

Estimating the macroeconomic impact of social unrest in 2018

French activity was affected by several periods of social unrest in 2018. Two of them proved to be rather substantial, as well as taking fairly unprecedented forms. Firstly, an alternating strike affected the SNCF train service in Q2, with strike action on two days in every five. Meanwhile, strike action was also in progress at Air France. Subsequently, toward the end of the year, the 'gilets jaunes' (or yellow vests) movement saw numerous roadblocks and demonstrations, particularly on Saturdays.

Initial estimates for the impact of these movements on the macroeconomic aggregates were included in the Conjoncture in France reports for June and December 2018. More recent data are now available, particularly regarding household consumption up until the month of January 2019. These data allow us to refine and expand upon our estimates.

As is often the case with estimates of this nature, while the effects of this social unrest may have been severe in certain areas and for certain businesses, the overall impact at the macroeconomic level appears to have been relatively modest. However, these estimates are beset by certain methodological limitations, not least the use of a counterfactual scenario which, by definition, can only ever be an approximation.

Strikes affecting the transport system seem to have dented activity in Q2 2018 by just under 0.1 points of GDP

The activity of state rail company SNCF was heavily disrupted in Q2 2018 by strikes in an unprecedented format: «alternating» strike action on two days in every five, adding up to a total of 36 days. Air France was also affected by strike action on a dozen days between late March and early May.

The effects of these actions on activity might have been transmitted by two distinct channels:

- firstly, they have a direct impact upon activity in the «transport» branch of the national accounts. This is reflected primarily in a reduction in the output of this branch and in household consumption of transport services;

- secondly, other branches may have been affected by restrictions on the movements of people and goods.

On the other hand, alternative modes of transport may have been boosted by journeys which would normally have been made by rail. Nonetheless, it is not possible to detect any such substitution effect in the indicators used to compile the quarterly national accounts.

The direct effects are more clearly visible, since transport output and consumption both fell sharply in April and May. The scale of this reduction exceeded the volatility previously observed in the corresponding macroeconomic data series (*Graph 1*). Consumption of transport services (worth just over 10 billion Euros in Q1 2018) thus fell by almost 3% in Q2, with a 21% reduction in the rail transport segment. This fall was comparable in scale to that recorded in late 1995 (*Graph 2*), during strike action against reforms to the pension system which extended far beyond the scope of the SNCF (RATP, road transport, large-scale demonstrations etc.).

Output of transport services, the majority of which corresponds to road haulage (not counted as household consumption, but rather as intermediate consumption by businesses), fell by just 0.8% in Q2 (from a total volume of 53 billion Euros in Q1 2018). Indeed, the trajectory of non-rail transport services for passengers and goods does not appear to be particularly different from that observed in previous quarters. In particular, the impact of strike action at Air France and passengers potentially switching to alternative modes of transport cannot be easily detected in the aggregated series available. As such, taking into account the growth trend for rail activity

1 - Monthly output and consumption of transport services

chain-linked to the prices from the previous year, in millions of Euros per month



Source: INSEE, comptes nationaux trimestriels

French developments

since 2016, the direct effect of the strikes in terms of value added lost by the transport branch appears to be in the region of 0.05% of quarterly GDP.

Finally, with hindsight, the consequences of these transport disturbances for other branches of activity are not obvious in the series which make up the quarterly national accounts. As indicated in the Focus article Impact of strikes in the transport sector on economic activity in Q2 2018 included in the June 2018 issue of *Conjoncture in France*, the data from the business tendency surveys and the figures for the hotel sector do not reveal any effect which could be attributed to the strikes. Similarly, the detailed data for household consumption do not reveal any variation which might be considered to exceed the usual fluctuations observed in these series. This does not necessarily mean that the indirect effects were nil, merely that they were not strong enough to be distinguishable from routine fluctuations. It is nonetheless possible that activity was affected beyond the transport branch, but the overall impact on economic activity appears to have been no greater than 0.1 points of quarterly GDP.

The cessation of strike activity in Q3 may have boosted consumption of transport services in the summer, but the result was a simple return to normal rather than any surge of surplus activity. As such the overall effect was essentially a «straight loss,» albeit on a modest scale.

The stagnation of household consumption in Q4 2018 came largely from the energy and automobile branches, partly unrelated to the gilets jaunes movement

Household consumption stalled in Q4 (+0.0% after +0.4% in Q3). This slowdown was largely due to reduced energy consumption (-1.0% after +1.4% in the preceding quarter, *Graph 3*) as a result of

temperatures above the seasonal averages (particularly in December) and a decline in automobile purchases (-4.6% after +1.6%, *Graph 4*). The weak performance of private vehicle registrations in Q4 can probably be partly attributed to the introduction of new anti-pollution standards for new vehicles in September 2018 (see the *Eurozone Focus*), but also to the scheduled increase in the vehicle conversion allowance scheme in January 2019, which may have encouraged some households to delay their purchases. Nonetheless, automobile consumption may have been affected by some of the blockages which occurred in November and December.

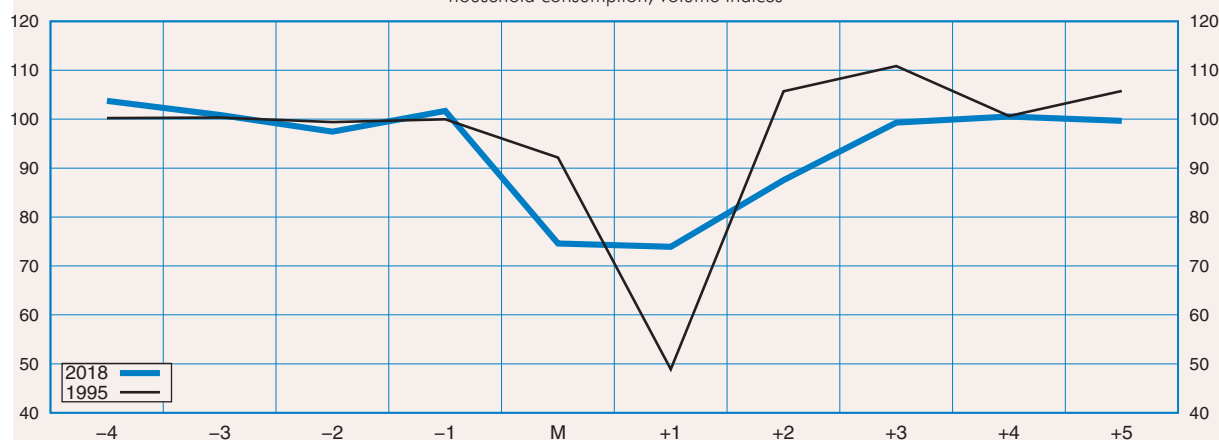
In addition to these fluctuations in energy spending and automobile purchases, household consumption of household durables dropped off in December (-0.8% compared with November), having increased (+0.5%) in the previous month. For these goods, as for other goods and services, the social unrest may have had an impact on purchasing decisions, although the scale of any such impact does not appear to exceed the general variability observed in the monthly data series for consumption of different products.

It should nevertheless be noted that, by definition, we can never know what might have been. That is, it is not known how household consumption would have behaved if there had been no blockages or demonstrations. In light of the general upturn in the purchasing power of household income in Q4 (as a result of reductions in social security contributions and the local residence tax), the possibility that consumption might have been more dynamic than the mean trend cannot be ruled out.

On the production side, the sectoral business climate figures do not reveal any substantial decline in December, with the exception of the retail sector and accommodation and food (*Graph 5*). Activity in these

2 - Comparing fluctuations in the consumption of rail transportation during the strikes of 1995 and 2018

household consumption, volume indices



N.B.: M corresponds to the first month of the strike, i.e. April 2018 and November 1995, Base 100 index for the mean over the three previous months (M-1 to M-3)

Source: INSEE, comptes nationaux trimestriels

sectors may indeed have been affected by the blockages, although the fall in this qualitative indicator cannot be directly translated into a quantified loss of economic activity.

Hotel stays outside Paris were affected in the early days of the gilets jaunes movement, and then in the Île-de-France region in December

In November 2018, hotel occupancy figures were strong (stays up by 2.8% compared with November 2017, a 0.1% increase on the year-on-year figures for October 2018, see Table), thanks to a high proportion of non-residents (+10.2%). The number of rooms occupied increased again for the month as a whole (+1.6%), despite a reduced rate of occupancy on 17th and 24th November («Acts» I and II of the yellow vest protests). This fall in occupancy rates was felt more strongly in the

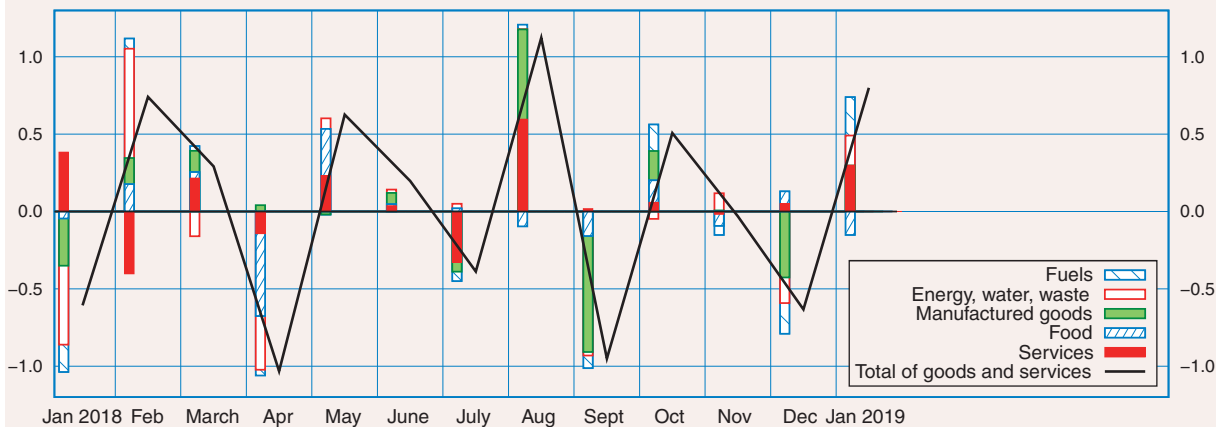
regions than in the Greater Paris area (since year-on-year growth was slower in the regions than it was in Île-de-France between October and November).

However, hotel occupancy declined in December 2018 (-1.1% compared with December 2017), particularly in Paris (-5.3% compared with +7.5% year-on-year in November; hotel occupancy outside Paris was less affected in December, where the year-on-year total for number of nightly stays fell by just one point). The total number of rooms occupied also decreased in Metropolitan France (-0.9%, *Graphs 6 to 8*): occupancy was down by 3.1% between 1st and 8th December, at the peak of the gilets jaunes unrest, compared with the same week the previous year.

Overall, the monthly consumption figures (now available in their detailed format) do not suggest that any serious revisions are required to the

3 - Contributions of the main items to the monthly variation in household consumption

monthly variations as a % and contribution in points

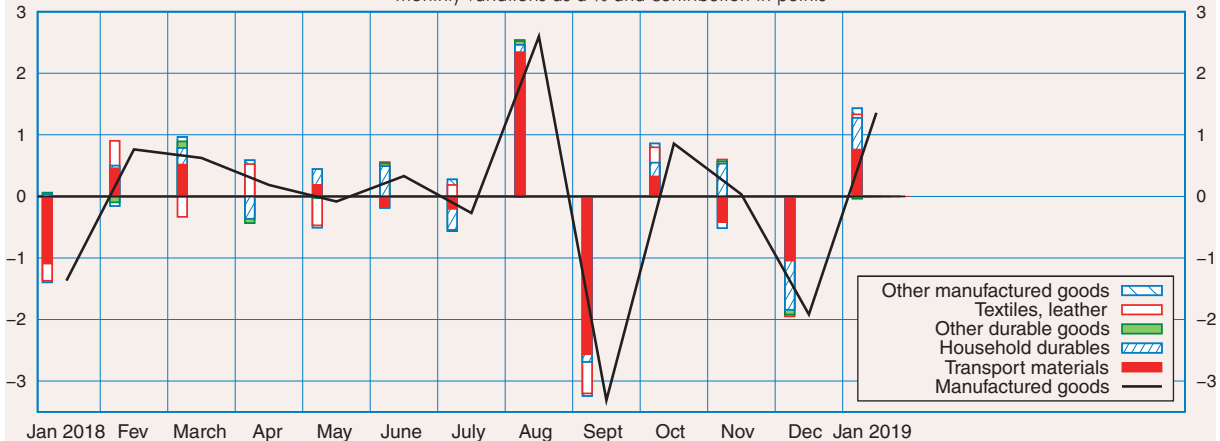


Note: consumption observed until January 2019 for goods and December 2018 for services (forecast used for the month of January 2019)

Source: INSEE, comptes nationaux trimestriels

4 - Contributions of the main items to the monthly variation in manufacturing goods consumption

monthly variations as a % and contribution in points



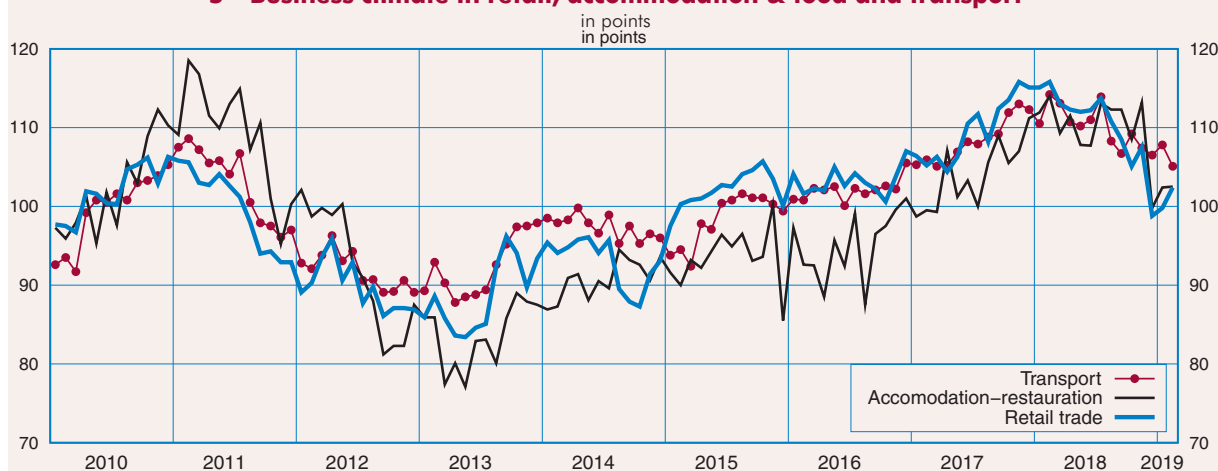
Source: INSEE, comptes nationaux trimestriels

French developments

ex-ante estimated figures included in the Conjoncture issue of December 2018: the gilets jaunes protests appear to have reduced GDP by around -0.1 points in Q4 2018, although this figure remains subject to much uncertainty. Producing this estimate is a difficult exercise, due to both the impossibility of accurately estimating what economic activity might have been had these events not taken place, and to the fact that all of the other factors of uncertainty which affect the macroeconomic aggregates may have impacted the data series on a scale comparable to that of the effect we are seeking to measure.

Furthermore, some purchases may simply have been postponed from December to January, leading to a positive rebound in early 2019. This is notably true of capital goods, for which consumption picked up in January. In addition to the rebound in purchases of new cars, sales of household durables picked up, particularly sales of telephones and, to a lesser extent, sales of televisions, computers and furniture. However, international tourism could potentially continue to suffer from the effects of the social unrest, particularly in Paris. ■

5 - Business climate in retail, accommodation & food and transport



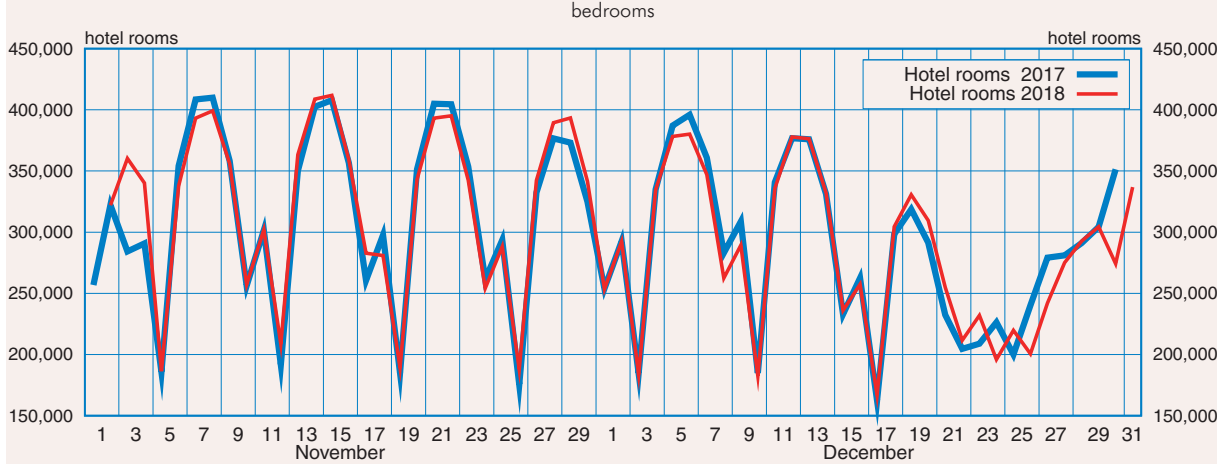
Source: INSEE

Table: Hotel occupancy in October, November and December 2018

	Occupancy in October 2018			Variation as a % (year-on-year, month M 2018 / M 2017)								
	Rooms occupied (millions)	Nights totales (millions)	Part des non-resident night in total nights (%)	total nights			total residents			total no residents		
				oct.	nov.	déc.	oct.	nov.	déc.	oct.	nov.	déc.
France métropolitaine	11.9	18.2	37	2.7	2.8	-1.1	0.5	-0.4	-2.1	6.7	10.2	0.9
Province	7.8	11.6	25	0.8	1.7	0.0	-0.2	0.3	-1.1	3.9	8.0	3.8
Ile-de-France	4.1	6.6	58	6.2	4.5	-2.7	2.7	-2.3	-4.8	9.0	11.4	-0.8
dont Paris	2.2	3.5	68	6.6	7.5	-5.3	1.0	-1.4	-9.3	9.4	13.8	-2.9

Source: INSEE, hotel occupancy survey, définitive data in 4 march 2019

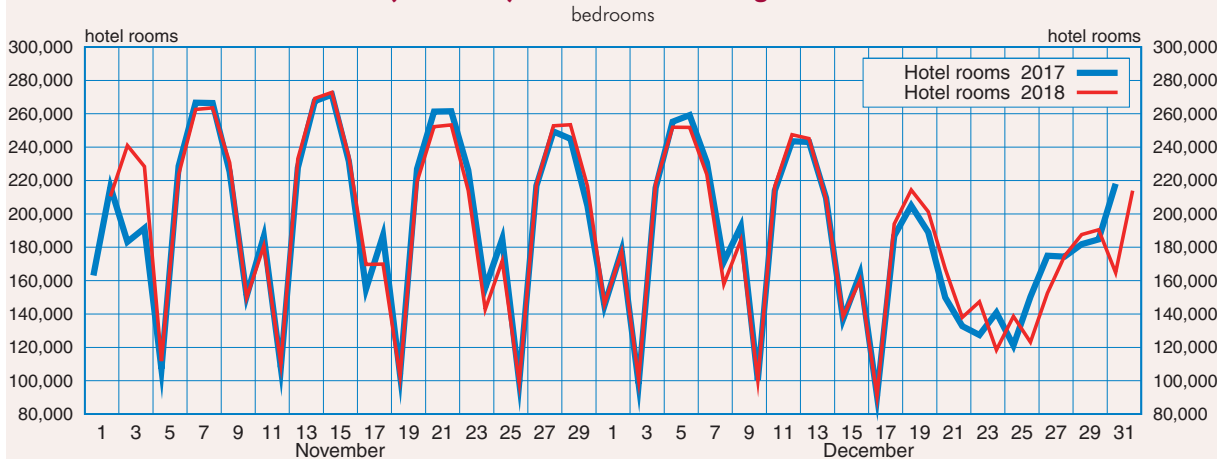
6 - Daily occupancy of hotel rooms in November - December 2017 and 2018 (raw data) for Metropolitan France



Note: occupancy figures for 2018 are here compared with the figures for the same day in 2017. The minimum values correspond to Sundays. Occupancy is here expressed in terms of the rate of occupancy of rooms, which may differ from variations in the number of nights.

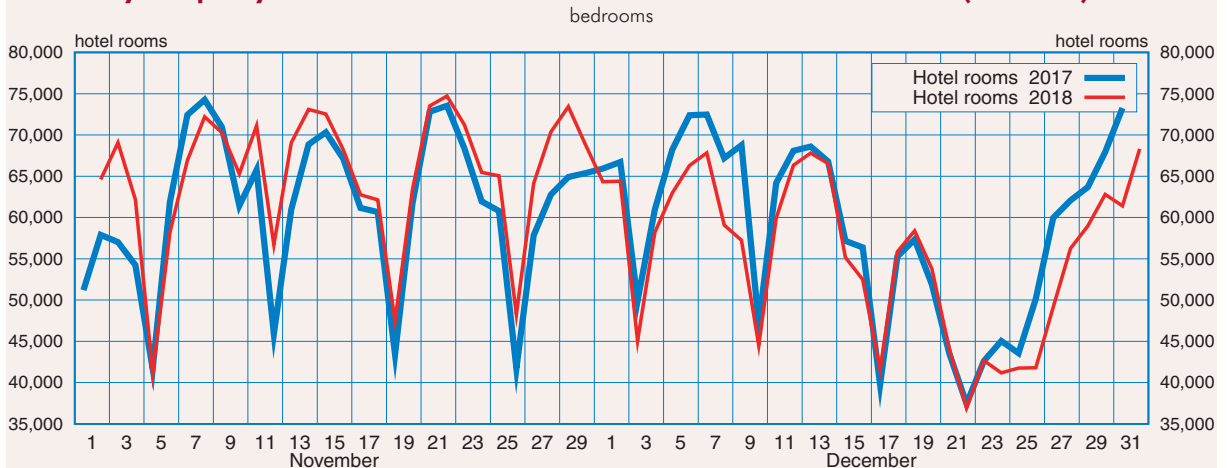
Source: INSEE, hotel occupancy survey, définitive data

7 - Daily occupancy of hotel rooms in November - December 2017 and 2018 (raw data) for France excluding Paris



Source: INSEE, hotel occupancy survey, définitive data

8 - Daily occupancy of hotel rooms in November - December 2017 and 2018 (raw data) in Paris



Source: INSEE, hotel occupancy survey, définitive data