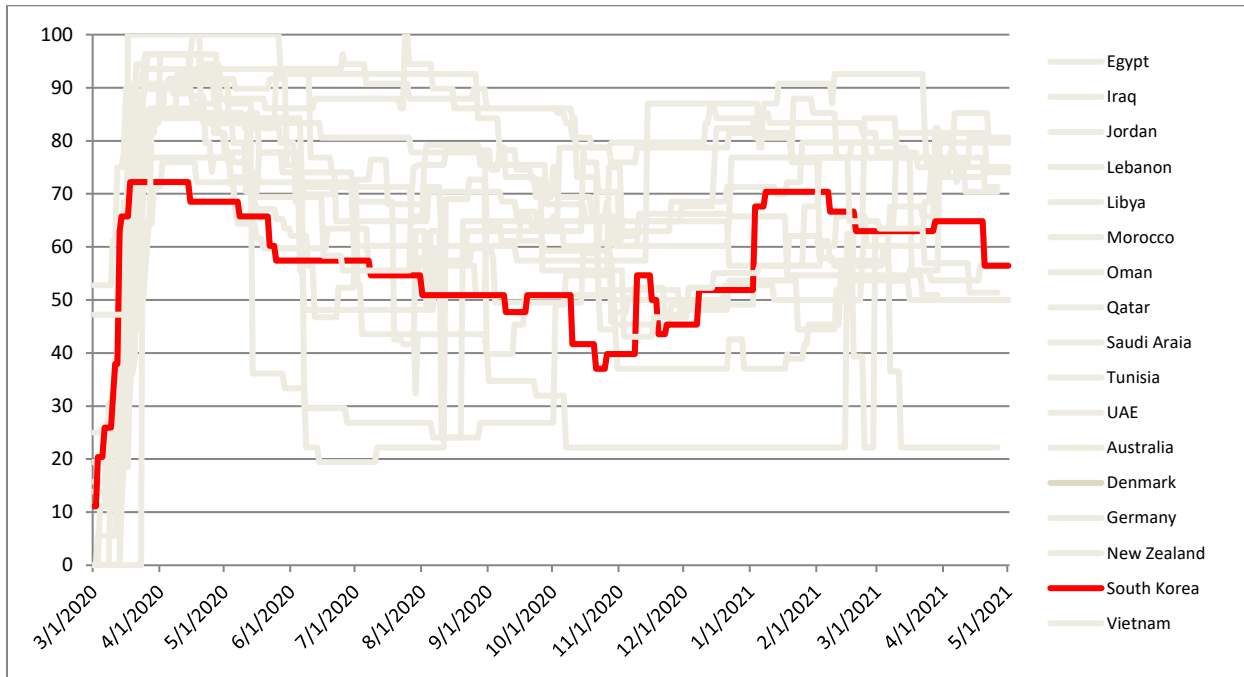
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**Figure 3: COVID-19 testing in South Korea<sup>5</sup>**



Source: Our World in Data

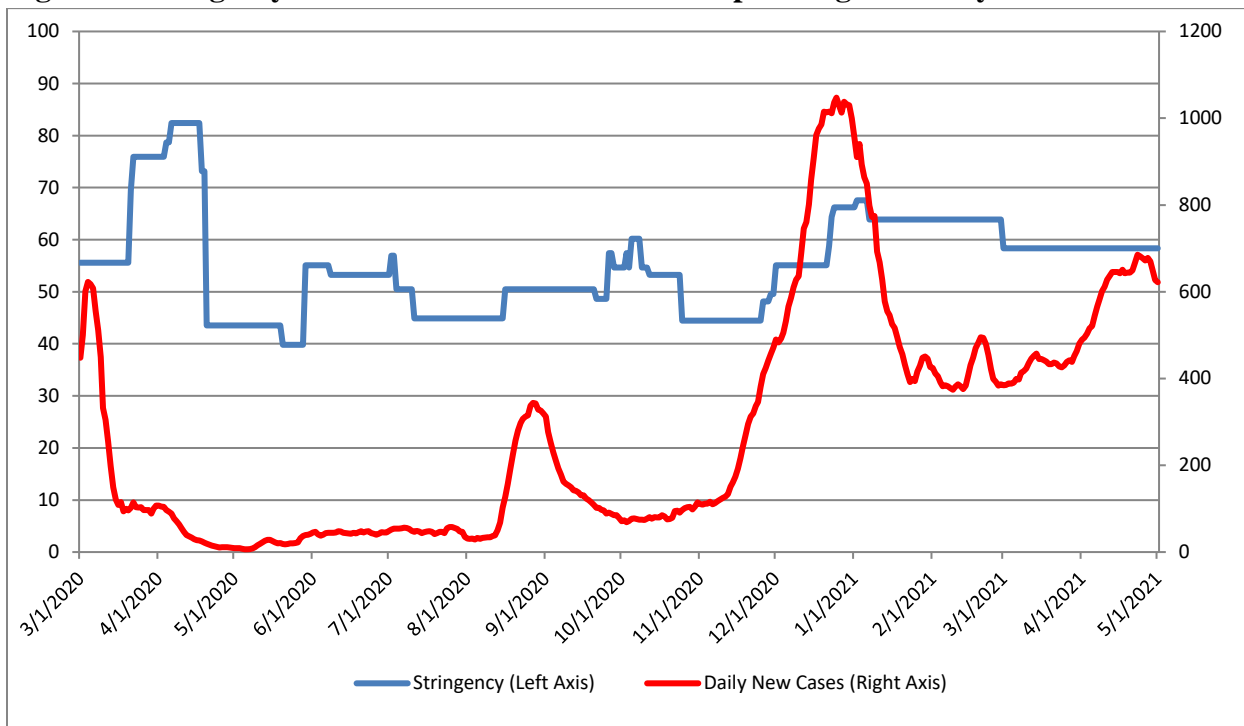
**Figure 4: Stringency of COVID-19 response in South Korea<sup>6</sup>**



Source: Oxford COVID-19 Government Response Tracker

Note: On the Stringency Index, 100 represents the strictest approaches to closures.

**Figure 5: Stringency of South Korea’s COVID-19 response against daily cases<sup>7</sup>**



Source: Oxford COVID-19 Government Response Tracker, Our World in Data

Note: On the Stringency Index, 100 represents the strictest approaches to closures. Daily new cases have been smoothed using a running average.

### **Increase in unemployment associated with the pandemic:**

Prior to the onset of the pandemic, South Korea's unemployment rate was estimated at 3.0 percent.<sup>8</sup> In March 2020, the unemployment rate climbed to 3.5 percent, while the total number of employed dropped by 2.5 percent and the number of unemployed increased by 14 percent. The number of furloughs increased by 1.26 million in March (year-over-year). Initial applications for unemployment benefits in March grew by 24.8 percent year-over-year and 46 percent compared with February. April's estimates put the unemployment rate at 4.2 percent, while it grew to 4.5 percent in May. Over the summer, as South Korea's COVID-19 outcomes improved, the unemployment rate dropped, falling to 3.2 percent in August.

While South Korean workers fared well early in the pandemic when compared with workers in other countries, there were concerns that the wider global economic downturn and lack of international demand for South Korean manufactured goods would negatively impact jobs over the longer term.<sup>9</sup> Also, while South Korea was able to keep the spread of the virus suppressed through summer, the country experienced surges in COVID-19 cases in September and December. Each of these surges was followed by a spike in the unemployment rate, as a drop-off in business forced firms to lay off workers. The unemployment rate rose to 4.2 percent in September and 4.6 percent in December. While low by international standards, this amounted to the highest unemployment rate in South Korea in over a decade.<sup>10</sup> The overall unemployment rate for 2020 was estimated at 4.0 percent.

### **Description of government response to the COVID-19 pandemic:**

Given its proximity to and economic ties with China, South Korea was always at risk of contagion by the novel coronavirus. With this concern in mind, South Korean authorities began screening incoming passengers at ports of entry as early as January 3, 2020. Following identification of its first imported case on January 20, the country expanded screening of incoming passengers, imposed quarantine arrangements, and implemented more intensive restrictions on travelers from China, Europe, and other areas showing high infection rates. South Korean officials hoped that strict controls at ports of entry would keep the pandemic at bay domestically. However, the country experienced a rapid increase in confirmed cases beginning in mid-February.

Authorities were able to bring the spread under control rapidly. Their approach depended on extensive testing and tracing, quarantine for exposed individuals, and isolation and treatment of those with the disease. South Korean officials initially dubbed their approach **TRUST**: **T**ransparency, **R**obust screening and quarantine, **U**nique but universally applicable testing, **S**trict control, and **T**reatment.<sup>11</sup>

Implementing TRUST required the South Korean government to focus on three fronts:

- **Testing:** For the Korean approach to work without having to shut down the whole economy, the authorities needed an effective test for the novel coronavirus. Towards this end, Korean health officials reached out to Korea's private labs early to encourage the development of tests and facilitated their rapid approval for use in the Korean market.
- **Contact tracing:** To enable effective contact tracing, the government collected large amounts of information on exposed individuals, allowing them to trace position transmissions of the virus. This effort included providing authorities with access to sensitive data like credit card

and banking transactions, closed-circuit television cameras, and mobile phone location data.<sup>12</sup> In addition to using this data to trace those who had been exposed to the virus, authorities developed a smartphone app that informed users when they had been exposed to a confirmed case of COVID-19. The use of this data has raised concerns about privacy and the security of personal data (see below), but it greatly increased the efficacy of contact tracing.

- A health-focused response with clear lines of communication and authority: South Korea put public health authorities at the head of its COVID-19 response. Moreover, its emergency response system provided both clear lines of command and legal empowerment of local governments, melding a centralized and decentralized approach. South Korea's response has not been without its challenges, but the governmental effort and delineation of institutional responsibilities has been a marked improvement over the governmental response to Middle East Respiratory Syndrome (MERS) in 2015. South Korea's struggles with MERS led to numerous reforms that have positioned it to deal with COVID-19 more effectively (see below).

By focusing on identifying and isolating individuals exposed to the COVID-19 virus, South Korea has been able to avoid the more draconian economic closures seen elsewhere. The government has encouraged citizens to observe social distancing, and it required that businesses implement disinfection efforts, increase distance between employees, and where possible provide for a telework alternative.<sup>13</sup> Authorities did close public venues and certain entertainment venues, as well as suspending religious gatherings. The school year, which begins in March in South Korea, was delayed, with schools eventually resorting to online and television-based instruction until a gradual reopening began in late May.<sup>14</sup> Emergency daycare was made available to families with dual incomes (with demand for such care outstripping availability).<sup>15</sup> Overall, South Korea did not move to shutter businesses or implement strict lockdowns, at least at the national level.<sup>16</sup>

### **General assessment of how the response has worked:**

Despite intensive efforts to screen for and stop the virus at ports of entry, South Korea experienced a significant domestic spread of the virus over February and March 2020. The domestic spread had been checked through mid-February by careful contact tracing and quarantine efforts. In mid-February, the country discovered an outbreak of the virus in Daegu among members of a religious community, the Shincheonji Daegu Church, which marked a significant jump in the number of domestic cases.<sup>17</sup> By March 1, new daily confirmed cases had reached a peak at 1,062.<sup>18</sup> However, this peak was followed by a dramatic decline in new confirmed cases as authorities were able to identify individuals who had been exposed to the virus and quarantine them. By March 15, new confirmed cases had fallen to 74, with total confirmed cases having risen to 8,162 and total COVID-related deaths at 75.

Between mid-March and mid-August, new cases of COVID-19 remained low, with authorities registering well under 100 new cases a day for most of this period. Although the country experienced small, geographically focused flareups, authorities managed these through testing, contact tracing and quarantine, along with targeted closures. At the end of April, Korean authorities were cautiously optimistic that they had defeated the virus when the number of daily new cases dropped below ten, leading them to shift focus towards reopening and rebuilding the economy.<sup>19</sup> An outbreak in Seoul in June, however, brought infection numbers up. Authorities implemented more intensive testing and tracing efforts coupled with closures of public spaces and bars in the city.<sup>20</sup> Throughout this period, daily new cases failed to rise above 120. Overall, by August 1,

South Korea had seen 14,366 total confirmed cases and 301 deaths. While significant, both figures are low when viewed on a comparable per capita basis, at 280.2 cases per million and 5.87 deaths per million (See figure 1 above for international comparisons.).

South Korea did experience a significant second wave of the virus starting in mid-August, with new daily cases rising from 103 on August 13 to a peak of 441 on August 26. Authorities tied much of this second wave to conservative Christian churches breaking social distancing and masking mandates, as well as a large anti-government protest that occurred on August 15.<sup>21</sup> While concerned with losing control over the spread of the virus, authorities were able to bring the spread under control within about two weeks, with daily cases returning to around 100 cases a day by mid-September. This was accomplished by reimposing the closure of churches, public gatherings, bars, and nightclubs, with the government resisting calls by epidemiologists for wider closures.<sup>22</sup>

South Korea's third wave started in mid-November, with new cases accelerating over the winter holidays. By early December, South Korea was breaking records set during its first wave, and the number of new cases peaked on December 24 at 1,237. While the number of daily cases have since decreased, South Korea continues to struggle with new infections, remaining at around 600 new cases a day as of May 1, 2021. Overall, the total number of confirmed COVID-19 cases in South Korea reached 123,240 by May 1, 2021 (including 1,833 related deaths); nearly 72 percent of these cases have occurred since December 1, 2020. The high rates of infection during this third wave and its duration underline the limits of South Korea's strategy to addressing the virus, particularly over time as public compliance decreases, patterns of infection change, and new variants emerge.

As the number of daily cases increased in November 2020, health authorities raised concerns about waning popular support for South Korea's efforts to continue fighting the virus, with exhausted Koreans unwilling to take the care they had initially taken at the start of the pandemic.<sup>23</sup> The resistance to continued physical distancing also may have been related to announcements in December about several vaccines coming to market, even though these vaccines were not yet available to the public. Importantly, Korean health specialists have noted that the characteristics of community transmission during this third wave had changed; rather than the large clusters seen during earlier waves, the third wave was characterized by small clusters that were harder for health authorities to detect and isolate through existing testing, contact tracing, and quarantine practices.<sup>24</sup> South Korea also began detecting new variants of the COVID-19 virus over the spring of 2021.

Faced with the emergence of the third wave, many Korean epidemiologists called for stricter closures and mobility restrictions, and authorities considered broad economic closures for the first time during the pandemic.<sup>25</sup> The government began enforcing a mask mandate in mid-November, arresting 191 individuals for not wearing masks in public.<sup>26</sup> In early December, schools in Seoul shifted back to distance learning, and health authorities imposed a general nighttime curfew. As the growth of new cases continued, the government moved to close tourist attractions, limited the number of customers allowed in restaurants, and implemented a ban on gatherings of more than five people for ten days around the winter holidays.

Overall, South Korea's experience with combatting the virus and limiting its spread through testing, contact tracing and quarantine still represents a best practice case globally, despite the rise and persistence of the country's third wave. Notably, on a comparable per capita basis, South Korea's total cases amount to just over 2,400 per million population (compared to a global 19,500 per million).<sup>27</sup> However, the resurgence of the virus in the winter of 2020-2021, coupled with the



relatively devastating nature of this wave, has indicated just how vulnerable countries are, particularly as populations become weary of complying with social distancing mandates. Moreover, it suggests that a testing, tracing, and isolation model of dealing with the pandemic may need to be supported with economic closures and mobility restrictions, at least during flare-ups.

### **How successful has the country's efforts to inoculate the population with available COVID-19 vaccines been?**

In contrast with its successful approach to controlling the spread of the virus, South Korea has been criticized for its slow COVID-19 vaccine rollout. By the end of February 2021, South Korea had not vaccinated any of its citizens. On February 26, health officials did begin vaccinating frontline health workers and elderly residents of long-term care facilities, expanding vaccinations to include the elderly in mid-March. By May 1, the country had provided nearly 3.63 million individuals (7.1 percent of the population) with their first doses of the vaccine, although only 236,188 individuals had been fully vaccinated.<sup>28</sup> As of this writing, the country is delivering about 180,000 doses a day on average. Overall, South Korea expects to have inoculated a quarter of its population by June, and it hopes to reach herd immunity by November 2021.<sup>29</sup>

South Korea's slow rollout of the COVID-19 vaccine was driven by several factors. Most importantly, South Korea made an early commitment to COVAX, the international effort to develop and deliver vaccines on an equitable basis. The country's laudable commitment to COVAX, contrasting with most other developed countries, provided needed support for the international effort. However, the initiative has faced delays and has under-delivered in terms of the expected number of doses for many countries, including South Korea.<sup>30</sup> South Korean health officials also have indicated that they wanted to observe how initial vaccine rollouts went in other countries before pushing forward on widescale public inoculations in South Korea, given the newness of these vaccines.<sup>31</sup> This decision was aided by the country's relative ability to keep per capita infection rates low through public health measures.

The delay also was affected by efforts among South Korean officials to negotiate local manufacturing contracts between international vaccine manufacturers and South Korean pharmaceutical firms rather than focusing on direct purchases. As described by Justin Fendos, this strategy likely had several motivations.<sup>32</sup> First, domestic production would support local pharmaceutical companies, while creating export opportunities for them once domestic inoculation had been completed. Domestic production also would give South Korean health authorities oversight over standards and quality, while providing a means to hold vaccine producers legally liable for problems with the vaccine (given that producing countries have granted manufacturers legal indemnity protection). Finally, domestic production would ensure greater domestic availability, given international competition over restricted supplies, while giving the government more leverage in negotiating prices.

In December 2020, South Korean officials succumbed to popular pressures, ordering enough doses from AstraZeneca, Pfizer, Moderna, and Johnson and Johnson to cover 34 million South Koreans, in addition to the 20 million doses of the AstraZeneca and Pfizer vaccines to be received through COVAX.<sup>33</sup> Moreover, several South Korean firms have finalized agreements with international pharmaceutical companies to produce and/or distribute their vaccines in South Korea as well as having made progress on producing their own vaccines. SK Bioscience Company began manufacturing the AstraZeneca vaccine in February, and it expects to begin production of the

Novavax COVID-19 vaccine in June.<sup>34</sup> Green Cross Pharma is distributing the Moderna vaccine, with plans to produce the vaccine in South Korea in the near future.<sup>35</sup> Huons Global Company is leading a consortium that will produce Russia's Sputnik V vaccine in South Korea.<sup>36</sup> Five Korean companies have developed their own vaccines which have completed phase I and phase II trials and will undergo phase III trials later this year.<sup>37</sup> Despite the late start, this increased domestic production will ensure that South Korean authorities are able to rapidly expand the number of inoculated South Koreans.

**To what extent have there been protests and/or unrest surrounding the virus outbreak or stay-at-home orders?**

Initially, there were no protests in South Korea surrounding the virus outbreak or the governmental response. This may have been due to the government's focus on testing and tracing rather than economic closures. As the country's battle with COVID-19 continued over the summer, authorities came into conflict with conservative groups, particularly Christian groups, who saw mandated closures of churches as government overreach. These tensions came to a head on National Liberation Day on August 15, when liberal and conservative groups planned protests in Seoul about a range of issues. A conservative Christian minister, Reverend Jun Kwang-hoon of the Sarang Jeil Church, led hundreds of his followers to these protests, with church members protesting church closures and physical distancing and masking requirements while accusing the president of pursuing an authoritarian political agenda; government officials have pointed to the group's protest as a driver of the second wave of the virus in South Korea.<sup>38</sup> Not all religious groups in South Korea have protested against government restrictions on religious gatherings; however, tensions between public health authorities and religious groups underline the importance of working *with* religious leaders in seeking solutions to public health issues.

**How accurate are the statistics perceived to be by neutral external observers (i.e., WHO, World Bank, etc.)?**

South Korean health officials have provided accurate, transparent statistics on COVID-19. This has included daily updates on COVID-19 cases in the country and each city and province, along with details on testing and the origins of new cases.<sup>39</sup> Authorities also have made numerous patient-level datasets available to researchers outside of government, allowing for in-depth analysis about the virus and its spread that have informed international understanding of the pandemic.

### **Institutional Response: Health Sector**

**Did the government create special institutions to coordinate its pandemic response (such as a task force), or did it work through existing structures such as the Cabinet?**

South Korea's institutional response to COVID-19 has depended on a succession of evolving task forces structured to facilitate communication and collaboration across government ministries and between the national government and local governments. As the impact of the pandemic spread domestically and its health and economic implications became more serious, the task force

approach grew to include broader representation of South Korea's government, with leadership of the task force transitioning from the minister of health and welfare to the prime minister and the president to facilitate cross-ministerial collaboration.<sup>40</sup>

This progression followed a standing epidemic response plan, with various stages of the response triggered by an assessment of risk by officials at the Korean Centers for Disease Control. This risk assessment includes four color-coded risk levels:<sup>41</sup>

- Blue: Indicates that an identified infectious disease outside the country is a “national interest” and poses a risk to the Korean population.
- Yellow: Indicating caution, the yellow alert level indicates that at least one case of the infectious disease has been confirmed in South Korea.
- Orange: The Orange alert level indicates that authorities have identified infectious spread within a particular geographic region in the country.
- Red: The most serious alert level, Red indicates that authorities have identified infectious spread across the country.

Korea's institutional response to the emerging pandemic began with the **Center for Public Health Emergency Preparedness and Response** at the Korean Centers for Disease Control and Prevention, which is responsible for monitoring emergent international diseases, assessing the risk they pose to South Korea, and leading the country's technical response. The Center initiated Korea's official recognition of the threat posed by the novel coronavirus on January 3, 2020, when it raised the infectious disease risk level to Blue. It then raised the risk level to Yellow when officials identified the country's first case on January 20. Having confirmed four cases, including evidence of domestic spread, authorities increased the assessment to Orange on January 27.

Raising the risk level to Orange provided the legal context to establish an incident management system (IMS) at the Ministry of Health and Welfare focused on combatting the spread of the virus. Under South Korea's epidemic response system, the IMS is designed to help public health authorities manage a broader governmental response to the regional or national spread of a disease. The **Central Incident Management System for the Novel Coronavirus** began meeting on January 28.<sup>42</sup> Its establishment enabled the Ministry of Health and Welfare and the Korean Centers for Disease Control to better organize testing and quarantine efforts, working with representatives of local municipalities and the Ministry of Interior and Safety to implement health checks for incoming travelers and to enforce quarantines. The IMS also created guidance for medical professionals regarding self-protection and treatment of the virus and guidance for companies regarding worker safety and physical distancing. Under the IMS framework, the government also moved to provide more masks to the market to counter hoarding and price gouging.<sup>43</sup>

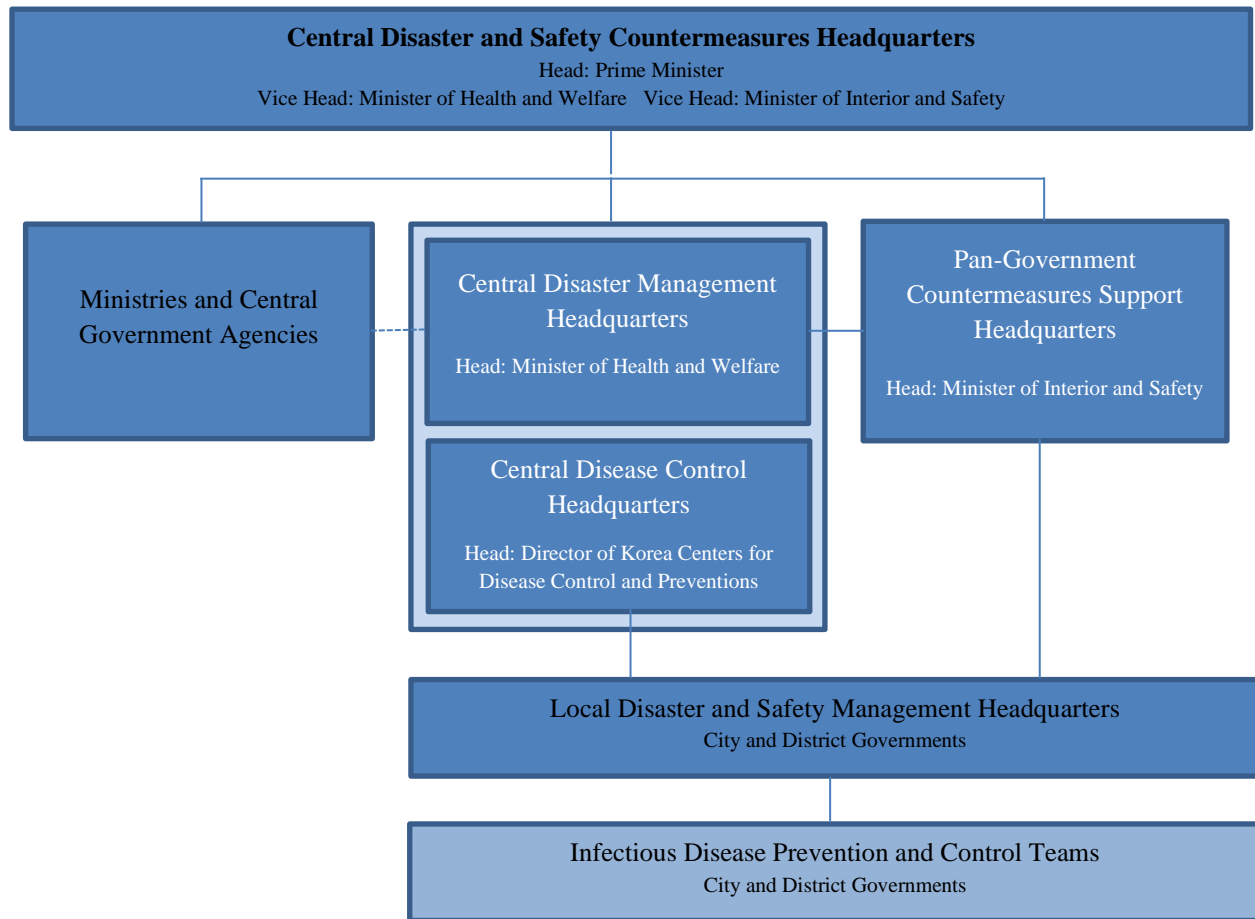
On January 30, South Korea's president headed a pan-governmental meeting on COVID-19, marking the expansion of the IMS to include “all relevant ministries.”<sup>44</sup> This meeting began the formal expansion of cooperation between the Ministry of Health and Welfare, other ministries, and local governments to combat the spread of the virus. The meeting was attended by the prime minister, the deputy prime ministers, all ministers, and the mayors and governors of 17 cities (*si*) and districts (*gu*). This expanded IMS continued to meet two to three times a week while South Korea remained under the Orange alert level.

The president convened another pan-governmental meeting on February 23, announcing that the alert level was being raised to Red.<sup>45</sup> Raising the alert level scaled up the South Korean government's approach to the health emergency. The government established the **Central Disaster and Safety Countermeasures Headquarters** as a "command center for all prevention and control efforts," replacing the IMS. Since February 23, the Central Disaster and Safety Countermeasures Headquarters has ensured cooperation and coordination between ministries, national-level government agencies, and local governments at the city and district level.

**If the former, which ministries and agencies are participating in the task force? How frequently does it meet? Who chairs the meeting?**

While South Korea remained under Orange level disease risk, its approach to combatting the virus was led by the Ministry of Health and Welfare through the Central Incident Management System, which coordinated the government's approach from January 28 to February 23.<sup>46</sup> Although the IMS was headed by the health minister, several of its meetings during February were led by the prime minister or a deputy prime minister. Ministries were represented at IMS meetings by vice ministers, and each ministry was required to appoint a director-level staff member as a point person on all COVID-related issues and to position one staff member at the IMS to facilitate communications.

As South Korea transitioned to a Red level of risk, the government shifted responsibilities for COVID-19 response from the IMS to the Central Disaster and Safety Countermeasures Headquarters.<sup>47</sup> The Central Disaster and Safety Countermeasures Headquarters was headed by the prime minister, with the health minister serving as first vice head and the minister of interior and safety serving as second vice head (see figure 6 below). All 25 of South Korea's ministries and representatives of each of South Korea's 17 cities and districts participated in the organization's daily meetings. This not only ensured effective communication across central and local governments but empowered local governments in working with central agencies on disease treatment and the implementation of public health measures.

**Figure 6: Organizational Structure of Korea's COVID-19 Response<sup>48</sup>**

Source: South Korean Ministry of Health and Welfare

**Have various operational subcommittees been formed addressing specific dimensions of the challenge? What are they, who chairs them, and how often do they meet?**

Under the Central Disaster and Safety Countermeasures Headquarters, there are three subordinate implementation arms that focus on various aspects of the Central Disaster and Safety Countermeasures Headquarters' mandate:<sup>49</sup>

- **Central Disease Control Headquarters:** Headed by the director of the Korea Centers for Disease Control and Prevention, the Central Disease Control Headquarters spearheads COVID-19 control efforts and is responsible for infection prevention, control, and treatment measures. The Central Disease Control Headquarters has four teams focused on surveillance, testing and tracing, isolation and sterilization, and public education, which have worked with other ministries and subcommittees to respond to the virus's spread.<sup>50</sup>
- **Central Disease Management Headquarters:** Headed by the health minister, the Central Disease Management Headquarters is tasked with supporting the Central Disease Control Headquarters in securing control over the virus's spread. Towards this end, the Central Disease Management Headquarters has focused on developing guidelines for disease

prevention and reporting disease statistics, as well as ensuring adequate supplies and staffing at COVID-19 hospitals.

- Pan-Government Countermeasures Support Headquarters: Headed by the minister of interior and safety, the Pan-Government Countermeasures Support Headquarters is responsible for coordination between central and local governments. This has included logistics and supplies support to ensure that local health care providers have the materials and manpower needed to treat the virus and enforce quarantine requirements.

When the nation increased its threat level to Red, each of South Korea's municipalities and districts was required to establish their own local disaster and safety management headquarters, mirroring the Central Disaster and Safety Countermeasures Headquarters on the local level. The primary responsibility of these local headquarters is ensuring that sufficient isolation hospitals or hospital wards and beds are available in their communities, as well as enforcing quarantine, masking, and physical distancing mandates.

Beyond this, individual ministries have partnered on collaborative efforts under the aegis of the Incident Management System or the Central Disaster and Safety Countermeasures Headquarters. For example, the Ministry of Economy and Finance organized a conference of ministries focused on regulating the sale of masks and quasi-drugs on January 30, a conference attended by the Ministry of the Interior and Safety, the Ministry of Health and Welfare, the Ministry of Food and Drug Safety, the Fair Trade Commission, and the National Tax Service.<sup>51</sup> More importantly for South Korea's contact tracing effort, the Ministry of Land, Infrastructure and Transport, the Ministry of Science and ICT (Information and Communications Technology), and the Korea Centers for Disease Control collaborated in the development of the smartphone app used for contact tracing.<sup>52</sup> In April, the Korea Centers for Disease Control began leading an effort to develop a strategy known as "Everyday Life Quarantine" for reopening the Korean economy, which was developed with input from 12 different ministries and includes safety and social distancing guidelines for all types of activities.<sup>53</sup>

Ministries and agencies have created internal teams focused on delivering needed inputs to address the pandemic. For example, the Korea National Police set up their own COVID-19 response headquarters which houses a Disaster Situation Center responsible for rapid response to any situations, a Countermeasure Support Group responsible for ensuring officers have access to safety gear, equipment and needed information, and a Countermeasure Implementation Group responsible for responding to fake news, enforcing quarantines, transporting patients, inspecting public venues, and tracing possibly infected individuals.<sup>54</sup>

### **Is there a secretariat supporting the government's response or a designated ministry that is providing technical support?**

The Korea Centers for Disease Control serves as the technical lead for the government's response, and it houses the Central Disaster and Safety Countermeasures Headquarters. The Ministry of Health and Welfare provides important technical and operational support to the pan-government effort. It should be noted that the Korea Centers for Disease Control, at least at the beginning of the pandemic, was positioned under the Ministry of Health and Welfare, which created some institutional confusion in terms of the decision-making process (see below).

### **How is communication taking place with sub-national government entities?**

South Korea's central government ensured effective communication with sub-national government entities by requiring that municipalities and district governments be represented at the Central Disaster and Safety Countermeasures Headquarters. This ensured that all city and district governments were aware of decisions and actions being carried out on the national level and that they could inform policy making at the central level by directly communicating their local needs and priorities. Also, the interior minister, through his position as the head of the Pan-Government Countermeasures Support Headquarters, bore responsibility for maintaining communication with local government leaders to ensure that they had the resources needed to combat the virus. The Korean Infectious Disease Control and Prevention Act eases cooperation between national and sub-national entities by explicating financial responsibilities for central and local governments in the case of an epidemic.<sup>55</sup> As described by the minister of health and welfare, "the prime minister created a task force of all government ministries and, crucially, all regional and city governments, too – we are a very devolved democracy."<sup>56</sup> That said, South Korea's government remains highly centralized, and in this regard, the country's COVID-19 response measures were generally driven by the central government rather than local governments.

### **How are governments reaching out to external expertise in the medical and scientific communities? Have they developed mechanisms for channeling this expertise into government?**

Since 2015, following South Korea's struggle with MERS, the country sought to expand the Korea Centers for Disease Control and Prevention's internal expertise, hiring many epidemiologists and public health experts.<sup>57</sup> This effort left the central government well-prepared to address the challenges posed by the COVID-19 pandemic, easing its need for outside expertise.

While South Korea has maintained a cooperative relationship with the United States' Centers for Disease Control and the World Health Organization, it has not depended on these organizations' expertise during the COVID-19 pandemic as it has with past health crises and epidemiological outbreaks. As Kwon Jun-wook, deputy director of the Korea Centers for Disease Control stated, "We were on the front lines. In the past, we had treated the regulations from the World Health Organization and the US as the Bible. But I had to apologize to our citizens because it was time for us to create our own regulations based on our own evidence."<sup>58</sup> Aside from the pride reflected in the remark, it reflects the broadened capacity that the Korea Centers for Disease Control has been able to develop in recent years, as well as the uncertainty with which all disease control organizations – including the World Health Organization and the US Centers for Disease Control – have experienced in countering this novel coronavirus.

The government has depended to some extent on expertise from South Korean universities and non-governmental scientific centers. This includes South Korea's leading infectious disease expert, Dr. Kim Woo-joo, professor of infectious diseases at Korea University's Guro Hospital, who was brought on to advise the Korea Centers for Disease Control and the Central Disease Control Headquarters.<sup>59</sup> Individual municipalities also have depended on university-based epidemiologists and public health experts.<sup>60</sup> Many of these specialists volunteered their time during early stages of the pandemic.

In April, in developing its Everyday Life Quarantine reopening strategy, the Central Disaster and Safety Countermeasures Headquarters ensured cooperation with external experts, forming a committee comprised of a diverse set of medical experts, government officials, private sector representatives, and civil society representatives.<sup>61</sup> The diversity of this group was intended to ensure the committee's ability to develop a comprehensive set of guidelines that would meet the needs of all types of industries, businesses, organizations, and social situations.

**Has the government taken any decision to ramp up the production of medical supplies and equipment during the crisis? Have procurement rules been waived or modified to facilitate the purchase of supplies?**

South Korea's coordination with private-sector labs represents one of the most impactful lessons from the South Korean case. Understanding the need for a valid COVID-19 test to deliver effectively on the TRUST approach, health ministry officials met with representatives of 20 private medical companies on January 27, when there were only four identified cases in South Korea.<sup>62</sup> At the meeting, companies were encouraged to develop tests for COVID-19. In turn, the health ministry officials informed the labs that these tests would receive instantaneous approval from government regulators. This rapid turnaround in terms of approvals was enabled by regulatory changes adopted after the 2015 MERS epidemic, when government-approval processes slowed the development and deployment of a test. After the MERS epidemic, South Korea's Medical Devices Act was amended to support public-private partnerships and establish an emergency-use authorization policy.<sup>63</sup>

As a result, one company was able to secure approval for a test within a week of the January 27 meeting, and four companies had tests on the Korean market by the end of February. While the initial tests were difficult to deploy, their availability allowed authorities to meet initial testing needs and to rapidly scale up testing. By the beginning of March, health authorities had set up 600 testing locations able to test 20,000 people a day.<sup>64</sup> At the same time, officials supported local governments and hospitals in setting up walk-through and drive-through testing facilities, providing ex post approvals and guidelines for these efforts. The proliferation of testing options kept individuals from gathering in large numbers at hospitals (which would have increased virus transfer as it did during the MERS outbreak).

The South Korean government also took special steps to ensure that masks and other personal protective equipment (PPE) were available in the domestic market. In early February, the Korea Occupational Safety and Health Agency began providing 720,000 masks to construction, manufacturing, and service industry workplaces deemed vulnerable to infectious diseases.<sup>65</sup> At the end of February, after a surge in mask exports, authorities limited mask exports to 10 percent of production and then banned them altogether in early March. The government also took over the distribution of masks within the domestic economy, setting prices and requiring 80 percent of masks to be sold at specific locations (pharmacies, post offices, and cooperatives) to ensure the equity of mask provision.<sup>66</sup> Exports were allowed again in September, after South Korea had tempered the spread of the virus and had increased mask production to meet domestic demand.



**How are coronavirus communications being handled? How frequently do briefings occur?**

Throughout the pandemic, South Korean policy makers have sought to be transparent and open with the Korean population. This was a hard-learned lesson following the MERS crisis in 2015. In combatting MERS, policy makers were inclined not to provide details on infected people to avoid creating a sense of panic among the population, but they found that this vacuum of information from legitimate authorities was filled by fake news and gossip that undermined their ability to counter the virus's spread.<sup>67</sup>

With the COVID-19 pandemic, South Korean authorities have provided regular updates on the progression of the virus through regular press briefings. Prior to January 30, briefings were held every two to three days after meetings of the Incident Management System. Following this, national leaders held briefings twice a day. During these press briefings, the director of the Korea Centers for Disease Control played a central role, ensuring that the public had an updated, transparent understanding of how the pandemic was impacting South Korea, while ensuring that citizens saw the government prioritizing science over politics.

The government also has provided guidance for citizens on how to avoid contracting COVID-19 through a variety of media. The Ministry of Health and Welfare developed an online dashboard providing up-to-date statistics on the pandemic. It also launched a telephone hotline providing early advice to those who may have been exposed to the virus, helping to inform the public while decreasing pressures on emergency rooms and hospitals.<sup>68</sup> Health authorities also pushed a daily update message to citizens through mobile phones. Smartphone apps have played an important role in South Korea's health response, with various apps providing citizens with information about their risk of exposure, allowing them to self-report symptoms, and identifying local sources of masks and PPE. The government considered communications essential for the adoption of the Everyday Life Quarantine guidelines released in May: to ensure that people had time to review and accept them, they were released two weeks before going into effect.<sup>69</sup>

The transparency and regularity of public communications in South Korea has been important in ensuring public awareness of the threat of the virus and how masking, hygiene, and physical distancing can protect them from the virus and limit its spread. In addition, South Korea's communications approach has limited public panic and fear about the virus and related hoarding of foodstuffs, toiletries, sanitizers, and masks.<sup>70</sup>

**Where do these arrangements appear to be working well? Are there any success stories that are particularly relevant?**

While South Korea struggled over the winter of 2020-2021 to keep the spread of COVID-19 at bay, it has been quite successful in combatting the virus overall. This success has depended on the country's ability to deploy an effective testing regime, precise contact tracing, and the mandatory quarantine of individuals who have tested positive for the virus and self-quarantine for those who have come in contact with infected individuals. The capacity of South Korean authorities to implement this approach has depended on several factors that provide important lessons for other countries.

First and fundamentally, South Korea's approach required the capacity to accurately and quickly test individuals who may have contracted the virus. Towards this end, as noted above, public health authorities met with private laboratories quickly after the emergence of the novel coronavirus, urging them to develop tests while ensuring them that medical approvals for the tests would be fast-tracked. In turn, these companies were able to provide tests in short order. While initial tests suffered from high false positives and were not efficient, early progress allowed companies to fine-tune them, and South Korea was able to roll out effective widespread testing far more quickly than many other countries. At the same time, South Korean health authorities worked with local authorities to build up local testing capacity. Importantly, they emphasized the need for mobile, drive-through testing facilities, which kept individuals who were likely to carry the virus from congregating inside hospitals and clinics, which would have allowed for wider transmission of the virus to non-infected persons.

To improve the efficacy of contact tracing, South Korean authorities took advantage of technology and a wide variety of personal and social data, including mobile phone location data, credit card and banking data, and closed-circuit television, to trace where infected individuals had been and to identify others with whom they had come in contact. They also used this data for a smartphone app which allowed users to identify whether they had encountered an infected individual. This application of data analytics allowed for a much more rapid and comprehensive contact tracing effort than traditional means that depend on interviews and site visits.

While technology empowered their testing and tracing capacity, transparency ensured public buy-in and compliance with the public health response. With COVID-19, authorities were transparent, providing the public with accurate data and detailed information on how they could best protect themselves and their families from the virus. In turn, the Korean public was – by and large – amenable to the constraints imposed by authorities, enabling compliance with social distancing, masking, testing, and quarantine where necessary.

These advancements in South Korea's approach to managing a public health crisis were enabled by the country's experience with MERS in 2015 and reforms that were put in place after that episode. These reforms included legislative action enabling rapid test approval and the use of personal data in contact tracing. They also included a restructuring of South Korea's institutional response to public health crises. With MERS, South Korea established five overlapping chains of command without clear guidelines for collaboration between ministries.<sup>71</sup> There was a particular tension between the Korean Centers for Disease Control, which had the expertise needed to address the outbreak, and the Ministry of Health and Welfare, its parent ministry, which led the public health response.

Following the MERS crisis, South Korea took steps to strengthen the Korea Centers for Disease Control as the country's primary epidemic control center. Towards this end, its director was made a deputy minister rather than a director. The Ministry of Health and Welfare and the Ministry of Interior and Safety still operated separate headquarter operations; however, the Central Disaster and Safety Countermeasures Headquarters structure, headed by the prime minister, provided a means to ensure cooperation and coordination between the entities and to secure cooperation by other ministries that report to the prime minister. Together, this ensured that South Korea was able to respond to the threat posed by COVID-19 with a unified governmental response that put public health at the center of its response priorities.

### **Wargaming Epidemics: Preparing for an Unforeseen Disease Outbreak**

Part of South Korea's efforts to prepare for future health crises included more scenario planning and frequent exercises aimed at testing preparedness of public health specialists and other disaster management personnel. In December 2019, South Korean infectious disease experts engaged in a desktop exercise – or wargame – confronting a hypothetical epidemic.<sup>72</sup> The infectious disease that the exercise focused on was a highly contagious coronavirus which caused pneumonia, a choice for the exercise that seems eerily prescient now. Asked about the choice of a coronavirus for the exercise, Lee Sang-won, one of the experts from the Korean Centers for Disease Control who led the exercise, stated, “We’re relatively doing well on influenza but had been worried about the possibility of the outbreak of a novel coronavirus.” Having carried out the exercise, experts at the Korean Centers for Disease Control were uniquely prepared to combat the real coronavirus in 2020.

Finally, as a foundational element to the relative success of South Korea's response to COVID-19, the country moved to a single-payer insurance system in 2004. Having a universal single-payer system in place has ensured that all South Koreans have had access to insurance coverage and treatment during the pandemic. This might not have been the case if South Koreans were on multiple insurance plans, with individuals having different levels of coverage. There is still a private health insurance market in South Korea, with private insurance companies covering a wider variety of medical services and access to private hospitals which, in many cases, provide better care than public hospitals. Important in the context of an epidemic, however, the single-payer insurance system has ensured that no South Koreans had to avoid COVID-19 testing or treatment out of fear of not being able to afford treatment.

### **What key institutional challenges are being encountered (staffing, finances, supplies, etc.), and how is the government responding to them?**

Despite significant reforms following the MERS outbreak in South Korea in 2015, there are still wrinkles in the country's pandemic response and lines of authority within its organizational structure. Much of this has had to do with the Korean Center for Disease Control's relationship with the Ministry of Health and Welfare. As a directorate under the ministry, the Korean Centers for Disease Control did not have full independence in terms of setting pandemic response policy or shaping long-term policy. While the Centers for Disease Control was the lead organization in the country's response to COVID-19, it was still accountable to the ministry. In June 2020, the government announced that the Korean Centers for Disease Control would be established as an independent agency. In August 2020, parliament passed a new law establishing the Korean Disease Control and Prevention Agency as an independent entity.<sup>73</sup>

Another institutional challenge that South Korea has faced in its fight against COVID-19 is the balance between the usage of data for contact tracing and the right to privacy. In times of epidemic, Korean law allows the Ministry of Interior and Safety to access a wide range of personal records to aid in contact tracing. In January, to facilitate contact tracing, authorities posted location data on individuals who had contracted the virus, with data including information about when or whether the individual left for work, whether they wore masks, subway stations they used, businesses they used, and their clinic names.<sup>74</sup> This allowed other individuals to identify infected individuals. Authorities have since curtailed these releases, but similar data is embedded in the

smartphone app used to inform users whether they have come in contact with infected individuals. Privacy advocates have raised concerns about how the government will use this data and about its security, including the ability of hackers to access sensitive data or the ability of users to identify infected individuals using non-identifying information from the app.

South Korean authorities have not been able to depend on honest self-reporting from some groups. Several of the largest clusters of the virus were traced eventually to religious organizations identified by many Koreans as cults or to gay bars in Seoul.<sup>75</sup> Many individuals traced to these locations had resisted identifying themselves (or had used false names on entry records) because they did not want to reveal secrets to their families or were afraid of being targeted by the wider community. In such circumstances, data analytics and enhanced contact tracing may provide an effective means of identifying individuals who need to be tested, but they raise challenging ethical questions for public health specialists.

### **Institutional Response: Economic Sector**

**How has the government responded economically to the crisis? Has it shut down all or parts of the country to enforce social distancing?**

Throughout the pandemic, the South Korean government sought to keep the broader economy open and functioning. Towards this end, it invested heavily in its testing and contact tracing capacity, while requiring those exposed to the virus to be quarantined. It also strongly encouraged physical distancing and mask use. Authorities urged businesses to allow workers to work from home or telework where possible, and they required businesses to restructure their work environments so that they could meet enhanced social distancing and hygiene standards. Authorities did impose selective closures (or caps on customers) of businesses and organizations believed by health authorities to pose a particular risk in terms of virus spread – restaurants, bars, cinemas, theme parks, and large gatherings (including religious services).

Despite remaining open, the South Korean economy has taken an economic hit during the COVID-19 pandemic. Within the domestic economy, limited foot traffic—with many customers staying home—has limited sales.<sup>76</sup> The service sector has been hit particularly hard. More broadly, the downturn in global demand caused by economic closures around the world slowed exports from South Korea's important manufacturing sector markedly over the spring of 2020 (although exports have since rebounded).<sup>77</sup> Government financial support for businesses and income support for families has helped both weather the crisis (see below). Overall, however, the South Korean economy experienced a 1.0 percent decline in gross domestic product (GDP) growth over 2020.<sup>78</sup> While significant in that it marks an economic decline, the economy performed better than all other developed countries, and the economy is expected to rebound rapidly over 2021.

**Has the country taken any unique or extraordinary economic measures to address the crisis, such as providing support to various sectors, payments to businesses to retain staff, or direct payments to individuals?**

Faced with an emerging epidemic, the South Korean government provided a series of economic relief packages aimed at supporting individuals and families, replacing lost income, and bolstering the social safety net, while aiding businesses impacted by the pandemic. These efforts expanded

as the scope and scale of the COVID-19 pandemic became apparent. South Korea's economic response has concentrated on five major areas:<sup>79</sup>

- 1) Stabilizing employment: Ensuring that firms maintain employment rolls has been at the center of the Korean economic response to the pandemic. Towards this end, the government provided four-month wage subsidies for small businesses aimed at supporting low-wage workers. The Ministry of Employment and Labor also increased an existing subsidy supporting employee retention for firms facing downsizing pressures. Eligibility requirements were revised to allow for more jobseekers to access unemployment insurance, while more training opportunities were opened to the unemployed.
- 2) Economic relief for the self-employed and small and medium enterprises (SMEs): The government has worked with private banks and state banks to ensure that SMEs and the self-employed have access to low-interest emergency loans while easing terms on existing loans and insurance instruments. Small businesses were offered temporary reductions on value-added tax (VAT) and property and real estate taxes, reductions in rents and rental fees on publicly owned properties, and extensions on delivery periods for government contractors. Landlords providing SMEs with rent reductions were offered subsidies worth 50 percent of the reductions.<sup>80</sup> The government also has provided businesses with free masks and sanitizers to enable compliance with physical distance mandates.
- 3) Support for vulnerable businesses: The government established a stability fund for essential industries, while creating a primary collateralized bond obligation to facilitate financing for firms.<sup>81</sup> Also, vulnerable medium and large businesses negatively impacted by the pandemic can benefit from deferred tax payments, reduced customs duties, and free 24-hour customs support services. Industry-specific assistance has been provided for automobile parts manufacturers (research and development support, re-employment support programs); tourism and restaurants (support for renovations, preferential loans); and transport (deferral of charges; emergency loans). The government also has supported the automobile industry by providing customer incentives to purchase cars.
- 4) Financial market stabilization: The government took steps to stabilize the bond market, the securities market, the money market, and the foreign exchange market.<sup>82</sup> For the bond market, the government launched a bond market stabilization fund (10 trillion South Korean won; \$8.8 billion), while the Bank of Korea bought 1.5 trillion South Korean won (\$1.3 billion) in government bonds. To stabilize the securities market, the government created a securities market fund (10.7 trillion South Korean won; \$9.5 billion), while implementing a six-month short selling ban (since extended). In the money market, the government set up a new special purpose vehicle (SPV) to purchase bonds and commercial paper.
- 5) Increasing household income and stimulating consumption: South Korea has sought to keep customers spending in the economy, providing incentives to support industries particularly impacted by the pandemic. This includes a wide range of coupons and gift certificates offering discounts on goods and services. Many of these were for local stores and traditional markets or targeted a particular holiday or life event (e.g., childbirth). The consumption tax on automobiles was temporarily reduced by 70 percent. To ensure that working parents could work with schools closed, the government provided parents with coupons for subsidized daycare. The government also provided vulnerable Koreans with

other consumption coupons, emergency welfare support, and temporary reductions in health insurance premiums. Koreans within the lowest 70 percent income threshold were offered a direct emergency relief payment, with one-time household payments amounting to up to 1 million South Korean won (\$860).<sup>83</sup>

These economic relief programs were rolled out over five stimulus packages.<sup>84</sup> The first stimulus package, valued at 135 trillion South Korean won (\$119 billion) started rolling out on February 5, 2020. The National Assembly passed a secondary budget to support another stimulus package on March 17 that included 10.9 trillion South Korean won (\$9.6 billion) in additional spending. A second supplementary budget was passed on April 30, including 8 trillion South Korean won (\$7.1 billion) to fund part of the emergency household transfers. In July, the National Assembly passed their third supplementary budget, including 23.7 trillion South Korean won (\$20.9 billion) in spending. A final supplementary budget was passed on September 22, including an additional 7.8 trillion South Korean won (\$6.9 billion) in spending. Overall, the South Korean government has estimated its total fiscal response to combatting the virus at 277 trillion South Korean won (\$236.9 billion), or nearly 15 percent of GDP, not including spending associated with the Korean New Deal (see below).<sup>85</sup>

**Does the government have a plan in place for reopening the economy once the virus passes? What are its key dimensions?**

While South Korea's initial containment efforts were largely successful, it became apparent by April 2020 that the country would continue to struggle with keeping the virus under control. Concerned about the long-term implications on the economy, authorities began focusing on how to protect citizens while returning to normalcy in terms of economic activity. Experts at the Korean Centers for Disease Control began working with twelve different ministries to develop a comprehensive plan – dubbed Everyday Life Quarantine – for gradually reopening the economy in full in a safe manner. The ministries developed a set of guidelines for a full array of different types of businesses, organizations, and activities which allow for social distancing and hygiene standards while customers were welcomed back.<sup>86</sup> The guidelines were meant to cover nearly every situation people might face in their daily lives. They did not have any legal power and were presented as recommendations.

To aid in the economy recovery of the country, the Ministry of Economy and Finance and the Central Economic Response Headquarters (see below) also began working on a sustainable economic strategy to support the wider Korean economy as the pandemic lifted, shifting away from short-term efforts to stabilize the economy. In their review of the economic toll of the crisis, government officials felt that the pandemic had exposed structural weaknesses. At the same time, they identified the crisis as an opportunity to transform the economy into one that can compete in an increasingly automated and technology-driven global economy.<sup>87</sup> To secure this opportunity, government officials announced in late April that they were working on a rebuilding strategy they called the Korean New Deal.

As initially developed, the Korean New Deal initiative planned to deliver 70 trillion South Korean won (\$62 billion) in public investments in 5G technology, automation, artificial intelligence and machine learning, green technology, and energy-efficient manufacturing.<sup>88</sup> The plan also supports the development of low human contact economic activities – e.g., e-commerce, telemedicine, and

virtual offices – that provide services while limiting opportunities for contagion spread.<sup>89</sup> At its formal launch in mid-July, the Korean New Deal had expanded significantly in its fiscal scope, with policy makers having budgeted 160 trillion South Korean won (\$141 billion), including 100 trillion South Korean won in public funding coupled with 60 trillion South Korean won in committed investment by the private sector to be spent by 2025.<sup>90</sup> Towards this end, the plan will support training to upskill Korean workers to meet new skill needs in green manufacturing, artificial intelligence, and software programming. The Korean New Deal also established a public fund which, in conjunction with private sector funds, will seed investments to support the restructuring of the economy. The Korean New Deal plans to create 1.9 million jobs in technology and the green economy by 2025.

**Which ministries and agencies are coordinating the government’s economic response to the crisis? Is there a separate task force? How frequently does it meet? Who chairs the meeting?**

The Ministry of Economy and Finance is heading up the government’s economic response to the crisis. It has organized a cooperative approach across economic-related ministries and independent agencies to ensure a comprehensive governmental response to economic challenges. The structure and nature of this cooperative approach has evolved as the pandemic has expanded.

On February 3, Deputy Prime Minister Hong Nam-ki, who also holds the position of minister of economy and finance, held an emergency ministerial meeting on the threat posed by COVID-19, discussing with representatives of economic ministries and independent agencies what government could do to curb the outbreak of the virus in South Korea.<sup>91</sup> Initial discussions focused on how to expand the supply of masks and hygiene products, as well as identifying areas of potential risks to the Korean economy posed by the growing epidemic. This meeting of government representatives reconvened on February 28 to release the government’s first economic support package.

On March 18, the deputy prime minister convened the first Crisis Management Meeting, bringing together economy-related ministers and agency heads in a more formal approach to intra-governmental cooperation on an economic response to the pandemic.<sup>92</sup> The Crisis Management Meeting replaced a standing inter-ministerial meeting called the Ministerial Meeting on the Economy. After March 18, the Crisis Management Meeting was convened weekly under the leadership of the deputy prime minister, with ministers and agency heads meeting at the Seoul Government Complex. These meetings were used to assess economic conditions and identify short-term solutions, generating draft supplementary budgets and passing emergency wage subsidies and support packages for businesses and industries.

At the end of April, the South Korean government again moved to restructure the country’s economic response to the crisis. On April 29, the deputy prime minister led the first meeting of the Central Economic Response Headquarters.<sup>93</sup> In practice, this continued the weekly meeting that brought together economy-related ministries; however, it represented an increase in the scope of the inter-ministerial policy mandate, as the task force shifted to deal more effectively with the crisis as a long-term challenge and to craft a sustainable economic response. The organizations represented on the Central Economic Response Headquarters team have included the Ministry of Economy and Finance (including Customs, Tax, and Statistics); the Bank of Korea; the Fair Trade Commission; the Financial Services Commission; the Ministry of Trade, Industry and Energy; the Ministry of Employment and Labor; the Ministry of Land, Infrastructure, and Transport; the

Ministry of Small and Medium Enterprises and Startups; the Office of the Prime Minister; and the Office of Government Coordination.

**Have various operational subcommittees been formed addressing specific dimensions of the challenge? What are they, who chairs them, and how often do they meet?**

There are no specific subcommittees operating under the Central Economic Response Headquarters, as each ministry or independent agency focuses on projects and initiatives that are within its portfolio.

**Is there a secretariat supporting the government's response or a designated ministry that is providing technical support?**

The Ministry of Economy and Finance is responsible for technical support on economic matters. It coordinates on economic issues with the Bank of Korea, which has been responsible for the country's financial response, and other economy-related ministries through the Central Economic Response Headquarters. The ministry's ability to move broader economic policies forward on an intergovernmental basis is facilitated by the minister's concurrent status as deputy prime minister.

**How is communication taking place with sub-national government entities?**

Economic policy in South Korea has long been centralized, as reflected in the development of the nation's economic response to the pandemic. South Korea's economic response has been built on a national level, with the central government providing support directly to citizens and businesses through national agencies. Coordination between central government entities and local governments has focused on the health response and is facilitated through the Central Disaster and Safety Countermeasures Headquarters. In July, at the launch of the Korean New Deal initiative, the president announced that his government intends to give local governments a lead role in the development of Korean New Deal projects.<sup>94</sup> Local governments will be responsible for identifying and prioritizing innovative projects on a local and regional level, while the central government will play a coordinating and communications role.

**How are governments reaching out to external expertise in the business and economic communities? Have they developed mechanisms for channeling this expertise into government?**

Examples of the South Korean government's close working relationships with business and external experts in dealing with the pandemic largely focus on the country's health response rather than its economic response. There is little evidence of the government reaching out to external expertise in the business and economic communities on a formal basis on economic policy. The Ministry of Economy and Finance did hold a roundtable with non-governmental fiscal experts on May 27 to discuss short-term and long-term impacts of proposed supplementary budgets and stimulus packages.<sup>95</sup> As described above, the government is working closely with private sector investors in the roll out of the Korean New Deal initiative.



**How are economic communications being handled? How frequently do briefings occur?**

The Ministry of Economy and Finance has held regular press briefings on economic issues related to COVID-19, the government's economic response, and related legislation. This has included a weekly press briefing following the meeting of the Central Economic Response Headquarters. Presentations and press briefings have also been held to announce major policy initiatives.

**Where do these arrangements appear to be working well? Are there any success stories that are particularly relevant?**

In creating an initial emergency response to the COVID-19 pandemic, the South Korean government implemented a range of fiscal and macro-financial solutions that broadly follow those put in place by most developed countries. However, South Korea has designed some of these elements in a way that may have made them more effective in creating the stimulatory effects sought by policy makers. This includes investments that more acutely target important industries hurt by the pandemic and the resultant global decline in trade. It also includes the design of cash transfers and coupons in a way that encourages individuals and families to spend rather than save at a time when businesses are dependent on increased customer spending.

Notable among these is the structure of the direct relief payment provided to individuals and families in May 2020. Rather than depositing the funds in citizens' bank accounts or sending them a check, the government provided South Koreans with pre-paid cards (or credit card deposits) that they had to spend to use.<sup>96</sup> While the funds could substitute personal funds that would have been spent anyway, the debit card approach ensured that government funds went back into the economy to support small businesses. Importantly, individuals had to apply for the funds at community centers or through their banks, ensuring better targeting for those in need. Users also had to use all the funds by the end of August, or the balance would be returned to the government.

Government coupons and vouchers for particular services reflected a similar targeted stimulus approach. An important example here is the daycare vouchers offered to workers over the spring of 2020. With schools closed but many businesses still open, parents were hard pressed to find childcare solutions. A government voucher covering some of the cost of emergency daycare helped to close a needed resource gap for families unable to take advantage of emergency leave. The vouchers provided 2 million families with 400,000 South Korean won (\$353) in funds that could be spent on childcare.<sup>97</sup> At the same time, the government worked with daycare facilities to ensure that they provided clean, physically distanced, and safe care.<sup>98</sup> Notably, the demand for such care has exceeded supply throughout the pandemic.

As an effort to rebuild the economy, South Korea's Korean New Deal also provides an important example for global policy makers. While it is too early to assess the effectiveness of this initiative, it represents an effort to find advantage in the crisis. Rebuilding economies in the wake of the COVID-19 pandemic has come at great cost for all governments. The challenge will be to ensure that government funds focus not only on rebuilding the economies that existed in early 2020, but in using these funds to restructure economies and make them more sustainable and competitive downstream. South Korea's focus on future planning and steering government recovery funds towards upskilling workers and investing in new technologies offers the country an opportunity to emerge from the crisis in a better position.

## What key institutional challenges are being encountered, and how is the government responding to them?

As in other countries, the economic impact of the pandemic in South Korea has exposed structural weaknesses, including a heavy dependence on exports, with over 40 percent of the country's GDP based on exports of manufactured goods.<sup>99</sup> This dependence on exports has been a key driver of South Korea's economic success over time. However, during the COVID-19 pandemic, with global demand for such goods down, the dependence has limited South Korea's ability to weather the economic shock of the pandemic even as its COVID-19 response has allowed businesses to remain open. With the Korean New Deal, the South Korean government is seeking to diversify economic outputs and reposition the country as a leading knowledge economy.

The crisis also highlighted existing gaps between South Korea's formal sector and smaller, more informal businesses and the workers that depend on those businesses. South Korea's large businesses and conglomerations (*chaebol*) were well-positioned to manage the economic shock posed by COVID-19; however, while they represent 84 percent of GDP, these firms represent only 10 percent of employment in the country.<sup>100</sup> Small businesses and the informal sector have been disproportionately impacted, with businesses struggling to stay open and maintain employment through the prolonged economic downturn.<sup>101</sup> The government has sought innovative ways to help these businesses, but it is unclear what the long-term economic impacts will be. As South Korea emerges from the pandemic and pushes forward on the Korean New Deal, addressing the costs to small businesses and growing income inequality will have to be prioritized.

Finally, successful implementation of the Korean New Deal, still an aspiration more than a realized plan, will depend on many factors. Korean conservatives have criticized the plan, stating that it increases public spending without the pro-business reforms needed to enable private sector growth.<sup>102</sup> Many economists have concurred, raising concerns that large-scale government spending to stimulate the economy without reforms to South Korea's business environment (particularly its labor laws) could be problematic. While South Korea was among the top five competitive economies according to the World Bank's *Doing Business* report in 2020, South Korea's labor market regulations include factors like large severance payment mandates that put significant pressure on businesses. These regulations favor job preservation over job creation, and they may work against efforts to build flexibility into South Korea's economy and facilitate labor reallocation.<sup>103,104</sup>

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