

Mobility and economic activity in the second wave: how much will GDP fall by in Q4?

- The second wave of coronavirus has led to a further tightening of mobility restrictions and all the indicators suggest that economic activity will contract in Q4.
- The statistical relationship between mobility and economic activity suggests that the contractions in activity will be more moderate and far from the double-digit declines suffered in Q2.
- Factors such as the resilience of industry, economies' capacity to adapt, and support from economic policies will help to soften the blow of the second wave.

Economic activity managed to rebound firmly and across the board in Q3, but the second wave of SARS-CoV-2 infections has led to a further tightening of mobility restrictions in many countries (especially in Europe), and most indicators suggest that economic activity will contract once again in the current fourth quarter. But how much of a contraction are we talking about?

The pandemic has plunged us into an environment of high uncertainty in which it is particularly difficult to gauge the magnitude of the rebounds and relapses in economic activity. The changes in the economy are faster and more abrupt, but there are few indicators that give us real-time information. One such indicator is that of spending carried out on CaixaBank cards, which points towards a further contraction in Spanish consumption in the current quarter.¹

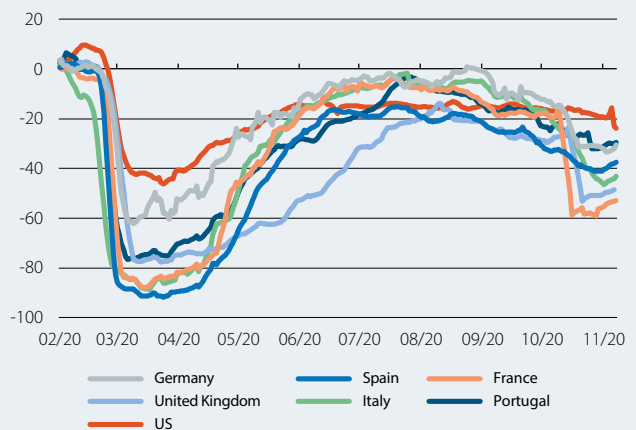
Another indicator is precisely that of the mobility of people, captured in near real-time thanks to geolocation data from mobile phones.² The second wave of COVID-19 has led to a further reduction in the mobility of people around retail and recreational areas (first chart), as well as an increase in mobility in residential areas (second chart).

These two mobility measures have shown a very strong correlation with GDP performance in the first three quarters of 2020 (see third chart). Specifically, the strong statistical relationship between mobility and economic activity allows us to obtain a first approximation of the relapse of economic activity that is occurring in Q4.³

A first important observation is that, in general, the tightening of mobility in this second wave is clearly milder and more gradual than last spring (reflecting a more limited series of restrictions). Indeed, the statistical relationship between mobility and economic activity indicates far more moderate contractions in activity during Q4 than those registered in Q2 (see fourth chart).^{4,5}

Mobility of the population in retail

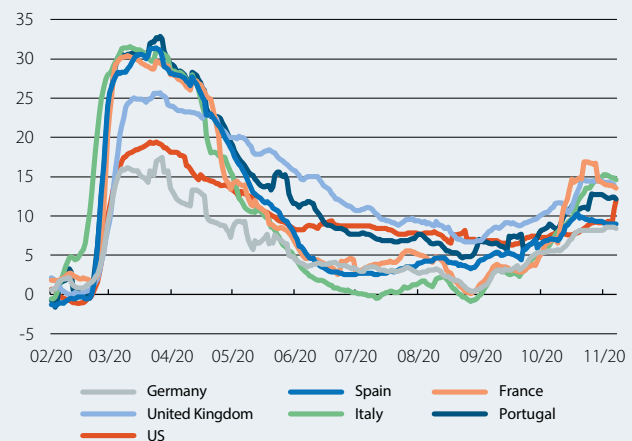
Change relative to the baseline level (%) *



Note: * 7-day moving average figures. The baseline level corresponds to the average mobility recorded on the same day of the week between 3 January and 6 February.
Source: CaixaBank Research, based on data from Google Mobility Report.

Mobility of the population in residential areas

Change relative to the baseline level (%) *



Note: * 7-day moving average figures. The baseline level corresponds to the average mobility recorded on the same day of the week between 3 January and 6 February.
Source: CaixaBank Research, based on data from Google Mobility Report.

1. See <https://www.caixabankresearch.com/en/etiquetas/monitor-consumo>.
2. Specifically, Google produces mobility reports that are available at <https://www.google.com/covid19/mobility/>.
3. In the Focus «Rebound in mobility and economic activity» in the MR09/2020, we have used the relationship between mobility in retail areas and economic activity to gauge GDP movements. We now add mobility in residential areas, which has also shown a strong association with GDP growth and has managed to closely predict economic performance in countries such as France (see the Economic Outlook Note by INSEE of 17 November 2020).

4. We estimate regressions of the quarter-on-quarter change in GDP in Q1, Q2 and Q3 2020 of the major advanced economies (21 countries) with the change in the level of quarter-on-quarter mobility in retail and residential areas, respectively, based on data from Google (Google Mobility Report).
5. The GDP projection for Q4 2020 is based on the mobility observed in October and November, and the assumption that mobility improves in December in Europe (recovering towards October levels, but without reaching them) but deteriorates slightly in the US.

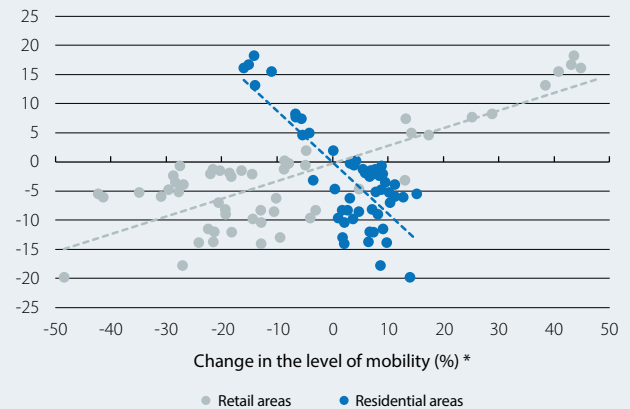
In the case of the US, for example, where mobility in retail areas has registered a far more moderate reduction than in other countries (and mobility in residential areas has also increased by less), the exercise indicates very slight declines in GDP, while other indicators suggest that the US economy could even continue to grow in Q4. In the case of European economies, where the changes in mobility have been greater than those on the other side of the Atlantic, GDP declines seem much more likely, albeit far from the double-digit contractions of Q2 and with significant differences between countries.

In France and Italy, the mobility data indicate declines in economic activity of around 5%-8% quarter-on-quarter. However, the impact on GDP could be somewhat milder than the data suggest. Various economic sentiment indicators (such as the PMI indices) point towards a more moderate contraction in European economies' economic activity in Q4. The new restrictions have been less widespread, and while the services sector is suffering a significant blow, industry has remained more active (and various indicators suggest that manufacturing activity will continue to grow in this last quarter of 2020). Moreover, we must not overlook economies' capacity to adapt, with many managing to make good use of teleworking, or the support that economic policies continue to offer to sustain household and business incomes.

Finally, for the Spanish economy, the mobility data suggest more moderate setbacks, and there are a number of other considerations, in addition to those mentioned above, which support this. Firstly, the mobility restrictions imposed since October have been much more selective than those implemented in the spring, so their impact on economic activity might not be as abrupt as the relationships identified in the data for Q2 and Q3 might suggest. By way of example, and as the last chart illustrates, in October and November, whilst average mobility around shopping centres had fallen compared to Q3, mobility around workplaces had increased (in contrast, in Q2 it had fallen). This has not been the case in countries such as France and Italy. Thus, while the measures implemented to date in Spain have sought to reduce social contact in certain environments to limit the spread of the virus, their impact on firms' and workers' ability to carry out their work may be more limited. Furthermore, the labour market is proving more resilient than expected in the face of the tighter mobility restrictions. In particular, after falling 8.1% year-on-year in Q3, the decline in the number of workers registered with Social Security who are not affected by a furlough (ERTE) scheme stabilised at -5.8% in October and November.

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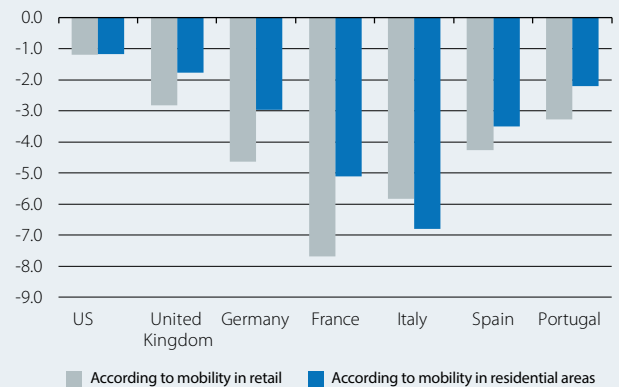
Economic activity and mobility
Quarter-on-quarter change in GDP in Q1, Q2 and Q3 (%)



Note: * The change in the level of mobility is built using Google's mobility reports, which measure how the number of shop visits has changed compared to the average of the same day of the week between 3 January and 6 February (a situation they define as «normal»). We compute the final value for each quarter based on the average of daily data.
Source: CaixaBank Research, based on data from Google Mobility Report and Refinitiv.

Impact of mobility on economic activity in Q4

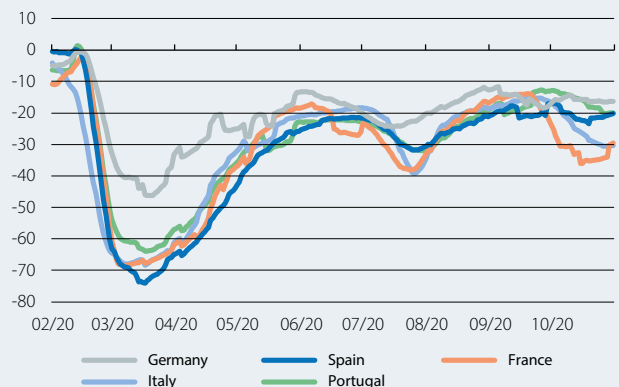
Contribution to quarter-on-quarter growth in Q4 (pps)



Note: Estimates obtained from the result of the regression detailed in note 4 of the article.
Source: CaixaBank Research, based on data from Google Mobility Report and Refinitiv.

Mobility of the population in workplaces

Change relative to the baseline level (%) *



Note: 14-day moving average figures. * The baseline level corresponds to the average mobility recorded on the same day of the week between 3 January and 6 February.
Source: CaixaBank Research, based on data from Google Mobility Report.