Economic outlook

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Mesurer pour comprendre

Sommaire

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Introduction

The second lockdown brought household consumption down more than production

The publication of the national accounts for Q4 2020 was a stark reminder, if one were needed, of the uncertainty in making economic forecasts in the context of the health crisis. The various monthly business tendency surveys and high-frequency data from search engines, for example, provide useful pointers regarding changes in economic activity, but they are no substitute for "hard" data (turnover indices calculated from VAT, etc.) which are consistent within the framework of the national accounts.

Since the start of the crisis, taking into account the spread of the epidemic and the associated containment measures of course, economic activity has twice proved higher than expected: first in May-June, at the end of the first lockdown, when there was a stronger rebound than forecast, then in November-December, when ultimately the second lockdown penalised economic activity to a lesser extent than suggested by virtually real-time estimates.

In November, the difference in GDP compared to its pre-crisis level will therefore have been around –8%, a considerable decline certainly, but only a quarter of that seen in April, before moving to –4% in December (► **figure**). Industrial output was hardly affected at all, and services performed better than expected. The shock was to a large extent confined to the sectors most exposed to the restrictive measures: retail, leisure, accommodation-catering, transport. Investment and foreign trade held up better than expected.

However, household consumption tumbled almost as much as anticipated (–15% in November compared to its pre-crisis level), before rebounding strongly in December (–4% compared to its pre-crisis level). The high-frequency data used for this estimate (aggregated bank card transaction amounts, scanner data from major retail outlets) very closely track purchases of goods and services that directly make up part of household consumption, thus confirming their relevance.

A mixed picture for January 2021, both on the economic front and the epidemic front

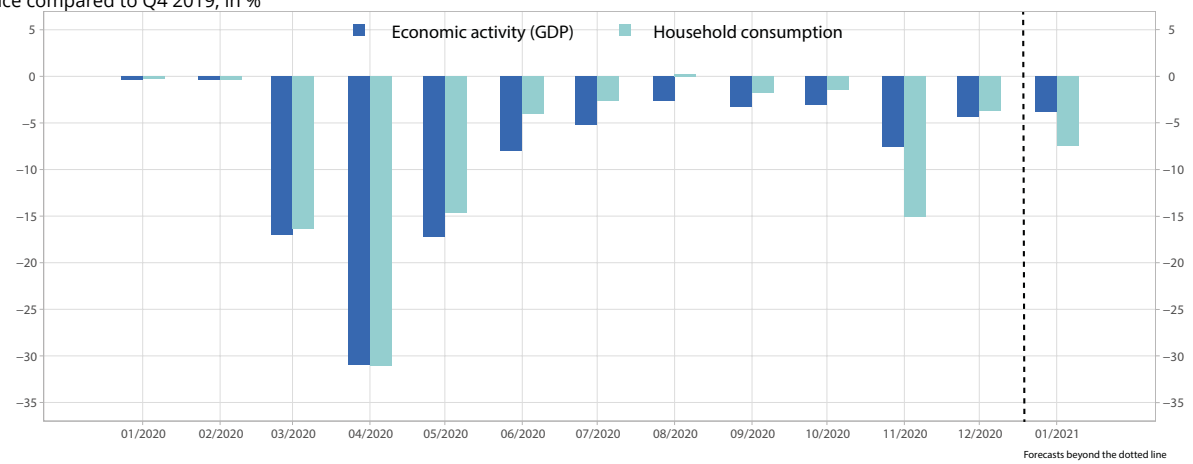
These same data suggest that household consumption is likely to be somewhat weakened during January 2021, moving back to 7% below its pre-crisis level. There are several factors that can account for this movement: December saw purchases made that had been postponed, given that "non-essential" stores were closed in November, but this catch-up phenomenon is unlikely to extend into January. In addition, the time of the curfew was gradually brought forward to 6pm for the entire country. Lastly, the shift in the dates of the winter sales may have meant that some January purchases were postponed from January to February.

The international environment also seems a little less buoyant at the start of the year, especially in Europe: the deterioration in the health situation in many countries has resulted in a tightening of restrictive measures. And possible changes in inventories in the United Kingdom at the end of 2020 just before *Brexit* could cause a backlash in January.

However, the business climate is stable in January compared to December. The various high-frequency indicators also suggest an overall stability in economic activity within the meaning of GDP, which would therefore seem to have maintained its December level in January (i.e. 4% below its pre-crisis level). Activity would seem to have remained on a plateau to some extent, rather like the epidemic: both have indeed evolved in tandem since the start of the crisis.

► Monthly estimates and forecasts of GDP and household consumption

difference compared to Q4 2019, in %



Source: INSEE calculations and forecasting

In the coming months, there will be no decline in uncertainty

Building precise forecasts beyond the month of January is currently something of a challenge. Just after the first wave of the epidemic, INSEE applied the expectations expressed in company surveys regarding the time needed to "return to normal". This type of information is especially useful after a seismic shock that is unlikely to reoccur. However, the successive waves of the epidemic determine the recovery of the sectors most impacted by a return to normal of the health situation. And this seems to depend to a large extent on the ongoing race worldwide between the circulation of the virus and its variants on the one hand, and the vaccination campaigns on the other.

At this stage, all we can do is to sketch out some scenarios by way of illustration for the coming months:

- Assuming that activity in January is maintained in February then March, with no further tightening of the health restrictions, growth in Q1 2021 is likely to be around +1½%;

- Assuming a one-month lockdown in the next few weeks, with restrictions similar to those during the November lockdown, then growth would be zero (0%) in Q1;

- Finally, a lockdown of the same type as in November, but covering a large part of February and the whole of March, could lead to a further contraction in activity (of around –1%).

By assuming a return in Q2 to the level of activity reached in Q3 2020 (almost 4% below the pre-crisis level), according to the three scenarios given above, the annual growth overhang by mid-2021 would be between +4 and +5%.

In the short term, the effects of a possible third lockdown are at first difficult to predict: its impact would be closely dependent on the restrictions put in place, on its duration, and also on the ability of the economy to adapt (teleworking, development of digital technologies, etc.). In the slightly longer term, forecasting the situation in different sectors of activity is not straightforward: the first two lockdowns certainly demonstrated an ability to rebound in many sectors, helped by massive budgetary support. Regarding the sectors most affected, where activity remains restricted for the most part, uncertainties may be greater: a spring compressed for too long may not necessarily regain its original shape.

Alongside estimates of GDP and household consumption, this *Economic Outlook* includes two Focus reports:

- 2020 was marked by an unprecedented decline in economic activity (–8.3%), commented on extensively since the end of March in successive editions of *Economic Outlook*. This shock will probably have long-lasting consequences for employment, unemployment and income. Seen from a completely different perspective, this shock will have produced a temporary decline in greenhouse gas emissions generated by this economic activity. One Focus report sets out to quantify the temporary decrease in the carbon footprint of household consumption during the lockdowns (–36% in April, compared to its pre-crisis level), under the effect of both a decrease in consumption and, to a lesser extent, the change in its structure.

- The curfew was gradually extended to 6pm instead of 8pm during January, affecting a growing number of departments. A Focus study mobilises high-frequency data, especially the aggregated amounts of bank card transactions, to estimate the impact of this time change. When it was put in place, the extra 2 hours of curfew resulted in a decrease in bank card transaction amounts (excluding online sales) of around 6 to 7%, although it is not possible to infer what this impact might be if this measure were to last: it is likely that part of this effect is only transitory, while household behaviour adapts to these time restrictions. ●

Economic activity

In a year of economic fluctuations on an unprecedented scale, GDP fell by 8.3% as an annual average in 2020, according to the first estimates from the quarterly accounts. This contraction, the strongest recorded since the start of the national accounts series in 1949, is slightly below the 9% drop forecast in the last Economic Outlook. The end-of-year lockdown, which was less strict than that in the spring, resulted in a lower than expected loss of activity (–8% in November then –4% in December) compared to the pre-crisis level (Q4 2019). Services, which were more exposed to restrictive lockdown measures, were more affected than industry, although industry may have suffered in December from a deteriorating international environment.
The start of 2021 remains strongly affected by the uncertainty surrounding the health situation. Measures to fight the epidemic have been gradually reinforced (curfew brought forward to 6pm in some departments then across the whole country, restrictions on travel outside the EU, closure of non-food stores in large shopping centres, teleworking encouraged).
In this context, activity would seem to have been stable overall in January, remaining at the December level of 4% below the pre-crisis level. Across all of Q1 2021, any change in activity will be dependent on change in the health situation and the possible tightening of restrictive measures. Keeping restrictions at their present level would lead to activity progressing slightly compared to Q4 2020, with industry continuing to recover gradually, while some services would still be penalised. Tighter restrictions, on the other hand, would lead to stable activity at best, or even a further decline in Q1.

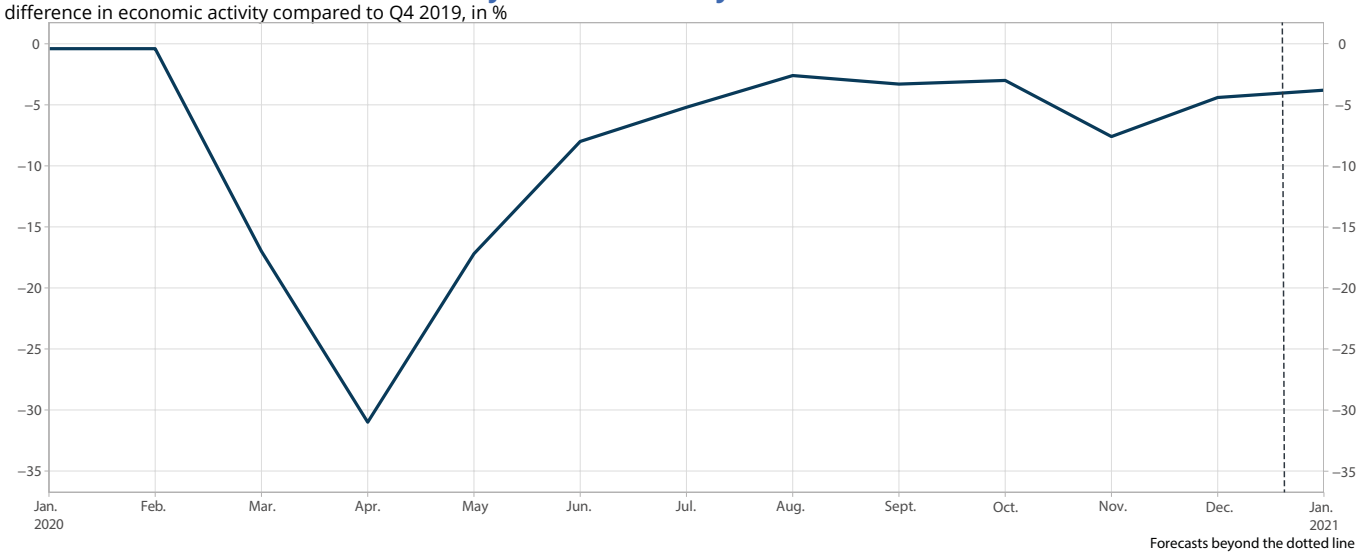
In Q4 2020, French economic activity was affected by the second lockdown but to a lesser extent than in the spring

After a stable month of October, at –3% of loss of activity compared with the pre-crisis level (Q4 2019), the lockdown put in place between 30 October and 14 December, with notably the closure of "non-essential" businesses until 27 November and restrictions on travel, led to a further fall in economic activity. In November, it stood at 8% below its pre-crisis level; this loss was then reduced to 4% in December (► **figure 1**). This revision of the forecasts in the Economic Outlook of 15 December (–12% and –8% of loss of activity forecast for November and December respectively) can be explained by, among other things, a smaller than anticipated fall in activity in services, both in November and December.

Among the branches most affected since the start of the health crisis, transport and storage and accommodation-catering have seen their activity fall drastically, although to a lesser extent than expected (–15% and –37% of loss of activity respectively compared to the pre-crisis level

► 1. Estimated then forecast monthly losses of activity

difference in economic activity compared to Q4 2019, in %



How to read it: in November, economic activity was down by about 8% compared to its Q4 2019 level. In January, it would appear to be settled at –4%.
Source: Insee calculations from various sources

for these two sectors over the entire quarter, against –23% and –49% forecast). In the holiday period, despite the advice to limit get-togethers, people still moved around, whereas restaurants had already adapted to their extended closure and probably simply continued in the same way (especially with deliveries). However, other service activities (leisure, culture, sport, etc.) did suffer a shock in November, in line with the forecast: for example, the rebound in December was a little greater than expected, with the loss of activity established in Q4 at –29% (against –32% forecast). Services to businesses (scientific and technical activities and administrative and support services) experienced a loss of activity that was only half that forecast in November, or a loss across the entire quarter of –6% (against an expected –9%). Trade, however, was more affected than forecast in November (especially the trade and repair of automobiles and motorcycles, and wholesale trade), but much less than forecast in December.

The activity of mainly non-market services returned to its pre-crisis level in Q4 2020 (against a loss of activity forecast at –3%), driven mainly by the buoyancy of health services, with no new postponements of treatment.

Industrial activity resisted better than forecast in November, particularly in the manufacture of equipment (especially electrical) and machines and in textile-clothing-footwear, chemical products and metallurgy. It fell back in December, however, perhaps associated with the health situation that was deteriorating for a number of our partners. Across the entire quarter, the loss of industrial activity compared to Q4 2019 stood at about –5% (against –7% forecast). Finally, construction was more affected in November than in December with a loss of activity across the whole quarter of –6% (against –9% forecast).

The breakdown of the different demand items also shows that, compared to the forecasts in the Economic Outlook of 15 December, household consumption declined slightly less than forecast in Q4 2020, and in particular that investment (especially household investment) and foreign trade continued their rebound, despite expectations of a further decline. The contribution of foreign trade was thus positive in Q4, at around 1 point. At the end of the year, GDP had therefore declined by –1.3% as a quarterly variation, and by –5.0% year-on-year (► **table 2**).

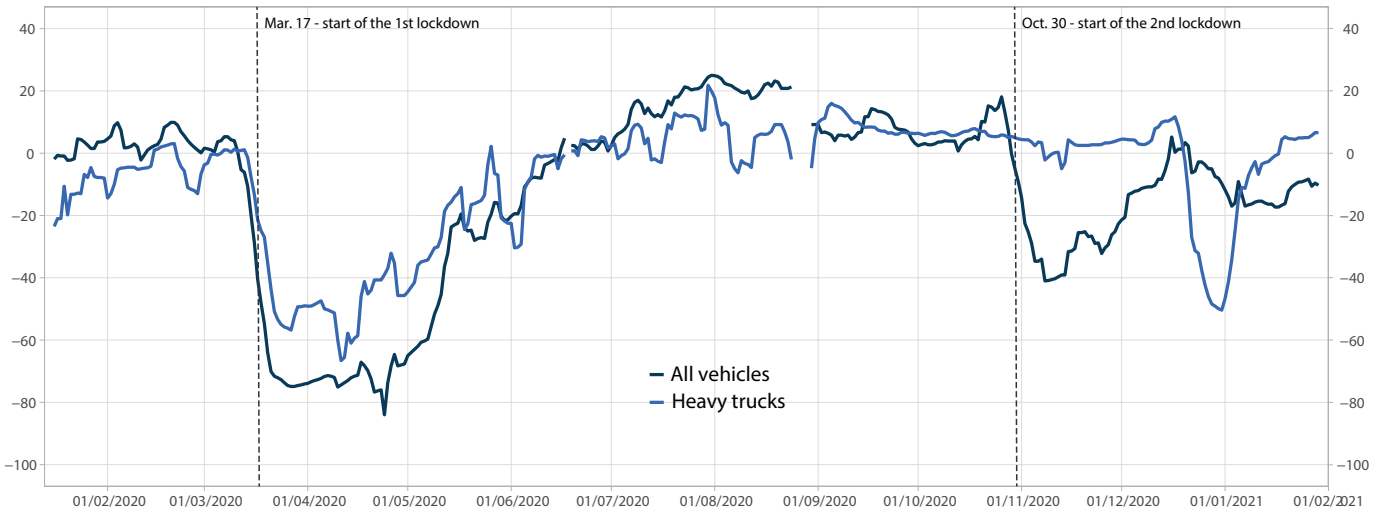
In a context that remains very uncertain, economic activity is expected to be stable in January 2021

In January 2021, companies' expectations, as expressed in early January in INSEE's business tendency surveys and in the ACEMO-Covid flash survey[1], carried out by DARES in association with INSEE, suggest an overall

1 This survey questioned businesses on their expectations regarding their pace of recovery. Their responses are aggregated at sector level, so that a trajectory can be established for change in activity for the months to come, provided there is no new shock to activity related to a tightening of restrictive health measures in the event of a return of the epidemic.

► 2. Road traffic in France

loss of road traffic compared to a pre-crisis situation, in %



How to read it: on 8 November 2020, road traffic in France was -2% lower for heavy goods vehicles and -41% lower for all vehicles combined, compared to a similar day before the crisis.
Note: the index is constructed by comparing current traffic with "pre-crisis" traffic. In order to make this reference as "fair" as possible, it is calculated on the average daily flow from 13 January to 2 February 2020 to avoid effects related to school holidays in February and the start of lockdown. For more clarity, the series has been smoothed with a 7-day moving average. The last point represents 29 January.
Source: Cerema, INSEE calculations

stabilisation of economic activity compared to December 2020. The curfew in force since 15 December reduced the amount of movement, onsite work and consumption opportunities in the evenings, first after 8pm, then after 6pm: this earlier deadline concerned only a few departments at the beginning of January but was gradually extended to the entire country.

The high-frequency indicators available for the first weeks of January also suggest virtual stability in activity. Heavy goods traffic, which was not affected much during the second lockdown due to the lesser impact of the restrictive measures on movement related directly to industrial activity, seems to be returning to stability after the seasonal lull associated with the Christmas holidays (► **figure 2**). In addition, the close correlation seen up until Q3 between the indicator of time spent weekly at home and the loss of economic activity seems to be weakening, perhaps linked to the increase in teleworking (► **figure 3**).

However, in the sectors where activity is still restricted, the number of related keyword searches in the Google search engine is still a little higher than in November, but apart from the word "train", for which searches were dynamic during the end-of-year holiday period, searches for other sectors remain very much in decline compared to October ("restaurant", "hotel", "theatre" and especially "cinema") or at a similar level ("flight"), reflecting the significant loss of activity in these sectors (► **figure 4**). Overall, these searches are in decline since the start of January.

All in all, activity in January would seem to have been around –4% compared to its pre-crisis level (Q4 2019), a similar level to December. In industry, it appears to have increased slightly compared to December (► **table 1**). In mainly market services, activity is expected to be stable: it is likely to remain very much depressed in sectors directly affected by the restrictions (accommodation-catering, transport and storage, leisure activities). In non-market services, activity is likely to be slightly dynamic, driven by health services, as in Q4.

What are the scenarios for the coming months?

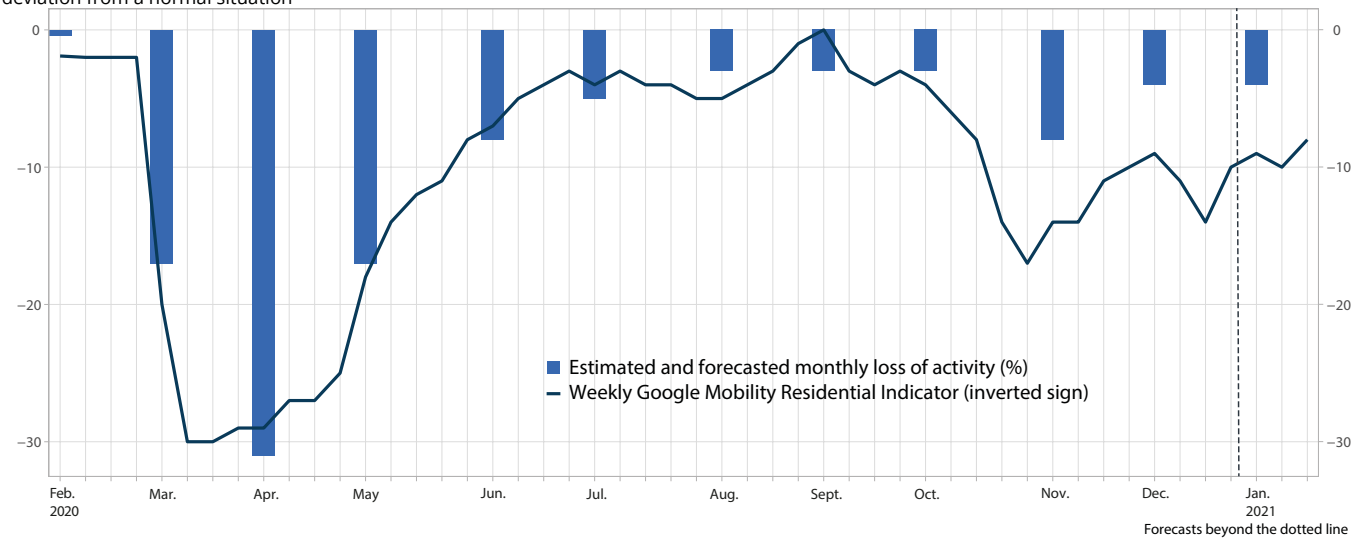
The health context for the start of the year remains very uncertain. Restriction measures have been tightened since 31 January (closure of non-food stores in shopping centres larger than 20,000 m2, control of movement outside the metropolitan area, etc.). Uncertainty remains over the duration of these measures and the possibility of their being reinforced further in the form of another lockdown, if the health situation deteriorates once again.

At this stage, it seems as if only scenarios can be put forward, as an illustration, to provide orders of magnitude for the various hypotheses that can be considered.

For example, if the current restrictive measures were maintained until the end of the quarter, activity could continue to grow slowly, mainly due to the industrial branches. Activity in services, on the other hand, would continue to be penalised by the activity in those sectors that are still affected by the restrictive measures

► 3. Indicator of total time spent at home monthly (compared to a normal situation) and estimated and forecast monthly losses of activity

deviation from a normal situation



How to read it: during the first week of December, time spent at home was 10% more than in a normal situation.
Note: the data for the indicator are currently available up to 26 January. Weekly values are the average of daily indicator values.
Source: Google Mobility Reports, INSEE calculations

(accommodation-catering, leisure activities, transport services to a lesser degree). GDP would increase by around +1½% in Q1 2021 (see scenario 1 in ► **table 2**), i.e. a loss of activity across the whole quarter of –4% compared to the pre-crisis level (after –5% in Q4 2020).

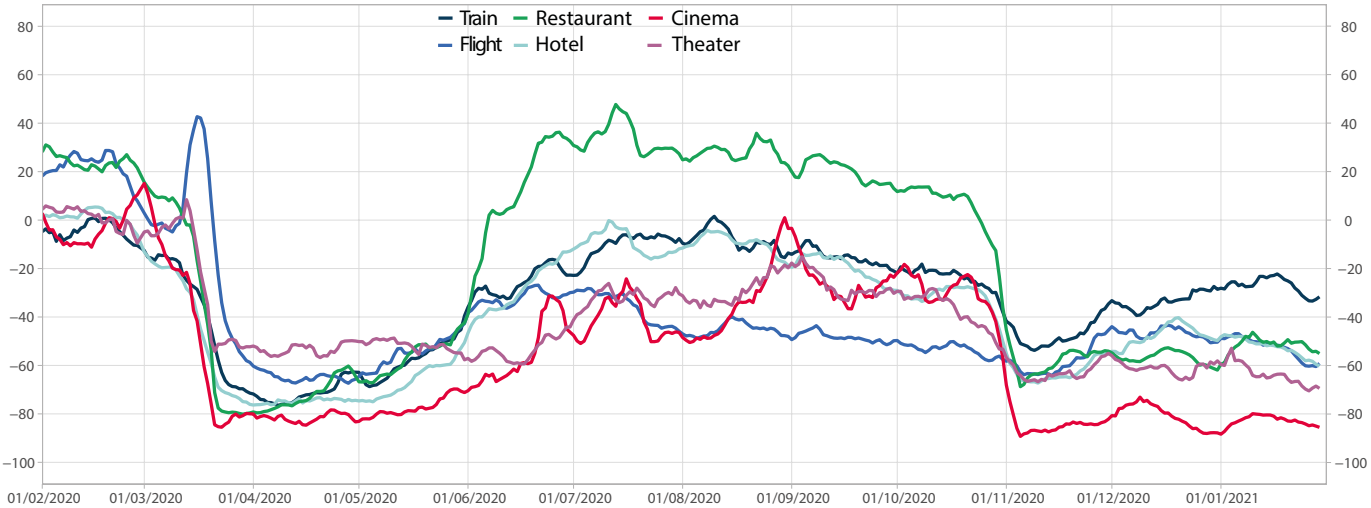
However, if the restrictive health measures were strengthened, this could once again put a stop to recovery or, depending on the severity of the measures taken, it could even cause a further drop in activity. In addition to the nature of any measures to be taken, there is uncertainty over their duration:

in the event of lockdown for one month, under the same conditions as in November (scenario 2 in ► **table 2**), and assuming that the rest of the quarter experiences the same level of activity as in January, GDP growth would be zero overall in Q1 2020, with a loss of activity of –5% compared to the pre-crisis level;

in the event of 7 weeks of lockdown (scenario 3) with the same conditions as in November, GDP would decline by around 1% over the quarter, and loss of activity would then be 6% on average compared to Q4 2019.

For Q2 2021, the forecast at this stage is as uncertain as for Q1. By way of illustration, we assume that the level of activity overall for this quarter is similar to that in Q3 2020 (almost 4% below the pre-crisis level). The annual growth overhang for 2021, depending on the scenario, would then be between +4% and +5% at mid-year. ●

► 4. Frequency of keyword searches on internet



How to read it: the 7-day moving average for the number of searches for the word "restaurant" on Google in France was 55% lower on 29 January compared to the average of the 7-day moving averages for every 29 January between 2016 and 2019.
Note: the last point represents 29 January.
Source: Google Trends, INSEE calculations

► 1. Estimated then forecast losses of economic activity in 2020 and in January 2021 by branch

différence compared to Q4 2019, in %

Branch	weight	Q4 2020	Oct. 2020	Nov. 2020	Déc. 2020	Jan. 2021	Contrib. Jan. 2021
Agriculture, forestry and fishing	**2%**	**–0.8**	**–1**	**–1**	**–1**	**0**	**0**
Industry	**14%**	**–4.6**	**–4**	**–4**	**–7**	**–4**	**–1**
Manufacture of food products, beverages and tobacco-based products	2%	–3.8	–4	–2	–5	–3	0
Coke and refined petroleum	0%	–20.0	–1	–3	–56	–32	0
Manufacture of electrical, electronic, computer equipment; manufacture of machinery	1%	–4.0	–3	0	–9	–6	0
Manufacture of transport equipment	2%	–16.7	–18	–17	–16	–12	0
Manufacture of other industrial products	6%	–3.2	–3	–2	–5	–3	0
Extractive industries, energy, water, waste treatment and decontamination	2%	–1.1	3	–4	–3	–2	0
Construction	**6%**	**–5.9**	**–8**	**–7**	**–3**	**–2**	**0**
Mainly market services	**57%**	**–7.2**	**–5**	**–11**	**–6**	**–6**	**–3**
Trade; repair of automobiles and motorcycles	10%	–4.9	–2	–12	–1	–2	0
Transport and storage	5%	–15.5	–12	–18	–16	–14	–1
Accommodation and catering	3%	–36.5	–22	–48	–41	–41	–1
Information and communication	5%	–2.1	–2	–1	–3	–3	0
Financial and insurance activities	4%	–2.3	–1	–4	–2	–2	0
Real estate activities	13%	0.4	1	0	1	1	0
Scientific and technical activities; administrative and support services	14%	–6.1	–5	–8	–5	–4	0
Other service activities	3%	–29.2	–18	–44	–26	–25	–1
Mainly non-market services	**22%**	**0.3**	**1**	**–1**	**0**	**1**	**0**
Total VA	**100%**	**–5.0**	**–3**	**–7**	**–5**	**–4**	**–4**
Taxes and subsidies		**–4.9**	**–1**	**–11**	**–2**	**–4**	
GDP		**–5.0**	**–3**	**–8**	**–4**	**–4**	

Forecast

Source: INSEE calculations from various sources

► 2. Scenarios for Q1 2021

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021		
					Scenario 1 (status quo same as January)	Scenario 2 (lockdown like Nov. 2020, lasting 1 month)	Scenario 3 (lockdown like Nov. 2020, lasting 7 weeks)
Quarterly variation (in %)	–5.9	–13.7	18.5	–1.3	1 ½	0	–1
Difference compared to pre-crisis level (Q4 2019)	–5.9	–18.8	–3.7	–5.0	–4	–5	–6

Forecast

Source: Calculs Insee à partir de sources diverses

Household consumption

With the introduction of the second lockdown, household consumption declined sharply in November 2020 (–15% compared to the pre-crisis level of Q4 2019) before picking up fairly quickly in December (–4% compared to the pre-crisis level), especially with the strong rebound in consumption of manufactured goods. In January, partly in reaction to this and with the further strengthening of health restrictions (curfew gradually brought forward to 6pm instead of 8pm), delayed winter sales and uncertainty over the way the health situation was developing, consumption would appear to have fallen once again (–7% compared to its pre-crisis level). Consumption of manufactured goods in particular looks set to decline after the strong rebound in December. Consumption of services would appear to have remained stable overall, but still depressed in the sectors directly affected by the restrictive measures in place for the health crisis.

Since the Economic Outlook of 15 December 2020, the first estimate from the Q4 2020 accounts confirms the drop in household consumption for this quarter (–5.4% compared to the previous quarter, a slightly more moderate decline than the –6% forecast in the last Outlook). In Q4 2020, household consumption stood at –7% from its pre-crisis level, after –1% in Q3, an indication of the decline in consumption during the second lockdown (► **Figure 1**). Thus the loss of consumption in Q4 is close to, though a little below, the forecast in the last Economic Outlook (–8% compared to the pre-crisis level). In particular, the increase in consumption of electrical and electronic equipment was even stronger than forecast in Q4 (+13% above its pre-crisis level against +6% forecast). Spending on construction work was also above its pre-crisis level (+1% against a forecast of –10%). In services to households, even though consumption remained sharply depressed in Q4, the loss of consumption turned out to be smaller than anticipated (–27% compared to the pre-crisis level against a forecast of –36%).

Using bank card transaction amounts and scanner data from major retail outlets, available up to 24 January, an estimate of household consumption can be produced for January. This is likely to be down on December, with a loss of consumption reaching 7% in January after –4% in December (compared to Q4 2019). The profile of CB bank card transaction amounts illustrates this decline since after the strong rebound observed in December,

► 1. Estimated and forecast monthly consumption

différence compared to Q4 2019, in %

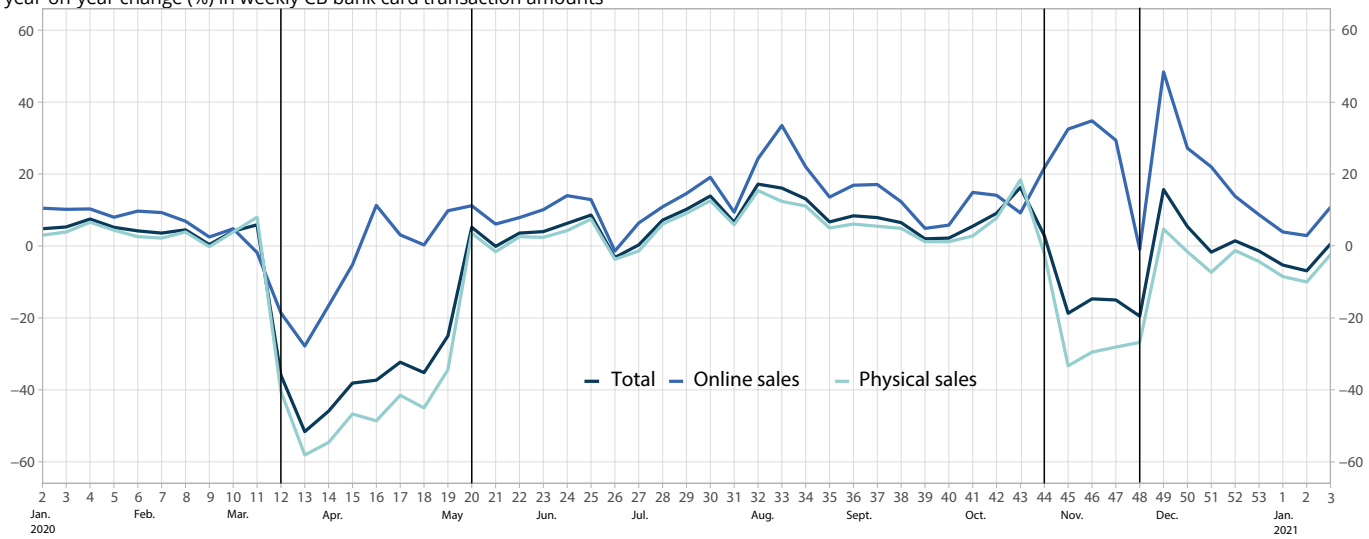
How to read it: in January 2021, household consumption is expected to stand at 7% below its Q4 2019 level.
Source: INSEE calculation from various sources

transactions (year-on-year) appear to be significantly less dynamic in the first three weeks of January (►**Figure 2**). This weak momentum also applies to online sales, in contrast to previous months, which saw an upturn in this type of purchase. In addition to the delaying of the winter sales, which started on 20 January this year instead of 8 January last year, the drop in consumption may also be due to the earlier curfew at 6pm instead of 8pm, which was at first limited to fifteen departments then gradually introduced nationwide from 16 January: by reducing in particular the numbers of customers going into shops, this measure seems to have affected household spending overall (► **Focus**). In addition, the climate of uncertainty regarding the changing health situation could also have contributed to slowing household spending. In this regard, the latest results from the Household Economic Outlook Survey, published on 27 January, show a substantial increase in the balance of opinion on the opportunity to save, combined with a sharp decline in the balance of opinion on the opportunity to make major purchases (► **Figure 3**).

The drop in consumption in January would appear to be mainly the result of consumption of industrial goods. Household spending on these goods would seem to be slightly below that of its pre-crisis level (–1%, or a contribution of –1 point to total loss of consumption, ► **Table**). Purchases of electrical and electronic

► 2. Weekly CB bank card transaction amounts

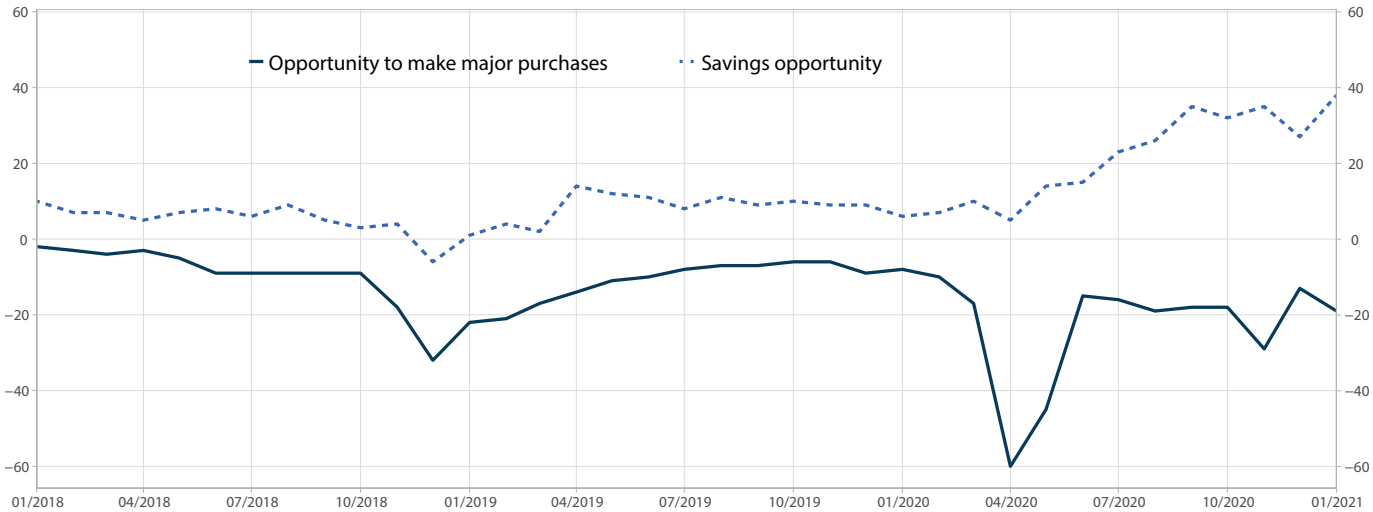
year-on-year change (%) in weekly CB bank card transaction amounts



How to read it: in week 3 of 2021 (18–24 January), total CB bank card transaction amounts were 1% higher than the amount in week 3 of 2020. The vertical lines show the dates that "non-essential" stores closed and reopened during the two 2020 lockdowns.
Note: the dynamism of these transaction amounts from March onwards may reflect a higher use of bank card payments, a trend that was corrected when estimating losses or increases in consumption compared to the pre-crisis level.
Source: Cartes Bancaires CB, INSEE calculations

► 3. Balance of opinion on the opportunity to make major purchases and the opportunity to save

balance of CVS responses, in points



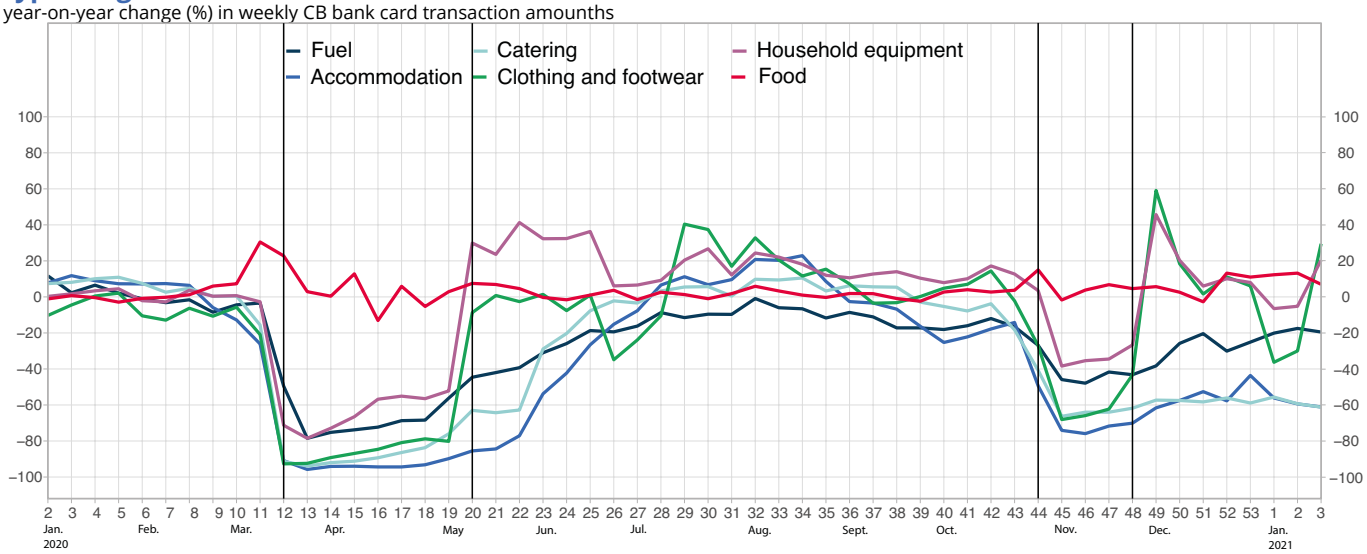
Source: INSEE economic survey of households

equipment, and household equipment in general, look set to maintain a higher level of consumption than before the crisis, although to a lesser extent than in Q4 (► **Figure 4**, where the negative year-on-year figures for the first two weeks of January are affected by the delaying of the winter sales). For other products, the strong rebound in December would seem to have given way to a level of consumption in January below the pre-crisis level, as in clothing-footwear, for example, probably also linked to the shifting of the start of the winter sales to 20 January (► Figure 4). Lastly, some spending would appear to have increased nevertheless, although still remaining below the pre-crisis level: this would have appeared to be the case for spending on fuel in particular (► **Figure 4**).

However, consumption of market services in January would appear to have been 14% below its pre-crisis level (7-point contribution to total loss). This loss of consumption, similar to that in December, probably reflects consumption levels that are still in a depressed state in the sectors directly affected by the restrictive measures: catering has accommodation trailing in its wake (► **Figure 4**) also leisure activities. The figures are also expected to reflect contrary movements, with consumption of transport services improving in January (more trips than in December) and conversely, consumption of personal services deteriorating. Household spending on construction would appear to have recovered its pre-crisis level, the same for mainly non-market services. ●

► 4. Weekly CB bank transaction amounts and sales by major hyper and supermarkets, for various types of goods and services

year-on-year change (%) in weekly CB bank card transaction amounts



How to read it: in week 3 of 2021 (18–24 January), CB bank card transaction amounts related to purchases of fuel were 20% lower than amounts in week 3 of 2020. The vertical lines show the dates that "non-essential" stores closed and reopened during the two 2020 lockdowns.
Note: the dynamism of these transaction amounts from March onwards may reflect a higher use of bank card payments, a trend that was corrected when estimating losses or increases in consumption compared to the pre-crisis level.
Source: Cartes Bancaires CB, INSEE calculations

►Tableau. Estimated and forecast level of household consumption

compared to Q4 2019, in %

Products	Share of consumption*	Q4 2020	Oct. 2020	Nov. 2020	Déc. 2020	Jan. 2021	Contrib. for January 2021 (in percentage points)
Agriculture, forestry and fishing	**3%**	**–5.6**	**–3**	**–9**	**–5**	**–5**	**0**
Industry	**44%**	**–2.9**	**3**	**–16**	**4**	**–1**	**–1**
Manufacture of food products, beverages and tobacco-based products	15%	1.3	4	–2	1	1	0
Coke and refined petroleum	4%	–14.4	–4	–27	–12	–4	0
Manufacture of electrical, electronic, computer equipment; manufacture of machinery	3%	13.2	13	–9	36	19	0
Manufacture of transport equipment	6%	–9.8	–2	–19	–8	–8	0
Manufacture of other industrial products	12%	–5.9	2	–33	14	–6	–1
Extractive industries, energy, water, waste treatment and decontamination	4%	2.5	12	–5	1	1	0
Construction	**2%**	**0.7**	**2**	**0**	**0**	**0**	**0**
Mainly market services	**46%**	**–13.4**	**–8**	**–18**	**–14**	**–14**	**–7**
Trade; repair of automobiles and motorcycles	1%	–4.7	0	–11	–4	–5	0
Transport and storage	3%	–48.2	–33	–58	–54	–46	–2
Accommodation and catering	7%	–47.1	–27	–61	–53	–55	–4
Information and communication	3%	–2.8	–2	–7	0	–3	0
Financial and insurance activities	6%	0.9	1	1	1	1	0
Real estate activities	19%	1.8	2	2	2	2	0
Scientific and technical activities; administrative and support services	2%	–8.8	–8	–9	–10	–11	0
Other service activities	4%	–27.1	–16	–43	–23	–30	–1
Mainly non-market services	**5%**	**–0.8**	**2**	**–4**	**0**	**0**	**0**
Total	**100%**	**–6.8**	**–1**	**–15**	**–4**	**–7**	**–7**

* weight in final household consumption spending in 2018 (excluding territorial correction)

Forecast

How to read it: in January 2021, the level of household consumption of accommodation and catering services would appear to be 55% lower than in Q4 2019.

Source : INSEE calculations from various sources

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.

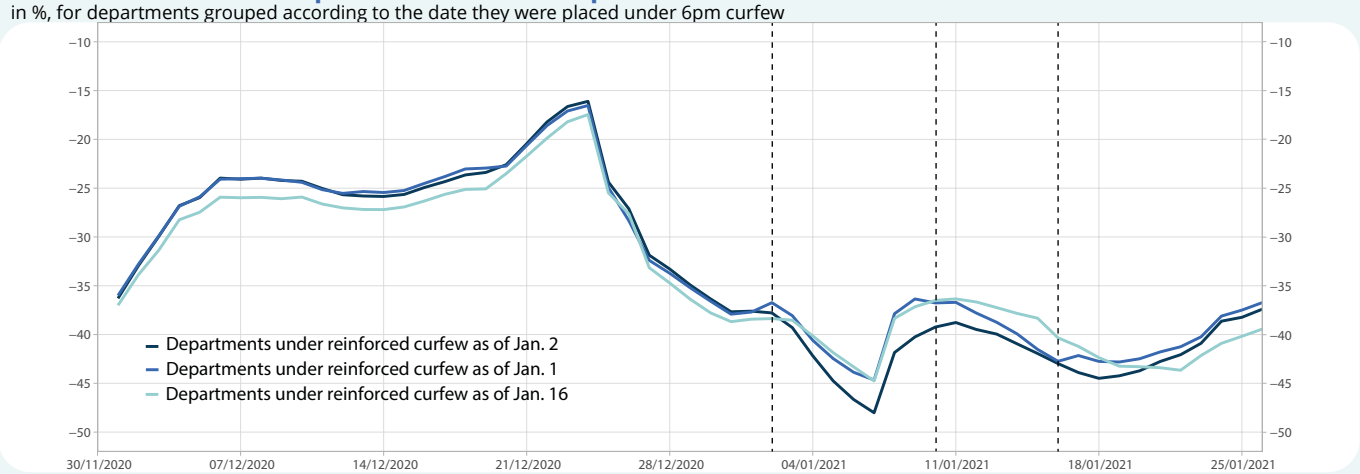
The indicator of trips to non-food retail and recreation locations, taken from *Google Mobility Reports*, illustrates the decline in visits linked to the extension of the curfew to 6pm

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.

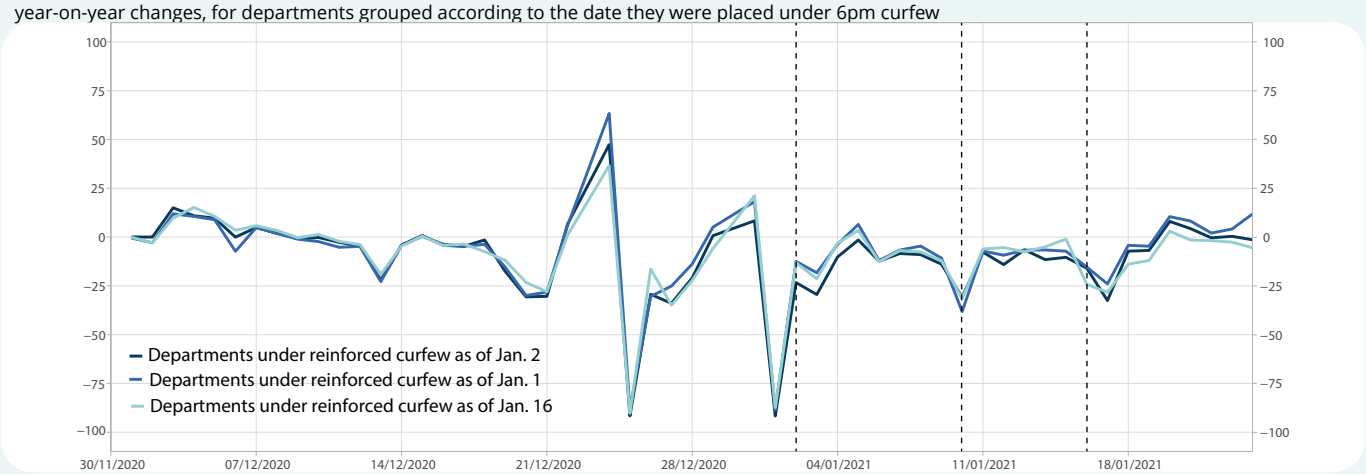
Estimation period: from 15 December 2020 to 15 January 2021 (daily departmental data).

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

In 2020, the carbon footprint of household consumption decreased during lockdowns

During the first lockdown, greenhouse gas (GHG) emissions declined significantly, not only emissions produced by households directly but also those contained indirectly in the goods and services they consume. This reduction is probably due mainly to the fall in household consumption, and to a lesser degree to a change in the consumption structure. The second lockdown would appear to have resulted in a similar trend, although on a smaller scale. Lastly, the rebound in consumption in summer 2020 would appear to be accompanies by a return to a similar level of household GHG emissions to that before the crisis, reflecting the unsustainable nature of changes that occurred during lockdown.

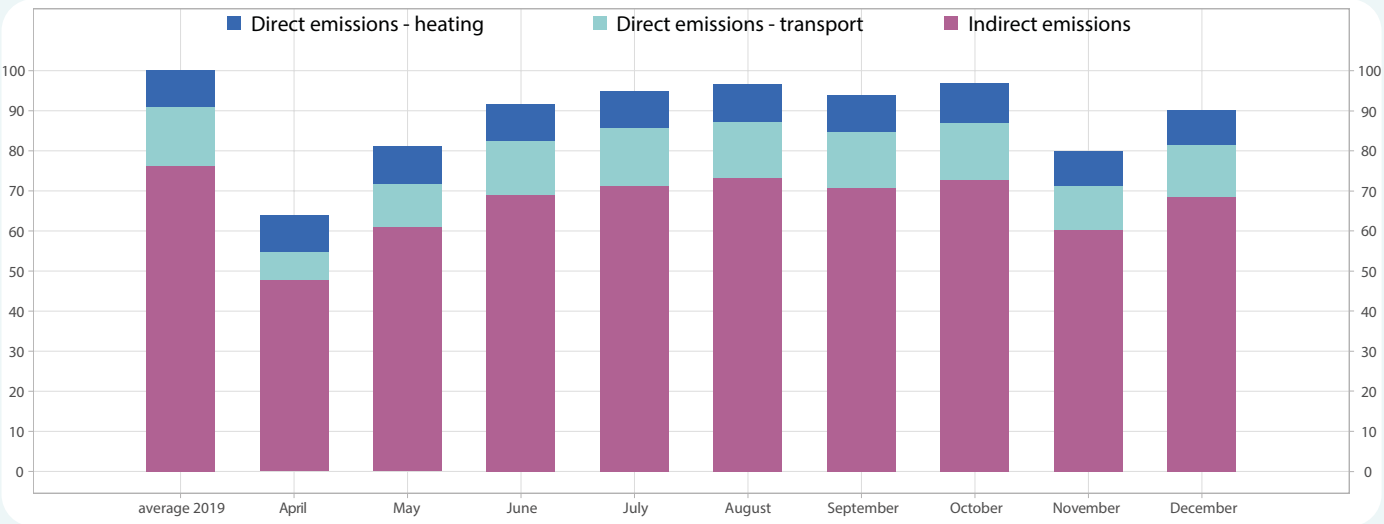
The decrease in travel as a result of the Covid-19 epidemic has had the effect of reducing air pollution in France and in Europe[1] and also greenhouse gas (GHG) emissions associated with transport. This effect was particularly noticeable during the periods of lockdown put in place in spring in various countries, as was the case in France from March to early May. In addition, the decline in household consumption led to a reduction in their indirect GHG emissions, i.e. those associated with all the goods and services that households consume. Ultimately, lockdown resulted in a reduced carbon footprint.

The carbon footprint corresponds to the amount of greenhouse gas[2] emitted, in France or abroad, to satisfy a country's final demand (household consumption and public administrations, investment, etc.). It includes direct household emissions (mainly related to fuel combustion for travel and gas or fuel oil for heating) and indirect emissions, resulting from the production of consumed goods (emissions associated with intermediate consumptions and their production itself). These indirect emissions therefore depend on the volume of goods and services consumed, but also on their carbon content. For example, the consumption of diesel emits GHGs directly into the atmosphere (via fuel combustion), but the diesel supplied at petrol stations also has a carbon content, taking into account the emissions resulting from the extraction and refining of petroleum, and emissions due to intermediate consumption, such as transporting the fuel to the service station. If we consider the consumption of catering services, this does not emit GHGFs directly as such, but does emit them indirectly via the carbon content of these services (emissions linked to cooking food, the carbon content of the foodstuffs themselves, etc.). Indirect emissions can be emitted in France just as well as abroad, if the consumed good is imported or if imported intermediate consumption is involved in its production.

1 The Centre for Research on Energy and Clean Air (CREA) calculated that in April 2020, air pollution by nitrogen dioxide (NO_2), a pollutant emitted by power plants and diesel engines, was 37% lower in Europe and 44% lower in France than in April 2019.
"11,000 air pollution-related deaths avoided in Europe as coal, oil consumption plummet", CREA, April 2020
2 These are mainly carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), with the amounts emitted expressed as carbon dioxide equivalents.

► 1. Carbon footprint of household consumption

base 100 in 2019



Note: GHG emissions for the months of 2020 are shown against the average monthly emissions for 2019.
How to read it: in April 2020, direct and indirect emissions from household consumption were at 64% of their average monthly level for 2019, with 48 pts for indirect emissions, 9 pts for direct emissions related to heating and 7 pts for direct emissions related to transport.
Source: SDES, comptes nationaux, INSEE caluation

The restrictive health measures in place in France since March have limited households' activities and consumption choices, resulting in changes in the volume of the basket of goods and services and in its composition, which in turn alters the carbon footprint of French households. In this Focus, the aim is to estimate the change between April and December 2020[3] in direct household emissions and indirect emissions linked to their consumption: thus it is not the entire carbon footprint (notably, household investment, general government consumption and investment are excluded from the analysis) however, the scope here does represent most of it (73% in 2019).

The carbon footprint of household consumption decreased by almost 36% in April 2020

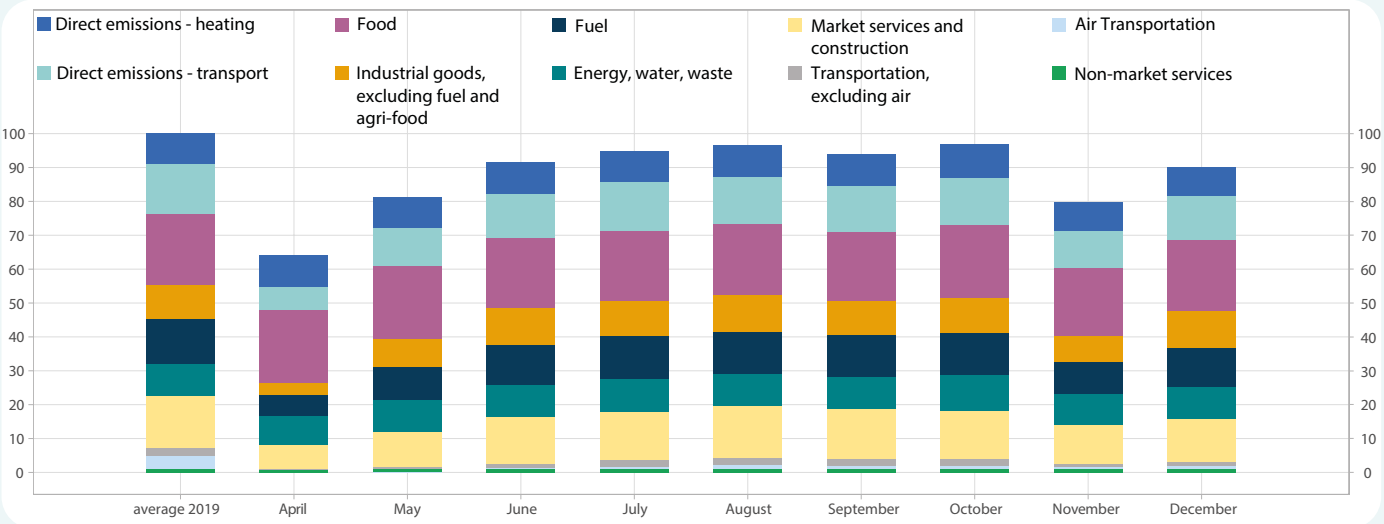
In 2019, the carbon footprint of household consumption was made up of 76% indirect emissions, with direct emissions related to transport and housing accounting for 15% and 9% respectively (► **Figure 1**). Concerning indirect emissions, they were mainly related to food (21% of total emissions in 2019), purchase of fuel (13%), consumed manufactured goods (10%), electricity and heat consumption (9%) and services, whether market or non-market (► **Figure 2**). The relative size of these different contributions is based on both the scale of the volumes consumed and the carbon content of the different products: thus, while spending on fuel in 2019 represented 4% of household consumption, the high carbon content of fuel resulted in a much larger proportion of emissions due to its production and transport (indirect emissions); conversely, although market and nonmarket services make up a large proportion of household consumption (almost half in 2019), their low carbon content is the reason for their much lower contribution to indirect emissions.

Compared to the pre-crisis level (2019), the carbon footprint of household consumption would appear to have fallen by 36% in April 2020 and by 19% in May (► **Figure 3**). From June to August, household consumption returned to a level close to the pre-crisis level and transport restrictions were relaxed, and so GHG emissions would appear to have moved nearer to their 2019 average, before declining slightly in September and October, then more significantly in November with the second lockdown.

More specifically, direct emissions associated with housing would seem to have remained stable overall in 2020, since residential energy consumption was not much affected by the health crisis, probably because of favourable climate conditions in 2020. However, with the decline in travel during lockdown, direct emissions associated with transport would appear to have experienced a 52% decrease in April then 25% in May, before returning in the summer to a level similar to 2019, then falling again in November with the second lockdown. The decline in travel also appears to have resulted in fewer indirect emissions related to fuel production, thus representing the main

3 This Focus covers only April to December 2020, the period most affected by the health crisis and which has been the subject of household consumption estimates in the different Economic Outlooks published since the crisis began.

► 2. Carbon footprint of household consumption with details of indirect emissions by product



Note: GHG emissions for the months of 2020 are shown against the average monthly emissions for 2019.
How to read it: on average per month in 2019, food and coking-refining represented 21% and 13% respectively of the carbon footprint of household consumption.
Source: SDES, comptes nationaux, INSEE calculations

contribution to the total reduction in indirect emissions. The other consumption items that contributed to the decline in indirect emissions are manufactured products and transport services, especially air transport.

The carbon content of goods and services consumed explains their respective contribution to the carbon content of household consumption

The disparities in the contributions of consumed products to the change in the carbon footprint of household consumption can be explained by their weight in household consumption and by the GHG emissions associated with their production (carbon content): the greater the weight of a product in consumption or the higher its carbon content, the more a decrease in consumption of this product will lead to a significant drop in the carbon footprint of household consumption. ► **Figure 4** shows the drop in consumption by product according to their carbon content, for April 2020, to better illustrate the weight of these two components. The size of the circles is proportional to the greenhouse gas emissions related to the production of goods and services in 2019.

The coking-refining and air transport sectors are on the right-hand side of the graph, characterised by a high carbon content, and consumption in these branches saw a significant drop during the first lockdown (of 52% and 100% respectively compared to the pre-crisis level): these sectors therefore made a major contribution to reducing the carbon footprint of household consumption. Conversely, household food consumption increased only slightly during lockdown, but as this sector also has a high carbon content, emissions related to the production of these foods therefore lessened the overall decline in emissions (► **Figure 4**).

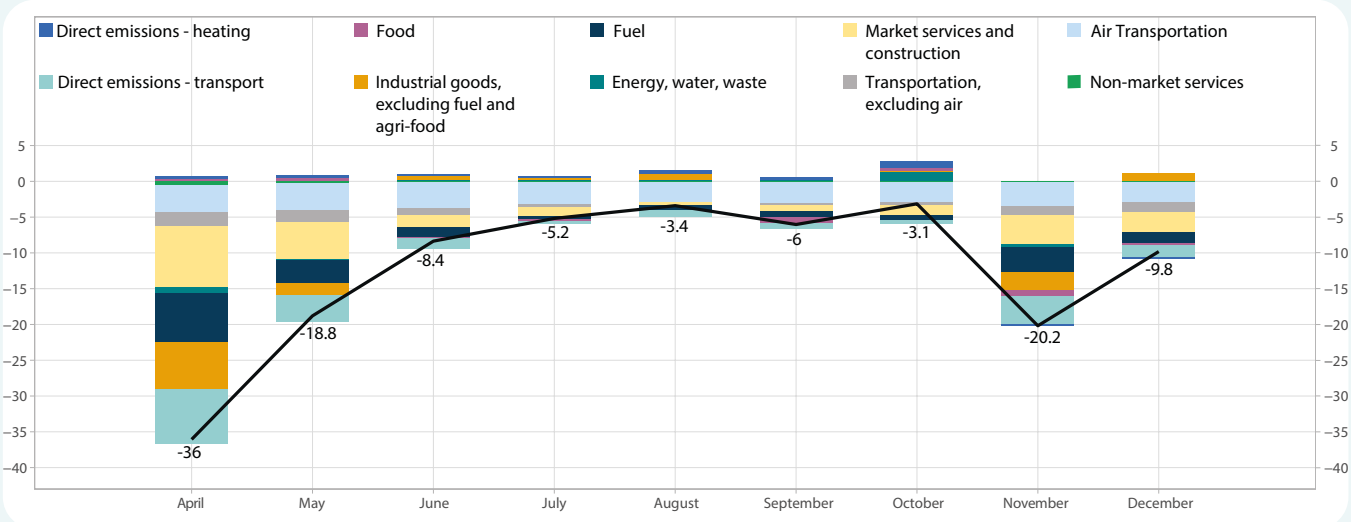
The change in the carbon footprint of household consumption between June and October reflects the rebound in consumption, before it fell once again in November due to the second lockdown

From June until October, indirect emissions related to household consumption are expected to gradually return to a level closer to the 2019 average. The remaining difference is driven mainly by indirect emissions linked to air transport, which would appear to be staying very far below their pre-crisis level. In addition, emissions linked to fuel consumption also appear to be still in decline, as the upswing in travel was only gradual. However, emissions related to manufactured goods would appear to have increased slightly, due to the rebound in consumption that started as the first lockdown ended (► **Figure 3**).

In November, the second lockdown would seem to have resulted in a 20% drop in indirect emissions linked to household consumption compared to the level in 2019, almost half as much as in April. The main reason for this

► 3. Contributions to the reduction of the carbon footprint of household consumption by branch

variation compared to an average month in 2020



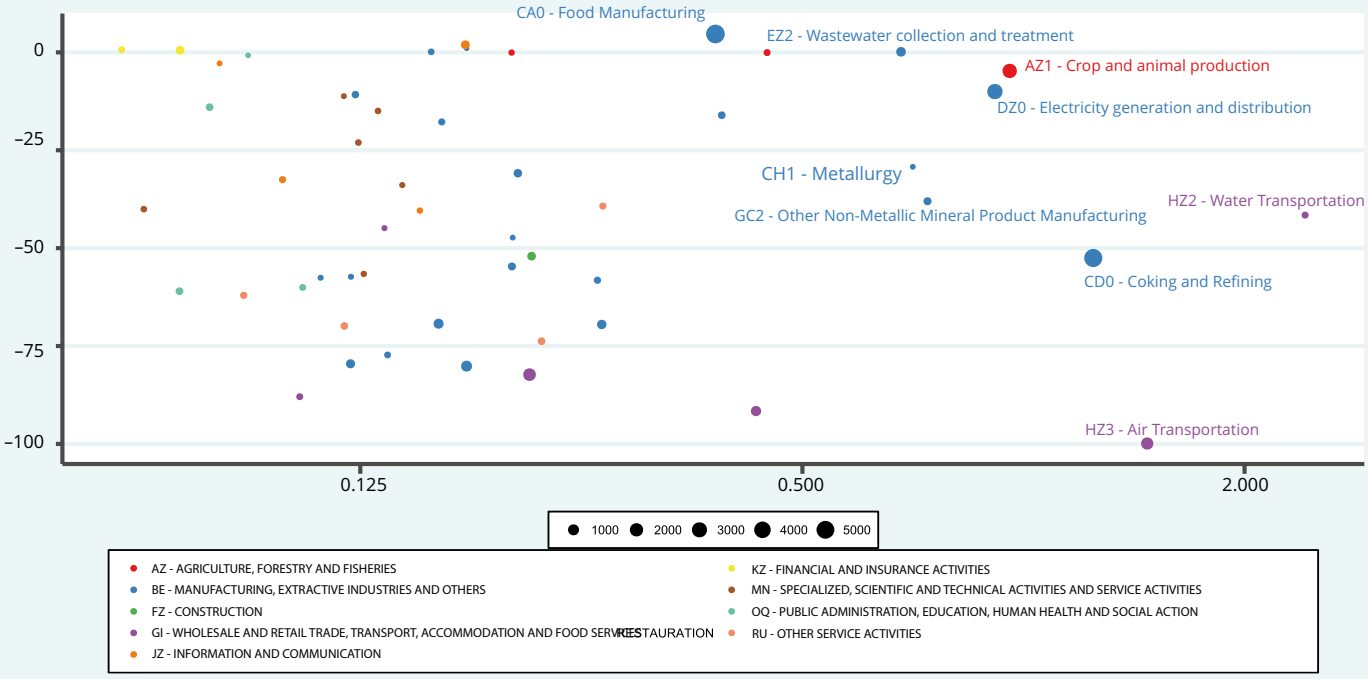
How to read it: in April 2020, direct emissions related to transport contributed 8 points to the 36% total decline in the carbon footprint of household consumption, while the coking-refining branch and the rest of manufacturing industry contributed 7 and 6 points respectively.
Source: SDES, comptes nationaux, INSEE calculations

difference is that the autumn lockdown was less strict than that in the spring, resulting in a smaller drop in consumption. Specifically, indirect emissions linked to air transport would appear to have decreased less than in April, but it was above all the decline in the consumption of manufactured goods that led to a smaller drop in indirect emissions than in spring (contribution of –2% in November compared to the 2019 average). Direct emissions linked to transport and indirect emissions linked to fuel production would appear to have declined less than in April, with fuel consumption down 27% in November, against 52% in April.

In December, as in May and June, the return to consumption would appear to have resulted in an increase in the carbon footprint of household consumption compared to November, bringing it to 10% below the 2019 average level. ●

Lorraine Koehl, Hadrien Leclerc

► 4. Carbon content of different products (in grams of CO2 per euro consumed, logarithmic scale, x-axis) and estimated loss of consumption in April compared to the pre-crisis level (y-axis)



Note: the size of the circles is proportional to the total emissions per product for an average month in 2019. The sectors of employment-related activities (NZ2, carbon content of 0.028g CO2/€) and real estate activities (LZ0, carbon content of 0.01g CO2/€) have been removed from the graph to improve clarity; their carbon content is low and does not affect the analysis.
Source: SDES, National accounts, INSEE calculations

Methodology box

The carbon footprint of household consumption is estimated by adding together direct household emissions and indirect emissions linked to their consumption. Direct emissions linked to transport are estimated for 2020 by assuming that the change in the amount of GHGs emitted during combustion (direct household emissions) is similar to the change in spending on fuel (coking-refining branch products). Direct emissions linked to housing, comprising mainly the consumption of natural gas and fuel oil for heating, were estimated in 2020 assuming a similar change to that in electricity consumption by Enedis customers in the "residential" sector (*Economic Outlook* 15 December 2020).

Indirect emissions associated with household consumption during the months of April to December are calculated by multiplying the household consumption of each product, estimated for these months, by the carbon content of this product. Since estimates for household consumption are adjusted for seasonal variations and working days, indirect emissions are too.

Carbon content by product is calculated from 2019 data on indirect emissions from the Statistical data and studies service (SDES)[1] of the Ministry of Ecological Transition and final demand data by product (INSEE national accounts).[2] Assuming fixed technology in France and abroad, production of the same good or service results in the same amount of greenhouse gas emissions during the production process. For each product, indirect emissions in 2019 include emissions related to the production of this product, in France or abroad, and especially emissions from all the intermediate consumption used.[3]3 Indirect emissions related to household consumption are then divided by household final consumption by value, to obtain the carbon content of the product, the amount of GHG emissions per euro consumed.

The carbon contents of the different products are then used to estimate the fall in indirect emissions resulting from the drop in consumption, month by month, from the April lockdown to that of November and December, as estimated by INSEE in its *Economic Outlook*. This calculation is performed at level A64 of the aggregate classification (NA).

The change in indirect emissions in 2020 is also broken down according to two effects: the effect resulting from the drop in consumption with an unchanged structure and that resulting from the structure effect. The latter corresponds to the variation in indirect emissions due to change in the structure of consumption. Thus, with an unchanged level of consumption overall, indirect emissions may be lower if consumption has shifted to products with a lower carbon content. August 2020 is a good illustration of this phenomenon, since the structure effect accounts for almost all of the fall in indirect emissions for this month. More specifically, the structure effect in August is mainly explained by a lower consumption of coking-refining products and especially air transport.

Indirect emissions are calculated using the following variables: total consumption Ct, consumption by product pctit (as a percentage of the total) and carbon content by product, carbi. The calculation is shown below:

$$Emp_t = \sum_i C_t * pct_{it} * carb_i$$

.../...

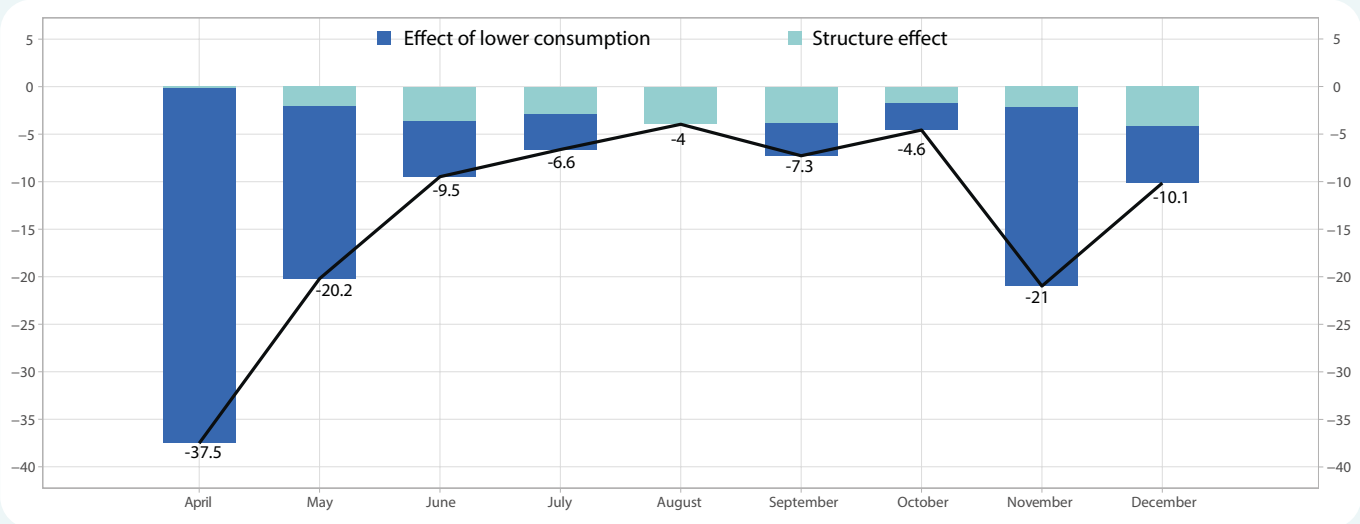
1 "Estimate of carbon footprint from 1995 to 2019", December 2020.
2 As a follow-up to the report by the High Council on Climate in October 2020 on carbon footprints, an assessment of the SDES methodology for calculating the footprint is in progress. This assessment could lead to a revision of the footprint series in autumn 2021. Such a revision could in particular affect estimates of emissions imported from the coking branch, which is of considerable significance in reducing the carbon footprint in the 2020 health context described here. Thus the results presented here could be modified as a result of these revisions.
3 Details of the SDES calculation method can be found in the document "Méthodologie de calcul de l'empreinte carbone de la France" (Methodology for calculating the carbon footprint in France), December 2020, Manuel Baude.

After the calculation, the decline in indirect emissions compared to a reference month in 2019 is broken down into two parts: the drop in consumption compared to 2019 (change in indirect emissions with an unchanged consumption structure) and the structure effect.

$$\%Emp_t = \%C_t + \frac{C_t}{C_{t_0}} \frac{\sum_i (pct_{it} - pct_{it_0}) carb_i}{\sum_i pct_{it_0} carb_i}$$

The drop in indirect emissions during April and May appeared to be greater than that in household consumption. In fact, the decline in consumption during the first lockdown (-31% in April) caused an automatic drop in indirect emissions but was also accompanied by a change in the structure of household consumption, visible from May (–1.7% in May): fuel expenditure also fell significantly, as did the consumption of transport services, especially air transport, while other less carbon-intensive types of spending (food) were much less affected. However, the structure effect seems to play a small part in the decline in indirect emissions in April and May (Figure 5). On the other hand, from June until October, the structure effect contributes much more, if not almost totally, to the drop in indirect emissions: in August in particular, when consumption returned to its pre-crisis level, its structure remained changed compared to 2019, with a lower level of indirect emissions. ●

► 5. Breakdown of the drop in indirect emissions linked to household consumption into decline in household consumption and change in consumption structure



Source: SDES, comptes nationaux, INSEE calculations

International developments

In 2020, the economies of all countries were deeply affected by the health crisis. Economic activity plummeted in H1 to an unprecedented low, before rebounding to varying degrees in Q3, followed by a range of changes at the end of the year. In Europe, the measures introduced by governments at the height of the crisis were able to limit the negative consequences for employment and preserve a large proportion of household and corporate income. However, the upsurge in the epidemic in recent months is threatening this economic recovery in 2021, as can be seen from the consumption and mobility behaviour highlighted by "high-frequency" indicators.

Economic activity in all countries was deeply affected by the pandemic in 2020

In Q4, the upswing in activity in western economies was slowed by the second wave of the epidemic (► **Figure 1**). In Germany and Spain, GDP grew slightly (+0.1% and +0.4% respectively). The nationwide lockdown introduced towards the end of October in France, and the regional lockdowns in Italy had a greater effect on the economic activity of these two countries, as it contracted once again at the end of the year (–1.3% and –2.0% respectively).

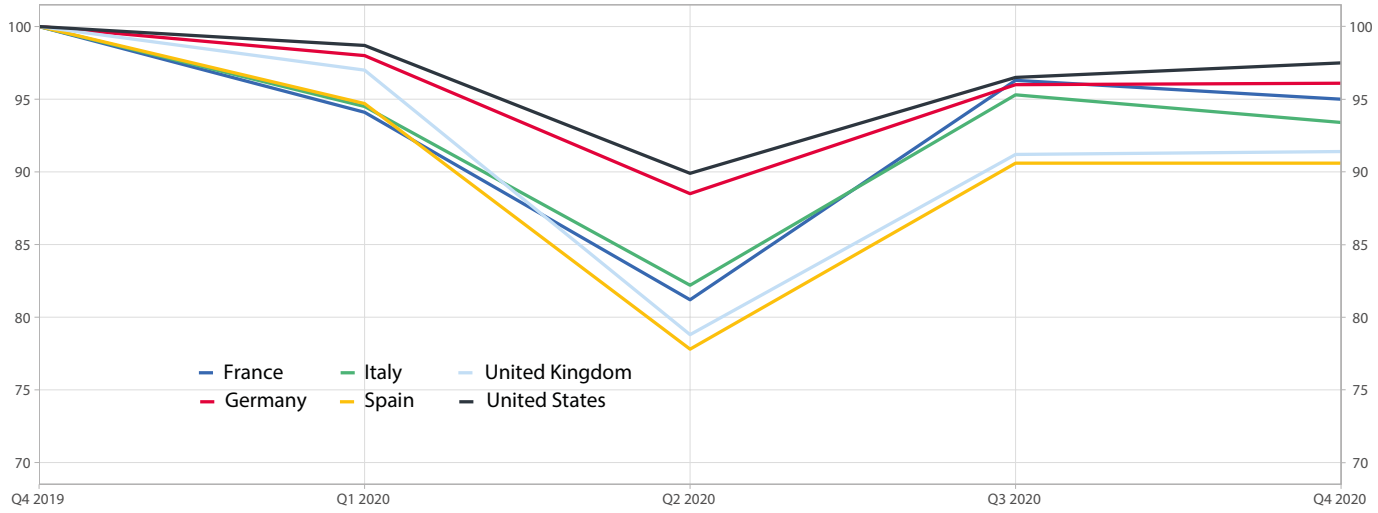
In Germany, activity slowed sharply after the rebound in Q3 (+0.1% after +8.5%) and GDP remained at 3.9% below its level of a year ago. According to Destatis, private consumption was particularly hard hit, partly as a result of the lockdown put in place in mid-December, while exports of goods and investments in construction supported the economy. On average over 2020, German activity fell by 5.3% (after +0.6% in 2019).

As in Germany, growth in Spain slowed sharply compared to Q3 (+0.4% after +16.4%). Activity was supported by consumption, whether by households or general government, but was slowed by foreign trade and investment. GDP in Spain remained below its pre-crisis level (–9.1% year-on-year) and over the whole of 2020 it was down by 11.0%.

In Italy, activity contracted by 2.0% in Q4 2020 after a sizeable rebound in the summer (+15.9%). This decline stems from the downturn in both domestic demand and foreign trade. GDP was 6.6% below Q4 2019 and across 2020, it contracted by 8.9%.

In the United Kingdom, the first estimate of end-of-year growth in 2020 is not yet available. However, the monthly GDP indicator released by the ONS decreased by 2.6% in November (after rising +0.6% in October), penalised by the November lockdown in England. One month from the end of the year, activity was therefore at 8.3% below its pre-crisis level (Q4 2019). Nevertheless, this decline resulted in a slightly positive growth overhang (+0.3%) in Q4 2020. The balances of opinion obtained by IHS Markit revealed an improving

► 1. Agents' accounts are not yet available for the last quarter of 2020.
on the basis of 100 in the Q4 2019



Note: for the United Kingdom, the last point is a growth overhang in the second month (as growth for December and hence for the whole of Q4 is not yet available).
Source: INSEE, Destatis, Istat, INE, ONS, BEA

short-term outlook in December, when lockdown restrictions in the United Kingdom were gradually lifted (49.4 after 47.6 for services, 57.5 for the manufacturing sector). British activity benefitted in particular from effects of inventories, in anticipation of *Brexit*.

Economic recovery was also slowed in the United States (+1.0% after +7.5%). The loss of activity in Q2 (–9.0%) was thus only partially offset (–2.5% year-on-year in Q4, –3.5% across the whole of 2020). Investment made a strong contribution to this growth, both by households (+4.3%, contributing 0.8 points) and businesses (+3.3%, contributing 0.4 points). The main driver behind the upswing in Q3, private consumption, was also held back by the intensification of the epidemic in Q4 (+1.0% after +8.9%) and is still below its pre-crisis level (–2.6% year-on-year).

During the first wave of the epidemic and at the height of the crisis (in April), industrial output plummeted in the different countries by between 17% (in the United States) and 42% (in Italy) below their pre-crisis level (► **Figure 2**). The shock was particularly strong in countries where production in certain branches came to a virtual standstill (in France, Italy and Spain[1]). However, the industrial production index picked up from May in all of the main western economies and this recovery continued, at different rates depending on the country, until the end of the summer. German industry in particular recovered more slowly than that of other countries due to the automobile and machinery and equipment sectors. They usually drive industrial production, but remained worse affected than the other sectors after the first lockdown. From August onwards, –with the exception of Italy, where the production index exceeded its pre-crisis level (+1.9%) before declining once again– the recovery of industrial production slowed in the major western economies. In November, the indices of total industrial production in France, Italy, Spain and, to a lesser extent, the United Kingdom were once again quite far from their pre-crisis level (–0.9%, –1.4%, –0.6% and –0.1% respectively, reductions out of all proportion to those in the spring), while these indices continued to make slow progress in Germany and the United States (+0.8% and +0.4% respectively). Thus in November 2020, industrial production settled at about 3% below its pre-crisis level in the Eurozone and around 5% in the United Kingdom and the United States. In December, the level of the US production index was only 3.5% below its level at the end of 2019.

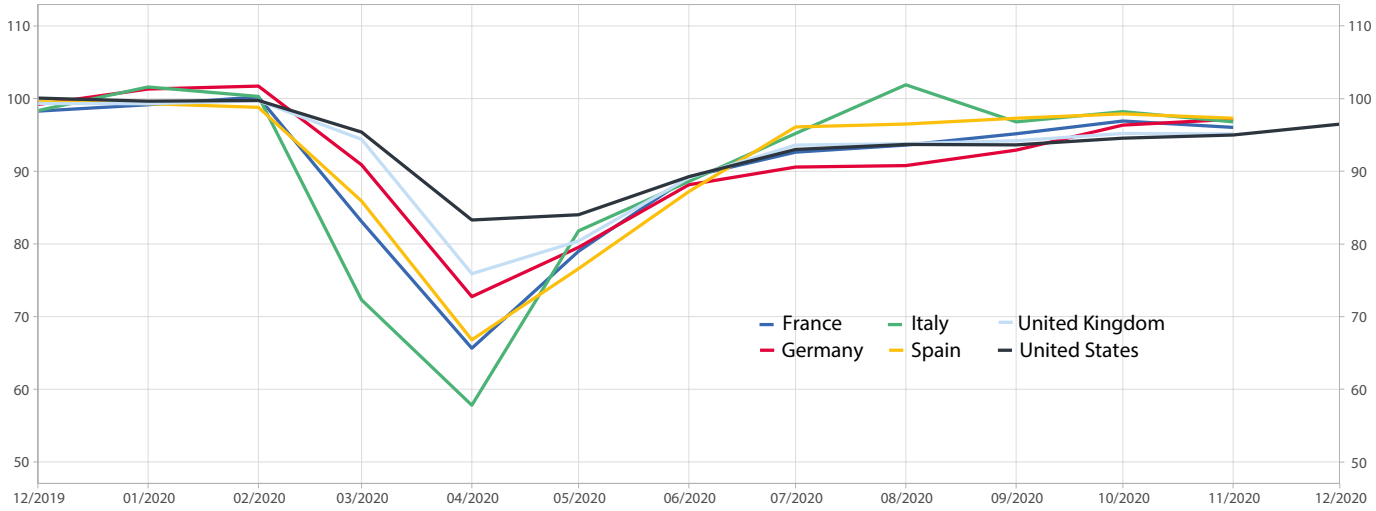
Although activity was slowed, China nevertheless continued its economic development in 2020

Despite the appearance of the pandemic on its territory, China is an exception among the G20 countries as its economic activity increased in 2020 (+1.9% for annual GDP). In fact, after the shock of Q1 (–10.1% as a quarterly variation) came a sharp rebound (+12.0% in Q2) which continued into H2 (+1.7% then +3.8% for the last two quarters respectively). In Q4, economic activity increased by 6.2% year-on-year compared to Q4 2019.

1 See the Focus on the effects of the health crisis on the European regions in Economic Outlook of 8 September 2020.

► 2. Industrial production in the main western economies continued its slow recovery but remained below its pre-crisis level at the end of 2020

on the basis of 100 in the Q4 2019



Note: The index studied here includes extractive industries, manufacturing industry and the supply of electricity, gas, steam and air conditioning.
Source: Eurostat, BEA

This economic rebound concerned production more than domestic consumption. Unlike the western economies, industrial production very quickly wiped out the traces of the health crisis, regaining a positive year-on-year change in April (► **Figure 3**) and improving over the whole year by 2.8% compared to 2019. The upturn in production notably benefited from strong exports of medical and electronic equipment to western countries (+18% in December year-on-year), as demonstrated by a record trade surplus in 2020 despite the ongoing trade war with the United States.

Household consumption, on the other hand, experienced a more sluggish recovery, like retail sales, where the year-on-year change only became positive once again in August (► **Figure 3**) and which appear overall to be down 3.9% across the year.

2020 ends with a deteriorating employment market

Affecting the functioning of several economic sectors as it did, the epidemic crisis exerted considerable pressure on the labour markets of the different economies. The latest available estimates, covering September, November or December depending on the country, show significant job losses, although limited in the different countries by the support measures in place.

In France, payroll employment at the end of September stood at almost 300,000 jobs below its level at the end of 2019, with an unemployment rate in Q3 reaching 9.0% of the active population. The short-time activity scheme enabled companies to retain many workers, resulting in a much smaller drop in employment than in activity (*Economic Outlook* of 15 December 2020).

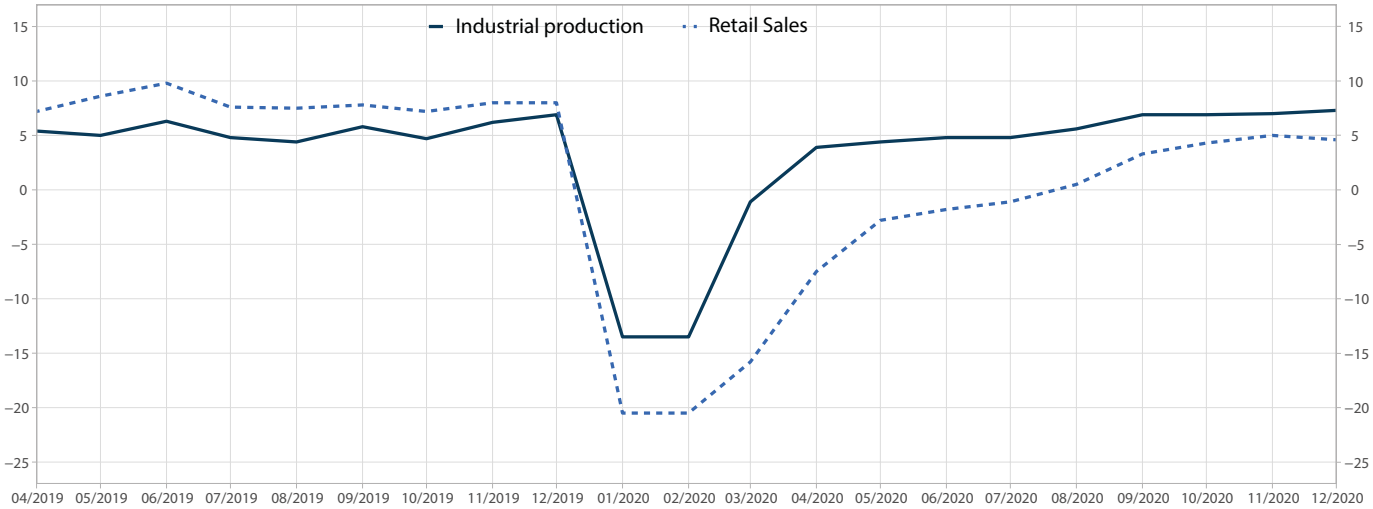
In Germany, the number of jobs lost between March and December, as estimated by Destatis, rose to 743,000. Since May, the number of people in employment has levelled off: in December, it remained 1.6% below its pre-crisis level. However, the massive use of short-time working has succeeded in slowing the number of layoffs: according to the federal employment agency, the number of people on short-time working rose to 17.9% of employees subject to social contributions at the height of the crisis (in April), then declined gradually over the rest of the year and settled in October at the still high level of 6.7%. However, in Q4, the unemployment rate reached 4.6%, its highest level since 2015.

The Italian economy lost 541,000 jobs between February and June, before picking up slightly until November (+241,000 since June). Despite this increase, employment remains below its pre-crisis level (–390,000 compared to November 2019). In Spain, after more than a million job destructions in Q2, the labour market recovered part of its losses (+569,000 in Q3). The recovery was more tenuous in Q4 (+168,000). Thus the level of employment remains lower than before the crisis (–220,000 in Q4 2020 compared to Q4 2019).

The number of UK jobs lost between March and November is estimated at 819,000 by the ONS and the employment rate fell 1.3 points between the end of 2019 and November. As in the aforementioned countries, the short-time working scheme, which was extended until March 2021 before the second wave of

► 3. In China, the epidemic crisis affected retail sales more than industrial production in 2020

year-on-year change



How to read it: in March 2020, industrial production (or retail sales) was down 1.1% (or 15.8%) compared to its March 2019 level.
Note: since the NBSC published an index of industrial production and growth in retail sales for January and February combined at –13.5% and –20.5% respectively year-on-year, here we assume a drop in these values in both January and February compared to 2019.
Source: NBSC

the epidemic, helped to prevent unemployment from exploding. The unemployment rate reached 5.1% in November, 1.2 points higher than a year earlier. Over the September-November period, the number of hours worked remained a long way from its pre-crisis level (–6.8% compared to Q4 2019).

In the United States, employment varied in 2020 in unprecedented proportions: March and April were notable for the loss of 22 million jobs, half of which were recovered between May and November (+12.4 million). However, this trend was reversed in December (–140,000 jobs), mainly due to the resurgence of the epidemic affecting the leisure and accommodation sector (–498,000 jobs). The crisis contributed to increasing the number of long-term unemployed (4.0 million in December) and the number of people laid off permanently (3.4 million), making employment one of the priorities of the new President's recovery plan, with a strengthening of unemployment insurance and the short-time working scheme, which remains virtually unused.

In 2020, budget support measures severely limited the decline in household and corporate income

Through its impact on activity, the health crisis greatly reduced the global income of national economic agents: cumulated over the first three quarters of 2020, the losses in disposable income of households, businesses and general government (as a deviation from the average in 2019) were 5.0% in Germany, 5.7% in France and as much as 9.2% in Spain. With the exception of Spain, these losses were not distributed evenly among households,[2] businesses and general government. Most of the loss was borne by general government, due to the numerous budget support measures taken by governments to avoid too many job losses and bankruptcies. These measures mainly consisted in setting up short-time working compensation or subsidies paid to businesses whose activity was restricted. As more resources filtered down, businesses and households experienced a more moderate drop in income, with households even seeing an increase in disposable income compared to 2019 (in Germany and the United Kingdom).

Likewise in the United States, the extent of budget support, especially aid to households and unemployment insurance, increased gross household disposable income by +7.2% in 2020.[3] However, in the European countries, situations were varied ((► **Figure 4**). In Italy and Spain, income losses by economic agents were around 9% over the first three quarters of 2020,[4] particularly in connection with the more severe drop in activity that these countries experienced in Q2 (severity of restrictive measures and greater dependence on tourism). The distribution of these losses appears to be relatively uniform in Spain, whereas in Italy, general

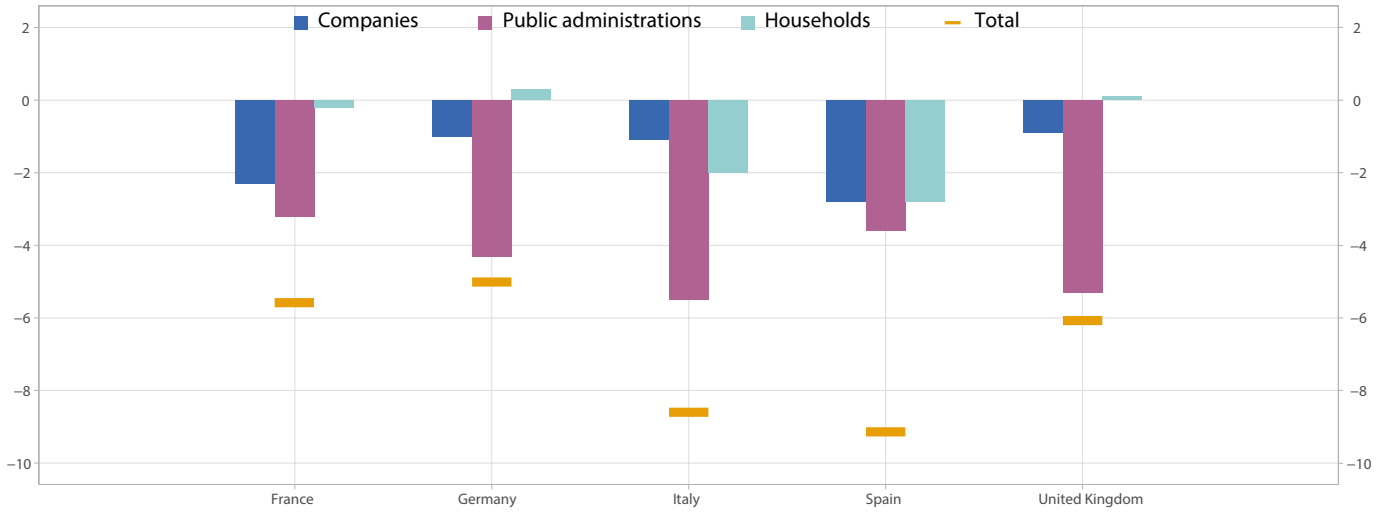
2 In this analysis, households also include non-profit institutions serving households (NPISH) except for France where this distinction is made by the quarterly national accounts.

3 Because the American and European accounts are constructed differently, this study is devoted exclusively to European countries.

4 Agents' accounts are not yet available for the last quarter of 2020.

► 4. General government withstood the shock better than other institutional sectors, except in Spain

difference by institutional sector between cumulated GDI for the first three quarters of 2020 and average GDI in 2019, in points of GDI 2019



Note: except for France, households also include non-profit institutions serving households (NPISH).
Source: INSEE, Destatis, Istat, INE, ONS

government has borne a large share of overall loss and businesses have been preserved above households. In France, Germany and the United Kingdom, while the administration has borne a great majority of the overall loss of income, as in Italy, households have been particularly well protected.

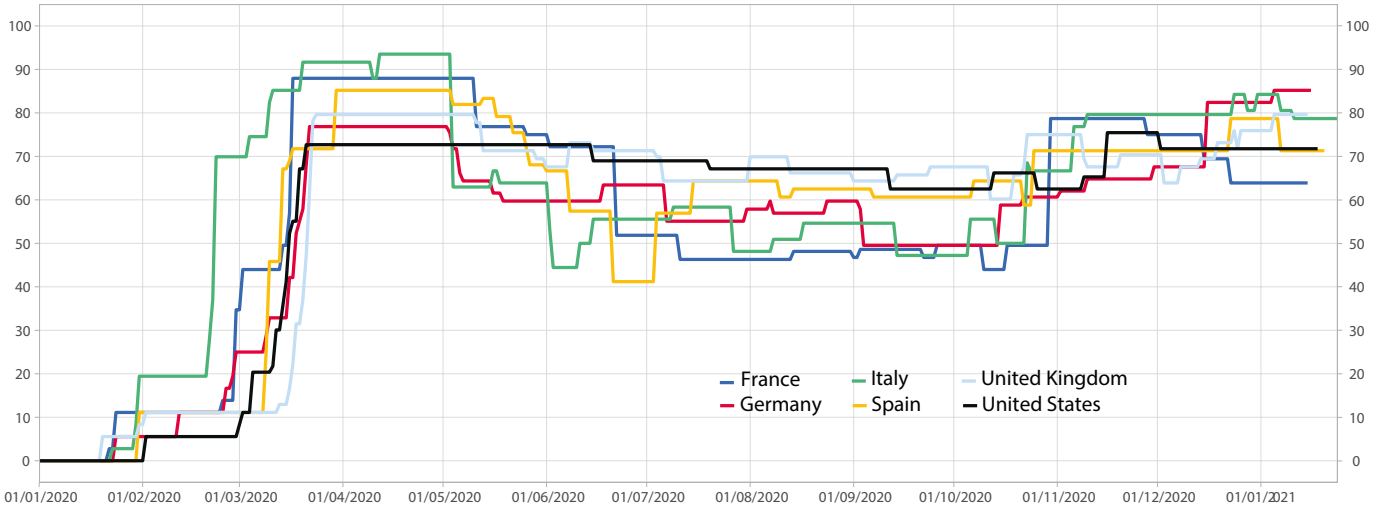
With health measures intensifying in January, activity looks set to be worse affected in Europe than in the United States

In most of the main western countries, the health situation deteriorated in December, leading to a tightening of health measures, as reflected in the Oxford Stringency Index, which synthesises the degree of strictness of measures put in place in the different countries ((► Figure 5). In Germany, a lockdown was declared in mid-December, then strengthened on 5 January with new restrictions on movement, with the result that the Oxford Stringency Index was higher than during the first lockdown. Significant restrictive measures are also in force across the Channel: the four UK nations have been in lockdown since 4 January, after a sudden rise in the number of daily new cases in late December linked to the appearance of a variant of the virus (more than 50,000 cases daily between 29 December and 10 January), all this despite the vaccination campaign getting off to a faster start than elsewhere in Europe. As in Germany, the accommodation-catering sector is at a standstill and schools and "non-essential" businesses are closed.

In France, despite the earlier nationwide curfew at 6pm since 16 January, the Oxford Stringency Index shows that containment measures at this stage are less strict than elsewhere in Europe. In Spain, restrictions are decided at local level: cultural activities and mobility are limited, but less so than in France, and restaurants remain open under certain conditions in some regions. In Italy, where restrictions also vary by region, the situation is tending to improve: during the second half of January the majority of regions were classified as orange, or even red in the case of four regions, meaning that restaurants and "non-essential" businesses must close, but now only four regions are still classified as orange.

Finally, in the United States, the epidemic is particularly virulent in California and Texas, reaching record levels in January with more than 200,000 cases daily, before declining slightly at the end of the month. To the local measures, like the lockdown in California or the curfew in

► 5. The Oxford Stringency Index shows a deteriorating health situation since late December



Note: this index identifies and combines in a single indicator all restrictive health measures, such as restrictions on movement and the closure of businesses, administrations and schools. The last point is between 15 and 24 January, depending on the country.
Source: Hale, T., Webster, S., Petherick, A., Phillips, T., et Kira, B. (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government

Ohio, a federal response must now be added, led by the new President's administration, as well as the start of a massive campaign to vaccinate the population.

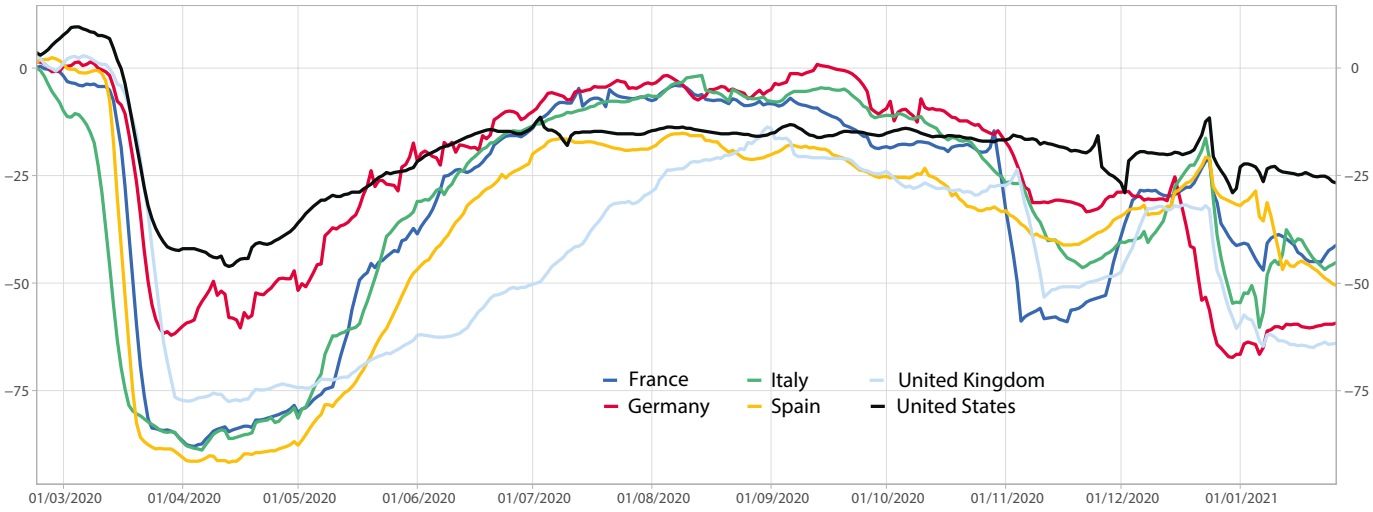
In line with the intensification of health measures, economic activity seems to be deteriorating in Europe, except for Italy: PMIs for January declined slightly in France and Germany, and more severely in Spain and the United Kingdom, but in smaller proportions than during the first wave of the epidemic. The services branch remains particularly affected: in January, the flash UK PMI lost practically 10 points and was well below its expansion threshold (39.5 after 49.4) and the index for Spain contracted by 6.3 points to 41.7. The indices for France and Germany also fell below their expansion threshold (–1.8 points to 47.3 and –0.3 points to 46.7 respectively). In Italy, on the contrary, the services PMI increased by 5 points to 44.7 after two months below 40 points. In the manufacturing branch, PMIs for the main European countries remained above their expansion threshold in January (57.1, 51.6, 54.1 and 55.1 in Germany, France, the United Kingdom and Italy respectively), with the exception of Spain, whose index dropped to 49.3. On the other side of the Atlantic, the upturn in economic activity continued in the United States in January: in the manufacturing branch, the PMI reached 59.2 (after 57.1 in December), its highest level historically; and in services, it stood at 58.3 (after 54.8).

"High-frequency" indicators reflect the effects of tightening restrictive measures at the start of 2021 in the different countries

The deterioration in the health situation is once again affecting consumption behaviour in Europe. In all the countries monitored here, the Google Maps Mobility indicator predictably shows a peak in the frequency of trips to retail stores before Christmas, then a sharp drop on the following days (**Figure 6**). In addition to this seasonal effect, which cannot be corrected with the data provided by Google, we see a decline in trips to retail stores, especially in Germany and the United Kingdom. In these two countries under lockdown, according to this indicator, numbers of trips to shops in January are likely to be at less than half of the pre-crisis level. In France, Italy and Spain, numbers going to retail stores appear to be less than before the crisis. The United States seems to be the country where consumption behaviour concerning goods is expected to be least affected by the resurgence of the epidemic.

► 6. The deterioration in the health situation affects consumption behaviour, especially in Germany and the United Kingdom

in %



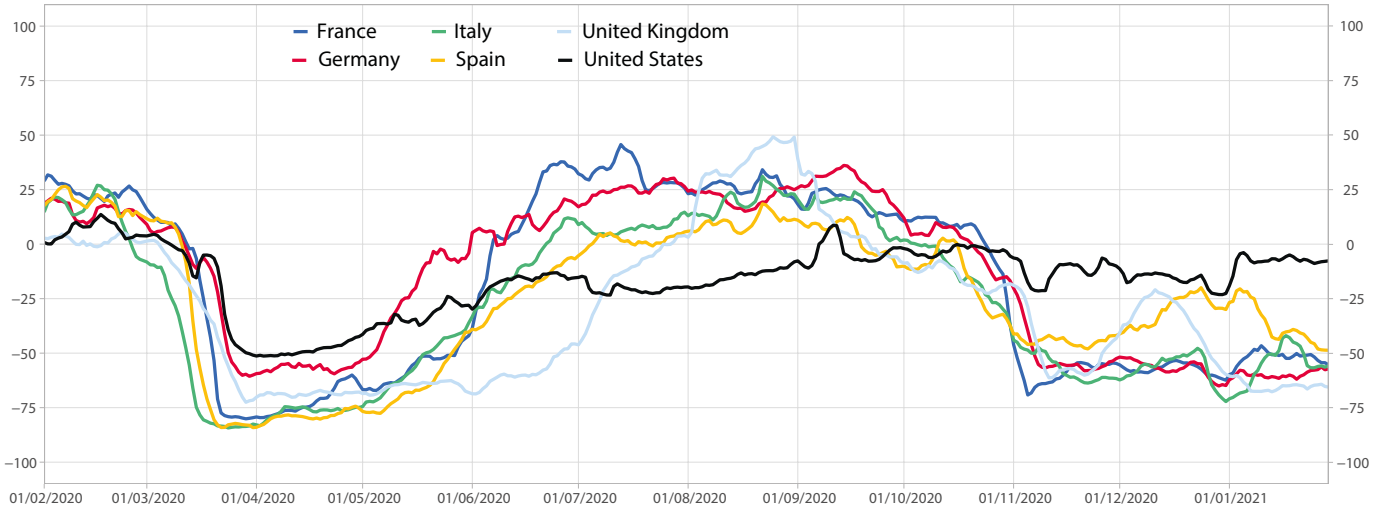
How to read it: visits to non-food retail outlets and leisure venues in Germany on 11 January were 60% down as a 7–day moving average compared to the median value calculated by Google between 3 January and 6 February 2020.
Note: the date of the last point is 26 January 2021.
Source: Google Maps Mobility

In addition, the number of *Google* searches for the word "restaurant" illustrates the low demand in the catering sector (**Figure 7**): since December, the situation in this sector appears to have deteriorated significantly in the United Kingdom, Germany and France, since only takeaway services are offered. In Spain, after experiencing an upturn during the holiday period with the opening of restaurants in some regions, searches associated with catering plummeted again in January. Lastly, in the United States, searches for restaurants did not decline in January, remaining similar to their pre-crisis level.

In general, mobility is once again strongly affected by the health crisis. The Google Maps Mobility indicator for numbers of people taking public transport shows a partial recovery of mobility after the holidays (**Figure 8**). Use of public transport seems to be affected slightly less in France, Spain and the United States than in the other countries considered: it increased hardly at all in the United Kingdom after the holidays and remains at about half of its pre-crisis level in Germany and Italy. The situation regarding travel to the workplace has also deteriorated in the United Kingdom, given the lockdown put in place on 4 January

►7. In early January searches associated with the word "restaurant" were half as frequent as before the crisis in most countries

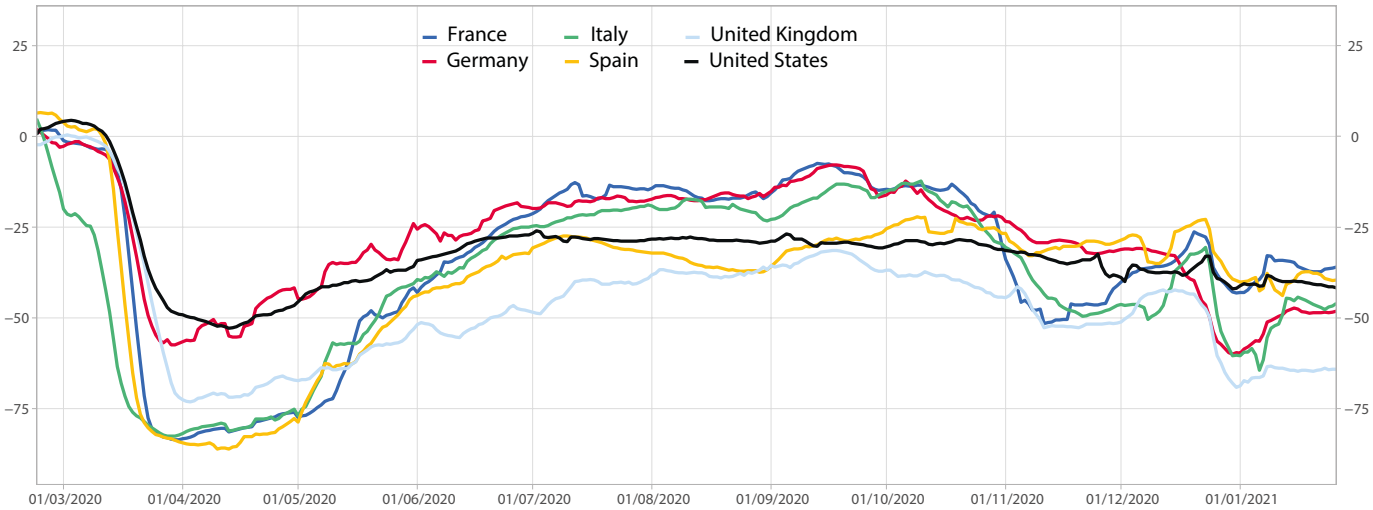
in %



How to read it: on 15 January, the 7–day moving average of the number of searches for "restaurant" on Google in France was half that of the average of the 7–day moving averages for 15 January between 2016 and 2019.
Note: the date of the last point is 26 January 2021.
Source: Google Trends

► 8. Public transport use nosedived after Christmas, picking up only tentatively in January

in %

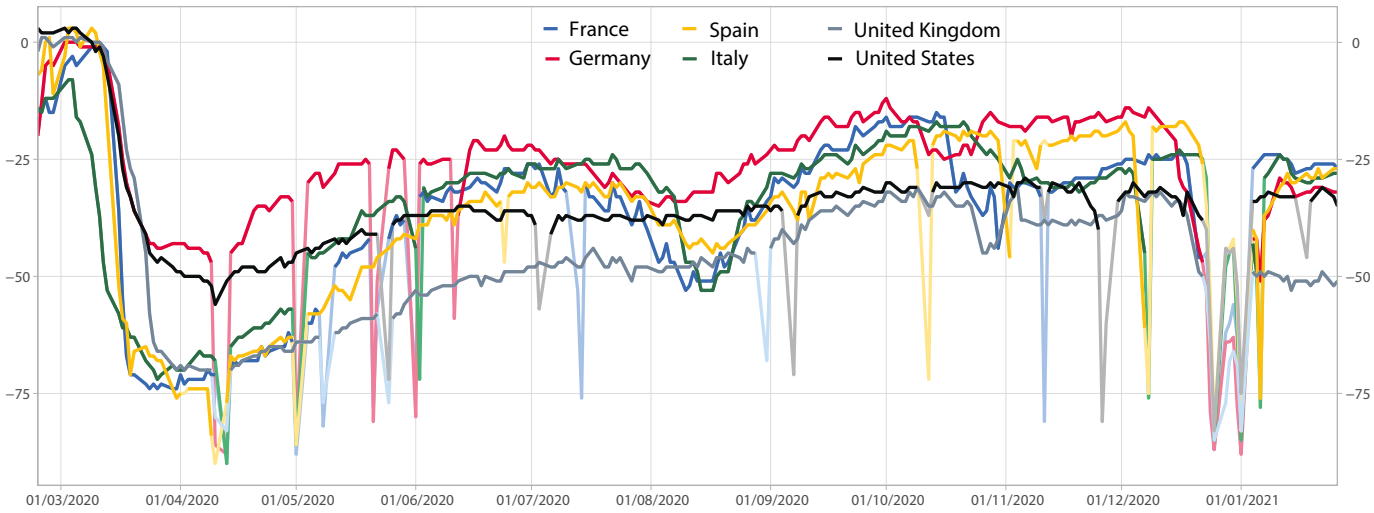


How to read it: public transport use in Germany and Italy on 11 January was 60% down as a 7-day moving average compared to the median value calculated by Google between 3 January and 6 February 2020.
Note: the date of the last point is 26 January 2021.
Source: Google Maps Mobility

(**Figure 9**): after the Christmas holiday period, numbers in the workplace recovered, notably in France, Italy and the United States, where it reached similar levels to those achieved in December. In January, the upturn in mobility associated with work was affected more by the health situation in Spain and Germany. ●

► 9. After Christmas, travel to the workplace picked up only partially in January

in %



How to read it: frequency of travel to the workplace in the United Kingdom on 13 November was 50% less compared to the median value calculated by Google between 3 January and 6 February 2020.
Note: in contrast to the other graphs showing "high-frequency" indicators, the methodology used for this indicator is not based on a moving average (in order to observe the effects of measurements exactly to the day) but public holidays, which can cause problems when analysing travel to the workplace, are shown in paler colours. The date of the last point is 26 January 2021.
Source: Google Maps Mobility

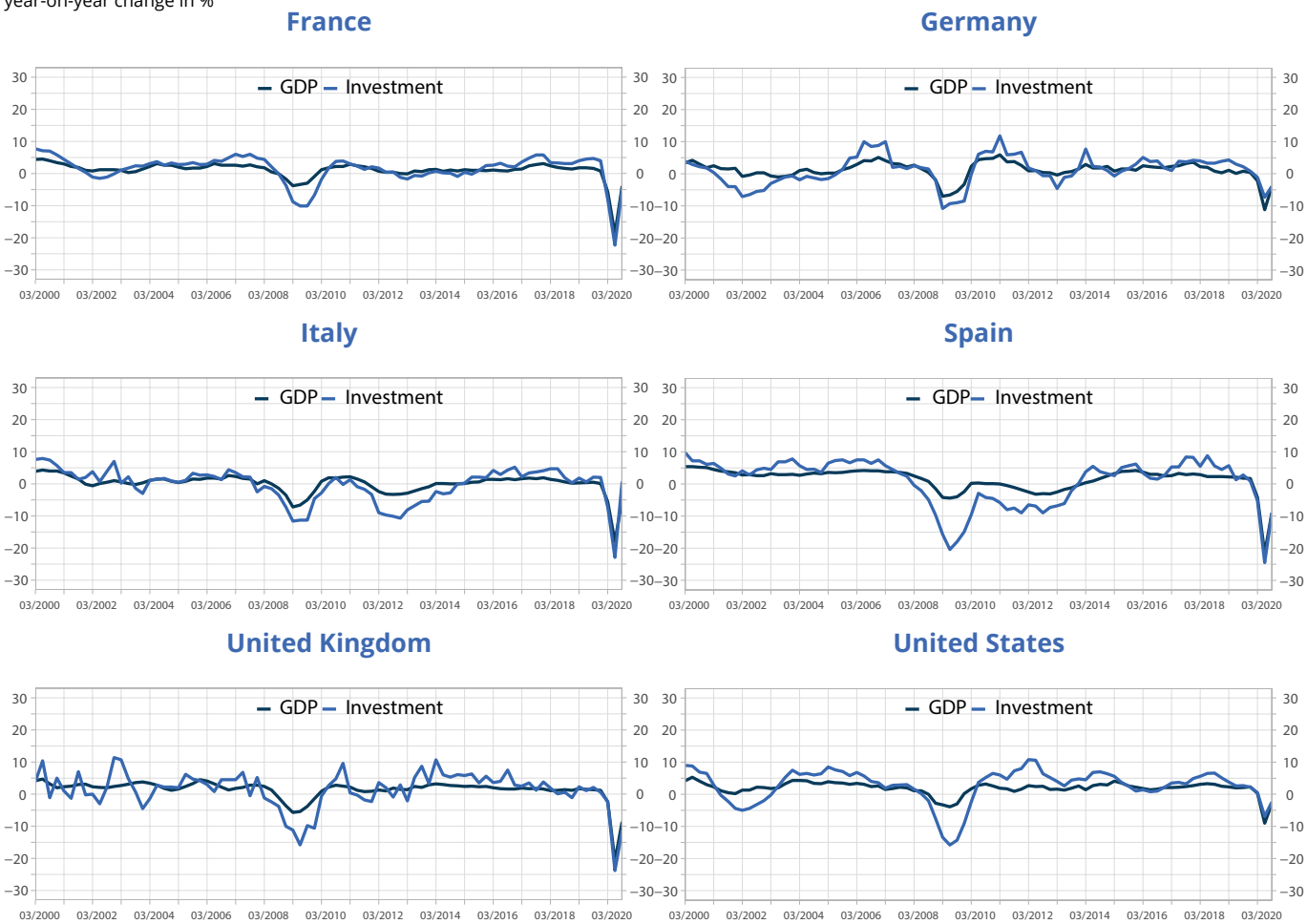
The unprecedented nature of the health crisis has altered the relationship between activity and investment, probably only temporarily

In 2020, the health and economic crisis resulted in a fall in investment in all European countries and in the United States. This decline started in Q1, especially in those countries most affected by the epidemic (–10.5% in France, –7.6% in Italy) and continued into Q2: compared to Q4 2019, investment tumbled by 23.4% in France, 7.0% in Germany, 24.5% in Spain, 23.2% in Italy, 23.5% in the United Kingdom and 8.9% in the United States. It then rebounded in Q3 but remained below its pre-crisis level, apart from Italy.

The accelerator effect refers to the relationship observed from the early 20th century linking the variation in economic activity with that in investment. In fact, these two quantities usually move in the same direction, with variations in investment usually greater than variations in GDP. For example, between 2000 and 2019 in the western economies, there was indeed a greater range of variations in investment compared to variations in GDP (► **Figure 10**), both during periods of acceleration or slowdown in GDP and during the 2008 crisis.

.../...

► 10. Before 2020, variations in investment were on a larger scale than variations in GDP
year-on-year change in %



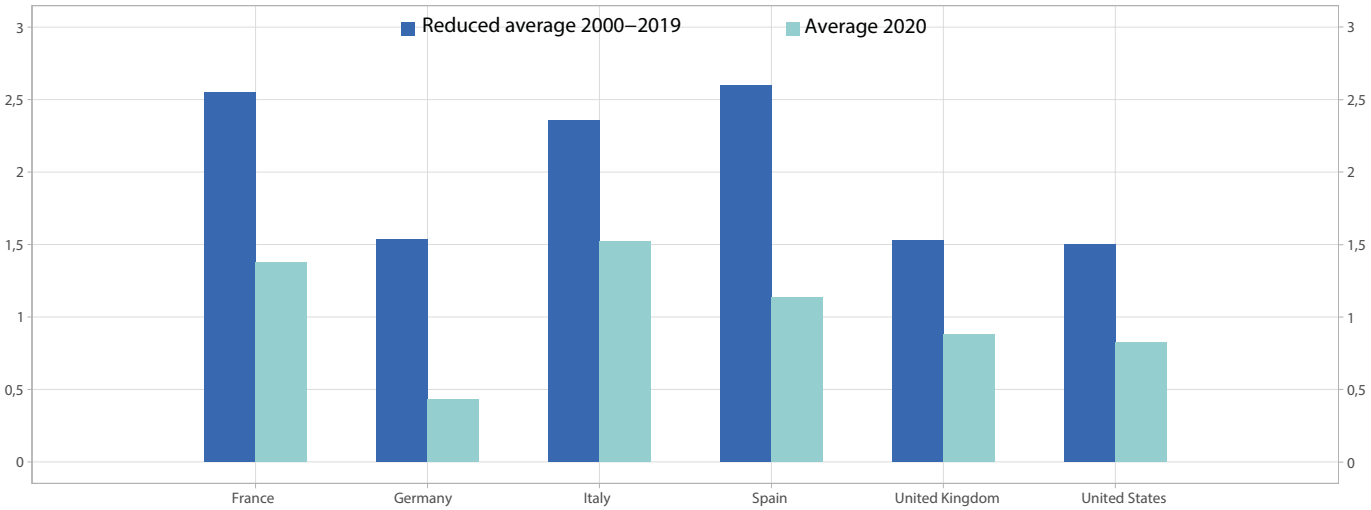
Source: INSEE, Destatis, Istat, INE, ONS, BEA port

However, the coronavirus crisis has called this empirical fact into question, probably only temporarily: in 2020, in the major western economies, variations in investment were on a similar scale to those in activity year-on-year. This difference in investment behaviour can be quantified by considering the coefficient of elasticity of investment with respect to activity: this is the ratio of the quarterly variation in investment to that in GDP (► **Figure 11**). The average of this elasticity over the period 2000-2019[1] is then compared to its average over the first three quarters of 2020, as data for Q4 are not yet all available. In accordance with the observations made in the preceding figures, the elasticity of investment compared to activity appears to have declined during the health crisis in all the countries under consideration: it was virtually halved in France, the United Kingdom and the United States, more than halved in Spain and almost divided by 4 in Germany. Even in Italy, where this ratio remains high, it declined sharply compared to the previous period.

This small-scale drop in investment, compared to what could have resulted from such variations in GDP, does not seem to be able to be explained by the possibly greater momentum of one of its components. For example, in France, the decline in investment in Q2 (–14.4%) concerned not only households (–17.6%, contribution of –3.7 points), but also companies (–13.0%, contribution of –8.1 points) and general government (–13.0%, contribution of –2.0 points). Similarly, in the United States, the decline in investment in Q2 (–7.1%) was due both to the fall in household investment (contribution of –4.0 points) and corporate investment (contribution of –3.0 points), while the momentum of public investment is not enough to explain this closeness to loss of activity (contribution of –0.03 points). This blurring of the relationship between activity and investment, specific to the current health crisis, complicates the traditional forecasting exercise which is usually based on economic theory and on empirical consistency estimated over a long period. ●

1 Over the period 2000-2019, we consider the elasticity average from which we have trimmed 10% of extreme values to avoid cases where a very weak variation in GDP results in an extremely large ratio, which would not make economic sense.

► 11. In 2020, elasticity of investment compared to activity declined



Note: to construct the trimmed mean, for each quarter between 2000 and 2019 we consider the ratio "quarterly variation in investment/quarterly variation in GDP", excluding the eight quarters (10%) corresponding to the four minimum and four maximum values in this set. We then take the mean of the ratio for the remaining quarters. For 2020, the mean covers the first three quarters as data for Q4 are not yet all available.
Source: INSEE, Destatis, Istat, INE, ONS, BEA