

Curfew at 6pm rather than 8pm: what impact on household consumption?

The curfew was gradually brought back to 6pm instead of 8pm in January, in more and more departments. Using high-frequency data such as CB bank card spending or daily and departmental Google Mobility indicators, the effects of bringing the curfew forward in this way can be estimated. These data confirm that people living in departments where the curfew starts at 6pm spend less time in shops and recreation venues and reduce their consumer spending, compared to a situation where the curfew starts at 8pm. In particular, bringing the curfew start forward by 2 hours reduced amounts of local bank card spending by around 6 to 7%. This estimate relates to the two weeks after the curfew time was brought forward, but from this data it is not possible to infer what the impact would be in the longer term of a curfew starting at 6pm if this measure were to last. Nor does it take into account any shift to online purchases.

On 15 December 2020, a nationwide 8pm curfew was put in place across France. During January, this curfew was gradually brought forward to start at 6pm, first for 15 departments from 2 January, then for another 10 between 10 and 12 January, with the rest of the country following suit on 16 January. Thus between 2 and 15 January, shops had different opening hours, depending on whether or not they were located in departments under a 6pm curfew. This mixture of different situations lends itself to comparative analysis to assess the effect on shopping and household consumption of a 6pm rather than an 8pm curfew.

The indicator of trips to non-food retail and recreation locations, taken from Google Mobility Reports, illustrates the decline in visits linked to the extension of the curfew to 6pm

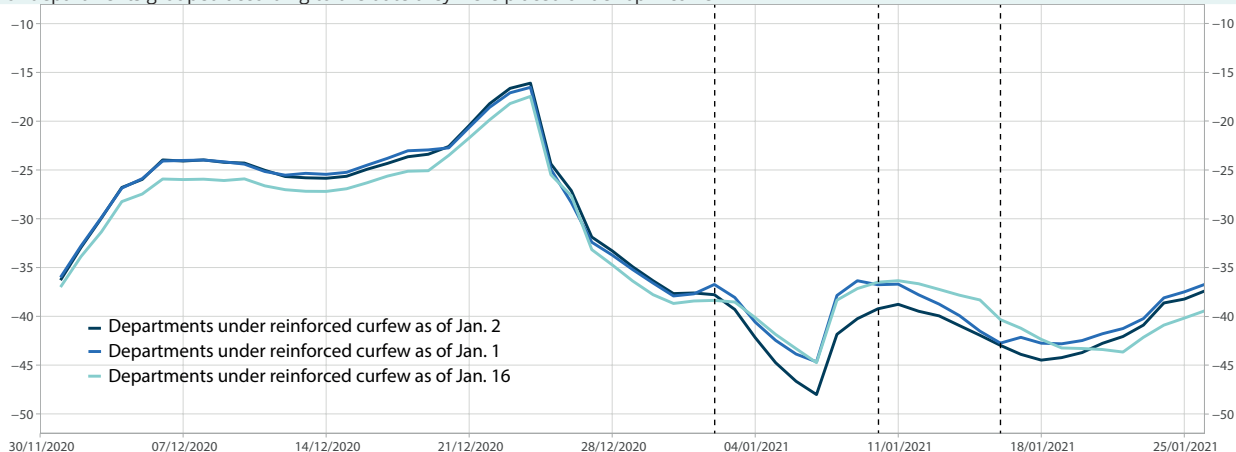
Closing shops at 6pm can lead to both a general decline in consumption and a shift of some consumption to earlier in the day. The indicator for time spent in non-food shops and recreation locations, taken from

Google Mobility Reports and available at departmental level, shows, for example, a drop in footfall in those departments where the curfew was brought forward to 6pm: in departments where the 6pm curfew was introduced on 2 January, the number of visits decreased, compared to other departments, and this was then also the case for departments that moved to a 6pm curfew on 10 or 12 January (► Figure 1). This decline in visits appeared to grow during the first days of the longer curfew as a result of the moving average smoothing.

According to this indicator, bringing the curfew forward from 8pm to 6pm is likely to result in a 3.9 point drop in the indicator for visits to shops and recreation locations compared to a situation where the curfew is maintained at 8pm (► Figure 2). This effect is obtained by a “double difference” method, which compares the change in the indicator between departments concerned by the earlier curfew at 6pm and the rest, both before and after the measure came into force. Predictably, moving to a 6pm curfew also results in a slight increase in time spent at home, as measured by the Google Mobility Residential indicator (► Figure 2).

► 1. Indicator of time spent in non-food shops and recreation venues

in %, for departments grouped according to the date they were placed under 6pm curfew



Note: indicators by department are smoothed by a weekly moving average and aggregated according to their population. Data go up to 26 January.
Source: Google Mobility data, INSEE calculations

An estimate of the effect of bringing the curfew forward to 6pm on local household consumption expenditure based on CB bank card transactions

This drop in footfall is also accompanied by a local drop in consumption expenditure, as measured by CB bank card transactions: in departments under curfew at 6pm from 2 January, the amount of local transactions by CB bank card (year-on-year) appeared to be less than in

other departments (► **Figure 3**). Once again, using a double difference method, the short-term effect of the extended curfew can be estimated: for the departments concerned, on average, consumption expenditure is likely to be 6.5% less than if the curfew remained at 8pm. The CB bank card transactions used here are broken down at department level but not according to product. The effect measured here is therefore not specific to shops impacted by the curfew and does not take into account a possible shift to online purchases. ●

Jérémy Marquis

► 2. Effect of shifting curfew from 8pm to 6pm, estimated by double difference

Effect and significance

On Google "Retail and Recreation" indicator (trips to non-food shops and recreation locations) as a 7-day mobile average

-3.9 points ***

On Google "Residential" indicator (time spent at home)

+1.1 points **

On local consumption expenditure as measured by CB bank card transactions, in euros

-6.5% ***

Note: * (or **, or ***) the effect is significantly different from 0 at a 1% (or 0.5%, or 0.1%) threshold. The double difference estimates the difference in the indicator value as a result of the longer curfew by comparing the first and last departments concerned by the shift to the 6pm curfew.

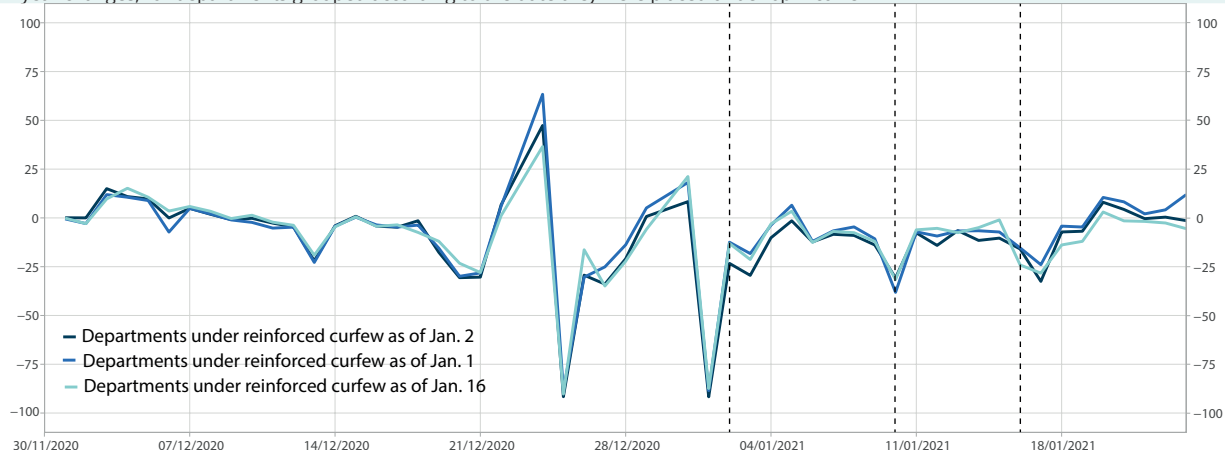
Estimation period: from 15 December 2020 to 15 January 2021 (daily departmental data).

How to read it: in the case of a curfew from 6pm, the Google Mobility indicator of trips to non-food stores and recreation locations would be 3.9 points lower than if the curfew had been at 8pm. This is a significant effect with a confidence threshold of 0.1%. Similarly, consumption expenditure recorded by local CB bank card transactions would be 6.5% lower for a 6pm curfew, compared to a situation where it remains at 8pm

Source: Google et Cartes Bancaires CB data. INSEE calculations

► 3. CB bank card transactions

year-on-year changes, for departments grouped according to the date they were placed under 6pm curfew



Note: the points corresponding to 23 and 30 December have been removed. As 2020 was a leap year, these high consumption days were compared to 25 December and 1st January. The year-on-year figures are therefore very high, but with no real economic significance.

The last point corresponds to 24 January. However, the official start of the sales on 20 January makes analysis of the graph more complicated.

Source: Cartes Bancaires CB, INSEE calculations