

# KIEL POLICY BRIEF

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## How Taiwan and South Korea Contained the Spread of Covid-19 and Why this Matters for Attracting FDI



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- Competition for FDI is expected to intensify during and after the Covid-19 pandemic.
- Taiwan and South Korea are generally considered to be more successful than many others in containing the spread of Covid-19.
- Three basic and interrelated factors have led to their success in Covid-19 containment so far: efficient governance, high quality of medical research and health care, and a smart use of digital technologies.
- In general the same capacities—an efficient governance system, high quality research and public services and highly advanced digital skills and infrastructures—are key attributes of an adaptive and resilient business and investment environment capable of dealing with increasing systemic and idiosyncratic risks in a highly-globalized world.
- The demonstration of Taiwan's and South Korea's competence in the Covid-19 crisis should thus help them gain an advantage in attracting more FDI in the future.

# OVERVIEW/ÜBERBLICK

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**Keywords:** Covid-19, Taiwan, South Korea, FDI

- Der Wettbewerb um ausländische Direktinvestitionen wird sich während und nach der Covid-19-Pandemie weiter verschärfen.
- Taiwan und Südkorea gelten im internationalen Vergleich als besonders erfolgreich bei der Eindämmung von Covid-19.
- Drei sich ergänzende grundlegende Faktoren haben maßgeblich zu ihrem bisherigen Erfolg beigetragen: eine effiziente Regierungstätigkeit beim Umgang mit der Krisen, eine hohe Qualität der medizinischen Forschung und Gesundheitsfürsorge sowie eine intelligente Nutzung digitaler Technologien.
- Allgemein sind dieselben Eigenschaften – ein effizientes Regierungssystem, hochwertige Forschung und qualitative öffentliche Dienste sowie hoch entwickelte digitale Kompetenzen und Infrastrukturen – Schlüsselfaktoren eines anpassungs- und widerstandsfähigen Geschäfts- und Investitionsumfelds, das in der Lage ist, den zunehmenden systemischen und idiosynkratischen Risiken einer stark globalisierten Welt erfolgreich zu begegnen.
- Die in der Corona-19-Krise nachgewiesene Kompetenz dürfte Taiwan und Südkorea daher für die Zukunft einen Vorteil bei der Anziehung ausländischer Direktinvestitionen verschaffen.

**Schlüsselwörter:** Corona-Krise, Taiwan, Südkorea, Ausländische Direktinvestitionen

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# HOW TAIWAN AND SOUTH KOREA CONTAINED THE SPREAD OF COVID-19 AND WHY THIS MATTERS FOR ATTRACTING FDI

**Frank Bickenbach and Wan-Hsin Liu**

## 1 INTRODUCTION

The Covid-19 pandemic poses a tremendous challenge for global health. To cope with this challenge and slow down the spread of Covid-19,<sup>1</sup> containment measures have been implemented, factories have been closed, personal contacts have been reduced to a minimum and national and international mobility has been restricted. The Covid-19 pandemic and the policy measures implemented have led to a massive shock to the world economy.

The flows of foreign direct investment (FDI) that is generally considered advantageous for economic growth and social development will drop significantly by about 30% to 40% in 2020-2021 according to the estimates of UNCTAD (UNCTAD, 2020). At the same time, the need for foreign capital is expected to increase, as many firms and countries worldwide are facing increasing financial difficulties due to the economic consequences of the Covid-19 pandemic. Against this background, competition for FDI is expected to intensify during and after the Covid-19 pandemic.

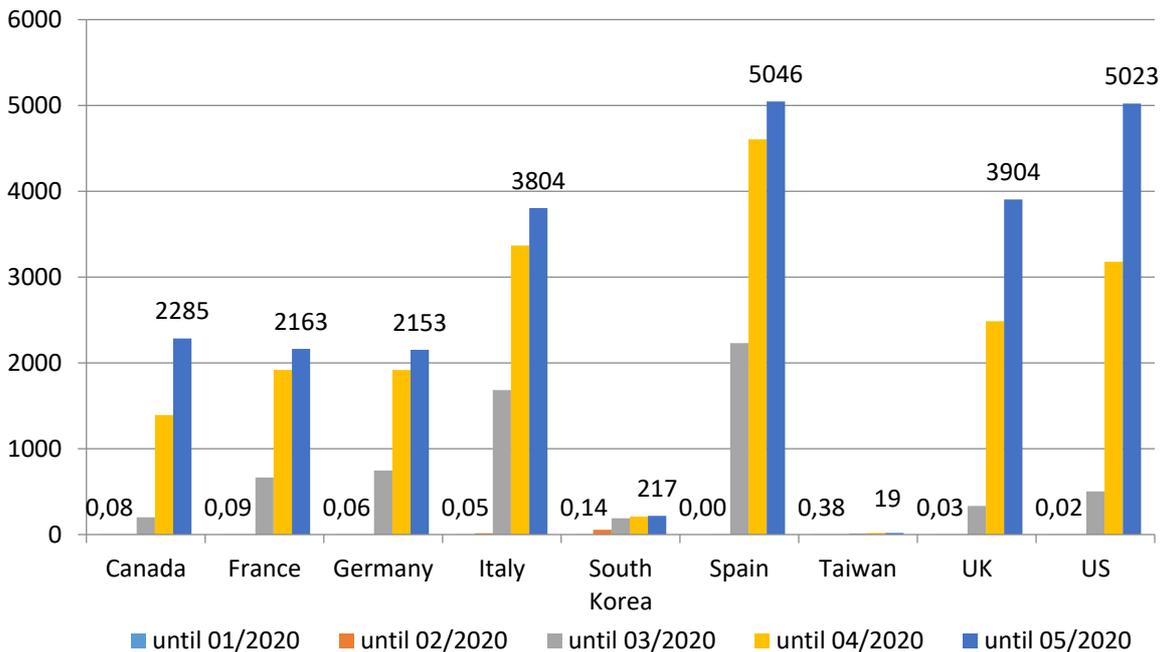
Taiwan and South Korea are generally considered to be more successful than many others in containing the spread of Covid-19, despite their geographic proximity to and intensive economic linkages with China, where the Covid-19 pandemic started in late 2019. Until May 25, 2020 there were 441 reported cases of Covid-19 in Taiwan and 11,206 cases in South Korea. This corresponds to about 19 (217) cases per 1 million persons in Taiwan (South Korea). These numbers are much lower than the numbers for, e.g., Germany (2153 per 1 million persons), Italy (3804) or the United States (5023) (Figure 1). And not only the numbers of reported cases are much lower in Taiwan and South Korea, but also their mortality rates (Taiwan: 1.6%; South Korea: 2.4%) are much lower than those for Germany (4.6%), Italy (14.3%) or the US (5.9%). At the same time, while companies in Taiwan and South Korea also

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<sup>1</sup> According to a modelling forecast from the Johns Hopkins University, Taiwan and South Korea were predicted to be the second and fourth most hit economies outside mainland China in terms of imported Covid-19 cases (Gardner, 2020). As opposed to the forecast, Taiwan was able to prevent any large-scale spread of COVID-19 on site until now and South Korea was highly successful in stopping the further spread of COVID-19 in the country after a first major local outbreak occurred in late February/early March 2020.

face global economic challenges, their local operations have been much less hampered by containment measures on site.<sup>2</sup>

**Figure 1:**  
Cumulative reported Covid-19 cases per 1 million persons



Note: The reference date for the first four periods considered is the last day of each month, respectively. For the last period the reference date is May 25, 2020 for all except for Spain (May 24, 2020).

Source: European Center for Disease Prevention and Control (2020); own illustration.

The success of Taiwan and South Korea in providing a (relatively) safe economic and business environment for investors in these particularly difficult times will certainly help these two economies to further build on their already good reputations as a location for (foreign) investment. And the positive effect of the successful handling of the Covid-19 pandemic on future investment in Taiwan and South Korea will likely not be limited to short-term reputation effects. Three underlying factors that led to their success in containing the Covid-19 pandemic will very likely encourage foreign investors to increase investment there beyond the current crisis: efficient governance, high quality of medical research and health care, and a smart use of digital technologies.

<sup>2</sup> Compared to the same quarter of 2019, the real gross domestic product (GDP) in the first quarter of 2020 still increased in Taiwan (1.5%) and in South Korea (1.3%). In contrast, there was already a substantial fall in Germany (-2.3%) and Italy (-4.8%) and (still) near stagnation in the US (0.3%), where the situation deteriorated massively in the second quarter of 2020. All numbers are from OECD (2020a), except for the number for Taiwan which is from DGBAS (2020).

## 2 KEY FACTORS IN CONTAINING COVID-19 IN TAIWAN AND SOUTH KOREA

### 2.1 EFFICIENT GOVERNANCE

Both governments reacted very rapidly and effectively to the threat of Covid-19. The fast and competent reaction was partially due to the lessons learned from dealing with previous occurrences of related diseases, SARS (Severe Acute Respiratory Syndrome, Taiwan) in 2002/2003 and MERS (Middle East Respiratory Syndrome, South Korea) in 2015. Taiwan was one of the first economies in the world that started to implement a series of containment measures already in late 2019 to stop the spread of the then mysterious virus via travelers from Wuhan. The Central Epidemic Command Center (CECC) was quickly activated. It is headed by the Health Minister, and is responsible for the overall strategy and coordination of policies related to the containment of the spread of Covid-19. Similarly, with South Korea set on the country's highest infectious disease alert level the Central Disaster and Safety Countermeasure Headquarters (CDSCH) was activated and is led for the first time by the Prime Minister. The Headquarters plans, directs and coordinates all policies aimed at stopping the spread of the virus in South Korea with the Korea Centers for Disease Control and Prevention (KCDC) playing a key role in implementing the policies in practice (Oh, 2020; South Korean Ministry of Health and Welfare, 2020). With the political leadership of CECC and CDSCH respectively, Taiwan and South Korea have been able to efficiently coordinate related policies across ministries, public authorities, medical centers, industries and the general public.

### 2.2 HIGH QUALITY OF MEDICAL RESEARCH AND HEALTH CARE

Both South Korea and Taiwan have a highly developed medical system—in terms of both medical research and health care. Their medical researchers have made substantial progress in developing reliable and quick medical tests to identify the infected people as well as in identifying variant Coronavirus strains. While the tests help identify infected persons as early as possible, the identification of different virus strains is highly valuable for the development of vaccines for long-term control of the virus. South Korea's ability to develop and produce Covid-19 tests enabled the South Korean government to launch a massive testing program after the first surge of confirmed cases to ensure that as many people as possible could be tested and infectious persons be identified as early as possible. In addition to medical research, both Taiwan and South Korea rank highly in terms of their medical capability and capacity in treating the sick. In terms of the relative number of acute care hospital beds, South Korea (7.1 beds per 1,000 inhabitants in 2017) ranked second only to Japan (7.8 in 2017) among 35 countries for which the latest related data are available to OECD (OECD, 2020b). While the corresponding number for Taiwan is a bit lower (about 4.7 acute care beds

per 1000 inhabitants in 2018),<sup>3</sup> Taiwan has a relatively large capacity to provide intensive care, as shown by the high number of intensive care beds (30 ICU beds per 100,000 inhabitants in 2018; Taiwanese Ministry of Health and Welfare, 2019). The relative ICU capacity in Taiwan is close to that of Germany (about 34 per 100,000 inhabitants in 2017) and higher than that in the United States (26 in 2018) and in many other countries, e.g., in Italy (less than 9 in 2020) (OECD, 2020c).

### 2.3 SMART USE OF DIGITAL TECHNOLOGIES

A key element in slowing or even stopping the spread of Covid-19 is to break the chain of infection, once infectious persons have been identified. Both South Korea and Taiwan have made intensive and smart use of digital technologies for this purpose. In particular, they use available digital technologies to track the movement of infected persons and persons considered likely to be infected due to their stay in high-risk areas or due to contacts with infected persons. In South Korea, for example, GPS maps have been used to track the movement of infected individuals and key mobility information has been made available to the public (The Guardian, 2020). A comparable digital tracking system has also been implemented in Taiwan. It helps, for example, identify individuals under quarantine who leave their accommodation without permission. That information will be transmitted to a restricted group of officials and public authorities as fast as possible, allowing them to follow these individuals' movement and take actions to reduce the risk of infection of others (Central News Agency, 2020). In addition, a digitally-supported immigration information system is linked to the digital tracking system, enhancing the exchange of information between public bureaus to control the spread of Covid-19 in cases where incoming visitors belong to the high-risk group. Last but not least, digital technologies are also used in Taiwan to make the restricted supply of face masks more accessible to the public. People can easily find information online as to where face masks are still available for sale. This not only reduces unnecessary searching and related risks of infection but also helps reduce public uncertainty and concern.

### 2.4 COMPLEMENTARITIES

While each of the three factors mentioned above is critical for slowing down the spread of Covid-19, their effectiveness is greatly enhanced by their effective coordination. Efficient governance is advantageous for coordinating the limited resources in the medical system. Digital technologies and big data analysis can inform political decisions thus improving governance and can help coordinate the allocation of the limited (medical) resources such as face masks. And they help break the infection chains as early as possible thus reducing the number of infections and preventing an overload of the medical system. This in turn increases

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<sup>3</sup> The relative acute care hospital bed capacity in Taiwan is still larger than the corresponding OECD average (3.7; OECD, 2020b). The number for Taiwan is calculated by the authors based on the Taiwanese statistics provided by its Ministry of Health and Welfare and following the OECD definition (OECD, 2020d). To calculate the number of acute care hospital beds, the hospital beds for long-term care, rehabilitative care and non-acute psychiatric care are subtracted from the total number of the available hospital beds.

public confidence in political measures and actors and further improves governance. Taiwan and South Korea do not only dispose of the critical resources to effectively cope with the Covid-19 pandemic, but their success also shows that they are capable of managing them in a highly competent and effective way.

### 3 FROM SUCCESS IN COVID-19 CONTAINMENT TO MORE FDI IN THE FUTURE

The key factors and capabilities just described have not only enabled Taiwan and South Korea to cope with the health challenges and economic consequences of the Covid-19 pandemic better than many others, however. In general, the same capacities—an efficient governance system, high quality research and public services (including beyond the health sector) and highly advanced digital skills and infrastructures—are key attributes of an adaptive and resilient business and investment environment capable of dealing with increasing systemic and idiosyncratic business, economic, societal and environmental risks in a highly globalized world. The demonstration of their competence in the Covid-19 crisis should thus give Taiwan and South Korea a crucial advantage that will help them attract more foreign investors in the future.

In short, the Covid-19 pandemic is a huge challenge for the world that reaches far beyond the health aspect. The severe recessions in most countries in the world and the high degree of uncertainty regarding their economic prospects will significantly reduce global FDI flows at least in the short run. At the same time, many companies and countries will be increasingly dependent on additional foreign capital. Taiwan's and South Korea's efficient response to the Covid-19 threat has not only contained the spread of Covid-19 among their populations but may also signal their competence in dealing with complex societal and economic challenges more generally. Their performance in the Covid-19 crisis may thus help them gain an advantage in attracting more FDI in the future.

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# IMPRESSUM

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