

Effects of the crisis and inequality at the provincial level

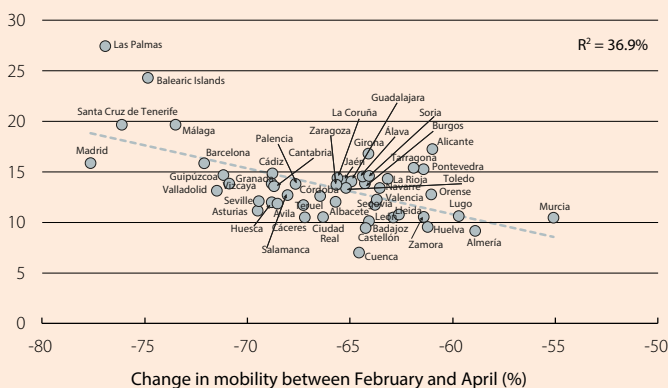
The economic impact of the pandemic has been pronounced and widespread, but it has not affected all regions equally. In some areas of Spain, the fall in economic activity has been particularly sharp, while in others it has been somewhat more contained. Below, we show the differences in the impact that the crisis has had at the provincial level by analysing the evolution of mobility and the Business Lockdown Index (BLI) developed by CaixaBank. Furthermore, we consider to what extent the evolution of these indicators is related to the rise in inequality and the number of people with low incomes in each area. We also analyse whether there is any relationship between the impact of the crisis and the evolution of household consumption over the past few months. Beyond observing differences and similarities between regions, the analysis gives us an idea of the impact that different levels of lockdown have had on the most vulnerable groups, as well as the role that the public sector is playing in cushioning the blow. This information is particularly relevant in the current context in which the second wave of the pandemic has forced us to take further action and once again impose restrictions on mobility.

Mobility indicators, which are available in almost real time, have proved very useful for approximating the impact of the COVID-19 pandemic on the levels of economic activity.¹ In the case of Spain, these indicators show how mobility fell by around 65% during the months with the strictest restrictions compared to pre-pandemic levels², as well as highlighting significant differences between provinces. In April, which is when mobility fell the most, in the quintile of provinces with the lowest falls in mobility it declined by 60% on average. At the other extreme, in the quintile of provinces with the most pronounced reductions, the decline in mobility was of 73%.

Just as monitoring changes in mobility has proven useful for assessing the economic impact of the crisis, it is also useful for analysing this impact on lower-income population groups specifically, as well as on inequality in general. The relationship between the fall in mobility and the rise in the number of people with low incomes is evident in the first set of charts, which shows the change in the number of people with incomes below the public income index wage (IPREM)³ between February and April, before and after public sector transfers. When we ignore public sector transfers, we see a greater increase in the number of people with incomes below the IPREM in provinces that registered a greater decline in mobility. Specifically, in the quintile of provinces with the lowest fall in mobility, the population with incomes below the IPREM increased by 12%, while in the upper quintile this figure reached 17% on average.

Spain: fall in mobility and increase in the number of people with incomes below the IPREM by province

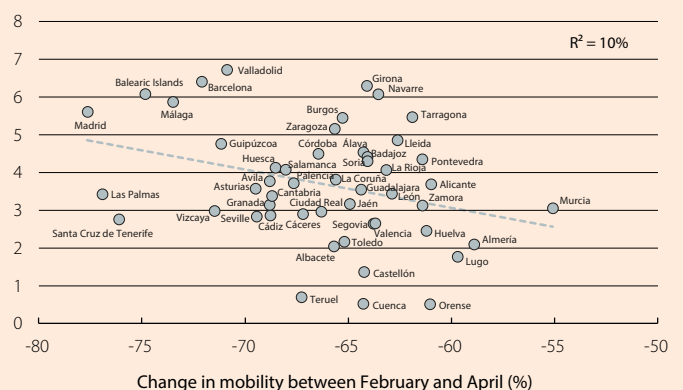
Change in the number of people with incomes below the IPREM between February and April **before** public sector transfers (%)



Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations. Mobility refers to provincial mobility (inter and intra) at airports and ports, and on roads and railways.
Source: CaixaBank Research.

Spain: fall in mobility and increase in the number of people with incomes below the IPREM by provinces

Change in the number of people with incomes below the IPREM between February and April **after** public sector transfers (%)

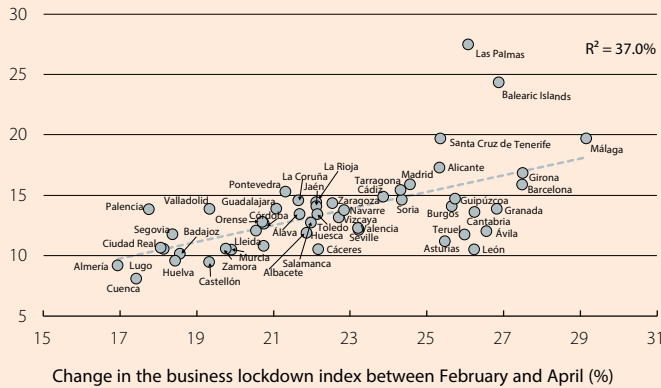


Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations. Mobility refers to provincial mobility (inter and intra) at airports and ports, and on roads and railways.
Source: CaixaBank Research.

1. For more information on the use of mobility as an indicator of the economic impact of the pandemic, see the Focus «[Rebound in mobility and economic activity](#)» in the MR09/2020 or «[The COVID-19 dilemma: mobility and economy](#)» in the MR06/2020.
2. We use data from the Ministry of Mobility, Transport and Urban Agenda, specifically data on urban and interurban mobility.
3. The public income index wage (known as the IPREM) is the reference index used in Spain for the allocation of aid and subsidies on the basis of income. In 2020, it amounts to 537,84 euros per month.

Spain: business lockdown and increase in the number of people with incomes below the IPREM by province

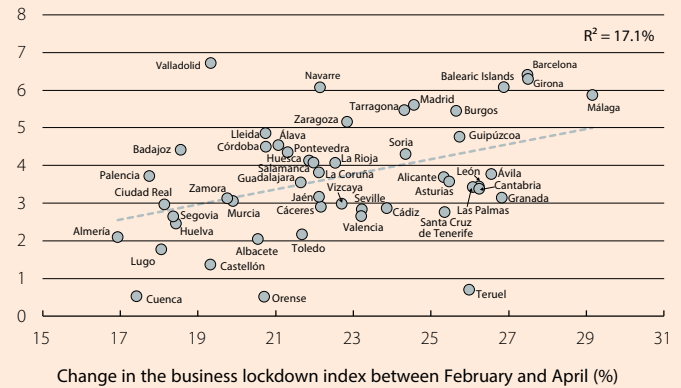
Change in the number of people with incomes below the IPREM between February and April **before** public sector transfers (%)



Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations.
Source: CaixaBank Research.

Spain: business lockdown and increase in the number of people with incomes below the IPREM by province

Change in the number of people with incomes below the IPREM between February and April **after** public sector transfers (%)



Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations.
Source: CaixaBank Research.

The relationship between the decline in mobility and the increase in the number of people with incomes below the IPREM persists during the months that marked the peak of the pandemic, and it is diluted as the economy recovers. This pattern is also apparent in other variables, such as the increase in the number of people with no income or the increase in income inequality (measured using the Gini index for each province). Specifically, in April the increase in the number of people with no income was 5.0 pps higher in the provinces that suffered a greater fall in mobility than in those where the fall in mobility was less pronounced. As for the Gini index, it increased by an average of 3.9 points more in the quintile of provinces with the greatest falls in mobility compared to the quintile with the smallest falls.

The role of the public sector has been crucial in addressing these differences between provinces. As can be seen in the first set of charts, when we take public transfers into consideration, the disparity between regions is significantly reduced. While there is still a certain negative relationship between the fall in mobility and the increase in the number of people with incomes below the IPREM, this latter figure is now only 1 pp higher in the provinces where the fall in mobility was greater.

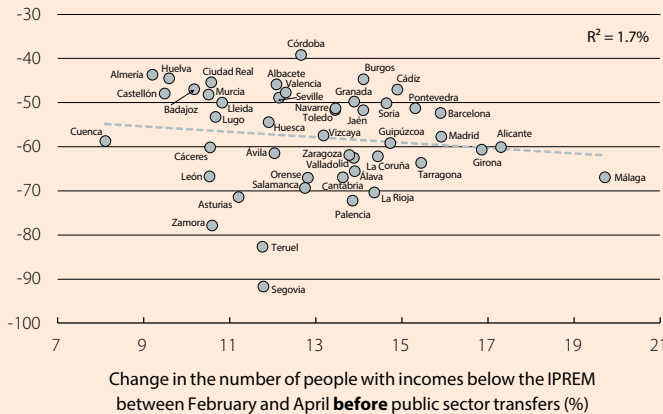
During the last half of October, when some restrictive measures had already been taken to curb the new wave of infections, mobility declined once again. In the province of Barcelona, for example, the decline in mobility compared to the pre-pandemic level amounted to 34%, while in the province of Madrid the decline was as high as 42%. In the coming weeks we will be able to assess whether the measures currently being implemented to curb mobility and the spread of the virus succeed in doing so with a smaller impact on lower incomes and inequality.

Another indicator that analyses the impact of the crisis generated by the pandemic, in this case its impact on businesses, is the Business Lockdown Indicator (BLI) developed by CaixaBank. It also shows a close relationship with the increase in the population with lower incomes. In particular, the BLI measures the change in the banking transactions of small and medium-sized enterprises as a result of the COVID-19 crisis, taking into account a wide range of indicators (both income-related indicators, such as sales registered on POS terminals; and those on the expenditure side, such as payrolls, direct debit charges, customer defaults, and other variables).⁴ The analysis provided by the BLI has been aggregated at the provincial level in order to monitor the impact of the crisis on all the businesses of each region. As can be seen in the second set of charts, the areas where the BLI shows a greater increase during the month of April are also those that experience a greater increase in the number of people with incomes below the IPREM. This same pattern is also observed when we analyse the relationship between the BLI and the change in the number of people with no income, or the change in the Gini index. In this case, as was the case with mobility, when we take public sector transfers into consideration, the relationship between the increase in the BLI and the change in the various income distribution indicators becomes more tenuous.

4. This indicator analyses changes in each company's bank transactions. An increase in the BLI indicates that the company's economic and financial situation has deteriorated compared to February (and vice versa).

Spain: increase in the number of people with incomes below the IPREM and fall in consumption by province

Change in consumption (%)

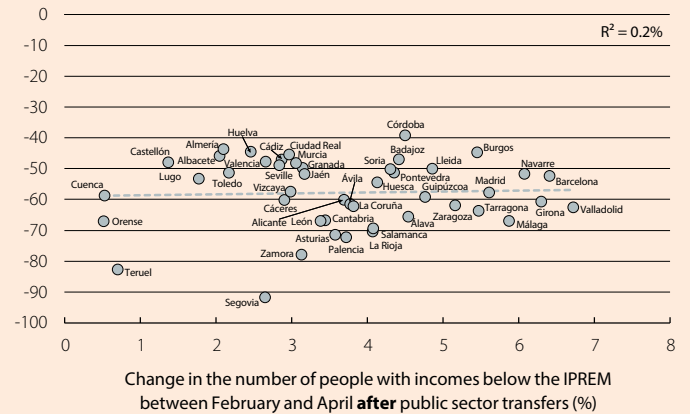


Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations.

Source: CaixaBank Research.

Spain: increase in the number of people with incomes below the IPREM and fall in consumption by province

Change in consumption (%)



Note: The change in the number of people with incomes below the IPREM is corrected for seasonal variations.

Source: CaixaBank Research.

Finally, we have analysed whether there is any relationship between the magnitude of the shock of the pandemic on income and the change in consumption at the provincial level.⁵ *A priori*, one would expect the regions hardest hit by the crisis to have also experienced a greater fall in consumption. However, public sector transfers may have significantly mitigated the impact of the shock on aggregate consumption. Also, other factors may have influenced consumption trends over the last few months. For instance, the lockdown itself made it practically impossible to spend in various sectors (culture, leisure, catering, etc.), while the high degree of uncertainty resulting from the pandemic may have accentuated consumer caution. This is precisely what the third set of charts suggests, since there is no discernible relationship between the change in consumption and the increase in the number of people with incomes below the IPREM, either before or after taking public sector transfers into account.⁶ We also do not observe any direct relationship between the change in mobility or the BLI and consumption by province. In any case, while there is no clear pattern in the trends in consumption by province at the aggregate level, we do see notable differences in the trends in consumption between different groups. For instance, those who had low incomes before the pandemic and ended up with no income in April reduced their consumption much more sharply than those who also lost their jobs but received public sector transfers. Specifically, the fall in consumption was of 44% for the first group and of 35% for the second group. This example demonstrates the need for a more detailed analysis in order to understand the trends in consumption, one of the objectives we have set ourselves for the coming months.

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5. To measure consumption at the provincial level, we use expenditure registered on CaixaBank POS terminals, expenditure in online purchases and cash withdrawals carried out at CaixaBank ATMs.

6. Similarly, when analysing the impact of the COVID-19 pandemic on consumption, Montalvo and Reynal-Querol (2020) do not identify any difference in the recovery rate of consumption when differentiating by income tranche. J.G. Montalvo and M. Reynal-Querol (2020). «Distributional effects of COVID-19 on spending: A first look at the evidence from Spain» nº 1740.