

Lockdown policies and people in the age of COVID-19: Lessons from the OECD Policy Tracker

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Closing down social and professional interactions have helped bringing COVID-19 outbreaks under control, but at high economic and human cost. Some countries locked down their economies with few exceptions, while some allowed most economic activity to go ahead subject to observing physical distancing and hygiene advice. Others relied heavily on testing, tracking and isolation of the sick. Countries using all these approaches have managed to bring the virus under control, but at widely different cost to society. These experiences suggest more targeted restrictions and heavy investments in the capacity to test for the virus, track contacts and isolate cases may help limit confinement and the spread of the virus. Such responses need to strike a fine balance, allowing economic activity to take place, while instilling the sense of safety and confidence that people need to get back to business.

As the COVID-19 pandemic took hold of the world, countries responded with unprecedented restrictions on movement and professional and social interactions. Frequently used policies include issuing health advice, social distancing at the work place, case isolation, household quarantines, community contact reduction, shop and school closures, prohibitions of mass gatherings and travel restrictions (OECD, 2020a). These containment measures aim to slow the spread of the virus, buying time to enhance healthcare capacity and better address

the virus. The benefits for society of slowing the spread of the virus are represented by saved human lives and are massive (see e.g. Greenstone and Nigram, 2020).

However, containment measures and confidence loss lead to high economic and societal costs. By disrupting both supply and demand, restrictions and behavioural responses to the disease are projected to lead to a global GDP contraction of up to 7.6% in 2020, a decline unmatched in living memory (OECD, 2020b).

Some measures are relaxed as the spread of the virus is slowed, but some will stay with us until an effective treatment or a vaccine is widely available. Thus, physical distancing, wearing protective masks and testing, tracking, tracing and isolating (TTTI) will be the main instruments to fight the spread of the virus as confinement restrictions are eased. However, stricter measures might need to be re-imposed in countries hit by new waves of contagion. For example, recent flare-ups of cases in Beijing (China) have led to immediate tightening of containment measures in some areas, and re-opening has been partially rolled back on the state level in the United States. This makes it important to understand the effectiveness and cost of policy options and their economic and societal impacts. This Blog post provides insights on how containment policies and policy packages have affected mobility. We find that while containment policies contributed to curb people's mobility, a range of containment and mitigation measures, differing in their design and strictness, have been consistent with bringing the virus outbreak under control. We tentatively conclude that countries, now better prepared, can fight future waves of the virus with more targeted and less disruptive policy packages.

How did countries respond to the Covid-19

outbreak?

As the virus spread around the globe, countries had to find effective responses taking into account the capacity of their health systems and their capability to identify and isolate contagious persons. The interactive map below shows how the level of restrictiveness, as measured by the OECD COVID 19 Policy Tracker, evolved across OECD members and partner countries from the day the number of confirmed cases in the respective countries exceeded one per million inhabitants until 3 July (Figure 1.; OECD, 2020c). Policy responses to contain the virus differed, ranging from relatively moderate restrictions and distancing advice like in Sweden to a temporary lockdown of social life in for example Italy, France and Spain. Countries hit later by the virus could draw on the experience of other countries, and many of them were quick to implement containment policies when they recorded their first cases (e.g. Hungary and Poland).

Figure 1. Countries tightened containment measures as virus cases spiralled upwards

Evolution of strictness of containment measures since countries' confirmed cases exceeded one million per inhabitants

Source: OECD Policy Tracker, COVID-19 Case data: European CDC – Situation Update Worldwide and Roser et al. (2020)

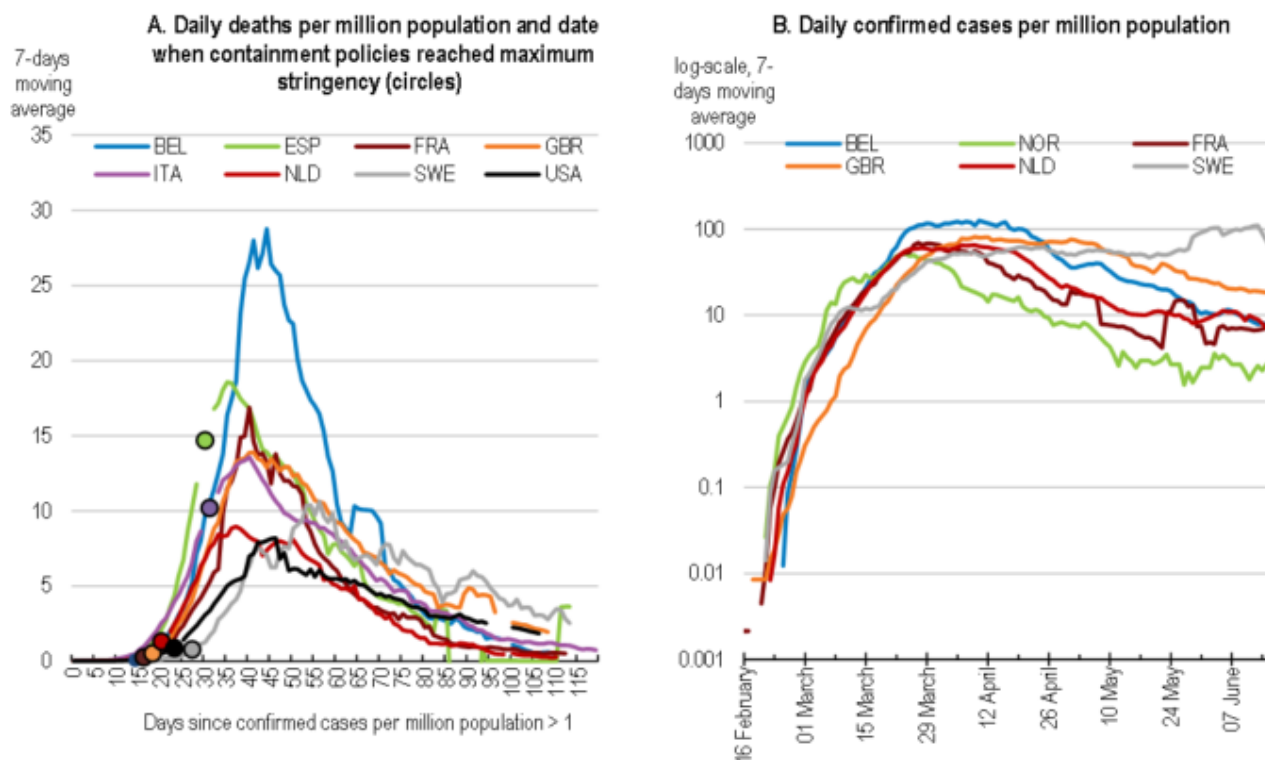
Several countries with experience from the 2002-04 SARS and the 2015 MERS outbreaks, including South Korea and Vietnam, were able to bring down the initial wave of contagion with less disruptive policies and limited economic damage. A cornerstone of the policy response in these countries, along with health- and distancing advice, has been to test on a large scale, track and isolate infected people as well as their recent contacts (OECD, 2020c; Korea Ministry of Economy and Finance, 2020). Similarly, Germany's approach of extensive testing and early track and trace helped to control the spread

of the virus with less stringent measures and less economic damage than in some other large European countries, although other factors may have contributed too (OECD, 2020b).

Viral outbreaks that are highly infectious and that cause serious health effects generally require more comprehensive policy packages if these policies are implemented late (OECD, 2020a). China's early experience in the province of Hubei, notably the city of Wuhan, demonstrated that a package of strict but economic costly policies, including closing down whole sectors of the economy and ordering people to stay at home, was consistent with bringing down contagion in highly affected areas. Many countries, including the hardest hit European countries (Belgium, France, Italy, Spain and the United Kingdom) followed the general idea of a strict lockdown to flatten the peak number of infected people and reduce immediate pressures on their health systems (Figure 2, Panel A; OECD 2020a, 2020c).

By contrast, some countries, including Denmark, Norway and the Netherlands opted against a complete lockdown to limit economic and social impacts. These three countries had a similar trajectory of confirmed cases per million population as France and Belgium until mid-March (Figure 2, Panel B). As France and Belgium implemented lockdowns, Denmark, Norway and the Netherlands closed schools, banned high-risk activities and legislated distancing measures, but allowed most businesses to continue operations and put limited restrictions on individual movement, conditional on distancing rules being observed. Still, the latter three countries managed to bring down contagion to a manageable level (Roser et al., 2020, OECD 2020c). Sweden has to an even larger extent relied on distancing advice and entrusting the population to act responsibly and limit their movement as much as possible as an alternative to formal restrictions. Progress in reducing contagion there has been positive, but much slower, while economic costs are similar to their neighbours.

Figure 2. Policy packages of different stringency, timing and design corresponded with a flattened curve



Note: Average index of containment policies in the OECD COVID-19 Policy Tracker. Methodology for recording deaths changed for Spain (25th May) and United Kingdom (1st June). Methodologies for recording COVID-19 deaths may differ between countries (e.g. some countries may only count hospital deaths, while others include deaths in nursing homes). Country comparisons with any single methodology should therefore be made with caution. An alternative estimate of COVID-19 related deaths, ["Excessive death rates" published by The Economist](#), can for example provide insights on how much official numbers may be underestimated.

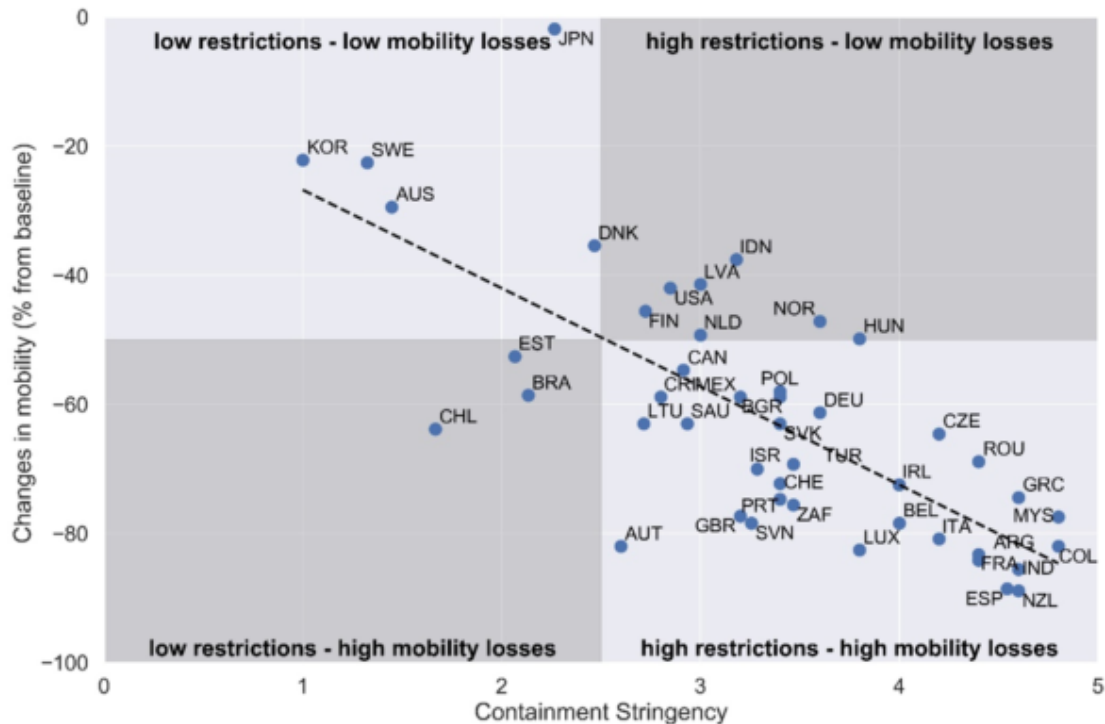
Source: OECD COVID-19 Policy Tracker, COVID-19 Case data: European CDC – Situation Update Worldwide and Roser et al. (2020).

How do containment measures affect movements and thereby exposure to infection?

Strict containment policies are clearly correlated with people's visits to public places, as identified in Google's COVID-19 Community Mobility Reports (Figure 3). However, recent research for Europe and the United States suggests that lower mobility is largely a behavioural response to the health situation and official advice (Andersen et al., 2020; Chen et al., 2020). This finding is consistent with the experience from countries relying predominantly on health advice (Sweden) or countries relying more on health advice in combination with

some formal confinement policies such as in Denmark, the Netherlands and Norway.

Figure 3. Personal visits to retail and recreation facilities decreased as restrictions to movement increased



Note: Mobility trends for places like restaurants, cafes, shopping centres, theme parks, museums, libraries, and movie theatres. Mobility change is a comparison relative to a baseline day before the pandemic outbreak. Baseline days represent a normal value for that day of the week, given as median value over the five-week period from January 3rd to February 6th 2020. Average values from day 21 to day 27 after confirmed cases surpassed 1 per million of population.
Source: Google Covid-19 Community Mobility Reports, OECD COVID-19 Policy Tracker.

Nonetheless, restrictions should be expected to reduce mobility beyond these voluntary behavioural responses to the pandemic. One way to assess the impact of lockdown measures is to look at changes immediately around the time of implementation. Restrictions were often imposed more or less immediately after the initial announcements. Daily mobility data from Google helps to show how mobility patterns evolved around confinement dates (Figure 4). Taking the United Kingdom as an example, visits to places of retail and recreation, to workplaces, and to public transit hubs had already fallen for a week before the lockdown was imposed on 23 March. This could potentially reflect other policies and recommendations already

put in place, such as strong advice to stay at home if possible, as well as a voluntary response to health and safety risks. People also seem to have anticipated future policy tightening, as illustrated by visits categorised as grocery and pharmacy rising sharply a week before the lockdown, before falling well below average thereafter. Anticipation could also reflect news coverage, herd behaviour and developments in neighbouring countries.

Mobility patterns are remarkably similar across countries, with one exception. Visits identified in Google's Community Mobility report to places categorised as "parks" suggest that confinement measures do have an impact on limiting mobility independent of the spread of the disease itself. Mobility to parks fell in many countries, including France, Italy, Turkey and the United Kingdom, which explicitly closed down parks, beaches and forests to avoid people breaching social distancing rules. Visits to parks increased substantially in other countries, such as Germany, the Netherlands and the Nordics, which allowed and in some cases even encouraged their use conditional on social distancing

Figure 4. People reduced movement ahead of lockdowns

Select your country

Source: Google Covid-19 Community Mobility Reports, OECD COVID-19 Policy Tracker, COVID-19 Case data: European CDC – Situation Update Worldwide and Roser et al. (2020).

Does activity return once containment measures are eased?

Many countries are now easing confinement restrictions. There are good reasons for doing this, as the number of infections falls to a more manageable level, and countries boost treatment capacity and capabilities to test, trace and

quarantine the infected.

Overall, the descriptive evidence above indicates that containment restrictions lead to direct behavioural responses. Assuming that this relationship works in both directions, loosening restrictions will allow economic activity to pick up again. Indeed, recent mobility data show that people increased their movement once the strictness of confinement measures eased, although not enough to offset the initial drop (Figure 4). Thus, by easing or revoking containment measures, governments can allow the economy to recover. However, in the same way as activity likely dropped more from people's fear of infection than from restrictions put in place, fear will also keep demand from immediately climbing back to previous levels as countries roll back containment policies. These fears need to be assuaged by a credible plan to control contagion also after some restrictions are lifted in order to help bring back confidence and growth.

Cross-country lessons for better managing COVID-19 in the future

As professional and social interactions increase, it will remain critical for countries to continue managing the spread of COVID-19, especially in the absence of a vaccine or an effective treatment. Many distancing measures will need to stay in place, and a resurgence of cases may force the reintroduction of stricter containment measures. Strict lockdown measures were consistent with reducing the spread of the virus in countries first hit (China) and countries that felt the need to buy time to increase their healthcare capacities (e.g., France, Italy, Spain and the United Kingdom). However, such measures are very disruptive to the economy and social life, and risk losing public support in the long term.

As knowledge about the virus increases, and healthcare system

capacity have risen, future containment measures may be better targeted to lower the economic and social burden. Experience across OECD countries suggests that there is scope to control the spread of the virus while avoiding strict measures that heavily intervene in the economy and people's lives like school closures, blanket business closures and shelter-at-home orders. Future measures should include a combination of strong public health advice (e.g. Denmark), boosting testing capacity and using technology to improve contact tracing (e.g. South Korea, Singapore). In the event of new flare-ups more targeted lock-downs should be focused on clusters as long as the virus reproduction rate remains low. Countries should invest in testing and tracking to know how and where the virus spreads, to be able to fight future waves of COVID-19 with policy packages better targeted to the sectors, geographies and people at risk, while instilling the sense of confidence and safety that people need to get back to business.

References:

Andersen, A., E. Hansen, N. Johannesen and A. Sheridan (2020), "Pandemic, Shutdown and Consumer Spending: Lessons from Scandinavian Policy Responses to COVID-19", *Papers 2005.04630*.

Chen, S., D. Igan, N. Pierri and A. F. Presbitero (2020), "Tracking the Economic Impact of COVID-19 and Mitigation Policies in Europe and the United States", *IMF Special Series on COVID-19*.

European CDC (2020), *Situation Update Worldwide*.

Greenstone, M. and V. Nigam, (2020), "Does Social Distancing Matter?", *University of Chicago, Becker Friedman Institute for Economics Working Paper No. 2020-26*.

Korea Ministry of Economy and Finance (2020), *Flattening the curve on COVID-19: How Korea responded to a pandemic using ICT*.

OECD (2020a), *Flattening the covid-19 peak: Containment and mitigation policies*, Policy Brief, OECD Publishing, Paris.

OECD (2020b), *OECD Economic Outlook, Volume 2020 Issue 1*, OECD Publishing, Paris.

OECD (2020c), *Country Policy Tracker* (Accessed 10 April 2020), Paris.

OECD (2020d), *Beyond containment: Health systems responses to COVID-19 in the OECD*, Policy Brief, OECD Publishing, Paris.

Roser *et. al* (2020), *Coronavirus Pandemic (COVID-19)*, Our World in Data.

WHO (2020), *Covid-19 situation reports*, Geneva.