

The COVID-19 dilemma: mobility and economy

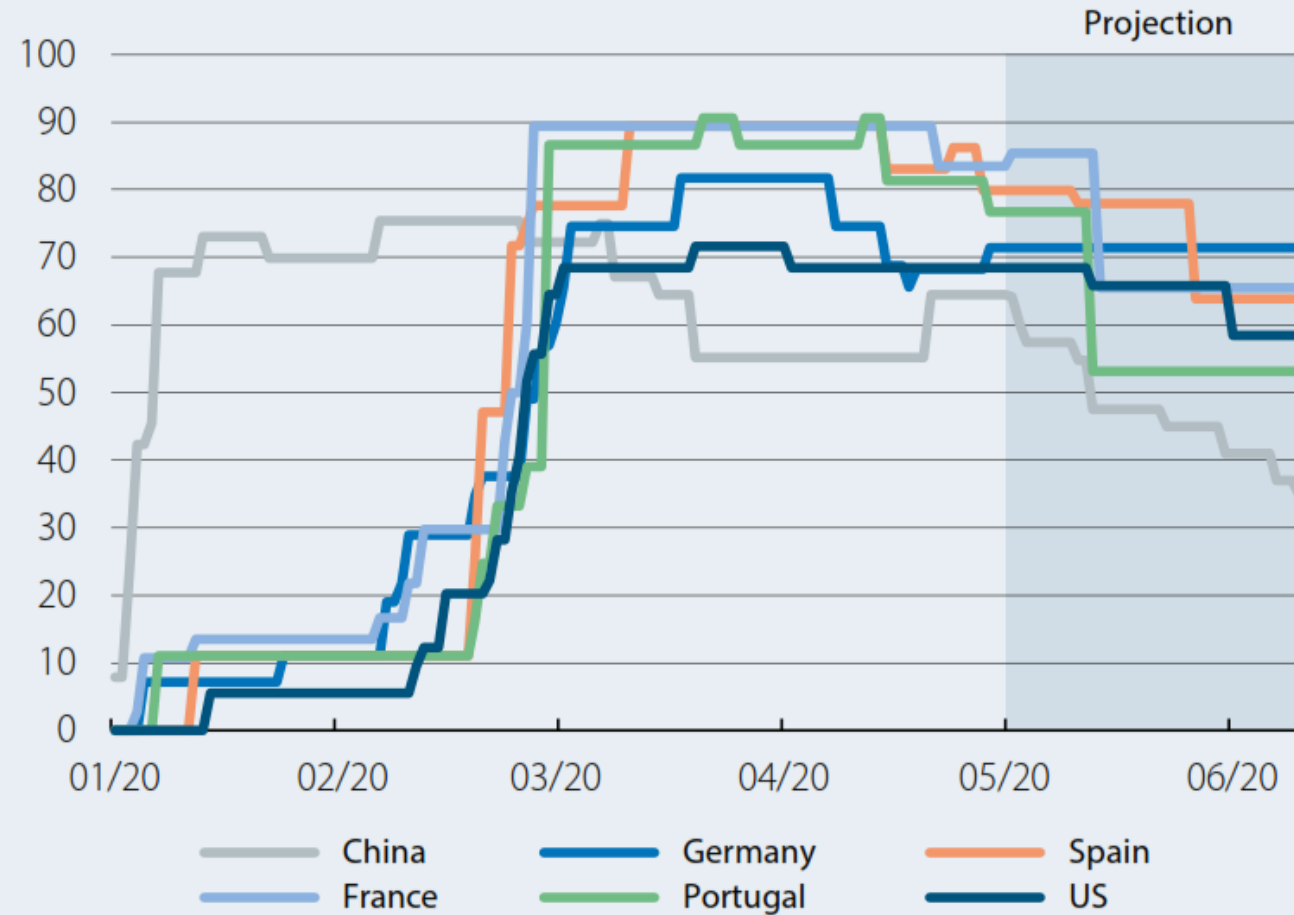
Clàudia Canals, Javier Garcia-Arenas,
Eduard Llorens Jimeno and
Pablo Vicente Pastor Camarasa

The COVID-19 dilemma: mobility and economy

- The differences between countries in the severity and duration of the lockdown measures at the beginning of the year have been reflected in the declines in GDP in Q1.
 - In Q2, the epicentre of the pandemic (and the lockdown) has moved from China to Europe and America, which will result in unprecedented declines in economic activity in the major advanced economies.
-
- The struggle to **contain the pandemic** has **forced most governments** to **impose lockdown** measures for the population.
 - The objective was (and remains) to **minimise the human cost of COVID-19**, to prevent hospitals from being overrun and to **buy time** in order to learn more about and thus combat the virus.
 - However, **restrictions on mobility** come with a **significant economic cost**.
 - At a time when many countries are beginning to gradually lift the lockdown measures, and with the first estimates of GDP for Q1 2020, we can begin to glimpse the impact of the social distancing measures on the economy in this second quarter of 2020.

Lockdown stringency

Level (from 0 to 100) *



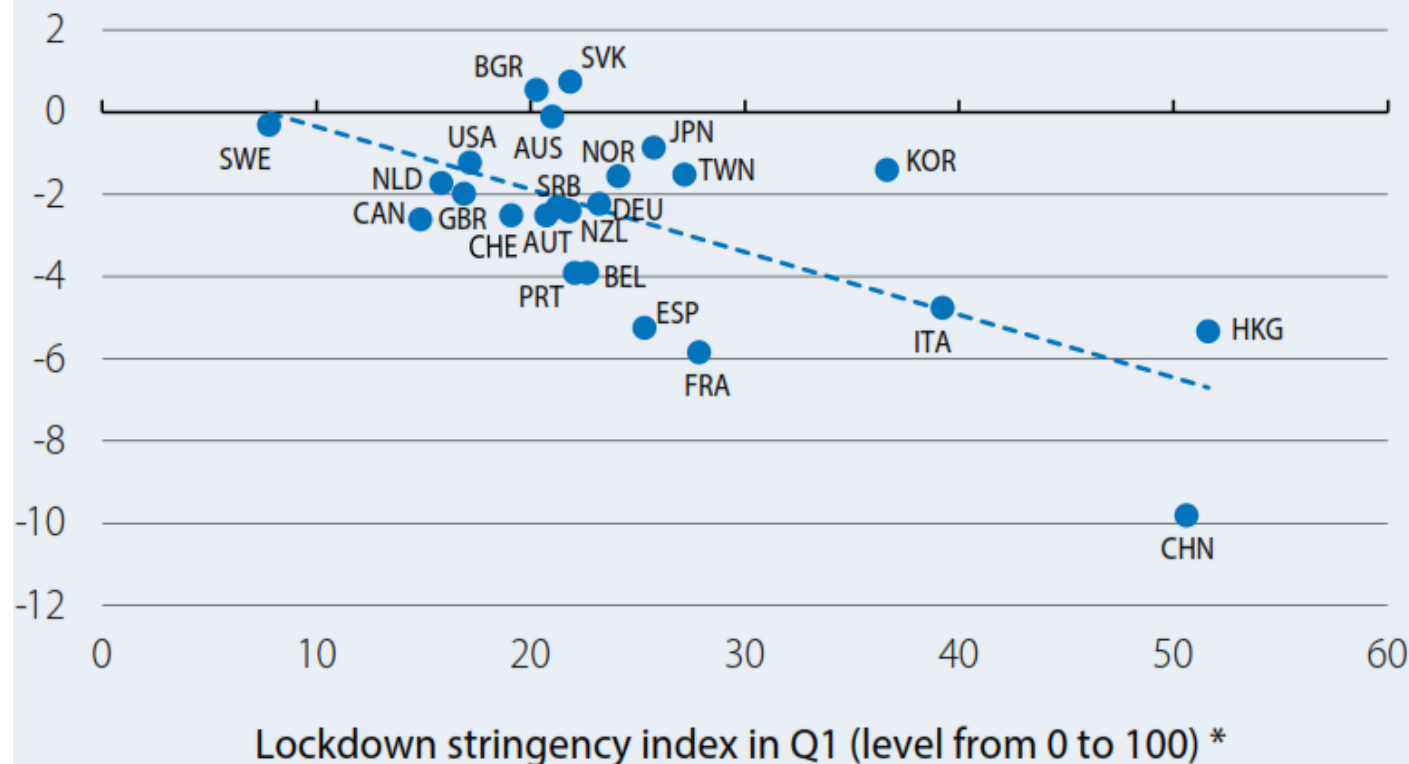
Note: * This is the Stringency Index developed by the University of Oxford, which measures the severity of numerous social distancing policies decreed by the various countries. It can range from 0 (no measures) to 100 (maximum severity in all measures).

Source: CaixaBank Research, based on data from the Oxford COVID-19 Government Response Tracker, Blavatnik School of Government.

$GDPgrowth_{i,t} = \delta_0 + \delta_1 \Delta Lockdown\ stringency\ index_{i,t} + \delta_i + \delta_t + \varepsilon_{i,t}$ where $\delta_1 + \delta_t$ are fixed country and month effects, respectively, and Δ represents the change in time. To perform this estimate, we used panel data from 11 countries for January, February and March. Note that we use month-on-month figures for GDP growth, calculated using the quarter-on-quarter growth for Q1 and economic activity indicators for the same quarter. The fixed effects may already be controlled by elements such as the potential for the adoption of remote working in the various countries. For a detailed analysis of the relationship between economic activity and remote working in the context of the COVID-19 outbreak, see the Focus «The COVID-19 outbreak provides a boost to remote working» in this same *Monthly Report*.

Lockdown stringency and economic activity

Quarter-on-quarter GDP growth in Q1 (%)

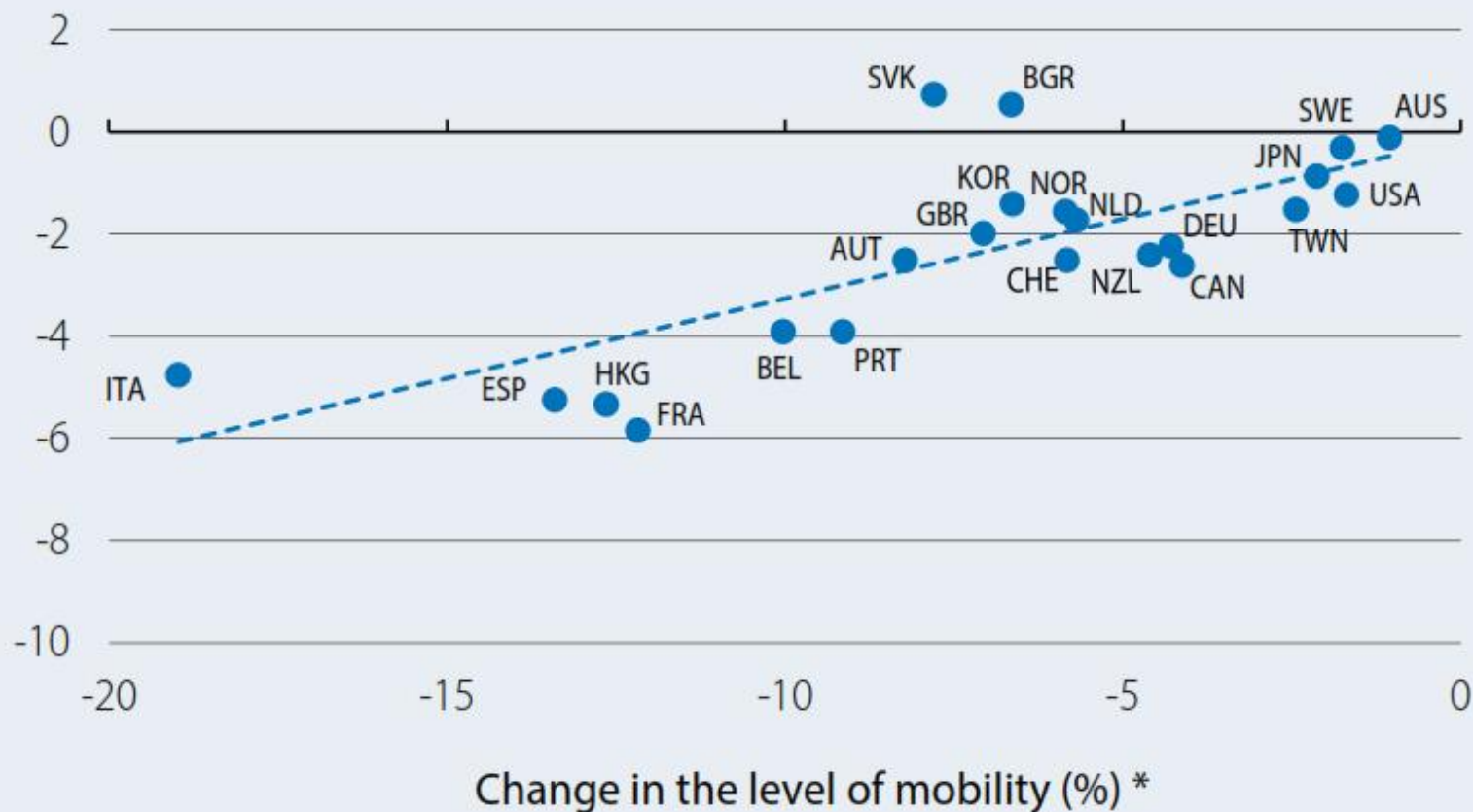


Note: * The lockdown stringency index measures the severity of numerous social distancing policies decreed by the various countries. It can range from 0 (no measures) to 100 (maximum severity in all measures). This is the Stringency Index developed by the University of Oxford. We calculate the average of the index in Q1 2020 (in Q4 2019 it stood at 0 for most countries; in China and Hong Kong it was positive, but still very low).

Source: CaixaBank Research, based on data from the University of Oxford (Stringency Index) and the various national statistics institutes.

Mobility and economic activity

Quarter-on-quarter GDP growth in Q1 (%)

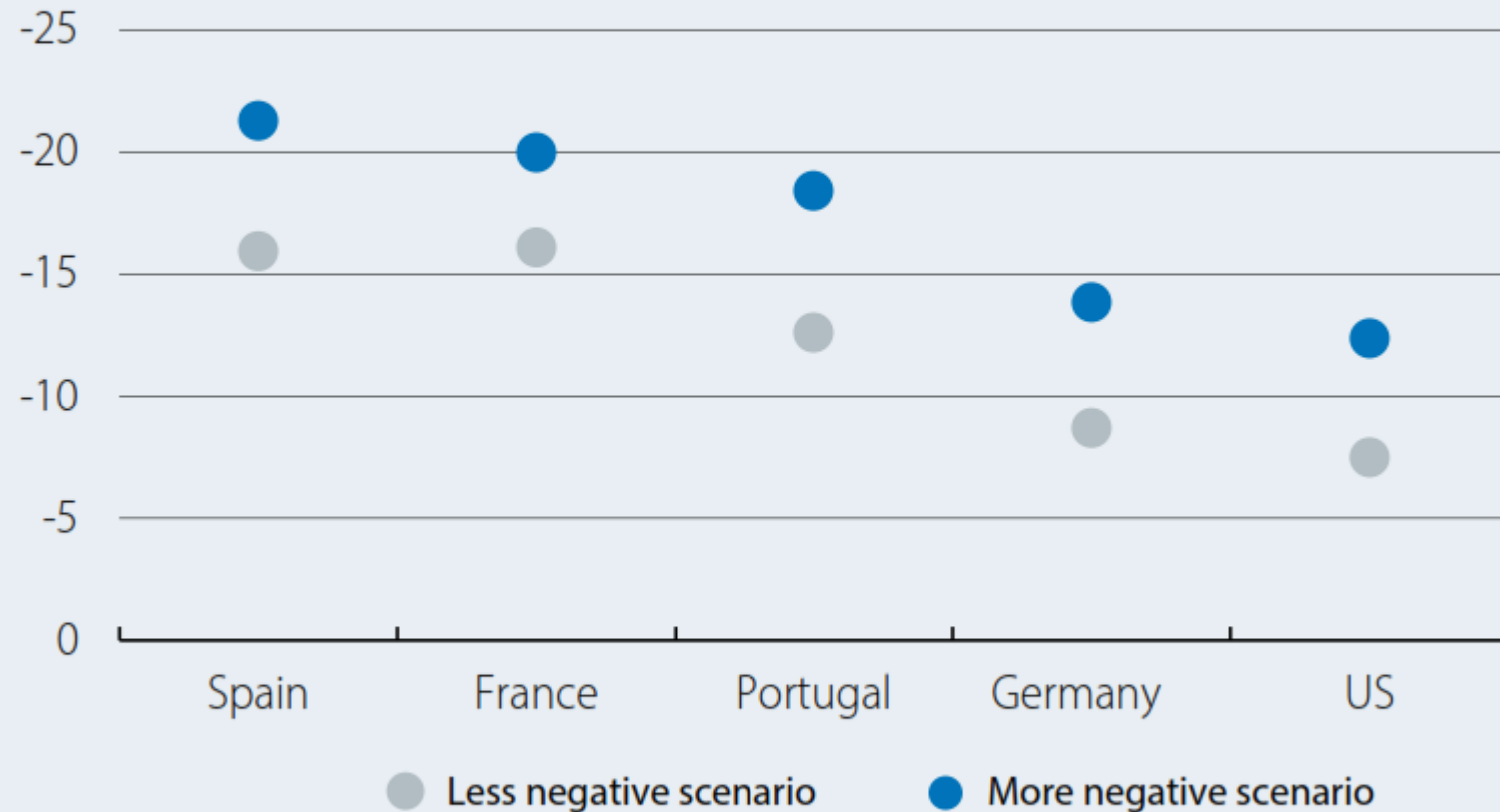


Note: * The change in the level of mobility is based on Google's mobility reports, which measure how the number of visits to places such as supermarkets, parks, places of work, etc. have changed. We compute the final value as the average of the change for all places for which Google provides data during Q1 2020.

Source: CaixaBank Research, based on data from Google (Local Mobility) and the various national statistics institutes.

Impact of social distancing measures on economic activity in Q2

Contribution to quarter-on-quarter growth in Q2 (pps)



Note: Estimates obtained from the result of the regression detailed in note 2 of the text and the de-escalation plan announced by each country. The more and less negative scenarios are obtained from the estimate's 95% confidence interval.

Source: CaixaBank Research, based on data from the University of Oxford and Refinitiv.