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### One year later...

Introduction by the Director General of INSEE	4
General outlook ———————————————————————————————————	
One year later	6
Special analysis ———————————————————————————————————	
In 2020, the drop in consumption fuelled savings, with a particular increase in the financial wealth of the most well-off: some results obtained by analysing banking data	
French economic outlook  Economic activity	
-	···· 27
<ul> <li>At 31%, the proportion of businesses that consider that health protection measures affect their productivity is declining, but remains high</li> </ul>	33
• Can electricity consumption by businesses help improve forecasts of activity, especially in a period of crisis?	
French economic activity through press articles	43
Foreign trade	
Difficulties in the aeronautics sector prevent French exports from taking off again	56
Employment and unemployment	···· 60
Consumer prices	
Household income	
Household consumption	
The 2021 winter sales took place in an unusual context	77
Entreprises' earnings	
Corporate investment	···· 83
International economic outlook ———————————————————————————————————	
Oil and commodities	
International developments	···· 90
•Comparative employment and unemployment trends in the main Western countries in 2020	96
<ul> <li>Brexit triggered stockbuilding behaviour by UK businesses in late 2020, followed by a probable contraction in trade in early 2021</li> </ul>	103
<ul> <li>In the United States, a massive new stimulus plan focusing primarily on households, whose income growth in 2020 masked contrasting situations</li> </ul>	107

### **Introduction by the Director General of INSEE**

Just a year ago, as France was preparing to enter its first lockdown, INSEE was on the threshold of an unprecedented period in its history; from the point of view of economic analysis, it was no longer a question of dissecting each business tendency survey to assess whether growth in the next quarter would be at 0.2 or 0.4% – we now had to mobilise all the information we could in order to give an indication of the magnitude of the collapse of consumption and economic activity.

One year later, as we publish the most comprehensive Economic Outlook since the start of the health crisis, I feel it is useful to draw some lessons from all the effort put in over the last twelve months by the analysts at INSEE, and many of their colleagues at the Banque de France, the French Council of Economic Analysis, in economic research institutes, and in international organisations.

- 1) It is clear that, in the vast majority of countries, France included, the economic outlook is still dependent on the evolution of the pandemic and the health measures that it imposes. For example, if we consider how consumption will change in the weeks and months to come, what counts above all is the scenario of our fight against the coronavirus disease, and when we will see the lifting of the restrictions that are preventing or hindering activity in certain sectors; given this situation, there is little to be gained from referencing the usual determinants of consumption such as precautionary savings.
- 2) Under these conditions, what are the essential issues? To take stock as quickly as possible of changes in economic activity, consumption and employment. Many have tried their hand at epidemiology to construct crisis-exit scenarios, but for the moment the virus and its variants have foiled these predictions. Many continue to publish forecasts for the years to come, mainly by trying to put a date on when we will return to the GDP level of the end of 2019. However, while these efforts continue to receive media attention, they still seem very uncertain to me for as long as we are unable to set out a timetable for a return to normal. Last December, INSEE tried once again to produce a forecast for the following two quarters, opting for a favourable scenario with the lifting of restrictive measures... But this was immediately thwarted by the appearance of the "UK variant".
- 3) For INSEE, the priority therefore remains to report, as quickly as possible, on sudden change in the main economic aggregates. To do this, we have transformed our usual tools, and turned to large amounts of high-frequency data. This Economic Outlook illustrates the point, with Focus reports on bank card transaction data, the use of search engines, analysis of news articles, and even electricity consumption by large industrial companies. It seems to me that we must also focus on the specific economic effect of each health measure, even though this is difficult to do. Lastly, we have to turn to original sources to observe the appearance of new insecurities, because although the established statistical apparatus enables us to measure inequalities in household income and business accounts, the time lag is too long, linked to the processing of administrative data, especially tax data. In this issue of Economic Outlook, after the Council of Economic Analysis, you will find an analysis of changes in the current accounts of customers of a major bank.

I would like to take this opportunity to thank all the partners who have enabled us to innovate, both in the last year and in the future. At the peak of the first wave, all these forms of cooperation were very much voluntary and free of charge. Pending a possible change in our legal framework, INSEE is not unwilling to make a financial contribution for carrying out statistical analysis in partnership, except when it comes to making available to us data that already exist in the right format; most of our partners understood our position.

4) In terms of methodology, we are currently caught in a middle ground which makes the job of the economic analyst particularly tough. On the one hand, given the magnitude of the effects of closures and restrictive measures, we have not yet returned to a situation where the traditional business tendency surveys are once again fully relevant. On the other hand, high-frequency data have proved to be very useful for estimating the major upward or downward shocks of 2020, but they are more difficult to use when we are looking at areas where activity is still fluctuating, but by only a few percentage points at most per quarter; we then realise that there are many phenomena that disrupt these data – statistical noise. As we can see, this is the trickiest period for the analyst.

5) Over the past year, when we looked at other countries, it was more to compare changes in high-frequency data than to analyse economic links from one country to another. The reason is understandable: it was in industry in particular, and to a lesser extent in certain market services, that foreign trade influenced the resources-uses balance specific to each country; these sectors are now close to normal, with the notable exception of aeronautics (which is in fact the subject of a Focus report in this issue). Deviations from normal activity are mainly found in the sheltered sector, especially personal services and trade, which react in their own distinctive way to restrictions decided on at national or infra-national level.

Nevertheless, it seems to me that with the resilience of the economy in much of Asia, and the scale of successive income support plans in the United States, the time is approaching when analyses at a less national level will again be useful, for example on the phenomenon of rising inflation.

Thank you to the teams at INSEE, those in the short-term economic analysis department and also all those who lent their support consistently over the last twelve months to respond to the unprecedented challenges associated with this health crisis. •

Jean-Luc Tavernier

### One year later...

### In 2020, a global recession of historic proportions

A year after the start of the health crisis, which last spring led to declines in economic activity of an unprecedented size and suddenness in most countries of the world, the Covid-19 epidemic is still active, although the tools available to contain it are now considerably strengthened, mainly with the rapid development of vaccines.

Over the whole of 2020, the recession was particularly severe in Spain (–11.0%) and the United Kingdom (–9.9%). In France, gross domestic product (GDP) shrank by 8.2%, slightly less than in Italy (–8.9%) but significantly more than in Germany (–5.3%) and the United States (–3.5%). Unlike the 2009 crisis, market services – especially those most affected by the health restriction measures – were generally more affected than industry. Corporate investment fell, but held up rather better than expected.

In a number of countries, Q1 2021 is important both for the continuing major health restrictions and the start of vaccination campaigns. On the economic front, concerns persist on the services side, but surveys of European businesses suggest that industry is holding up relatively well. Producer prices are up substantially in the wake of commodity prices, and tensions have already emerged over supply. At the same time, the United States has recently adopted a huge new stimulus plan.

#### In France, Q1 2021 is teetering between weariness and resistance

In France, advance indicators of consumption, especially aggregated bank card transaction amounts, mirror fairly closely the pace of the health restrictions and regulatory measures (dates of winter sales), as well adaptations in households' behaviour.

In Q1 2021, consumption is therefore expected to hover around an average level of 5% below its pre-crisis level (i.e., Q4 2019; ► figure). After a sharp rebound in December, it would appear to have contracted in January (−6% below its pre-crisis level) with a slight rebound in February (−4%, benefiting from the delayed and extended winter sales). In March, it should return to its January level, in a context where some restrictive measures are being strengthened at local level. Online sales are expected to remain dynamic.

Regarding production, high-frequency indicators (electricity consumption by businesses connected directly to RTE, heavy goods vehicle road traffic, etc.) and the business tendency surveys suggest moderate growth in industrial production over the quarter, after the sharp rebound earlier. It is likely that activity in services will remain very mixed, according to the degree of exposure of each sector to restrictive measures.

All in all, economic activity (GDP) in Q1 2021 is expected to settle at around 4% below its pre-crisis level (i.e., quarterly growth of about +1%). Overall, this level of activity is likely to be similar to that recorded in Q3 2020, when health conditions deteriorated after last summer. But trajectories are expected to differ considerably in the different sectors: since then, industry has continued its recovery, whereas the situation in the services most affected by the health crisis (accommodation-catering, transport, leisure and culture) has declined significantly compared to last summer.

It is these services that are expected to bring down payroll employment in Q1 2021 (about 77,000 net job destructions forecast, all sectors combined), after 2020, badly affected by the loss of 284,000 payroll jobs, a considerable decline, but mainly offset by the short-time working scheme. The unemployment rate looks set to rise once again in Q1 2021, to 8.5%, after a drop at the end of 2020, which was linked more to the relatively good performance of employment than to the contraction of the labour force as a result of the second lockdown.

### Activity in Q2 2021 will obviously remain dependent on the health situation

As has been the case since the start of the crisis, economic activity in the months to come will depend largely on the health situation. By way of illustration, we consider a scenario where industry looks set to continue its recovery very gradually and where, on average over Q2 2021, activity in transport and services to households seems likely overall to return to its level of October last year, with accommodation-catering expected to claw back half of the gap separating it from its level of activity last October.

French GDP would then rise once again by about 1% as a quarterly variation, and settle at 3% below its pre-crisis level in the spring. The annual growth overhang mid-2021 would then be of the order of +5½%.

This scenario is still dependent on the way the epidemic develops. Even with no further deterioration, at the start of the year more than 4 out of 10 enterprises reported in the business tendency surveys that health protection measures (preventive measures, reorganisation where necessary and/or teleworking) were having a negative effect on their

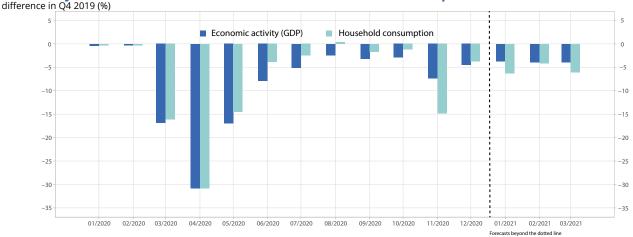
productivity. And while the threat of a third wave remains, it is difficult to properly quantify the impact of any tightening of restrictive measures, let alone another national lockdown. A comparison of the two 2020 lockdowns shows that the way they were applied, the ability of the economy to adapt to them and ultimately the impacts they had were quite different. While it is unlikely that activity will fall back to the very low level of April 2020, it is possible that some of the measures put in place during the first lockdown but not the second (e.g. closure of schools) would produce a greater shock than in November if they were to be adopted.

#### Making good use of high-frequency data, at the macro level but also at the microeconomic level

Over the past year, as a result of the crisis, the array of data mobilised to ensure continued economic monitoring has expanded. Some indicators – e.g. media sentiment indices, calculated from a database of press articles – mainly reflected the first shock that occurred in March, but proved less effective subsequently. Others, like sales data from major hypermarkets and supermarkets and aggregated bank card transaction amounts, continue to be widely used: in fact, they are taking advantage of the digital economy by tracking as closely as possible the purchases of goods and services that are directly part of household consumption, which will go on to be measured by the national accounts.

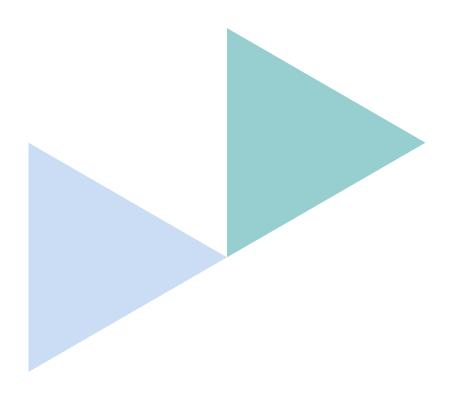
Some of these data also provide advance information at microeconomic level, and this Economic Outlook includes an analysis of banking data. At macroeconomic level, the national accounts have established that despite the decline in activity, household purchasing power measured per consumption unit remained stable overall in 2020, due in part to short-time working. When combined with the drop in consumption, this automatically inflated financial savings. However, these average figures mask some disparities: the banking data show that, for the sample studied, while this increase concerned all groups of household, irrespective of their level of wealth, it was greater (measured in euros and not as a percentage) in households with a high level of wealth, who were able to save more by reducing their consumption. Some active households (craftsmen, tradesmen, private sector in contrast to public sector employees) would seem to have been affected more than others by the decline in economic activity, thus increasing their savings by less. Of course these first results will need to be corroborated by more comprehensive data, but they nevertheless show the analysis potential of using both advance and microeconomic data.

#### ► Monthly estimates and forecasts of GDP and household consumption



Source: INSEE calculations

# **Special analysis**



# In 2020, the drop in consumption fuelled savings, with a particular increase in the financial wealth of the most well-off: some results obtained by analysing banking data

Odran Bonnet, Tom Olivia, Théo Roudil-Valentin

Bank account data represent a useful source of advance information on household consumption and savings in 2020, on a micro-economic level and in infra-annual terms. By analysing anonymised data provided by Crédit Mutuel Alliance Fédérale, it is possible to study the ways in which the public health crisis altered the financial circumstances of households who hold accounts with this bank, taking into account their level of income, their age and their socio-professional category. This study thus constitutes an extension of recent work on the same subject using the same source materials.

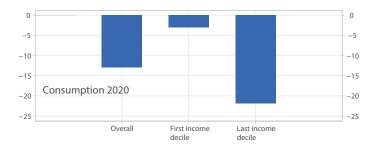
During the two periods of lockdown in 2020, all of the groups of households studied, regardless of their level of income, reduced their consumption, which became focused on essential items, particularly during the month of April. Those households whose consumption was highest before the crisis, primarily executives and high-income households, thus appear to have seen the greatest fall in their consumption. This drop in consumption led to an upturn in savings, boosting the value of households' current and savings accounts. The gross financial wealth of households (cash savings, securities accounts and life assurance savings, excluding loans) thus appears to have increased significantly

in 2020. This increase can be seen across all groups of households, irrespective of their level of financial wealth. In Euros, it was higher among those households with substantial financial wealth, who were able to save more by reducing their consumption. Low-wealth households also put money aside, particularly during the first lockdown. Nevertheless, the sums at stake for such households, generally in the order of tens or hundreds of Euros, remain low – despite their relative significance as a proportion of those households' initial wealth. Among working households, some were hit harder than others by the decline in earned income, and thus saw a smaller increase in their savings: this was particularly true of tradespeople and retailers, and also employees in the private sector, unlike those in the public sector.

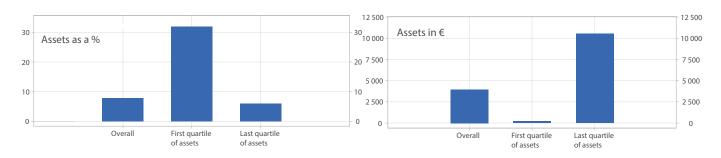
The banking data used here do not allow us to determine household income directly, but they can nonetheless be used to deduce an approximate estimate, based on the total value of transfers and cheques paid into the accounts. These incoming flows fell during the first lockdown before bouncing back in June. On average, the second lockdown does not appear to have caused a reduction in incoming cash flows.

All of the analyses conducted for the purposes of this study were performed using strictly anonymised data, hosted on Crédit Mutuel's secure computer systems based in France. INSEE would like to thank Crédit Mutuel Alliance Fédérale for their help, and for allowing us to use these data. We would also like to thank the Economic Analysis Council for their invaluable comments. INSEE has also benefited from fruitful exchanges with BNP Paribas, who have provided material allowing us to corroborate, at a more aggregated level, the principal findings of this study.

### ► Variation in household consumption in the corrected sample in 2020



#### 



How to read it: Mean consumption in 2020 was 3% below pre-crisis levels for those households in the bottom income decile in 2019. Financial wealth increased by an average of 32% between December 2019 and December 2020 for households in the bottom 25% in terms of wealth, equivalent to around 218 Euros.

Note: the first bar graph corresponds to the average variation in percentage terms of the total value of consumption via card, cheque and cash withdrawals between 2019 and 2020, in relation to the average income of the household in 2019. The last two graphs represent the variation between December 2019 and December 2020 (in percentage and value terms) in the mean financial wealth of households, in relation to their level of financial wealth. The bottom 25% of households, and the largest fortunes, were not necessarily the same in December 2019 and December 2020; the mean value calculated for these two dates was thus not necessarily calculated for precisely the same group of households. Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

The decline in consumption was twice as intense during the first lockdown as it was in the second; cash withdrawals and transfers fell more sharply than card payments

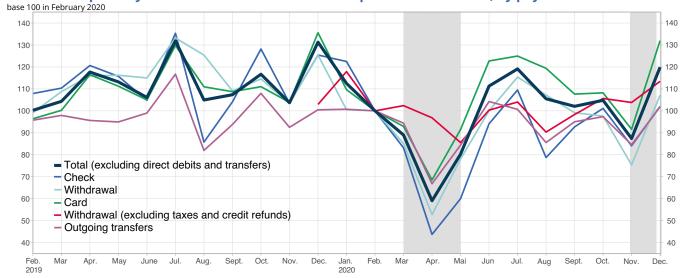
### A very sharp fall in consumption during the first lockdown

The bank account data provided by Crédit Mutuel Alliance Fédérale¹ (▶ Box 'Sources and Methods') allow us, first and foremost, to study household expenditure during the Covid crisis. The variation in this expenditure reveals downturns corresponding to the two periods of lockdown in 2020, which have been analysed at length over the past year in INSEE's successive Economic Outlook reports. Of particular note is the fact that the decline in consumption by card and cheque in November was around half as severe as that witnessed in April (▶ figure 1). The scale of the fall, measured using data from a sample of households holding accounts with Crédit Mutuel Alliance Fédérale, was broadly on a par with the estimates calculated by INSEE². Payments by cheque and cash withdrawals fell more sharply than card payments. Debits, meanwhile (excluding taxes and loan repayments), largely corresponding to pre-engaged expenditure (rent, telephone contracts etc.) remained stabler over this period. Transfers out of accounts, on the other hand, which include both consumption spending and transfers between households, fell more significantly.

The data also reveal a strong rebound in consumption in summer 2020, particularly June and July. This rebound was driven by a sharp increase in payments with bank cards, at the expense of other payment methods. Thereafter, during the autumn, payments by card did drop off during the second lockdown, but much less substantially than during the first lockdown (see *Economic Outlook*, 2 December 2020).

- 1 This dataset has already been used by Fize, Landais and Lavest (CAE, 2021).
- 2 Household spending reconstructed in this manner is nonetheless different from final household consumption as recorded in the national accounts. It does not, for example, include imputed rents (rent fictitiously consumed by households who own their own homes), nor does it include spending on healthcare services which are reimbursed by social security, which are deducted from final household consumption.

### ▶ 1. Consumption by households in the corrected sample in 2019 and 2020, by payment method



How to read it: in July 2020, total consumption was 20% above the level seen in February 2020.

Note: the graph shows the variation in mean consumption in percentage terms, in relation to February 2020. The values are calculated by dividing the mean monthly consumption of households by the average level recorded in February 2020. The periods of lockdown are shaded in grey.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

Consumption and constraints: the downturn was more substantial for those households with high levels of consumption, such as executives and highearners During the first lockdown, consumption (card payments, cash withdrawals and cheques) fell for all of the households in our sample, irrespective of their level of income³ in 2019 (▶ figure 2 and ▶ Methodology box). Nonetheless, the drop-off was more substantial for those households with high incomes in 2019 than it was for lower-income households. In April, the consumption of the 10% of households with the highest incomes in 2019 was 55% below "normal" (the pre-crisis trend level),⁴ whereas it was around 40% below "normal" for households in the bottom 30% of the income scale.

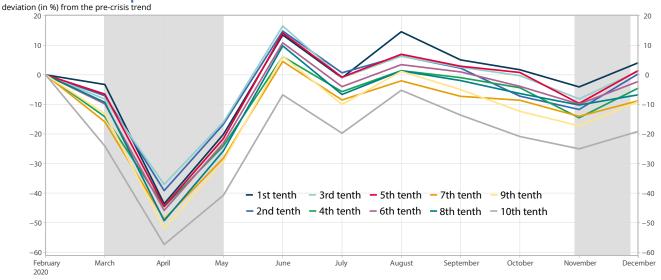
During the summer months, the rebound in consumption was more substantial for low-income households, and less substantial for high-income households. Indeed, for the month of June, the top 10% of households (in terms of income) were the only decile not to return to or exceed a level of consumption comparable to their "normal" spending.

For all households, whatever their income, the second lockdown had a much less severe effect on consumption. With the exception of the top-earning 10%, mean consumption in November hovered between 80 and 100% of its "normal" level. The top-earning 10% of households, meanwhile, reduced their consumption to 75% of their "pre-crisis trend" level.

The variation in the mean consumption of households with reference to the socio-professional category of their "reference person⁵ (► figure 3) corroborates the results obtained by looking at income levels. Those socio-professional categories with the highest incomes, such as executives, reduced their consumption more substantially than workers and employees.

- 3 Since income cannot be observed directly from the banking data used here, the sum total of incoming cheques and transfers is used as an approximation for the purposes of this study (transfers of more than 40,000 Euros were discounted. They represented 0.13% of all transfers observed, and most likely correspond to transfers between accounts rather than income streams). Transfers between accounts held by the same household were also excluded.
- 4 Level expected for April 2020, if the pre-crisis trend had continued(► méthodology box).
   5 The reference person is defined here as the oldest member of the household.

### ▶ 2. Consumption by households in the corrected sample in 2020, by level of income in 2019, and by deviation from the pre-crisis trend



How to read it: for the bottom 10% of household incomes in 2019 (1st decile), mean consumption in April 2020 was 40% below the pre-crisis trend level (the level we would have expected to see in April 2020 if the pre-crisis trend had continued).

Note: the sample has been broken down into 10 equally-sized groups of households, based on their income in 2019. The curves represent the mean variation in consumption for each group. The periods of lockdown are shaded in grey.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

### During the first lockdown, consumption was focused on basic necessities

### **Hospitality spending bounced** back over the summer

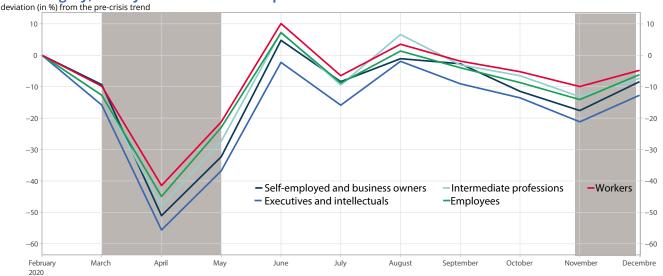
During the first lockdown, restrictions imposed to control the public health crisis transformed the structure of household consumption. The closure of "non-essential" shops forced households to modify their consumption habits. They thus reduced their expenditure in all areas except food shopping ( figure 4); spending on online purchases (e-commerce) also increased. Food shopping represents a smaller proportion of the total consumption of executives, and as such their consumption fell more sharply. However, spending on food shopping<sup>6</sup> increased across all socio-professional categories, increasing their relative weight as a proportion of household consumption (+20 percentage points – pp – in April for workers, compared with February 2020, and as much as +31pp for executives and educated professionals).

Online shopping also saw an increase: the proportional weight of this spending in April increased by 1.5pp for workers and 5.1pp for executives and educated professionals. Predictably, spending in the hospitality sector fell sharply for all socio-professional categories, their proportional weight collapsing by -12pp for workers and -18pp for executives and educated professionals.

Over the summer, the hospitality sector enjoyed a clear rebound, with the reopening of restaurants and bars.7 In August, with the exception of executives and educated professionals, all other socio-professional categories spent more in this sector than they did in August 2019.8 Tradespeople and intermediate professionals increased their spending in the hospitality sector by 4% and 5% respectively, while workers and employees increased theirs by 6%. Executives and educated professionals did not see a similar increase, with their spending in bars and restaurants in August 2020 remaining stable at the level observed in August 2019.

- 6 By default, in this study "spending on food shopping" includes all expenditure in supermarkets, whether or not food was purchased.
- 7 These results confirm the analysis conducted at the aggregate level, based on the value of bank card transactions, of tourist spending in France by French residents during the summer of 2020 (Focus section of the Economic Outlook report dated 6 October 2020).
- 8 Comparison with August 2019 seems more pertinent, in light of the seasonality of such spending. Nevertheless, it is not possible to calculate in year-on-year terms for each month in 2020 since data are only available from July 2019 onwards. This is why Figure 4 refers to February 2020.

### ▶ 3. Consumption of working households in the corrected sample in 2020, by socio-professional category, and by deviation from the pre-crisis trend



How top read it: for households whose reference person falls into the category "workers," mean consumption in April 2020 was 40% below the pre-crisis trend level (the level we would have expected to see in April 2020 if the pre-crisis trend had continued).

Note: the periods of lockdown are shaded in grey.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

11 March 2021 13

Online shopping boomed during the second lockdown

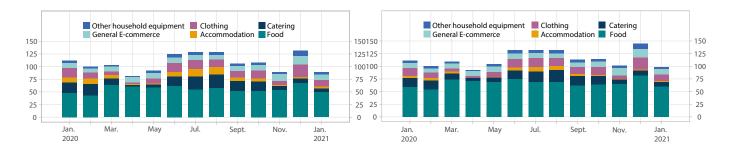
In November, during the second period of lockdown, all socio-professional categories substantially increased their spending on online shopping. In particular, executives and educated professionals spent 42% more in this manner than they did in November 2019, while workers spent 51% more. This increase most likely reflect the adaptation of household spending habits to the public health restrictions, with consumers increasingly turning to online alternatives. In the hospitality sector, the drop-off in spending was still dramatic, but slightly less so than in April: a –39% fall for workers and –63% for executives and educated professionals.

### ► 4. Structure of monthly consumption in 2020, by socio-professional category of working households in the corrected sample

Base 100 in February 2020 for each socio-professional category

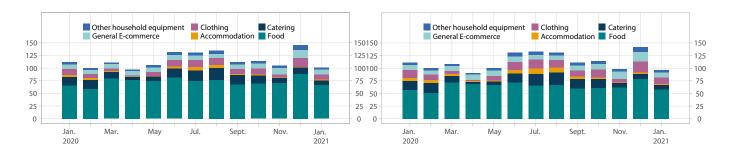
### **Executives and higher intellectual professions**

### **Employees**



#### Workers

#### **Intermediate occupations**



How to read it: for households whose reference person falls into the category "executives and educated professionals," total spending in April 2020, for the sectors represented here, was down 19% on February 2020 (not corrected for the pre-crisis trend, since a sector-by-sector breakdown is only possible from July 2019 onwards).

Note: self-employed workers and trade professionals are not included in this graph, because their numbers were not sufficient to allow for a breakdown of their consumption. Only spending with bank cards is taken into account here, and the sectors are borrowed from the Merchant Category Codes (MCC). The variation in consumption is more dynamic than that shown in Figures 2, 3 and 5, which also include cash withdrawals and cheques (moreover, in this graph, the pre-crisis trend is not taken into consideration due to a lack of MCC data for the whole of 2019). By default, food spending includes all sums spent in supermarkets, on food and other items.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

<sup>9</sup> This point was also illustrated, at the aggregate level and again using bank card data, in the focus on household consumption contained in the Conjoncture report dated 2 December 2020.

The consumption of young households, <sup>10</sup> defined as those for whom the reference person is aged between 18 and 25, has bounced back more robustly since June than the consumption of other age groups ( figure 5). Conversely, older households for whom the reference person is aged 60 or over, and who are thus more at risk of suffering severe health consequences from Covid-19, reduced their consumption more significantly during both lockdowns; furthermore, the upswing in their consumption over the summer was less substantial, due in part to reduced hospitality spending ( figure 6). These specificities might reflect a more cautious approach, and a desire to avoid potential infection risks for a category of consumers who have been hit particularly hard by the Covid-19 epidemic.

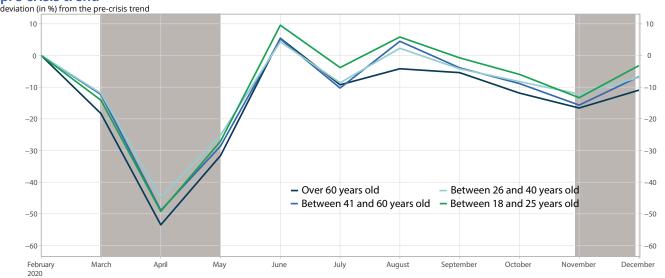
### Income fell more substantially during the first lockdown than in the second

During the first lockdown, income broadly fell across all categories. Since household income cannot be observed directly from the banking data used here, the sum total of incoming cheques and transfers is used as an approximation (> Sources and Methods section). Transfers of more than 40,000 Euros were discounted, as they most likely correspond to transfers between accounts rather than income streams. Nevertheless, the income measured in this manner overestimates actual income because it includes transfers between households, and between accounts with different banks held by the same household. As such, the variations observed are probably more sensitive to the economic outlook than real income.

In April, median income fell by 10% compared to the pre-crisis trend (**figure 7**). The first income quartile (the level of income below which we find one quarter of the population) fell in April, but less substantially than the 3<sup>rd</sup> quartile. This decline in income compared with pre-crisis trend levels continued in May, despite the easing of lockdown restrictions in the middle of that month.

10 In the banking data, young people aged 18 and over are considered as a separate household, regardless of their actual place of residence and degree of financial independence.

### ▶ 5. Consumption by the households in the corrected sample in 2020, by age and by deviation from the pre-crisis trend



How to read it:in April 2020, consumption by households whose reference person was aged between 18 and 25 was 50% below the pre-crisis trend level. Note: the periods of lockdown are shaded in grey.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

After lockdown, income increased significantly in June, with a strong rebound across all income categories and a mean 7% increase for all households compared with the pre-crisis trend. The end of the year, in spite of the second lockdown, saw a relative return to normality, with income standing at around the level we would have expected to see if the pre-crisis trend had continued. The second lockdown, in November, does not appear to have engendered an overall fall in income, across all of the quartiles, although this broad stability may conceal less positive individual variations.

### Financial wealth increased significantly in 2020, particularly for the largest fortunes

The fall in consumption during the two periods of lockdown led to an increase in the financial wealth of households in 2020. The public health restrictions, including the closure of "non-essential" shops during the two periods of lockdown, obliged households to reduce their consumption. Their savings thus increased as a result, since earned income saw a much less substantial decline (the savings ratio of households thus hit 21.3% of disposable household income in 2020 according to the national accounts, up from 14.9% in 2019).

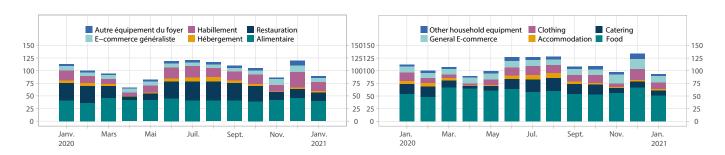
11 Generally speaking, variation in the mean household income of ours ample appears to have been smaller in 2020 than the variation in the gross disposable income of households as measured by the national accounts. This discrepancy may arise from the conceptual differences between the two notions (the gross disposable income of households includes the income of self-employed professionals, as well as the imputed rents that home-owning households pay to themselves), but we must also bear in mind the difficulty of reconstructing household data on the basis of the data used here (income was not directly observed, and the clients in the sample may have other accounts with other banks).

### ▶ 6. Structure of monthly consumption in 2020, by age group in the corrected sample

Base 100 in February 2020 for all age groups

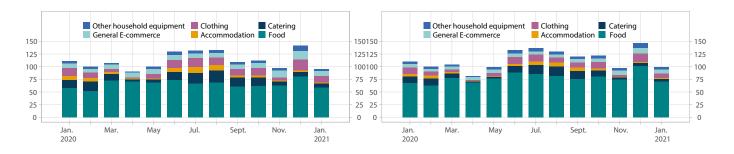
### Under 25 years old

#### Between 26 and 40 years old



#### Between 41 et 60 years old

#### Over 60 years old



How to read it: for households whose reference person was aged between 18 and 25, total spending in April 2020, in the sectors represented here, was down by 34% on February 2020 (not corrected for the pre-crisis trend, since a sector-by-sector breakdown is only possible from July 2019 onwards).

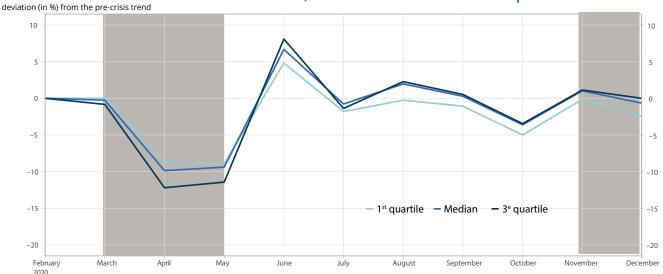
Note: Only spending with bank cards is taken into account here, and the sectors are borrowed from the Merchant Category Codes (MCC). The variation in consumption is more dynamic than that shown in Figures 2, 3 and 5, which also include cash withdrawals and cheques (moreover, in this graph, the pre-crisis trend is not taken into consideration due to a lack of MCC data for the whole of 2019). By default, food spending includes all sums spent in supermarkets, on food and other items. Online shopping not included, only in-person sales taken into account.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

First lockdown: a massive increase in cash savings but a temporary drop in the value of life insurance savings plans and securities accounts as a result of the market crash of March 2020

The decline in household consumption in our sample during the first lockdown, combined with the fact that their income was protected by the measures put in place (short-time working schemes, solidarity funds etc.), helped households to "put money away." The balances of current accounts thus grew by 10% between February and May, while the balance of savings accounts grew by 2.5% over the same period (▶ figure 8 and the ▶ Methodology section). Unlike these cash savings, financial savings, i.e. sums held in securities accounts and life assurance plans, temporarily fell in March before growing over the ensuing months. This temporary fall can be attributed to tumbling markets. Nonetheless, the market recovery of the subsequent months, and the glut of savings diverted into these financial instruments by households over the course of the year, enabled household financial savings to exceed their February levels by December.

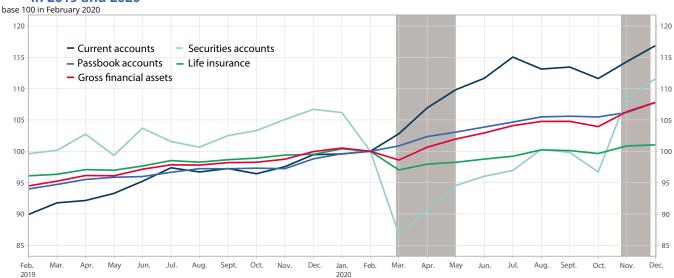
### ▶ 7. Distribution of household income in 2020, in terms of deviation from the pre-crisis trend



How to read it: in April 2020, the first income quartile was 8% below its "normal" level.

Note: The quartile and median values correspond to levels of income, to be interpreted as follows: one quarter of households earn less than the 1st quartile value, half of all households earn below the median, and three quarters are below the 3<sup>rd</sup> quartile *Source: Crédit Mutuel Alliance Fédérale data. INSEE calculations* 

### ► 8. Variation of the gross financial wealth of households in the corrected sample and its components in 2019 and 2020



How to read it: in August 2020, gross financial wealth was 5% greater than in February 2020.

Note: The periods of lockdown are shaded in grey.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

Ultimately, the gross financial wealth of the households in our sample, which includes both cash and financial savings, had returned to its February level by the end of April, following a slight dip in March, and went on to increase over subsequent months.

During the second lockdown, the less substantial decline in consumption meant that cash savings grew less significantly than they had done during the first lockdown. The balance of current accounts nonetheless grew by 5% between October and December. Since the second lockdown did not spark any discernible fall in the markets, gross financial wealth increased significantly between October and December.

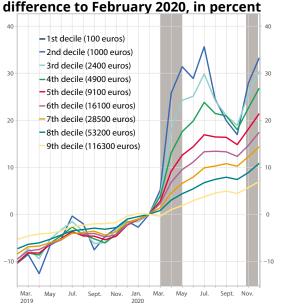
Finally, across 2020 as a whole, households saved considerable sums and their financial wealth increased noticeably as a result. This 2020 increase served to accentuate the increase already observed in 2019. As such, the financial wealth of the households covered by this study grew by 8% between February 2020 and December 2020, having already grown by 6% between February 2019 and December 2019.

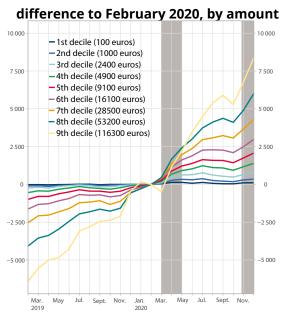
This increase in wealth was visible at all levels. Gross financial wealth increased in 2020 for virtually all of the wealth deciles, even more so than in 2019 ( figure 9a and b).

Across the year as a whole, financial wealth increased substantially

An increase in all deciles of financial wealth in 2020

### ▶ 9. Deciles of gross financial wealth in 2019 and 2020





How to read it: Left-hand graph - in April 2020, the 1st decile of financial wealth was 25% higher than in February 2020. Right-hand graph - in June 2020, the 9th decile of financial wealth was 3700 Euros above the level recorded in February 2020.

Note: the curves correspond to the variations observed in the decile values. Deciles are income thresholds used to divide the population into 10 equal parts. 10% of households in the sample have financial wealth below the first decile value. This graph paints a different picture than Figures 2,3 and 5, which are concerned with consumption, because it tracks these financial wealth thresholds and not the mean variation in the wealth of groups of households in relation to 2019 (which may be affected by households transferring assets between bank accounts in 2020). The variation of the first decile in percentage terms is not shown here, because it was extremely high during the first lockdown and would thus overwhelm the other curves (since the 1st decile is so low, a slight value increase is equivalent to an enormous increase in percentage terms). Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

Large financial fortunes substantially increased their savings in 2020

The least wealthy households saw a substantial relative increase in their financial wealth. which nonetheless corresponds to only a small increase in Euro terms

A temporary dip in the largest financial fortunes in March, in line with turbulence on the markets

Total assets

Liquid savings

May

Sept. Nov The largest financial fortunes saw the greatest increase in their wealth in value terms ( figure 9). Households with substantial financial wealth, who often also have sizeable incomes (Cazenave-Lacrouts, 2018), substantially reduced their consumption (see above) and thus saw a significant increase in their savings in 2020. This savings surplus nonetheless represents a small proportion of the savings accumulated over the course of their lifetime by these households, causing the 8th and 9th wealth deciles to rise by around 10% or even less.

At the other end of the scale, as a proportion of their previous financial wealth, it was those households with the lowest levels of financial assets that saw the greatest increase in 2020. The 1st decile, which corresponds to financial wealth of 900 Euros in the sample studied here, increased by just over 30% between February and May 2020, an increase of around 300 Euros. In absolute terms, the sums in play remain small compared to those saved by the wealthiest households, but they nonetheless represent a substantial proportion of the initial wealth of these households. With the end of lockdown restrictions, these smaller financial fortunes dissipated gradually as households spent the (modest) surplus accumulated in the first lockdown over the course of the summer.

Those households with the largest fortunes tend to have a more substantial proportion of their wealth invested in the form of financial savings. These households were more exposed to the temporary fall in market prices in March 2020 than those households whose wealth is primarily held in cash (Figure 10). Their wealth only increased subsequently, once the market rebound had compensated for their earlier losses.

### ▶ 10. Cash savings, financial savings (life assurance plans and securities accounts) and gross financial wealth of households in the corrected sample, by level of financial wealth

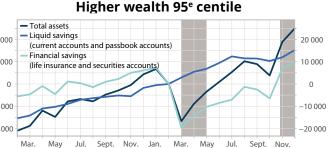


#### Wealth between 1st and 3rd quartile Total assets Liquid savings 2 000 2 000 (current accounts and passbook accounts) Financial savings (life insurance and securities accounts) 1 000 Λ -1 000 -1 000 Mav Sept. Mar. Sept. Nov



#### Higher wealth 3<sup>rd</sup> quartile (excluding top 5%) Total assets Liquid savings 20 000 (current accounts and passbook accounts) 5 000 5 000 Financial savings 10 000 (life insurance and securities accounts) 0 Ω -10000-5 000<sub>-20 000</sub> -5 000

Mar. May Jul.



How to read it: in December 2020, households with an average level of financial wealth (those situated between the highest and lowest quartiles) increased their total gross financial wealth by 1270 Euros more than "normal," with financial savings growing by 20 Euros and cash savings by 1250 Euros.

Sept. Nov.

Note: these curves represent the mean financial wealth of households situated between certain wealth threshold values. We may not necessarily find the same households in the same groups each month: by increasing or decreasing their savings, households may have switched from one group to another between 2019 and 2020. Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

2019

11 March 2021 19

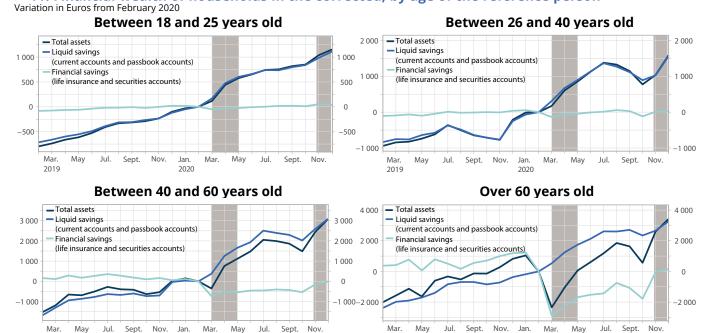
Financial wealth has increased more significantly for the over-40s

Financial wealth has grown less significantly for tradespeople, workers, young people and private-sector employees than it has for those employed in the public sector

Within the households studied here, the financial wealth of the youngest households, for whom the reference person is below the age of 40, increased less substantially (in Euros) than that of households in which the reference person is over 40 (▶ figure 11). Households whose reference person is aged between 40 and 60 tend to have higher incomes: as such, the drop-off in consumption in 2020 left them with more money to save. Furthermore, these households are more likely to be in stable employment, on permanent contracts, and were probably less exposed to loss of income as a result of the economic crisis. Meanwhile, Households whose reference person is over 60 tend to have a larger proportion of their savings in financial instruments, and were thus more affected by the market turbulence of March, before seeing their savings grow again in subsequent months.

Within the active population, certain categories were more exposed than others to the consequences of the economic crisis; their wealth grew less significantly as a result. This is true of tradespeople and retailers and, to a lesser extent, to private-sector employees who suffered a loss of income following the stoppage or slowdown of economic activity. ( Heterogeneity in the variations in financial wealth between different socio-professional categories and sectors). The financial wealth of workers also increased less significantly than that of other categories. Workers, often employed on temporary contracts, may have been hit harder by the economic crisis.

### ▶ 11. Financial wealth of households in the corrected, by age of the reference person



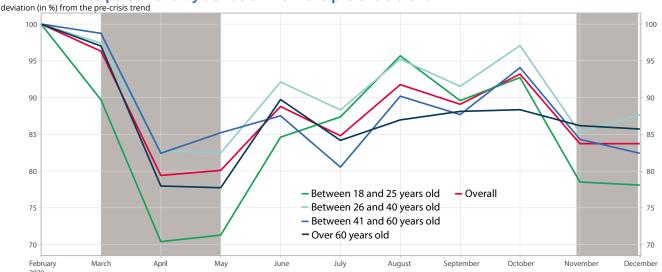
How to read it: in December 2020, households aged between 40 and 60 increased their total gross wealth by 1500 Euros more than "normal," with their financial savings (securities and life assurance policies) increasing by 50 Euros and their cash savings growing by 1450 Euros.

Source: Crédit Mutuel Alliance Fédérale data. INSEE calculations

A fall in the number of people using their overdraft during lockdown, then a gradual increase

The drop-off in consumption during the first lockdown had the effect of reducing the proportion of households with negative wealth ( figure 12). This proportion then increased again, albeit without returning to its pre-crisis level. It grew more rapidly among the youngest households, those whose reference person is under 40; households in this category tend to have less financial wealth, and less stable income. These results may appear to contradict those emerging from the Epicov survey. The latter study found an increase in the number of households reporting a deterioration in their financial circumstances, particularly in the lower income brackets (Givord, Silhol, 2020). Nonetheless, the perception of a deterioration in financial circumstances does not necessarily mean that the financial wealth held in households' bank accounts has actually declined. If earned income falls and the economic outlook appears bleak, households may perceive their financial circumstances to be diminished even if their savings have not yet been affected. The periods of lockdown led to a significant decrease in consumption, which boosted savings. This increase in savings therefore does not reflect an improvement in the financial circumstances of households; it is, in fact, a result of constraints upon consumption. Furthermore, the sample used here only represents the customers of a single bank, and is therefore not a perfectly faithful representation of the diverse array of economic circumstances encountered among the population as a whole.

### ▶ 12. Proportion of households in the corrected sample using overdraft facilities in 2020, by age of the reference person and by deviation from the pre-crisis trend



How to read it: in December 2020, compared to the pre-crisis trend, there were 15% fewer households using overdraft facilities, i.e. with a negative bank balance. Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

### Box: Heterogeneity in the variations in financial wealth between different socio-professional categories and sectors

This table corresponds to a regression of the difference between the logarithms for the gross financial wealth of households in active employment between December 2019 and 2020, differentiated by socio-professional category, age and département of residence. The coefficients can be interpreted as the value of savings for a given category when age and département are equivalent, compared with intermediate professions in the public sector (the chosen benchmark group). As such, intermediate professions in the private sector saved 2.4% less than their public-sector counterparts between December 2019 and December 2020, for equivalent age and département. This regression allows us to make comparisons between a large number of professional categories, using fixed values for age and département of residence. •

### ► 13. Heterogeneity in the variations in financial wealth between different socio-professional categories and sectors

		Variation in savings between December 2019 and December 2020					
	Coefficient	Standard deviation					
Professions							
Tradespeople	-0,035***	(0.01)					
Shopkeepers and retailers	-0.036***	(0.01)					
Business owners (10+ employees)	-0.068***	(0.012)					
Educated professionals	-0.037***	(0.012)					
Executives							
Private sector	-0.034***	(0.006)					
Public sector	-0.024*	(0.01)					
Intermediate professions							
Public sector	Référence	Référence					
Private sector	-0.023***	(0.007)					
Employees							
Private sector	-0.019***	(0.006)					
Public sector	0	(0.007)					
Workers							
Private sector	-0.026***	(0.007)					
Public sector	-0.018*	(0.007)					
Control for age	X	X					
Control for département	X	X					

How to read it: intermediate professionals in the private sector saved, on average, 2.4% less than intermediate professionals in the public sector between December 2019 and December 2020, for equivalent age and département of residence.

Source: Crédit Mutuel Alliance Fédérale data, INSEE calculations

#### **Box: Sources and Method**

This study is based upon the analysis of bank account data provided by Crédit Mutuel Alliance Fédérale. They correspond to a fixed sample of individuals over the period 2019-2020, allowing us to study how they fared during the public health crisis.

Our partners at Crédit Mutuel Alliance Fédérale were keen to highlight the following points:

As the first bank to adopt the status of "benefit corporation," Crédit Mutuel Alliance Fédérale's participation in this study is consistent with the missions we have set for ourselves:

- to contribute to the greater good, striving for a fairer and more sustainable society: for Crédit Mutuel Alliance Fédérale, contributing to the development of economic information is a means of contributing to democratic debate;
- to protect the digital privacy and confidentiality of all customers: Crédit Mutuel Alliance Fédérale is committed to ensuring the total protection of customer data. All of the analyses conducted for the purposes of this study used strictly anonymised data, and were performed using secure IT systems hosted in France by Crédit Mutuel.

#### Representativeness of the data

Our sample comprised customers for whom Crédit Mutuel Alliance Fédérale was the primary bank between December 2018 and June 2020, including geographical and age criteria. In this initial sample, under-25s were over-represented and over-65s under-represented in relation to the structure of the French population at large, as derived from the census. Similarly, the sampling process meant that certain départements were over-represented. We therefore re-weighted the sample in order to better represent the structure of the French population in terms of age and département of residence. Nevertheless, it is important to note that this sample, even after weighting, may not be representative of the French population. Pensioners are under-represented: they account for 27.2% of the population, but just 16.6% of Crédit Mutuel Alliance Fédérale customers. Students, on the other hand, are over-represented: 8.3% of the population and 12.2% of respondents in our data, after fitting. These discrepancies can be largely explained by the failure to systematically update the socio-professional details of bank customers. Customers' files are probably not updated immediately, due to a lack of available information, for example when students enter employment, or older customers take their retirement. As for marital status, the data are fairly close to the averages observed for the population as a whole. In January 2019, in the sample provided by Crédit Mutuel Alliance Fédérale, 4.4% customers were in civil partnerships, compared with 4.5% in the census figures. The proportion of single people was 27.8% and 27% respectively.

For the purposes of this study, it is useful to make sure that the developments observed in bank accounts held with Crédit Mutuel Alliance Fédérale are similar to those observed across all bank accounts by the Banque de France over this same period (**figure 14**). The trajectories are indeed closely-matched; the observations of this study based on the households in our sample should, broadly speaking, be applicable to all of the households which make up the French population. Similarly, the principal results of this study have been corroborated by analyses looking at a different bank (BNP Paribas).

.../...

### Variation in consumption and savings by age and socio-professional category

Variations in consumption and savings are calculated on the basis of the Crédit Mutuel Alliance Fédérale definition of a household-group. A household-group comprises a customer of the bank plus his/her spouse and any children under the age of 18. Children with bank accounts who turn 18 are thereafter considered to constitute a new household-group. Age and socio-professional category are determined for the reference person for each household (the oldest member).

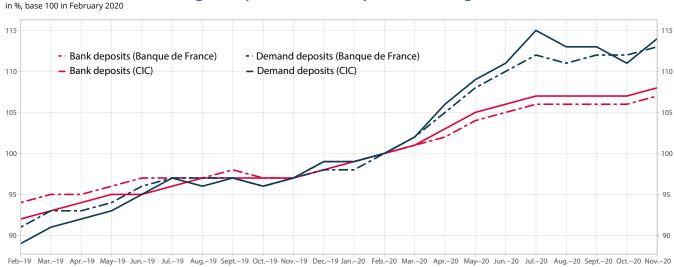
### Measuring consumption, savings and income

Household consumption includes cash withdrawals, card payments and payments by cheque. For those customers in our sample who also hold accounts with banks other than Crédit Mutuel Alliance Fédérale, these consumption data only reflect their spending using the payment facilities provided by Crédit Mutuel Alliance Fédérale. Standing orders and outgoing transfers are not counted as consumption, but their variation is tracked in **figure 1**. Outgoing transfers may indeed constitute consumption spending, but they may just as well correspond to transfers between households, or even transfers between different bank accounts held by the same household. Standing orders (excluding taxes and loan repayments) do constitute consumption, but they are excluded from most analyses because data is only available from the latter half of 2019 onwards. This category includes "pre-engaged expenditure," and is therefore less affected by the health crisis in the short term.

The gross financial wealth analysed in this study includes all assets held with Crédit Mutuel Alliance Fédérale by the customers in the sample. This includes cash savings (current accounts and savings accounts) as well as financial savings (life assurance policies and securities accounts). They do not necessarily represent all of the financial assets of these customers, as they may also have investments in other financial institutions. This is particularly true of those households with the highest levels of financial wealth. Although our data do not allow us to estimate the sums held by the wealthiest individuals, they do give an accurate representation of general variations in the financial wealth of a majority of households.

Since income cannot be directly observed from the banking data used here, the sum total of incoming cheques and transfers is used to estimate approximate income for the purposes of this study. Transfers of more than 40,000 Euros were discounted. They represented 0.13% of all transfers observed, and most likely correspond to transfers between accounts rather than income. Transfers between accounts held by the same household with Crédit Mutuel Alliance Fédérale were also excluded. The income thus measured likely over-estimates real income (figure 15), since

#### ▶ 14. Variation in bank savings, comparison with Banque de France figures



How to read it: In April 2020, the bank deposits held by French population as a whole were 3% greater than they had been in February 2020. For customers of Crédit Mutuel Alliance Fédérale, the increase was 4%.

Source: Crédit Mutuel Alliance Fédérale data, savings books of resident households and NPISHs (Banque de France series), INSEE calculations

it includes transfers between households and transfers between banks within households; the broader variations detected may be affected by this imbalance. An alternative approach to measuring income would have been to deduce it from consumption spending and the variation in financial wealth. This would not, however, have resolved the problem of transfers between households. Furthermore, this approach would have been sensitive to fluctuations in the value of financial savings.

### **Deviation from the pre-crisis trend**

In order to measure the impact of the public health crisis on variations in consumption, it is informative to compare the month-by-month situation in 2020 with the forecasts for what would have happened without the pandemic. The hypothesis retained here is that, without the crisis, consumption in March 2020 would have been equivalent to consumption in March 2019 plus the year-on-year increase in consumption, measured between February 2019 and February 2020, i.e. before the first lockdown. In formal terms, the following formula is applied:

$$Some \ results \ obtained \ by \ analysing \ banking \ data = \frac{Consumption_{March2020}}{Consumption_{March2019}} (\frac{Consumption_{February2020}}{Consumption_{February2019}})$$

A value greater than 0 indicates consumption above the level predicted by the pre-crisis trend, a value below 0 indicates the opposite. •

### ▶ 15. Distribution of the disposable income of households in relation to transfers, in the bank account data and according to the Fiscal and Social Income survey

	Crédit Mutuel Alliance Fédérale (2019)	Fiscal and social inco- me survey (2017)
1 <sup>st</sup> décile	11 897	13 800
2 <sup>e</sup> décile	18 212	17 850
3º décile	22 968	21 600
4º décile	28 008	25 740
5º décile (médiane)	34 142	30 540
6º décile	41 972	35 850
7 <sup>e</sup> décile	51 692	42 020
8º décile	64 637	50 090
9º décile	88 615	63 870

How to read it: In 2017, 10% of households had available income of less than 13,800 Euros (1st decile), according to the Fiscal and Social Income Survey, while 10% of households in our sample had annual income of less than 11,897 Euros based on the payments they received (excluding transfers of more than 40,000 Euros).

Note: fields and measurements vary between the two sources. Income corresponds to available income after tax in the Fiscal and Social Income Survey, whereas for our purposes it corresponds to the sum total of incoming transfers and cheques (excluding transfers of more than 40,000 Euros for Crédit Mutuel Alliance Fédérale).

Source: INSEE-DGFIP-Cnaf-Cnav-CCMSA, Fiscal and social income survey 2017. Crédit Mutuel Alliance Fédérale data, INSEE calculations

#### **Bibliography**

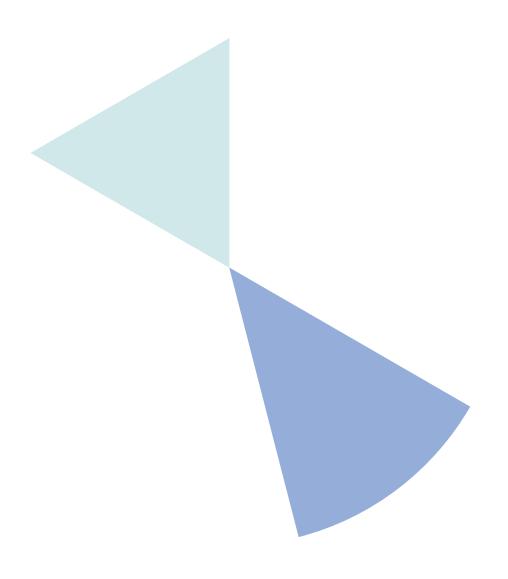
**Bounie D., Y. Camara, É. Fize, J. Galbraith, C. Landais, C. Lavest, T. Pazem et B. Savatier** (2020): "Consumption Dynamics in the COVID Crisis: Real time insights from french data", *Focus* of the CAE, n° 049-2020, October.

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Insee (2020) Economic outlook 2020 •



### **Economic activity**

In a year of economic fluctuations on an unprecedented scale, GDP fell by 8.2% as an annual average in 2020, according to the detailed results in the quarterly accounts published at the end of February. The shock associated with the second lockdown at the end of 2020 was less severe than in the spring. At the start of 2021, the rebound is likely to be correspondingly less vigorous than in the summer, in a health context that is continuing to weigh heavily on activity.

Q1 2021 is likely to be seen as a middle ground: the health situation is affected by both the spread of Covid variants and progress in the vaccination campaign; many restrictive measures remain in force, but without going so far as another national lockdown, at least at the time of writing. Compared to the second national lockdown in November 2020, the restrictive measures that have been gradually introduced since January are indeed less strict (national curfew, no restriction on mobility apart from local exceptions), more targeted (closure of non-food retail outlets in large shopping centres) and more localised (weekend lockdown in some areas where the virus has reappeared). They should affect the economy a little less than at the heart of Q4 2020, when there was a further decline in activity, especially in services. In this context, activity is expected to remain virtually stable between January and March, around 4% below its pre-crisis level. Over Q1 2021 as a whole, it is expected to grow slightly (+1% as a quarterly variation).

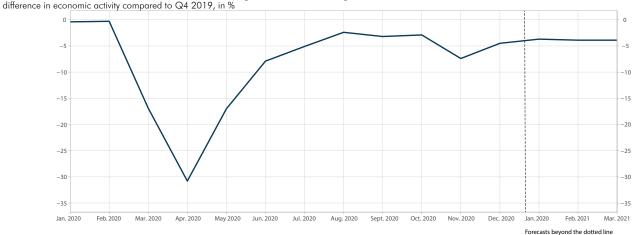
In Q2, and as has been the case since the health crisis began, change in economic activity is likely to be closely linked to any change in the health situation and the associated restrictive measures. Assuming a gradual easing of restrictions from mid-April, activity would then return to a similar level in June to that of September-October 2020, about –3% below the pre-crisis level, and would thus increase by 1% compared to Q1. The growth overhang for 2021 at the end of H1 would then be 5½%.

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

Since the Economic Outlook of 4 February, the detailed results for the Q4 accounts have been published confirming the economic activity profile between October and December. After October was stable at 3% of loss of activity compared to the pre-crisis level (Q4 2019), the lockdown introduced between 30 October and 14 December, which notably included the closure of "non-essential" businesses until 27 November and some restrictions in movement, resulted in a new decline in economic activity. In November, it stood at around 7½% below its Q4 2019 pre-crisis level; the loss of activity was then reduced to 4½% in December ( figure 1).

Market services were the most affected by the second lockdown, with a loss of activity of around 10% in November compared to pre-crisis, a reduction by almost a third, however, compared to April. The branches most affected since the start of the health crisis,

### 1. Estimated then forecast monthly loss of activity



How to read it: in December, economic activity was down by about 4½% compared to its Q4 2019 level. In January it is expected to settle at -4%. Source: INSEE calculations from various sources

accommodation-catering, other service activities (leisure, culture, sport, etc.) and transport and storage services, were affected again in November then in December - but less so than in April, as adaptations to the restrictions were already in place and travel was allowed for the end-of-year celebrations, which were partly maintained. Trade fell sharply in November, due mainly to the closure of "non-essential" shops, but rebounded in December, back to its pre-crisis level. After falling back in November, the activity of mainly non-market services also returned to its pre-crisis level in December, driven mainly by the buoyancy of health services (catching up with care, tests and vaccinations as well as fewer postponements of treatment than in the spring). Lastly, industry and construction were not much affected by the second lockdown in November but their activity declined in December, perhaps due to carry-over effects and a deterioration in the health situation for a number of our partners.

The breakdown of the different demand items also shows that, across all of Q4 2020, household consumption declined once again (–5% compared to the previous quarter), while investment, in contrast, continued to increase slightly (+1%), as did exports and imports. The

contribution of investment to the quarterly variation in GDP was therefore slightly positive in Q4 2020, as was that of foreign trade ( figure 2). All in all, at the end of the year, GDP dropped by 1.4% as a quarterly variation and by 4.9% year-on-year ( figure 3).

# In a context that remains very uncertain, economic activity is expected to improve slightly in Q1 2021

In January and February 2021, companies' expectations, as expressed at the beginning of February in INSEE's business tendency surveys and the ACEMO-Covid flash survey, carried out by DARES in association with INSEE, suggest an overall stabilisation of economic activity compared to December 2020, especially in services. According to the industrial production index, activity should also improve in industry in January.

The restrictive measures in force since the beginning of the year are an extension of those introduced at the end of the second lockdown. The curfew in force since 15 December restricted people's movement, onsite work and consumption opportunities in the evenings, first after 8pm, then after 6pm: this earlier deadline

### ▶ 2. Goods and services: resources-uses balance at chain-linked prices for the previous year variations T/T-1 (en %), données CVS-C|O

	2019			2020				2021	2019	2020	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	2019	2020
Gross domestic product	0.5	0.3	0.2	-0.2	-5.9	-13.5	18.5	-1.4	1	1.5	-8.2
Imports	1.3	0.1	0.5	-0.9	-5.8	-17.1	16.4	1.8	1	2.6	-11.5
Total resources	0.6	0.2	0.2	-0.4	-5.7	-14.3	17.8	-0.4	1	1.6	-8.9
Household consumption expenditure	0.6	0.4	0.4	0.3	-5.6	-11.5	18.1	-5.4	1	1.5	-7.0
General government consumption expenditure**	0.3	0.5	0.5	0.4	-3.3	-11.0	16.1	-1.2	1	1.6	-4.0
of which individual general government expenditure	0.3	0.5	0.4	0.4	-3.6	-10.9	16.2	-1.2	1	1.7	-4.2
of which collective general government expenditure	0.3	0.4	0.8	0.3	-1.3	-8.2	11.8	1.3	-1	1.7	-1.0
Gross fixed capital formation (GFCF)	1.1	1.4	1.2	0.2	-10.6	-15.0	24.1	1.1	2	4.3	-10.3
of which Non-financial enterprises (NFE)	8.0	1.1	1.3	0.0	-9.1	-14.1	20.7	0.9	2	3.7	-9.6
Households	0.3	1.2	0.6	0.3	-14.3	-17.7	31.9	4.2	2	1.8	-12.8
General government	2.3	2.0	1.6	0.4	-10.6	-15.7	27.2	-2.1	2	7.7	-9.9
Exports	0.5	-0.4	-0.5	-1.0	-6.9	-25.0	22.1	5.8	1	1.8	-16.3
Contributions (in points)											
Domestic demand excluding inventory**	0.6	0.7	0.6	0.3	-6.3	-12.3	19.3	-2.9	1	2.2	-7.1
Changes in inventories**	0.2	-0.2	-0.2	-0.4	0.7	0.9	-1.7	0.4	0	-0.4	0.3
Foreign trade	-0.3	-0.2	-0.3	0.0	-0.3	-2.2	0.8	1.0	0	-0.3	-1.5

Forecast

How to read it: in Q1 2021, exports are expected to grow by 1% compared to Q4 2020; the contribution of foreign trade to quarterly GDP growth is expected to be zero.

Source: INSEE calculations from various sources

<sup>1</sup> This survey questions 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 in the coming months, 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.

<sup>\*</sup> Consumption expenditure of general government and non-profit institutions serving households (NPISH)

<sup>\*\*</sup> Changes in inventories include acquisitions net of valuable items

concerned only a few departments at first but was gradually extended to the entire country. The closure of restaurants and many leisure activities has remained in force since the start of the second lockdown. Coastal municipalities in Alpes-Maritimes and the Dunkerque conurbation – i.e. about 2% of the French population – have been subjected to local weekend lockdowns since the end of February.

The high-frequency indicators available for the first weeks of the quarter also suggest a relative stability in activity or a slight increase. Regarding road traffic, all vehicle traffic remained stable in January and February, apart from a peak in late February, probably linked to the school holidays. 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, has been relatively stable since September (apart from the seasonal lull associated with the Christmas holidays) and even increased at the end of February ( figure 4). Daily electricity consumption by businesses connected directly to RTE also gives an idea of change in economic activity in certain specific branches: it suggests a slight

increase in activity in "other branches of industry" (textiles, chemical products, metallurgy, etc.) and stability but at a lower level in the manufacture of transport equipment and in transport services (**focus**). The number of Google searches suggests, both in February and January, that searches relating to the sectors most exposed to restrictive measures remained at a very low level (▶ figure 5). Searches related to the semantic field "shops" fell dramatically in mid- and late January when non-food shops in large shopping centres closed and the possibility of another lockdown was raised, but they subsequently returned to a similar level to that of October. Searches related to the semantic fields "hotel" and "train" spiked at the end of February, but this was not the case for "air" because of the major restrictions on international tourism that are still in place. Lastly, the correlation between the indicator for time spent at home per week and the loss of economic activity has lessened since November, probably associated with the growth of teleworking; a slight change was observed over the second half of February, however, perhaps linked to the short-lived rise in temperatures or the school holiday period (► figure 6).

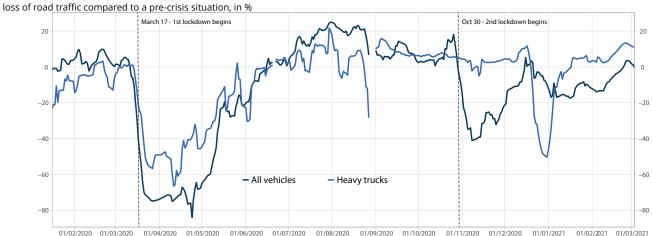
#### ▶ 3. Estimated then forecast loss of economic activity until Q2 2021

		2020				21	2020	ovhg
	Q1	Q2	Q3	Q4	Q1	Q2	2020	mid-2021
Quarterly variation (in %)	-5.9	-13.5	18.5	-1.4	1	1	-8.2	5 1/2
Difference compared to pre-crisis level (Q4 2019)	-5.9	-18.6	-3.5	-4.9	-4	-3		

Forecast

How to read it: in Q1 2021, GDP is expected to be at -4% compared to the pre-crisis level, i.e. growth of 1% compared to Q4 2020 Source: INSEE calculations from various sources

#### ► 4. Road traffic in France



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, 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 and the start of lockdown. For more clarity, the series has been smoothed with a 7-day moving average. The last point represents 3 March.

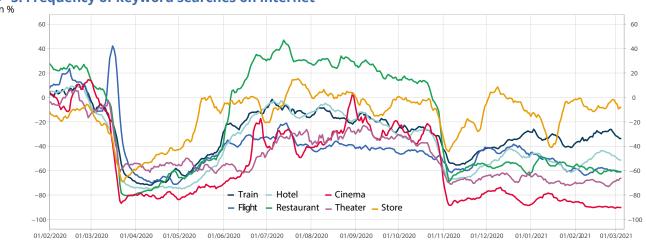
Source: Cerema, INSEE calculations

As a result, activity in January and February would appear to have been about –4% compared to its pre-crisis level (Q4 2019), similar to December.

In March, the weekend lockdown was extended to the Pas-de-Calais department, representing another 2% of the French population in addition to the local lockdowns already in force in Alpes-Maritimes and Dunkerque. On average over Q1 2021, however, these restrictions are likely to affect activity less than in Q4 2020 and in March it is expected to stay at the same level as February, with local lockdowns affecting only a small proportion of the population.

Over Q1 2021 as a whole, the gradual recovery in industry is expected to continue until it reaches –3% below its pre-crisis level (after –4% in the previous quarter); similarly for construction, at –6% (after –8% in Q4 2020). In "other branches of industry" (textiles, chemical products, metallurgy, etc.) the gap between levels of activity is expected to be reduced even further, while capital goods are likely to exceed their pre-crisis level slightly; however, transport equipment will probably remain at the same low level as in the previous quarter, still experiencing difficulties with trade outlets but perhaps also with supply ( figure 7). Services are

### ► 5. Frequency of keyword searches on internet

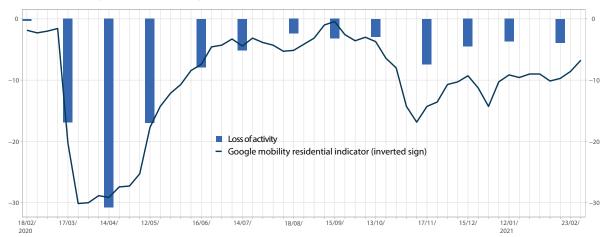


How to read it: the 7-day moving average for the number of searches for the word "restaurant" on Google in France was 55% lower on 29 January compared to the average of the 7-day moving averages for every 29 January between 2016 and 2019.

Note: the date of the last item is 5 March.

Source : Google Trends, calculs Insee

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



How to read it: during the first week of December, time spent at home was 10% more than in a normal situation. Note: Idata for the indicator are currently available up to 5 March. Weekly values are the average of daily indicator values. Source: Google Mobility Reports, INSEE calculations

expected to be at practically the same level as at the end of 2020, but still with some significant disparities between sectors. In trade and services to business the gap between their pre-crisis level and their Q4 2020 level is expected to be reduced still further, while information-communication, financial and insurance activities and real estate activities – which adapt more easily to teleworking – are likely to be very close to or even above their pre-crisis level. Meanwhile, activity

in those branches that are still subject to severe restrictions – accommodation-catering, other service activities and transport and storage – is expected to remain depressed. Finally, as in Q4 2020, activity in nonmarket services is likely to be stable, as administration is barely affected by the restrictions and activity in health services remains dynamic. All in all, GDP in Q1 should grow by 1% as a quarterly variation, and settle at 4% below the pre-crisis level

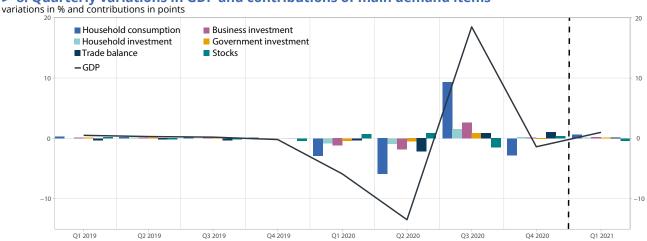
### ► 7. Estimated then forecast loss of economic activity in 2020 and in January 2021 by branch écart au quatrième trimestre 2019, en %

weight	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Contrib. Q1 2021
2	-1.3	-1.9	-1.5	-1.1	0	0
14	-5.7	-23.1	-6.7	-4.4	-3	0
2	-0.7	-9.7	-1.5	-3.5	-3	0
0	-19.4	-17.7	-29.0	-20.3	-26	0
1	-5.9	-24.1	-5.6	-3.0	1	0
2	-13.8	-50.7	-20.8	-16.4	-17	0
6	-5.7	-23.8	-5.6	-3.0	-1	0
3	-4.2	-14.9	-5.0	-1.7	0	0
6	-14.0	-31.6	-5.8	-8.2	-6	0
57	-5.5	-18.1	-4.5	-6.6	-6	-3
10	-7.8	-19.5	-2.9	-4.4	-2	0
5	-8.6	-30.1	-11.6	-15.9	-16	-1
3	-13.8	-52.7	-13.2	-37.1	-42	-1
5	-2.4	-10.2	-4.1	-0.8	0	0
4	-3.3	-10.3	-1.6	-1.7	0	0
13	-1.0	-3.1	0.1	0.5	1	0
14	-5.9	-20.0	-4.6	-4.9	-3	0
3	-10.8	-42.6	-15.2	-27.1	-24	-1
22	-4.1	-14.4	1.0	0.0	0	0
100	-5.6	-18.4	-3.6	-4.9	-4	-4
0	-7.8	-19.6	-2.9	-5.5	-4	
0	-5.9	-18.6	-3.5	-4.9	-4	
	2 14 2 0 1 2 6 3 6 57 10 5 3 5 4 13 14 3 22 100 0	2 -1.3 14 -5.7 2 -0.7 0 -19.4 1 -5.9 2 -13.8 6 -5.7 3 -4.2 6 -14.0 57 -5.5 10 -7.8 5 -8.6 3 -13.8 5 -2.4 4 -3.3 13 -1.0 14 -5.9 3 -10.8 22 -4.1 100 -5.6 0 -7.8	2 -1.3 -1.9 14 -5.7 -23.1  2 -0.7 -9.7  0 -19.4 -17.7  1 -5.9 -24.1  2 -13.8 -50.7  6 -5.7 -23.8  3 -4.2 -14.9  6 -14.0 -31.6  57 -5.5 -18.1  10 -7.8 -19.5  5 -8.6 -30.1  3 -13.8 -52.7  5 -2.4 -10.2  4 -3.3 -10.3  13 -1.0 -3.1  14 -5.9 -20.0  3 -10.8 -42.6  22 -4.1 -14.4  100 -5.6 -18.4  0 -7.8 -19.6	2         -1.3         -1.9         -1.5           14         -5.7         -23.1         -6.7           2         -0.7         -9.7         -1.5           0         -19.4         -17.7         -29.0           1         -5.9         -24.1         -5.6           2         -13.8         -50.7         -20.8           6         -5.7         -23.8         -5.6           3         -4.2         -14.9         -5.0           6         -14.0         -31.6         -5.8           57         -5.5         -18.1         -4.5           10         -7.8         -19.5         -2.9           5         -8.6         -30.1         -11.6           3         -13.8         -52.7         -13.2           5         -2.4         -10.2         -4.1           4         -3.3         -10.3         -1.6           13         -1.0         -3.1         0.1           14         -5.9         -20.0         -4.6           3         -10.8         -42.6         -15.2           22         -4.1         -14.4         1.0           100	2       -1.3       -1.9       -1.5       -1.1         14       -5.7       -23.1       -6.7       -4.4         2       -0.7       -9.7       -1.5       -3.5         0       -19.4       -17.7       -29.0       -20.3         1       -5.9       -24.1       -5.6       -3.0         2       -13.8       -50.7       -20.8       -16.4         6       -5.7       -23.8       -5.6       -3.0         3       -4.2       -14.9       -5.0       -1.7         6       -14.0       -31.6       -5.8       -8.2         57       -5.5       -18.1       -4.5       -6.6         10       -7.8       -19.5       -2.9       -4.4         5       -8.6       -30.1       -11.6       -15.9         3       -13.8       -52.7       -13.2       -37.1         5       -2.4       -10.2       -4.1       -0.8         4       -3.3       -10.3       -1.6       -1.7         13       -1.0       -3.1       0.1       0.5         14       -5.9       -20.0       -4.6       -4.9         3       <	2       -1.3       -1.9       -1.5       -1.1       0         14       -5.7       -23.1       -6.7       -4.4       -3         2       -0.7       -9.7       -1.5       -3.5       -3         0       -19.4       -17.7       -29.0       -20.3       -26         1       -5.9       -24.1       -5.6       -3.0       1         2       -13.8       -50.7       -20.8       -16.4       -17         6       -5.7       -23.8       -5.6       -3.0       -1         3       -4.2       -14.9       -5.0       -1.7       0         6       -14.0       -31.6       -5.8       -8.2       -6         57       -5.5       -18.1       -4.5       -6.6       -6         10       -7.8       -19.5       -2.9       -4.4       -2         5       -8.6       -30.1       -11.6       -15.9       -16         3       -13.8       -52.7       -13.2       -37.1       -42         5       -2.4       -10.2       -4.1       -0.8       0         4       -3.3       -10.3       -1.6       -1.7       0

#### Forecast

How to read it: in Q1 2021, the loss of activity in the transport and storage branch is expected to be 16% compared to its pre-crisis level; the contribution of this branch to total loss of activity is expected to be –1 percentage point. Source: INSEE calculations from various sources

### ▶ 8. Quarterly variations in GDP and contributions of main demand items



How to read it: in Q4 2020, GDP declined by 1.4%; the contribution of household consumption to this change was –2.8 points. Source: INSEE calculations from various sources

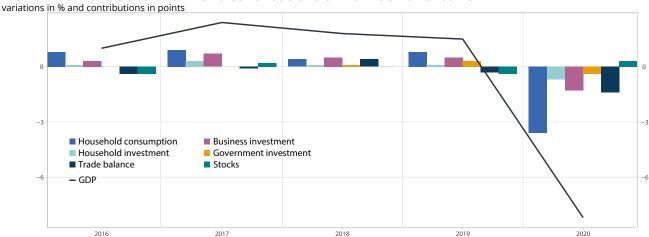
The breakdown of the different demand items also shows that consumption looks set to contribute most significantly to the rebound early in the year (▶ figure 8), whereas the contribution of investment is expected to be only just positive; the contribution of foreign trade is expected to be zero and inventories, which were positive in Q4 2020, are likely to be slightly negative.

### In Q2 2021, an easing of restrictions from mid-April is expected to lead to a further upturn in economic activity

Economic activity in Q2 2021 is surrounded by uncertainty over the way the health situation may develop along with related restrictive measures. The scenario considered here is one of a gradual easing

of restrictive measures from mid-April, affecting in particular those branches that are still subject to restrictions, with the potential reopening of restaurants and bars and an upturn in leisure activities that are currently closed, but also more generally a lifting of the curfew during the week and of local weekend lockdowns. The resulting levels of activity would be similar to those of October in transport and storage and other service activities, and mid-way compared to October for accommodation-catering. According to this scenario, GDP should increase once again in Q2, by 1%, and the difference in activity would be -3% compared to Q4 2019, i.e. a high point since the beginning of the crisis (comparable to the -3.5% reached in Q3 2020). The annual growth overhang at the end of H1 2021 would then be 5½% (► figure 3). •

### ▶ 9. Annual variations in GDP and contributions of main demand items



How to read it: in 2020, GDP declined by 8.2%; the contribution of household consumption to this change was –3.6 points *Source: INSEE calculations from various sources* 

# At 31%, the proportion of businesses that consider that health protection measures affect their productivity is declining, but remains high

In October 2020 then in January 2021, some new questions were added to the quarterly business tendency surveys in industry, services and the building construction industry relating to the repercussions of the health crisis on productivity in these companies.

Over this period, the share of business leaders in industry and construction who reported that their workforce was relatively large, given their current level of activity, decreased. The adverse effects of the health measures on corporate productivity were mentioned less often by businesses, no doubt in part because of the adaptations they have already made, but perhaps also because other difficulties are taking over. However, teleworking appears to be affecting productivity more.

# In January 2021, fewer business leaders than in October 2020 reported that numbers in their workforce were relatively high given their level of activity

Between October 2020 and January 2021, the share of businesses that considered that their workforce was large given their current level of activity declined, from 24% to 20%. This decline was significant in building construction and industry (from 16% to 9% in building and from 28 to 22% in industry, ▶ figure 1). In industry, the share of employers who considered that their workforce was relatively large declined mainly in the sectors manufacturing capital goods and transport equipment, where it had previously been highest.

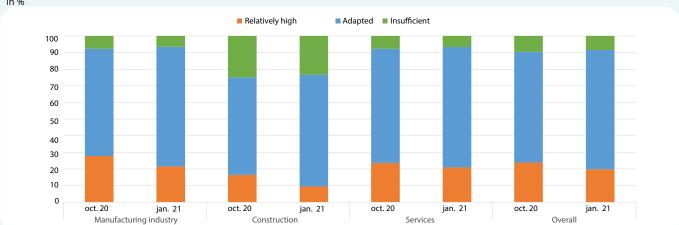
In the service sectors covered by the survey (► Méthode), this decline is less perceptible. In fact, the share of companies that considered that their workforce was relatively large declined in some subsectors only, notably activity in specialised scientific and

technical services and in administrative and support services. Conversely, this share increased sharply in accommodation-catering, where constraints on activity have been tightened since October.

### In January 2021, 31% of companies said that the health protection measures reduce productivity

The share of companies who consider that the protective health measures (masks, physical distancing, etc.) are detrimental to their productivity was 31% in January 2021, against 38% one quarter earlier (▶ figure 2). This apparent decrease from October 2020 should nevertheless be interpreted with caution because the reasons, as expressed by companies in the "free-text comments" section of the survey, may vary. For some businesses, the health measures would seem to have generated some fixed costs for implementation (e.g. purchase of materials) and resulted in a slowdown in production, while teams got used to the new protocols.





Note: results are weighted according to the workforce of the units surveyed. Source: INSEE, business surveys in industry, services and construction in October 2020 and January 2021

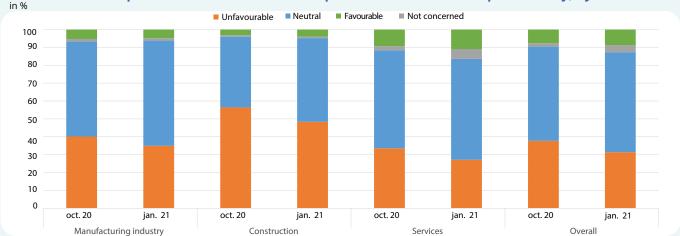
Once these measures were in place, productivity would seem to have stabilised at a less degraded level than during the period when the protective measures were introduced. For other businesses, a drop in output, following a drop in demand, may push any constraints related to the health protocols into the background. Finally, in extreme cases, activity is almost at a complete standstill and their productivity is therefore virtually zero. Thus, in services, the share of businesses reporting that they are not concerned by the issue increased between October and January, especially in accommodation-catering.

The share of companies reporting that reorganisation had a negative effect on their productivity was generally stable between October 2020 and January 2021 (**Figure 3**).

# In the context of the Covid-19 pandemic, a few more companies consider that teleworking is detrimental to productivity

In January 2021, 16% of companies considered that teleworking had a detrimental effect on their productivity, against 12% three months earlier. Following the second

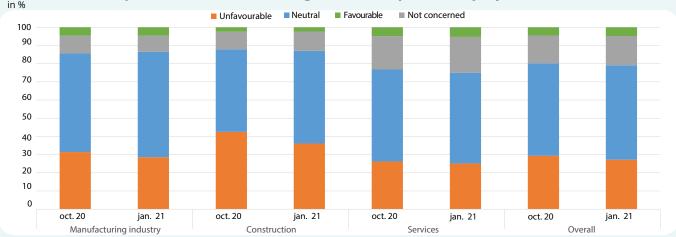
### ▶ 2. Businesses' opinion on the effect of health protection measures on productivity, by sector



Note: results are weighted according to the workforce of the units surveyed.

Source: INSEE, business surveys in industry, services and construction in October 2020 and January 2021

### ▶ 3. Businesses' opinion on the effect of reorganisation on productivity, by sector



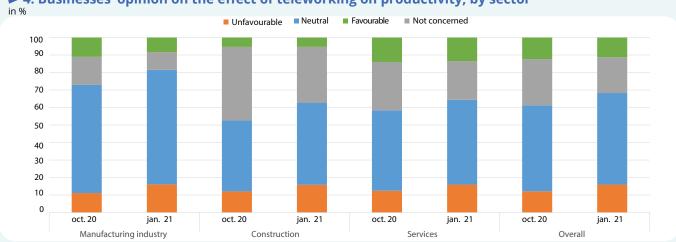
Note: results are weighted according to the workforce of the units surveyed. Source: INSEE, business surveys in industry, services and construction in October 2020 and January 2021

lockdown, 100% teleworking was strongly encouraged for those professions where this was possible. Thus the share of companies who said they were not concerned declined substantially. In addition, according to the comments made by companies, the intensification of teleworking and the fact that it is being rolled out in the long term could be a source of further difficulties, especially for administrative and support services.

All in all, at 43%, the share of companies reporting detrimental effects on their productivity, irrespective of the cause (health measures, reorganisation or teleworking) was down between October 2020 and January 2021, but this figure is still high.

Juliette Grangier

### ▶ 4. Businesses' opinion on the effect of teleworking on productivity, by sector



Note: results are weighted according to the workforce of the units surveyed. Source: INSEE, business surveys in industry, services and construction in October 2020 and January 2021

#### ► Methodology box

#### Repercussions of the health crisis on productivity: new questions in the business tendency surveys

In October 2020 and January 2021, new questions were added to the quarterly questionnaires for the business tendency surveys in industry, services and building construction, asking business leaders to describe the repercussions of the health crisis on their productivity. The exact wording of the questions is given below.

The notion of workforce is defined differently, according to sector. In services, respondents are specifically asked to include temporary workers. In industry and building construction, the questionnaires mention "total workforce", but with no specific definition. Short-time working is not mentioned; employees on short-time working are in any case counted as part of the company's workforce.

For the January data collection, companies returned the questionnaires between 28 December 2020 and 27 January 2021. The response rate over this period, weighted according to turnover, was about 70%. The results presented here are weighted according to company workforce. The October results, originally published in the Economic Outlook of 17 November 2020, were revised for the services sector, after the weightings were adjusted.

The scope considered here is the usual one for business tendency surveys in industry, services and building construction. The new questions were not added to the survey of retail trade businesses. Industrial companies with more than 20 employees were surveyed, also companies in building construction with more than 10 employees. The services sector survey covers market services, excluding air, rail and water transport services, financial and insurance services, scientific research and development services and the arts, entertainment and recreational activities sub-sector. Estimates for the total scope were obtained by weighting the results according to workforce size, excluding temporary workers, in industry, construction and all market services.

#### ▶ 5.New questions in the business tendency surveys in industry, services and building construction

### Figure 1 - New questions in the business tendency surveys in industry, services and the building construction industry Repercussions of the health crisis on productivity → 4. Currently, given your level of activity, does your workforce appear to be: ☐ relatively large ☐ appropriate ☐ insufficient → 5. Currently, do the following measures affect the productivity of your business? Health protection measures (face ☐ favourable ☐ neutral ☐ unfavourable ☐ not concerned masks, physical distancing, etc.) Health protection measures (face $\square$ favourable $\square$ neutral $\square$ unfavourable $\square$ not concerned masks, physical distancing, etc.) Health protection measures (face $\square$ favourable $\square$ neutral $\square$ unfavourable $\square$ not concerned masks, physical distancing, etc.) → 6. Describe in a few words the impact on productivity of measures put in place in your company:

## Can electricity consumption by businesses help improve forecasts of activity, especially in a period of crisis?

The electricity consumption of businesses connected directly to the RTE (Electricity transmission network) represents a source of data available at high frequency and which, during 2020, demonstrated a strong correlation with economic activity. However, these businesses are essentially industrial and, because of their status as large electricity consumers, they are not necessarily representative of all enterprises in their sector. At a more detailed sectoral level, the match between electricity consumption by these companies and activity in the sector therefore appears more varied. In particular, it reflects the fact that this indicator is more efficient when monitoring activity that is particularly irregular, as in 2020, than activity in times of weaker fluctuations.

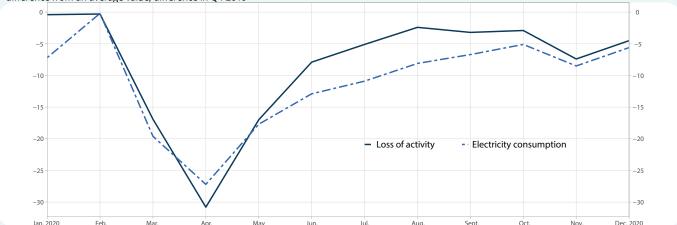
## Electricity consumption¹ by businesses connected directly to RTE was strongly correlated with economic activity in 2020

The daily electricity consumption of businesses acts as an indicator of their economic activity, since electricity is one of the main inputs in the production process. This is all the more so for the 400 enterprises (within the meaning of SIREN) connected directly to the Electricity Transmission network (RTE): they are connected at high voltage, as their electricity needs are greater than those of other businesses. They represent about 15% of total electricity consumption.

These data are of particular interest in a period of crisis, when movements in economic activity are on a large scale. Between February and December 2020, total electricity consumption by businesses connected directly to the RTE (adjusted for months of the year and working days) correlated very well with overall economic activity, measured as the deviation from GDP in Q4 2019 ( figure 1), at around 96%. The changes in these two amounts appeared to be particularly close between March and May, i.e. during the first lockdown, and from October, a period affected by the second lockdown. However, the rebound in economic activity in the summer was a little less brisk in terms of consumption by companies connected directly to the network.

1 This refers to electricity withdrawals, i.e. consumption net of any electricity production that may take place on site: cogeneration, solar power, etc.

### ► 1. Electricity consumption by companies connected directly to RTE and economic activity difference from an average value, difference in Q4 2019



How to read it: in November 2020, electricity consumption by companies connected directly to RTE was 8.5% less than the average level for a month of November in 2018-2019, while activity was down –7½% compared to the pre-crisis level (Q4 2019).

Source: RTE, INSEE calculations

## The sectoral structure of this electricity consumption differs from that of economic activity

The correlation between electricity consumption by companies connected directly to RTE and overall economic activity was certainly very good between February and December 2020, but the sectoral structure of this electricity consumption differed quite considerably from that of value added ( figure 2). Industry obviously needs electricity to operate their machinery, and not only to light and heat their premises and power their computer systems; in fact, it represents about 80% of the electricity withdrawn by companies connected to RTE, for less than 15% of the economy's total value added. Conversely, services account for a small proportion of electricity consumption by companies connected directly to RTE, whereas they represent almost 80% of total value added; however, the transport and storage services branch represents about 15% of electricity withdrawn, for 5% of total value added.

Within the manufacturing industry, electricity consumption by companies connected to RTE is due largely (over 60% in 2018) to the metallurgical and chemical industries. Again, the sectoral structure of electricity consumption by these companies differs considerably from that of value added (▶ figure 2). It also appears relatively stable over time and, notably,

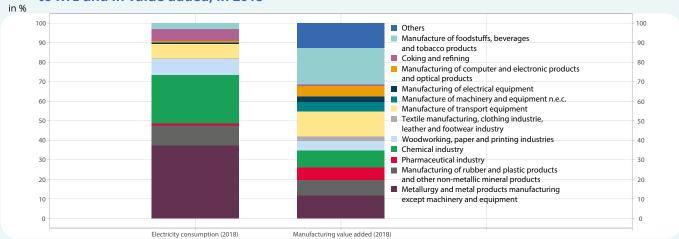
the effect of the health crisis is hardly visible (apart from transport services), which perhaps reflects the fact that overall, industry was less affected than services and the effect was in any case more evenly distributed.

More generally, the number of companies connected directly to RTE necessarily means that their turnover only approximately matches that of the branch to which they belong (the degree of coverage is measured here by the ratio of the turnover of available SIRENs to the total turnover for their branch). However, at a more detailed level of the classification of activities (NAF), some sub-branches are well represented, even very well represented among companies connected to RTE. This is particularly so for sub-branches within the chemical industry, the manufacture of rubber and plastic products and within metallurgy, the food industry and transport: here, companies connected directly to RTE represent a turnover of more than 60% of that of the sub-branch, and almost 90% in some branches of the chemical industry or transport services.

## Data on electricity withdrawal are an additional indicator for forecasting activity in industry and transport services

Given the nature of these data, using them as an aid for forecasting or instant estimates of activity means focusing on the industrial branches, manufacturing in particular, and transport services. This field seems to

### ► 2. Weight of manufacturing branches in electricity consumption by companies connected directly to RTE and in value added, in 2018



How to read it: in 2018, metallurgy represented 37% of electricity consumption by companies connected directly to RTE and 11% of value added in the manufacturing industry in value.

Source: RTE, INSEE, INSEE calculations

complement that of other high-frequency data sources (bank card transactions, searches on the Google search engine or indicators based on Google Mobility Reports), which are oriented more towards consumption than production and more towards branches of services than of industry.

Electricity withdrawals are very well correlated with monthly indicators of activity, i.e. the industrial production index (IPI) and the turnover index (ICA).2 In industry, correlation with the IPI is generally similar to or better than that with the ICA (▶ figure 33), which may reflect the fact that the IPI aims precisely to measure a concept that is closer to "production" than to turnover, which can be affected by, among other things, time lags related to billing and to inventory.

Across the whole of the period covered by the data (January 2018 to January 2021), this correlation is strongest for transport equipment (95%, ► figure 3.c) then for "other industrial products" (89%, figure 3.c) and coking and refining (79%, ► figure 3.a). In the other branches of manufacturing industry (at level A17, i.e. agrifood industry and manufacture of machinery and equipment), correlations are much weaker. In the case of transport services

(► figure 3.d), there was not much fluctuation in the ICA before the health crisis, unlike electricity consumption by companies connected to RTE, but nevertheless it did reflect the collapse in activity in Q2 2020 and at the end of the year; the dip linked to the strikes in December 2019 is also visible.

- We examine the period from January 2018 to January 2021 at the 17-branch level of the NAF classification, taking into account monthly seasonality and the number of working days.
- 3 For parsimony, here we show only a selection of branches of industry, those with the best correlation with the IPI.

#### ▶ 3. Electricity consumption by companies connected directly to RTE, industrial production index and turnover index according to branch A17

100 = average value

- Coking and Refining

CA correlation = 73%, IPI correlation = 79%

**b** - Transport equipment

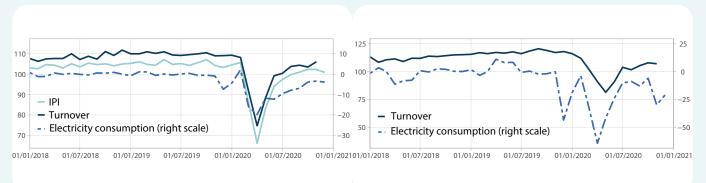
CA correlation = 86%, IPI correlation = 95%



#### c - Other industrial branches

CA correlation = 89%, IPI correlation = 89%

#### d - Transport and storage services CA correlation = 69%



How to read it: in the transport equipment branch, in November 2020, electricity consumption was 9% less than in an average November in 2018-2019; the industrial production index was 95. The correlation between these two monthly series was 95%. Source: RTE, INSEE, INSEE calculations

11 March 2021 39

At the more disaggregated level of 38 branches in NAF (▶ figure 4), this comparison shows very strong correlations for textiles-clothing-footwear at 92%, rubber and plastic products at 97%, and, to a lesser extent, metallurgy and metal products at 86% and machinery and equipment at 85%⁴. We should also mention the chemical industry and work with wood and paper, with correlations of around 60% and 50% respectively.

These strong correlations should be considered with caution, however. The relationship between economic activity in a sector and electricity withdrawals by companies in the sector (directly connected to RTE) has been particularly strong since the start of the health crisis. However, it was less so previously: between

January 2018 and February 2020, these correlations were much lower. They remain significant in some branches, however: this is notably the case in coking refining, chemicals and rubber and plastic products, and to a lesser extent in transport equipment, with correlations ranging from 35% to 50%, depending on the case.

It is interesting to see that the branches where correlations for the period January 2018-January 2021 are highest are also where the drop in electricity consumption was greatest in Q2 ( figure 5 and 6) and has then been absorbed relatively little (remaining at a level below 10% in 2020, compared to 2019). When shocks are great, extraneous noise (statistical, measurement, etc.) is dominated by variations, hence the increased interest in these data in times of crisis.

4 At level A17, this branch is included in equipment (electrical, computer, etc.) and machinery, a branch where the correlation with the IPI is weak; disaggregation to level A38 is therefore especially useful.

### ► 4. Electricity consumption by companies connected directly to RTE, industrial production index and turnover index according to branch A38

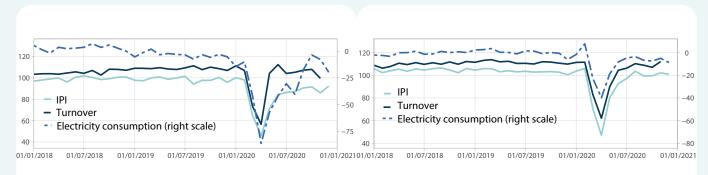
in difference to a mean value

a - Textile-clothing-shoe

CA correlation = 67%, IPI corrlation = 92%

b – Rubber and plastic products

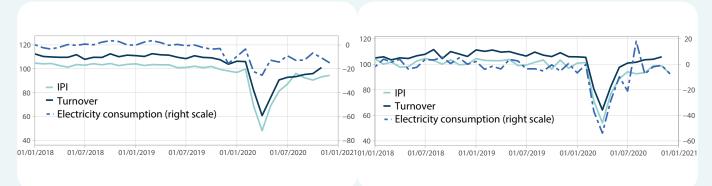
CA correlation = 96%, IPI correlation IPI = 97%



#### c - - Métallurgie et produits métalliques

CA correlation = 88%, IPI correlation = 86%

#### d – Machinery and equipment CA correlation = 87%, IPI correlation = 86%



How to read it: in the rubber and plastic products branch, in November 2020, electricity consumption was 5% less than in an average November in 2018-2019; the industrial production index was 103. The correlation between these two monthly series was 97%.

Source: RTE, INSEE, INSEE calculations

# Since the end of 2020, daily electricity withdrawals<sup>5</sup> have shown stability in other industrial products and have increased in transport services

As feedback from statistics on economic activity in January and February 2021 is still only partial at this stage of the quarter, data on electricity consumption provide advance information and at high frequency on activity in the sectors (at level A17) where the correlation with activity appears to have been strongest in 2020: manufacture of transport equipment, "other industrial branches" (textiles, metallurgy, chemicals, etc.) and transport and storage services.

Thus in January, in "other industrial branches", electricity consumption by companies connected to RTE appeared to have increased compared to December (▶ figure7), which is consistent with the rebound in the IPI in this branch (+4% in January after −1% in December). In transport services, the consumption of companies connected to RTE reflects the decline in activity in 2020 associated with the two lockdowns, with the second lockdown having had much less of an impact than the first. Electricity consumption in January remained below the average for 2018-2019. The manufacture of

transport equipment, on the other hand, has a profile

that is much more difficult to interpret in relation to electricity consumption by companies connected to RTE: although production in this branch declined in January (–3% according to the January IPI), the sharp decline in electricity consumption by companies connected to RTE seems to be due more to a seasonal phenomenon<sup>6</sup>. In February, the electricity consumption of companies in this branch connected to RTE was nevertheless at a level still well below the pre-crisis level.

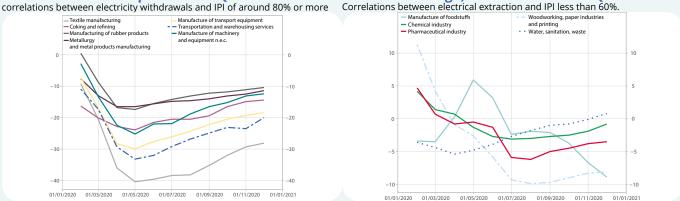
#### Can this indicator be used to improve shortterm forecasting in times of crisis?

By way of illustration, we propose to use the electricity consumption of companies connected to RTE to forecast monthly losses of activity<sup>7</sup> from January to February,<sup>8</sup> in two sub-branches with strong correlations between activity and electricity consumption: "other industrial branches" and manufacture of rubber and plastic. The forecast covers October 2020 to February 2021 and was carried out in real time, i.e. the forecast of loss of activity for a given month is produced by estimating the forecasting model up to the previous month.

The forecasting model is expected to suggest an increase in activity in the "other industrial goods" branch in January ( figure 8). dotted line), then a decline in

- 5 Daily electricity withdrawals are adjusted for the effect of the months of the year and days of the week, by calculating the difference between the observed electricity consumption and average consumption for a similar month and day of the week. These effects are estimated from monthly data for 2018-2019 and daily data for 2020.
- 6 The seasonal variation adjustment method used for these data does not take this into account sufficiently, because the time perspective is too small. We observe the same phenomenon in the summer (in particular, the highest peak should be considered as an outlier).
- 7 The difference in activity (within the meaning of GDP) compared to its Q4 2019 level.
- 8 The latest available electricity consumption data go up to 21 February 2021.

#### 



How to read it: in the manufacture of rubber and plastic products branch, in November 2020, cumulated electricity consumption (from January to November 2020) was 11% less than cumulated electricity consumption from January to November 2019.

Source: RTE, INSEE, INSEE calculations

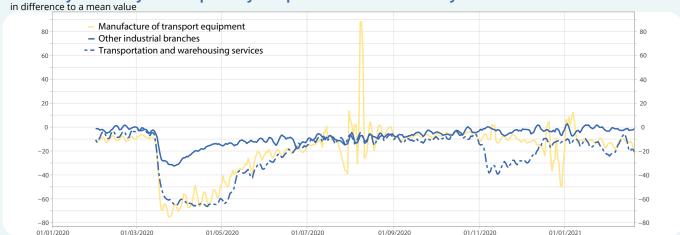
February but to a higher level than in December (which is consistent with the other available indicators, especially the IPI for January). In the manufacture of rubber and plastic goods branch, the model suggests a rise in activity in January (although not as strong as that forecast, especially with regard to the IPI), before returning to its December level in February.

In view of the short time coverage of the series, we must be cautious in our interpretation. However,

in the period limited strictly to the health crisis, the model's statistical properties are better than with a traditional short-term indicator, like the business tendency surveys, the composite indicator for these branches. The difference between observation (solid line) and simulation (dotted line), although sizeable, is fairly stable; taking this into account, the additional information provided on the direction and extent of changes can be useful for forecasting.

Aliette Cheptitski, Mathilde Poulhès

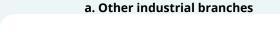
#### ▶ 7. Daily electricity consumption by companies connected directly to RTE



How to read it: on 15 November 2020, electricity consumption in the transport and storage branch was 39% less than the average consumption for an equivalent month and weekday.

Source: RTE, INSEE, INSEE calculations

### ► 8. Estimated and forecast monthly activity (in difference Q4 2019)



#### b. Manufacture of rubber and plastic products



How to read it: in the other industrial goods branch, calibrating activity on electricity consumption forecasts a difference in activity of about 3% in January. Note: the forecast for activity in a given month is produced with an econometric model estimated over the period that goes up to the previous month; despite the short temporal coverage, the model is relatively stable when new points are added to the estimate. The last simulated point is that for February 2021. Source: RTE, INSEE, INSEE calculations

#### French economic activity through press articles

Press articles contain a great deal of information on economic current affairs. Many economy-related subjects are covered, and articles are available quickly. Thanks to the emergence of new analysis techniques, media information can be summarised in the form of an indicator reflecting the tone of the articles regarding the economic situation. This "media sentiment indicator" can then help to forecast French economic activity in real time.

This type of indicator can be relevant because it produces early results, especially in times of crisis. During the economic and health crisis surrounding the Covid-19 epidemic, this indicator, along with other high-frequency indicators, has been able to show up slumps in activity ahead of the usual short-term indicators. In fact, the drastic collapse in the short-term indicators and economic activity from March 2020 was anticipated by the media sentiment indicator from the very first days of that month. Nevertheless, the indicator underestimated the speed of the economic rebound at the end of spring 2020, and did not really track the fluctuations in activity during the autumn. Its contribution was therefore mainly concentrated at the beginning of the first lockdown.

In 2017, in *Economic outlook* published by INSEE, *Bortoli et al.* looked at the potential contribution of online articles from the newspaper *Le Monde* to economic forecasting. This Focus report is an extension of this study, as it has added articles from *Les Échos*, a daily paper specialising in analysis of the economic context, and uses new machine learning techniques.

The time-depth of the two newspapers, *Le Monde* and *Les* Échos, produced a database of around 485,000 articles dealing with the French economy and covering the period 1990 to 2020. The selected articles were analysed then each one was assigned a score representing its general tone, depending on the presence of words that were "positive" or "negative", in the sense that the tone reflected either an optimistic or pessimistic opinion on the economic situation. The media sentiment indicator on a given date is then the average of the article scores for that date. This index is potentially available before some of the usual short-term quantitative indicators, and is very well correlated with the business climate and possibly able to anticipate occasions when there is a sharp decline in activity, especially in a period of crisis like the one we are currently experiencing. The media sentiment indicator provides a message about short-term economic movements. Its predictive abilities can be tested in calibrated forecasting models. In particular, in the third month of the quarter being studied, the index provides real information when combined with the business climate. Subsequently, when the traditional short-term indicators become available, this indicator has less of a contribution to make. This use of new data sources, text in this case, is part of the wider development of innovative methods using new high-frequency data to monitor the economic situation (cf. Pouget, 2019). Most of these data are especially useful for monitoring sudden, large-scale cyclical changes at an early stage.

Secondly, machine learning methods were developed to directly forecast GDP. This study complements that of *Bortoli et al.* [2017], notably by using a newspaper that specialises in economics, improving analysis methods and setting up a method to forecast GDP in real time. It was also inspired by academic studies such as the articles by *Shapiro et al.* [2020] and *Fraiberger* [2016], who describe methods for analysing media sentiment and using them in economic forecasting models.

### The index and how it was built, from text to sentiment

Building a short-term index based on reading newspaper articles assumes that there is a strong enough relationship between the contemporary or recent economic situation and the textual content of the articles, namely the terms from which they are constructed.

Analysis of the relative occurrence of words appearing in the press articles does indeed show that some words are intrinsically linked to the short-term situation, whether economic or of a different kind. If we take as an example the word "crisis", its relative occurrence in the articles in *Monde* and *Les Échos* increased very sharply at the end of 2007, during the financial crisis, then bounced back in late 2008, highlighting the importance of this subject in articles of the period (▶ figure 1). The word "campaign" is very closely linked to presidential campaigns: it increases substantially before each presidential election. These examples reflect the strong link that there seems to be between the textual content of newspaper articles and the short-term outlook, especially the economic context. Hence the opportunity to use the content of these texts as high-frequency indicators of economic fluctuations.

#### Construction of the article database

Before being used operationally, the raw text of the articles first had to be retrieved then reworked in order to extract the relevant information. The articles considered here were taken primarily from existing files: for Le Monde, it was the database that was already compiled by Bortoli et al. [2017] and for Les Échos, the archives were made available by the Les Échos group. These files included all the articles published between January 1990 for Le Monde (January 1994 for Les Échos) and 2018. After this date, articles from both daily papers were retrieved by web scraping up to 12 February 2021. In all, the database contained 2.6 million articles, including headlines and subtitles. By using web scraping, newly published articles could be added daily, thus giving the data the fundamental advantage of being up-to-date and high-frequency.

Only verbs, adverbs and nouns were retained, as they are well able to demonstrate the tone of an article. These words were then lemmatized, i.e. only the common root (the lemma) of the different forms of the words (plural, feminine, etc.) was retained.

### Choosing the right articles relating to the French economy

To ensure that they were relevant for analysis of the French economy, only articles including a majority of references to geographical areas in France were retained (as well as those that included no particular geographical reference).

Next, only articles relating to the economy were retained. This work of categorising the articles beforehand is described by *Thorsrud* [2019]. Newspapers often classify their articles under predefined headings, especially on their websites, with some relating to the economy: "economy" for *Le Monde*, "economic indicator", "industrial production", "central banks", "economy", "employment", "balance of trade", etc., for *Les Échos*. However, these classifications are not comprehensive and some articles do not fit into any heading. Whether or not they were "economic" was therefore determined according to the vocabulary they used, by applying machine reading models (>> Box 1).

#### ▶ 1. Changes in the relative occurrence of different words



How to read it: in January 2009, the relative occurrence of the word "crisis" was 0.24, i.e. ten times more than in January 2007 and 6 times more than the word "industry" on the same date.

Note: the different curves represent the relative occurrences of certain words. This relative occurrence, called the TF-IDF weighting (Term Frequency - Inverse Document Frequency, **Box 1**), gives an idea of the important words and their use over time. For example, before 2007, the word "subprime" was not used at all. However, the word "crisis" has always been used, but its relative occurrence soared in mid-2007.

Source: Les Echos and Le Monde. INSEE calculations

#### ► Structure of the final database of articles

	Total	Le Monde	Les Echos
Number of articles	2650177	1643818	1006359
Number of "economic" articles	487840	226914	260926
Proportion in the total	100	62	38
Proportion of "economic" articles in the total	18	46	54

How to read it: 62% of all the articles are from *Le Monde*. 18% of all the articles are classified as "economic". Finally, of the "economic" articles, 54% are from *Les Échos*.

Source: Les Echos and Le Monde. INSEE calculations

#### **▶** Box 1: Categorising the articles

Articles dealing with economics were categorised as such using machine learning models, which "learn" to select articles based on words occurring in the texts.

In practice, a logistic regression was used to determine whether or not an article dealt with economics, based on the relative occurrence of the 10,000 most frequently used words (TF-IDF weighting<sup>1</sup>). A penalty was introduced to take into account the large scale of the series. This penalty constrains the coefficients and brings out the important terms.

The model was estimated on a sample of articles previously labelled "economic" or "non-economic" (the learning sample). For Le Monde, a sample of 20% of articles with headings was used. Within this sample, about a quarter of the articles came under the heading "economic". For Les Échos, 90% of the articles had a heading, the sample consisted of 25% with a heading that was of interest for our categorisation, i.e. "economic" or "non-economic" (see below). In the end, for this second daily paper, 24% of articles from the total were used and the distribution was the same as for the sample from Le Monde. These two samples were then split with one part used for learning and the other for testing. By dividing them up in this way the model could be trained using the learning part, then its ability to generalise what it had learned to new data was tested via the test part. Labelling was assigned using the headings predefined by the newspapers (headings from the website). For Le Monde, the "economic" label was chosen by grouping together articles from the "economic" heading, like Bortoli et al. [2017]. For Les Échos, and taking into account the fact that several headings came under economic topics, the "economic" label was constructed from headings such as: "Economic indicator", "industrial production", "central banks", "economy", "employment", "balance of trade", etc. In all, about twenty headings were used. This learning sample then had to be completed with non-economic articles, in order to be able to assess the model. The aim was to increase the contrast between the two types of article (and therefore their vocabulary) in order to improve the models' predictive performance. For Le Monde, the non-economic topic consisted of the headings "culture", "sport", "politics", "society" and "planet". For Les Échos, the headings were "media", "telecom services", "insurance", "arts", "culture", "health", "sport", "management" and "education". A logistic regression was the method that provided the best performances compared to the other methods (Random Forest or Naive Bayes model) for both newspapers: precision was 94.2% for Le Monde<sup>2</sup> and 96.8% for Les Échos on their respective test sample.

Finally, after applying this model to the different categories of articles in the entire database, more than 24% of the articles from *Les Échos* were selected as economic articles, 23% of the articles without a heading and 26% of those with. For *Le Monde*, 17% of the articles were categorised by the model as being economic, the same proportion irrespective of whether there was an initial heading.

- 1 Frequency of words in the documents, divided by frequency of documents in which they occur. For example, a word that usually appears very seldom but appears many times in an article on a specific date will have a very strong relative occurrence, on this given date.
- 2 This means that the estimated model managed to correctly label 94.2% of the articles in the learning sample.

Lastly, articles can sometimes relate to official statistics publications, therefore running the risk of circularity of information: movements in an index constructed from these articles could only reflect statistical communications from the past and did not provide any new information. To avoid this type of problem, any articles including the name of a body that is part of the official statistical system (such as "INSEE", also "DARES" or "Banque de France") were removed from the analysis.

#### From a set of words to a positive or negative sentiment

To extract a positive or negative sentiment from the textual content of each article, a system was put in place to count words according to whether they were positive or negative, based on a dictionary of tone. Other authors have already used this technique, notably on text data from Twitter (*O'Connor et al.* [2010]). Forecasting economic activity using a penalised regression(> Box 1)

### ► Box 2-Short-term forecasting models to test the predictive properties of the media sentiment indicator

Different models can be tested for forecasting changes in GDP (as quarterly variations) using delays in GDP, the business climate indicator and the media sentiment indicator. In order to manage the different frequencies of the variables (quarterly for GDP and monthly for the business climate and media sentiment indicators), the approach selected here consisted in proposing a different calibration depending on the month in the quarter, so that in each month all available information could be exploited to the full. For each month in the quarter studied, the aim was to use the maximum information available by proposing different calibrations. Thus, the "month 1", "month 2" and "month 3" calibrations use all information available at the end of the first, second and third months of the quarter respectively. In the first month of the quarter, the ClimatT regressor corresponds to the variation between the value of the business climate indicator in the first month of the quarter compared to the average for the previous quarter. In "month 2" of the quarter, it corresponds to the variation between the average for the first two months compared to the value for the previous quarter. In "month 3", all the information is used. For the SentimentT variable, the procedure is the same, except that it is taken as a level and not as a difference, thus taking inspiration from *Bortoli et al.* (2018). The introduction of delays in the sentiment indicator was tested on the assumption that the indicator reflects contemporary growth and that in recent quarters. However, this method did not produce good results. Lastly, delay in GDP was also used as an explanatory variable.

Four models were estimated for the period 1993 to 2019 in order to compare the predictive performances of the business climate and media sentiment indicators. 2020 was not included in the estimate, as the usual forecasting methods using the different outlook surveys were not appropriate for this year. Model 1 includes only one explanatory variable: delayed GDP. This model is identical for all three months of the quarter. Model 2 combines business climate and delay in GDP. The media sentiment indicator replaces the business climate in Model 3. Lastly, Model 4 combines these three explanatory variables simultaneously. The estimation period runs from Q1 1993 to Q4 2019.

The different estimated calibrations were the following:

$$\Delta PIB_{\tau} = \alpha_{1} + \alpha_{2}\Delta PIB_{\tau-1} + \varepsilon_{\tau} (\text{Model 1})$$

$$\Delta PIB_{\tau} = \alpha_{1} + \alpha_{2}\Delta PIB_{\tau-1} + \alpha_{3}\Delta Climat_{\tau} + \varepsilon_{\tau} (\text{Model 2})$$

$$\Delta PIB_{\tau} = \alpha_{1} + \alpha_{2}\Delta PIB_{\tau-1} + \alpha_{3}\Delta Sentiment_{\tau} + \varepsilon_{\tau} (\text{Model 3})$$

$$\Delta PIB_{\tau} = \alpha_{1} + \alpha_{2}\Delta PIB_{\tau-1} + \alpha_{3}\Delta Climat_{\tau} + \alpha_{4}Sentiment_{\tau} + \varepsilon_{\tau} (\text{Model 4})$$

**Table 1. Adjusted R2 of calibrations** 

	Month 1	Month 2	Month 3
Model 1	0.145	0.145	0.145
Model 2	0.276	0.275	0.138
Model 3	0.259	0.231	0.146
Model 4	0.286	0.276	0.140

For the first and third months of the quarter, the media sentiment indicator seems to be a better predictor that the business climate. In addition, when the media sentiment indicator is combined with the business climate, the models' adjusted R<sup>2</sup> is greater than that for the models containing only the business climate. In the third month of the quarter, the contribution of the explanatory variable (business climate and/or sentiment indicator) is marginal. •

has also been tested directly via the relative occurrences of words. Forecasting using neural networks is another approach that has been explored. However, these methods either use concepts that are more uncertain or have not provided satisfactory results ( Annex).

The dictionary of tone – consisting of words (lemmas) associated to a "positive" or "negative" tone - was developed, based on the one used by Bortoli et al. [2017]. More terms were then added using textual analysis techniques. The decision to use this dictionary was based on the similarity between the vocabulary it contained and the issue we were interested in, i.e. the economic situation. This similarity is more likely to produce good results, as demonstrated by Loughran and McDonald [2011]. This data enrichment was then carried out so that the terms added were as close to the issue as possible, via their similarity to the dictionary produced by Bortoli et al. [2018]. It was the Word2Vec model (developed by Mikolov et al. [2013]) that was chosen and trained to select, year after year, words that were closest to those in the original dictionary and add them automatically: for example, for 2020, the method added words such as "14-day quarantine" or "contagious" to the words with a negative tone, and "digitisation" or "jump" to words with a positive tone. This rolling enrichment over the years was chosen so that the dictionary could detect the appearance of new terms that were important. Thus the final dictionary was made up of all the extra words added for each year and the words from the original dictionary by Bortoli et al. [2017].

Finally, for each article, a score was attributed by considering the proportion of positive words minus the proportion of negative words. The media sentiment

indicator was then the average of the scores of articles within the period of interest. The indicator was then centred around an average of 100, reduced to a standard deviation of 10 then smoothed over 3 months.

### The media sentiment indicator helps to reassess the economic outlook in H1 2020

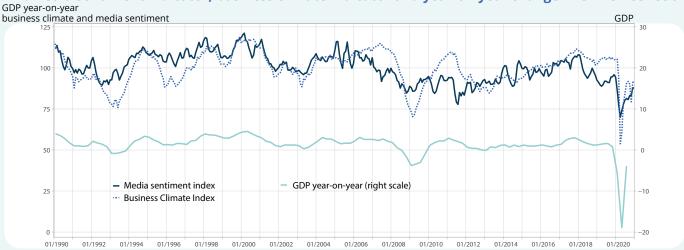
From the frequency of the data and by automating the process, the media sentiment indicator gives an idea of the scale of the fluctuations in GDP before the more traditional indicators become available.

## The media sentiment indicator can anticipate strong fluctuations in economic activity ahead of time Overall, the media contiment indicator successfully

Overall, the media sentiment indicator successfully reflects major changes in GDP from January 1990 (> figure 2).

For 2020, the profile of the media sentiment indicator seems to be in line with the monthly estimates of activity given in *Economic Outlook* (▶ figure 3). In particular, the first lockdown resulted in a sharp decline in the media sentiment indicator, giving us an idea at a fairly early stage of the scale of this collapse in activity: between February and April 2020, the media sentiment indicator fell by 27%, while activity declined by 31% in April, compared to its pre-crisis level (Q4 2019). Meanwhile, the business climate indicator (shown in blue in figure 3) seems to be distinctly more informative than the media sentiment indicator, since its evolution is very much closer to that of economic activity. But the business climate indicator for a given month becomes available at the end of the month, a far cry from the high frequency of the media sentiment indicator.

#### ▶ 2. Media sentiment indicator, business climate indicator and year-on-year change in GDP since 1990



How to read it: in May 2020, the media sentiment indicator stood at 74 and the business climate at 60.5, whereas GDP tumbled by 18.9% year-on-year in Q2 2020. Note: the media sentiment indicator was centred around 100 and reduced to a standard deviation of 10 then smoothed over 3 months. Between the beginning of 2008 and the beginning of 2009, the media sentiment indicator fell by more than 10 points compared to its long-term average of 100, i.e. a decline of more than one standard deviation. Thus the business climate indicator was more volatile over the same period, falling by almost 40 points, or 4 times its standard deviation.

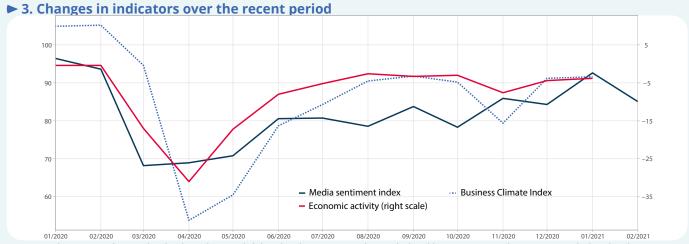
Source: Les Echos and Le Monde. INSEE calculations

The year 2020 was notable for the worldwide health crisis, but also for the more frequent occurrence of certain words not usually found in articles in the major daily newspapers and which referred to this crisis. Thus, an indicator based on the textual content of press articles is particularly suitable in this type of context. Notably, a daily indicator can be calculated ( figure 4). This is standardised independently of the monthly indicator. The level and scale of its fluctuations are not comparable but it nevertheless remains informative. For example, from early March 2020, the media sentiment indicator started to decline significantly, moving more than 10 points away from its long-term average (100). It then reached a low point, where it remained throughout the first lockdown, then rose again from the third week of May onwards. In June, it returned to levels that were more in line with its long-term average, although down by around ten points. Thus, in the very unusual context at the start of the health crisis, when the usual short-term indicators were either not yet available or not very effective, the media sentiment indicator produced some relevant information both before and during the first lockdown.

As the first lockdown was lifted, the indicator seems to have provided a less accurate analysis of the situation. During Q3 2020, GDP bounced back by +18%, whereas the indicator remained fairly low, at around 80 ( figure 3), despite a 10-point rise between May and July. It seems to have underestimated the speed of the rebound in economic activity at the end of spring: it is probable that during this period the indicator reflected

not only the change in activity but also its level, which remained below its pre-crisis figure.

From mid-September, the media sentiment indicator started to decline once again, but it was during the second week of October that it really nosedived, the period when information about the curfew and a possible lockdown began to circulate, especially in the papers. Curfews were indeed announced from 14 October 2020, with the second national lockdown announced on October 28 to come into force on the 30th. After increasing sharply around 20 October, the media sentiment indicator fell again from 24 October and remained at this level until the date the lockdown was announced (dotted vertical line on graph 4) then increased gradually towards a level nearer to 100 throughout the second lockdown, but with a dip around 15 December, perhaps linked to the introduction of measures associated with the end of lockdown (in particular the 8pm curfew). The latest data available for January indicate an upward trend in the indicator, although with two short-lived downturns. The first, on 29 December, seems to be linked to the announcement of the introduction of a curfew at 6pm instead of 8pm in 15 departments from 2 January. The second probably corresponds to the extending of the 6pm curfew to the entire country, announced on 14 January to come into force on 16 January. These two announcements of health restrictions being strengthened seem to have been detected by the media sentiment indicator



How to read it: same as for Graph 2 for the indicators (left-hand scale). GDP in April 2020 declined by 31% compared to Q4 2019 (right-hand scale). Source: Les Echos and Le Monde. INSEE calculations

However, the indicator was less successful in the second half of the year than in the first, notably reflecting less well the deterioration in economic activity during the second lockdown. The indicator seems to be better able to detect sudden changes (first half of the year) than smaller changes.

The indicator also provides, especially in periods of crisis, a quick and informative first message about the economic situation, without having to wait until the end of the month and the publication of the usual short-term indicators, including those resulting from the outlook surveys of businesses and households. These surveys are nevertheless the most robust source for documenting the economic situation in the longer term. The role of the media sentiment indicator is only to provide additional information through its ability to deliver a message quickly.

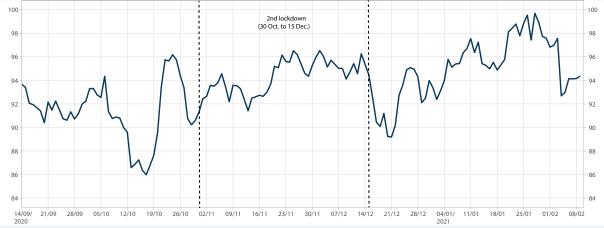
Comparison with the business climate indicator cannot be our only validation criterion, however. We are not trying to forecast the business climate, which we already have, but rather economic activity and hence its key aggregate, GDP. The question then is whether the media sentiment indicator provides additional information regarding the business climate.

#### Does the media sentiment indicator give an idea of the scale of GDP fluctuations?

The media sentiment indicator can be incorporated into models forecasting French economic activity. By way of illustration, and like Bortoli et al. (2018), four calibrated models of GDP quarterly growth are presented: two very

#### ▶ 4. Daily media sentiment indicator, zoom on the two periods of lockdown





How to read it: average daily media sentiment indicator, centred around 100 and reduced to a standard deviation of 10. On 17 March 2020, the start of the fist lockdown, the value of the (daily) media sentiment indicator was below 86, i.e. a deviation of more than 14% from its average level (100). The indicator remained around this value for the duration of the lockdown Source: Les Echos and Le Monde. INSEE calculations

11 March 2021 49

simple models, the first with previous quarterly growth as the sole determinant of contemporary quarterly growth. The second includes the quarterly difference in business climate as an additional determinant. Two models identical to the first two include in addition the contemporary quarterly average of media sentiment (

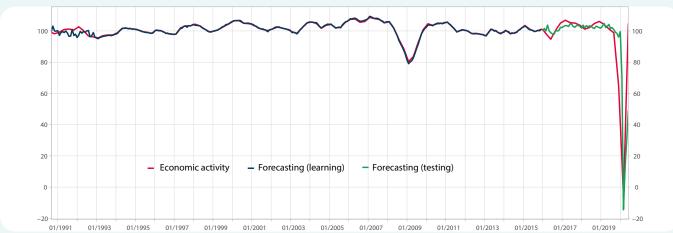
Box 2). As more information becomes available to the economic analyst throughout the quarter, the values of the determinants differ according to whether one is in month 1, 2 or 3. The media sentiment indicator helps

improve the fit of these forecasting models, especially in months 1 and 2 of the quarter (**tableau**), although it is significant for all three months.

The improvement remains small, however. The media sentiment indicator cannot therefore replace the composite indicators generated by the economic outlook surveys, but it can complement them, especially at the beginning of the month or quarter being studied, when no other quantitative indicator is available.

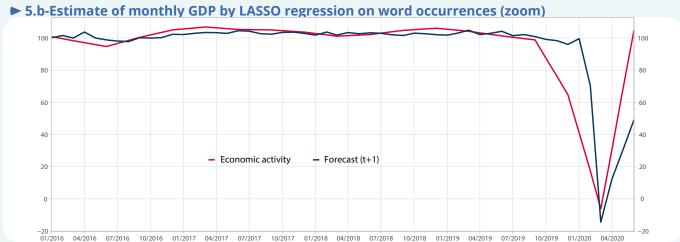
Guillaume Arion, Stéphanie Himpens, Théo Roudil-Valentin

#### ► 5.a-Estimate of monthly GDP by LASSO regression on word occurrences



How to read it: the monthly economic activity method used here is carried out generically by interpolation between two successively observed quarterly points. While activity in Q2 is lower than in Q1, using a monthly system will result in a downturn from the third month of Q1. This was a fictitious downturn in the case of December 2019, and January and February 2020 because activity did not really nosedive until March 2020. Additional work could be carried out to refine the monthly profile of these estimates of activity, in particular to take account of the sudden nature of some crises (in 2020, but also to a lesser extent in 2008-2009).

Source: Les Echos and Le Monde. INSEE calculations



Source: Les Echos and Le Monde. INSEE calculations

#### **Annexe - Alternative forecasting methods**

Alternative methods to calibrations incorporating the media sentiment indicator were used as GDP forecasting tools. For a given list of words (lemmas), their series of monthly occurrences were used as explanatory variables in penalised regressions of the variation in a monthly GDP (estimated by linear interpolation of quarterly GDP). For example, the word "subprime" had an occurrence of 0 until 2007, then it increased sharply during the 2008 financial crisis and subsequently it gradually declined ( figure 1), thus to some extent tracking the evolution of the 2008 financial crisis. 10,000 lemmas and associated variables were selected as explanatory variables in the penalised regressions ( Sox 1). The use of time series of words related to economic activity can be found in other studies, especially with Google Trends data (see *Woloszko* [2020]). From the various possible methods for selecting explanatory variables, the LASSO-type penalised regression was preferred, as it automatically selects the relevant variables. The learning period for the LASSO regression goes to December 2015. The out-of-sample forecast starts in 2016 and is located over an increasing time window: each additional month of forecasting results in a re-estimate across the entire sample period, incorporating the newly available monthly information. The resulting forecast is therefore produced in pseudo real-time.

By using the variations in the relative occurrence of the words over the months, the penalised regression is able to produce a very good forecast of monthly GDP over the learning period, i.e. between 1990 and 2015 ( **figure 5a**). The model is estimated for this period and therefore adjusts the data perfectly, with an R<sup>2</sup> of 0.96. Across the whole of the test sample, with new data, the R<sup>2</sup> was 0.58, and this was using only the series of relative occurrences of the words.

Across the out-of-sample part, i.e. from 2016, the forecast at t+1 (red line) anticipates the movements in economic activity and their scale fairly well, although it is more volatile. More precisely, during the very sharp decline in April, the model successfully provided a very accurate forecast. By automatically selecting informative terms like "crisis", "quarantine" and "epidemic", it successfully forecast this collapse, even though no similar strong decline had been observed from the beginning of the sample.

Thus, like the media sentiment indicator that was constructed by counting words, the forecast using relative occurrences directly is particularly useful in times of crisis for giving a first idea of the scale of the collapse in economic activity.

Another model was tried using neural networks, but it did not give good results. The insufficient frequency of data (monthly) prevented the network from generalising correctly once it was in forecast phase. •

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### Foreign trade

In Q4 2020, the upturn in world trade continued (+3.5% after +11.6%) and 2020 ended with a contraction of -6.7% as an annual average, the first year to show a decline since 2009. Imports by the advanced countries contributed around +2.9 points to the increase in the last quarter of 2020, while the emerging countries contributed +0.6 points. World demand for French products followed a very similar pattern to world trade: +3.3% in Q4 2020 after +13.8% in Q3, and a -7.2% decrease in 2020 overall.

In 2020, just like the advanced economies, French foreign trade was severely affected by the consequences of the health crisis. Exports and imports plummeted by –16.3% and –11.5% respectively, despite the continuing rebound in Q4.

At the start of 2021, the international context was particularly uncertain, with restrictive health measures being strengthened in December-January by a number of our European partners and the Brexit agreement entering into force. Nevertheless, looking at the first available indicators, we are counting on continued growth in trade – albeit at a slower pace.

### World trade looks set to continue its rebound into Q1 2021

At the end of 2020, world trade continued the rebound that began in Q3 (+3.5% after +11.6%, ▶ figure 1), and in Q4 2020 it was back at a level (-1%) close to that of Q4 2019. Imports by advanced economies were recently the driver behind the increase in international trade, rising by +4.3% in Q4 after +13.6% in the previous quarter. Imports by emerging economies also saw a slight increase in the last quarter of 2020 (+1.9% after +7.6%). This difference in dynamics between the advanced and emerging countries can be explained by the fact that the former suffered

more from the effects of the health crisis in H1 2020, and so experienced a more severe decline in their imports, which was followed by a stronger rebound.

World trade is expected to continue to grow in Q1 2021 (+1%) driven by imports by the emerging economies (+2%), while the recovery in imports in the advanced economies is likely to struggle a little (+1%).

In Q4 2020, world demand for French products continued to pick up (+3.3% after +13.8%, ► figure 2 2). In fact, France's main European partners continued to experience the rebound that had begun in Q3 2020. In Q1 2021, world demand for French products looks set to grow slightly (► figure 1).

#### French exports are expected to slow in Q1 2021

In Q4 2020, French exports continued their recovery, but necessarily on a smaller scale than in the previous quarter (+5.8% after +22.1%, ► figure 3). This pattern was the same for exports of services (+5.1% after +1.0%) and manufactured goods (+8.1% after +29.2%). The latter were boosted by exports of transport equipment (+17.7%), including automobile (+15.4 %) and aeronautics deliveries (+19.7 %), despite continuing difficulties in this sector (► Focus: Difficulties in the aeronautics sector prevent French exports from taking off). The situation surrounding the outcome of the Brexit negotiations may also have contributed to the buoyancy of exports of manufactured goods in Q4 2020 (► Focus: Brexit caused some changes in inventories on the part of UK businesses in late 2020, then a probable contraction in trade at the start of 2021). Exports linked to tourism, which are still severely affected by health restrictions, slipped back again with the second lockdown (-22% after

#### ► 1.World trade and word demand for French

quarterly variations (T/T-1), in %

		,					
		20	20		2021	2020	2021
	Q1	Q2	Q3	Q4	Q1	2020	(acquis)
World tradel	-3.2	-11.7	11.6	3.5	1	-6.7	6
Imports from advanced economies	-3.2	-13.3	13.6	3.8	1	-7.2	7
Imports from emerging economies	-3.1	-8.5	7.6	1.2	2	-5.8	5
Global demand addressed to France	-3.0	-13.8	13.8	3.3	0	-7.2	6
Forecast							

How to read it: in the first quarter of 2021, world trade would increase by 1.1%. Over the year 2020, it fell by –6.7% Source: DG, Trésor, INSEE

+111% in the previous quarter). For 2020 as a whole, French exports tumbled by 16.3%.

In the business tendency surveys in industry, in January and February 2021, the balance of opinion on orders from abroad continued the improvement that had started in Q4 2020. PMI Markit data on new export orders also suggest a strong increase for February. Meanwhile, customs data for January show a rise in exports of French goods by value, despite the slump in exports to the United Kingdom (–19% compared to the average level for the previous quarter).

In Q1 2021 and taking these elements into consideration, growth in French exports is likely to be slow (+1%, **figure 3**). They will probably stand at about 91% of the Q4 2019 level.

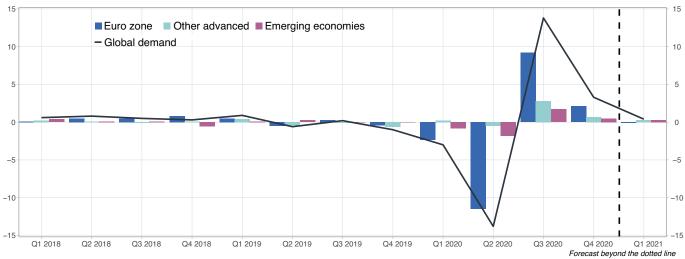
### In Q1 2021, French imports are expected to continue their weak growth

French imports continued to grow in Q4, despite the decline in domestic demand, but at a much less steady pace than in the previous quarter (+1.8% after +16.4%, ► figure 3). Imports of services increased (+5.3% in Q4 2020) after four consecutive quarters of decline, mainly related to imports of transport services. Lastly, energy imports, like imports of manufactured goods, increased moderately (+1.8% and +1.0% respectively). In 2020, French imports declined by −11.5% compared to 2019.

At the start of 2021, more of the companies questioned in the business tendency surveys in industry indicated a lower level of inventory than normal, while the

#### ▶ 2. Foreign demand for France goods and contribution of main trading partners

quarterly variations in %, contributions in points



How to read it: in Q4 2020, world demand for French products increased by +3.3%. Source: DG Trésor, INSEE

#### **►** 3. French foreign trade

variation in %, volumes of previous year's chained prices, contributions in points

		qu	arter variation	S		annual variations		
		202	:0		2021	2020	2021	
	Q1	Q2	Q3	Q4	Q1	2020	(ovhg)	
Exports								
Total	-6.9	-25.0	22.1	5.8	1.2	-16.3	6.6	
Manufactured products (69%)	-6.4	-28.6	29.2	8.1	1.0	-15.8	9.7	
Imports								
Total	-5.8	-17.1	16.4	1.8	0.7	-11.5	4.0	
Manufactured products (40%)	-5.2	-19.0	23.1	1.0	1.0	-9.7	5.6	
Contribution of foreign trade to GDP	-0.3	-2.2	0.8	1.0	0.1	-1.5	0.8	

Prévision

How to read it: in Q1 2021, total exports are expected to increase by +1%. Across the whole of 2020, they declined by –16.3%. Source: Insee

balance of opinion on overall order books increased. French customs data confirm this message and suggest a slight increase in French imports of goods in January (+2% in overhang in Q1 2021, data in value). However, they are suffering as a result of Brexit, since French imports from the United Kingdom fell dramatically in January by 20%, in value, compared to the average level for the previous quarter.

In Q1 2021, French imports are expected to increase slightly (+1%) in line with the growth in imports of services and manufactured products.

They would then be at about 93% of their Q4 2019 level.

### Foreign trade is unlikely to contribute much to GDP growth in Q1 2021

In Q4 2020, foreign trade again made a positive contribution to growth (+1.0 point, after +0.8 points, igure 3) despite the resurgence of the pandemic. Over 2020 as a whole, the contribution of foreign trade to the contraction of GDP was -1.4 points. Exports therefore fell more than imports, and also more than world demand for French products. France's specialisation in aeronautics has had a considerable effect on this result (Focus).

In Q1 2021, foreign trade is expected to make a zero contribution to GDP growth, limited in particular by the decline in British imports after their one-off increase before the Brexit deadline.

## Difficulties in the aeronautics sector prevent French exports from taking off again

While French activity has partly recovered from the shock of Q2 2020, exports are still lagging very far behind. In particular, December's exports of goods remained well below their pre-crisis level, while in Germany, Spain and Italy they returned to or even exceeded this level. The reason for this difference lies in the specific composition of French exports of goods, as the weight of the aeronautics sector is greater, relatively speaking, than in neighbouring countries. In fact, apart from Italy, any change in exports of goods in 2020, since their dramatic fall in April, seems to be largely dictated by exports of transport equipment, mainly automobiles for Germany and Spain and aeronautics for France. While automobile exports were able to return almost to their pre-crisis level as early as the summer or autumn, depending on the country, this has not been the case for aeronautics exports, which are still very much in decline, and have been since the start of the health crisis. The prospects expressed by this sector in the business tendency surveys are no more optimistic at the start of 2021.

### At the end of 2020, French exports were still in decline compared to those of its neighbours

After falling dramatically in Q2 2020, foreign trade in the European countries has gradually returned to something approaching its pre-crisis level, in the context of a global upswing in world trade. However, among the four main Eurozone countries, in Q4 2020, French and Spanish exports were still in decline compared to those of Germany and Italy. Notably, while French activity had made a similar recovery to that of Germany and Italy, compared to the pre-crisis level, French exports remained weak. This finding is all the more striking when we look at exports of goods only: France stands out as its exports of goods are still well below those of Q4 2019 (–7%), whereas in Italy and Germany, exports were down by 2% and 3% respectively compared to their pre-crisis level (▶ figure 1).

France clearly stands out for its relatively slow recovery in exports of goods (**figure 2**). In April, at the height of the crisis, exports from all European countries collapsed

little better than the rest. Nevertheless, after a decline on a similar scale to that in Spanish and Italian exports, French exports of goods have systematically lagged behind since May 2020.

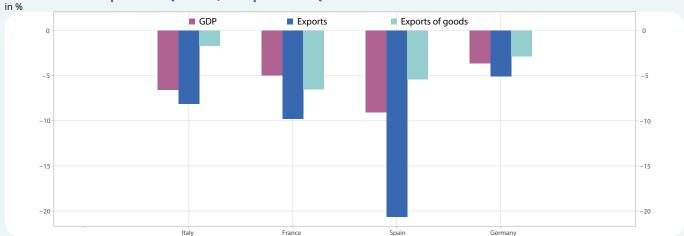
simultaneously, although Germany was able to resist a

## French exports are characterised by the significant weight of the aeronautics sector, particularly badly hit by the crisis

Transport equipment represents about 20% of exports of goods from Germany, Spain and France, and almost 10% for Italy ( figure 3). Within transport equipment, France stands out with a greater proportion of exports of "other transport equipment", which in 2019 represented 61% of exports in this branch, against 39% of exports of automobiles. In Germany and Spain, on the other hand, exports of transport equipment consist primarily of exports of automobiles, and this is even more so for Italy. And among these French exports of other transport equipment, 91% consist of exports of aeronautical and space equipment.

1 National quarterly accounts, INSEE, in volume

#### ▶ 1. GDP and exports in Q4 2020, compared to Q4 2019



Source: European System of Accounts, Eurostat

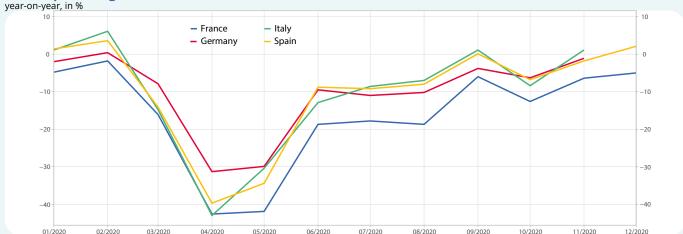
When broken down according to product, the collapse in exports of goods in April and May 2020 appears to be driven significantly by the contribution of transport equipment (automotive, aeronautical, naval, rail, etc.). This is particularly the case for Germany, Spain and France, where exports of transport equipment accounted for more than a third of the drop in exports of goods in April and May ( figure 4). It was a little less the case for Italy, where manufactured articles (finished manufactured products) and capital goods contribute more but where transport equipment nevertheless accounted for about one-sixth of the decline in April and May.

This significant contribution made by transport equipment to the decline in exports in the spring is the result of both the sharp drop in activity experienced by this sector at the height of the crisis and its weighting in exports of goods.

From June 2020, with the resumption of activity, exports of transport equipment then bounced back and in Germany and Spain they dictated the return of exports of goods to a level approaching their pre-crisis level. In Germany, automobile equipment continued to affect exports of goods, albeit moderately, until October, in line with the gradual recovery of the German automobile industry. In Spain, automobile exports returned to their pre-crisis level from July, even exceeding it in the months that followed.

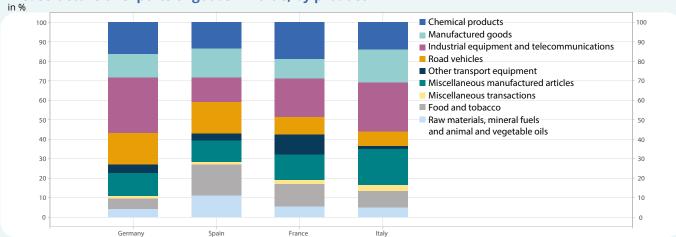
Meanwhile, France experienced a similar trend in its automobile exports, which returned to their precrisis level in September and then exceeded them. However, unlike Germany and Spain, France's exports of goods were still hampered by the difficulties in the aeronautics sector. In December 2020, exports of other transport equipment (including aeronautical)

#### ► 2. Exports of goods in value



How to read it: in August 2020, French exports of goods were 19% below their August 2019 level in value. Source: International trade in goods, Eurostat

#### ▶ 3. Structure of exports of goods in value, by product



NB: the classification used for international trade in goods is the CTCI. The transport equipment and machinery category (CTCI section 7) was divided into three: road vehicles (CTCI-78), other transport equipment (CTCI-79) and industrial and telecommunications equipment (CTCI 70 to 77)

Source: Eurostat

were virtually the only ones to contribute to the gap between the level of exports of goods measured before the crisis (end of 2019). Excluding transport equipment, French exports of goods returned to their pre-crisis level (dotted line) in December 2020.

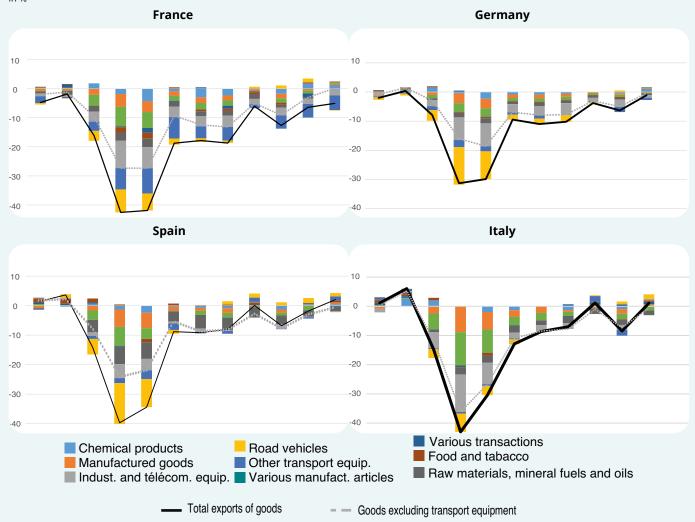
While activity by airline companies is a long way from being back to normal, within the industry the aeronautics sector remains particularly badly affected by the current crisis. The industrial production index for the aeronautical and space construction sector in France was still considerably weakened in December 2020 (82 in December 2020 against 107 in February and 59 in May, its lowest level<sup>2</sup>). In Germany, Spain and Italy, the IPI for the aeronautics sector was also well below its level for early 2020. However, automobile production has recovered, or almost, in all these countries.

2 Source: Eurostat, industrial production indices.

## At the start of 2021, it is likely that the "other transport equipment" sector will continue to weaken French exports

At the start of 2021, the business tendency surveys show that industrialists in the transport equipment sector remain particularly depressed about their foreign order books, compared to the rest of French industrial manufacturers ( figure 5). While the corresponding balance of opinion has climbed from August, after the really low levels observed in April to July, it has not made any further improvements since then. However, in the manufacture of capital goods and "other industries" sectors (metallurgy, chemicals, textiles, plastics, etc.), this balance of opinion has returned to its pre-crisis level since December or January – and in addition, exports of

### ► 4. Exports as year-on-year change by country in 2020 in %



How to read it: in April 2020, Spanish exports of goods were 40% lower than in April 2019. Exports of road vehicles accounted for 14% of this decline. Source: International trade in goods, Eurostat

these goods recovered significantly in H2 2020. In the other transport equipment sector, made up largely of aeronautics, the opinion of French industrialists concerning their foreign order books is still very pessimistic, much more so than the average

in the European Union ( figure 6). The prospects for aeronautics do not suggest a catch-up by French exports in the short-term. In contrast, industrialists in the French automobile sector seem as optimistic as their neighbours about their foreign order books.

Vianney Ducatel, Hugues Genin

#### ▶ 5. Balance of opinion of industrialists on the level of their foreign order books



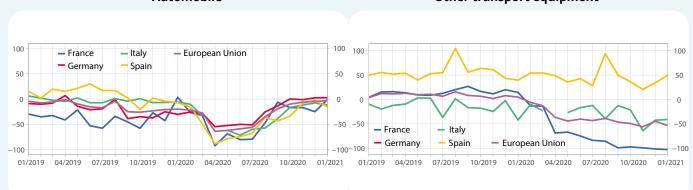
Source: business survey in industry, INSEE

### ► 6. Comparison of European balances of opinion on foreign order books in automobiles and other transport equipment

in %, données Labor Force Survey

#### **Automobile**

#### Other transport equipment



Note: data for Germany are not available for the "other transport equipment" sector (30). Source: business survey in industry, DG-Ecfin

### **Employment and unemployment**

In Q4 2020, payroll employment fell once again in the context of the continuing health crisis and the second lockdown, but this was a much more modest decline than during the first lockdown: -21,000 jobs after -689,000 in H1 and a rebound of +426,000 in Q3. Between December 2019 and December 2020, 284,000 payroll jobs were lost. This was the first annual decline since 2012, with the level of employment at the end of 2020 comparable to that of mid-2018. In Q1 2021, while health restrictions continue to affect activity in some sectors, such as services to households and accommodationcatering, payroll employment is expected to continue to fall (-77,000 jobs) and total employment (payroll employment and self-employment) is expected to decline by 91,000.

After a year disrupted by the effects of the lockdowns on activity behaviour, resulting notably in Q2 in an "artificial" one-off drop in unemployment, the unemployment rate looks set to increase again in Q1 2021, to 8.5% after 8.0% in Q4 2020.

#### 284,000 net payroll job destructions in 2020: a year scarred by two lockdowns with differing effects

Between the end of December 2019 and the end of June 2020, payroll employment in France (excluding Mayotte) nosedived by 689,000, i.e. -2.7% compared to the end of 2019. The economic shock associated with the first lockdown resulted in payroll job losses in all sectors ( figures 1 and 4), although on a much smaller scale than the drop in activity itself, as so many were able to benefit from the short-time working scheme.

In terms of numbers, most job destructions were concentrated in the commercial tertiary sector (including temporary workers) in H1 (-430,000 between the end of 2019 and mid-2020). The decline was particularly severe in accommodation-catering (-141,000 jobs across the half-year) and services to households1 (-80,000 jobs), which were directly affected by the restrictive health measures. In industry and construction, adjusting jobs to match activity was largely driven by a reduction in the use of temporary workers ( figure 3) and therefore happened particularly fast. In construction for example this rate is structurally high, at around 10%: it dropped to 4.2% from March and climbed back to 7.5% in June 2020. In the tertiary sector, employment adapted in the short term basically by not renewing fixed-term contracts and cancelling or delaying hiring; its decline was therefore a little slower.

In Q3 2020, the easing of restrictive measures resulted in a vigorous upturn in payroll employment (+426,000) although this did not do enough to offset the job losses in H1. With the second lockdown, payroll employment fell again in Q4 2020 (-21,000 jobs). Nevertheless, the immediate effects of the second lockdown on activity and employment were much less than in the first lockdown and more moderate than forecast in the Economic Outlook of 15 December (> Box). Compared to the first lockdown, the drop in payroll employment was concentrated much more in the sectors directly concerned by the restrictive health measures, and tended to spare other sectors. In particular, the adjustment of payroll employment to activity by using temporary workers was much tougher in April 2020 (first lockdown), when the use of temporary workers reached its low point of the year (1.5%), than in November 2020 (second lockdown) when the rate was 2.8%, fairly close to the value at the end of

### ▶ 1.Deviation in payroll employment compared to the end of 2019 difference compared to level at the end of 2019 in %, SA data

	End of March	End of June	End of September	End of December
Industry	-3,6	-3,7	-2,4	-2,4
Construction	-6,2	-2,6	0,4	1,7
Commercial tertiary sector	-2,0	-3,5	-1,8	-2,5
Tertiary non-trading	-0,2	-1,0	0,5	0,9
Together	-1,9	-2,7	-1,0	-1,1

How to read it: at the end of December payroll employment was 1.1% down on its level at the end of 2019. Note: in this table, temporary workers are counted in the sector where they carry out their assignment

Scope: France (excluding Mayotte)

Source: INSEE

<sup>1</sup> The "services to households" sector includes, among others, jobs in the arts and entertainment.

December 2019 (3.0%) (► figure 2). Similarly, short-time working was used much less in November than in April 2020 (► figure 3), and it was concentrated more in the commercial tertiary sector.

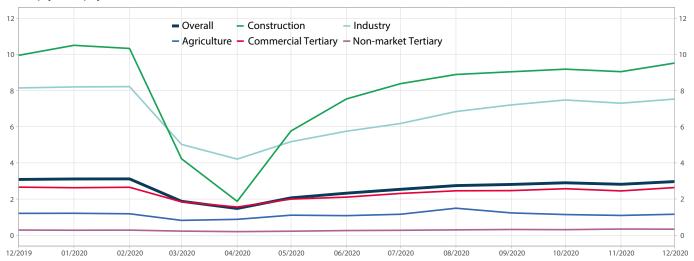
The relatively good resilience shown by employment throughout the year is due mainly to the huge numbers using the short-time working scheme, with people on short-term working or temporary layoffs being considered as employed, according to the ILO definition. However, the effective employment rate for 15-64 year-olds (share of people in work in this age bracket and

declaring that they have effectively worked for at least one hour during the reference week) puts this resilience into context: in Q4 2020 it fell by 1.7 points year-on-year, to 55.1%; previously it had declined by 9.8 points in Q2, during the first lockdown, compared to the precrisis situation.

Finally, between December 2019 and December 2020, 284,000 payroll jobs were destroyed. This was the first annual decline since 2012. The level of employment at the end of 2020 was comparable to that in mid-2018. This decline was basically due to job losses in

### ▶ 2. Rate of recourse to temporary employment by sector of activity between December 2019 and December 2020

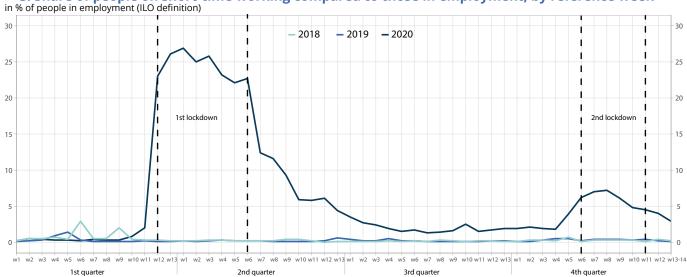
in % of payroll employment, SA data



How to read it: temporary workers represented 9.5% of payroll employment in the construction sector in December 2020. Scope: France (excluding Mayotte)

Source: Dares for temporary work by sector, INSEE calculations

#### ▶ 3. Share of people on short-time working compared to those in employment, by reference week



Scope: France (excluding Mayotte), people living in ordinary housing, in employment (ILO definition) Source: INSEE, Labour Force Survey

the commercial tertiary sector (-299,000 jobs) which includes those sectors most affected in the long term by the crisis, such as accommodation-catering and services to households. In industry, 84,000 payroll jobs (including temporary workers) were destroyed over the year. Conversely, payroll employment (including temporary workers) exceeded its level at the end of 2019 in construction (+27,000) and tertiary non-trading (+72,000) (► tables 1 and 4).

#### Payroll job losses are expected to continue into early 2021 due to the effect of the economic crisis and continuing restrictions on activity

In Q1 2021, payroll employment will probably fall further (-77,000). Although economic activity may pick up slightly in some sectors, the long-term nature of the crisis is likely to result in companies gradually giving up holding on to their workforce, mainly by reducing their use of the short-time working scheme. Job losses are expected to be mainly in accommodation-catering (-39,000) and services to households (-52,000) (► figure 4).

Self-employment is expected to decline at the same pace as payroll employment, which would bring net job destructions (employees and self-employed) to a total of -91,000 by the end of March 2021 compared to the end of December 2020 (after -323,000 between the end of December 2019 and the end of December 2020).

#### The unemployment rate looks set to rebound, to 8.5% in early 2021

The unemployment rate fell by 1.1 points in Q4, to 8.0% of the active population, after a rebound of 2.0 points in the previous quarter ( figure 5). This decline is primarily (two thirds) due to the good performance of employment which, on average, increased during Q4. However, the decline is accentuated (one third) by people removing themselves from the labour market, linked to the restrictive health measures during the second lockdown. During this period, those without work no longer searched actively for a job (perhaps because their specific sector of activity had stopped work), which meant that they were no longer classified as unemployed according to the ILO definition. This withdrawal of activity was significant, but nevertheless on a much smaller scale than that observed during the first lockdown.

At the beginning of 2021, activity behaviour is likely to return partly to normal (+196,000 workers aged 15 and

### ► 4. Change in payroll employment in thousand, SA, at the end of the period

			2020			Prévision 2021				
		Change over 3 months				Change ove 3 months	ange between March 2021			
	Q1	Q2	Q3	Q4	Q4	Q1	thousand	%		
Agriculture	-4	-5	0	6	-3	2	-1	-0,2		
Industry	-124	-2	44	-7	-89	12	-77	-2,2		
Construction	-98	56	46	11	15	-8	7	0,4		
Commercial tertiary sector	-245	-187	193	-81	-320	-93	-413	-3,4		
Trade	-44	-17	27	-15	-48	3	-45	-1,4		
Transports	-50	1	23	21	-4	2	-2	-0,1		
Accomodation and catering	-61	-84	57	-50	-138	-39	-178	-15,3		
Corporate services	-38	-32	30	9	-31	3	-27	-1,0		
Household services (includint culture and recreation)	-40	-40	44	-37	-73	-52	-125	-9,4		
Tertiary non-trading	-21	-66	118	6	37	10	47	0,6		
Ensemble	-493	-204	401	-64	-360	-77	-437	-1,7		

Note: in this table, temporary workers are counted in the sector where they carry out their assignment.

Scope: France (excluding Mayotte)

Source: INSEE

over, after −176,000 in Q4), (► figure 6), as at the end of the second lockdown some people were able to actively resume their job search. At the same time, employment is expected to remain more or less stable as a quarterly average (+16,000). As a result, the unemployment rate is likely to rebound and settle at 8.5% on average, or

0.7 points higher than one year previously and 0.4 points above its pre-crisis level at the end of 2019. Compared to the upward trend in the pre-crisis labour force participation rate, at the end of Q1 the potential workforce that has withdrawn from the labour market is likely to be around 200,000 people.

### ► 5. Unemployment rate (ILO definition) quaterly average as % of labour force, SA data



Scope: France (excluding Mayotte), household population, persons aged 15 or over Source: INSEE, Labour Force Survey

#### ▶ 6. Change in employment, unemployment and the active population

variation in quaterly average in thousands, SA data

		20	)20		2021	Cumulative change since end 2019
	Q1	Q2	Q3	Q4	Q1	
Employment (1)	-38	-753	339	163	16	-272
reminder: employment at the end of the period	-498	-211	416	-30	-91	-414
Unemployment (2)	-91	-277	655	-339	180	128
Active population = (1) + (2)	-129	-1030	994	-176	196	-144
trend labour force	15	15	15	15	10	70
Variation in unemployment rate	-0.3	-0.7	2.0	-1.1	0.6	0.4
Unemployment rate	7.8	7.1	9.1	8.0	8.5	

How to read it: between Q4 2020 and Q1 2021, employment is expected to increase by 16,000, unemployment by 180,000 and the active population by 196,000. The unemployment rate is expected to rise by 0.5 points and reach 8.5%.

Note: in this case employment corresponds to total employment (payroll + self-employment).

Scope: France (excluding Mayotte), persons aged 15 or over

Source: INSEE, Labour Force Survey, Quaterly employment estimates

#### Box How to forecast employment in the time of Covid?

Since the start of the crisis, the usual econometric equations linking payroll employment and value added (presented in the special report "Slowdown in labour productivity and forecasting employment in France", Conjoncture in France June 2018) have no longer been used to forecast employment: the exceptional context makes the notion of the apparent labour productivity trend on which they are based, and hence their use, inappropriate.

They have been replaced by tools based on comparing, at a relatively disaggregated sectoral level, payroll employment on the one hand and economic activity and workforce retention on the other. This retention can be observed directly through the use of the short-time working scheme, but it can go beyond this (and it is then estimated from the balance of the different components). Thus the aim is to understand the link between payroll employment and some of its determinants (economic activity, workforce retention) since the start of the crisis in order to forecast what employment behaviour and workforce retention could be in companies in the near future.

#### **Main assumptions**

Based on these observations, there are two main assumptions involved in forecasting employment for Q1 2021:

#### Economic activity assumption

The assumption is based on the economic activity scenario and particularly on sectoral activity losses compared to Q4 2019 (**Economic Activity Sheet**). In Q1 2021, these losses look set to remain substantial, mainly in accommodation-catering and services to households.

#### • Workforce retention assumption

This is based mainly on the assumption of relying on short-time working. The rate at which this scheme was used was three times higher in April 2020 (first lockdown) than in November 2020 (second lockdown), a month when it was much more concentrated in certain sectors. In December 2020 it slipped back, with the result that the assumption adopted was that in sectors where the rate was less than 5%, it would decrease by half as much again between the end of December 2020 and the end of March 2021. For the other sectors, i.e. accommodation-catering and services to households, the use of the scheme is expected to decrease slightly, but still remain high, since restrictions on activity are still in place and businesses benefit from support schemes which cancel out their charges.

In addition, because of the way their income is declared, the employment of self-employed workers is currently not known for 2020. Pending the first estimates, the assumption retained for 2020 and for the quarter being forecast is that self-employment changes in the same way as payroll employment.

#### **Feedback on forecasts**

With the publication of the estimate for payroll employment in Q4, the estimate for change in payroll employment has proved to be very much higher (–21,000) than what was forecast in the Economic Outlook of 15 December 2020 (–301,000). The difference of 280,000 jobs represents 1.1 points of payroll employment. This follows on directly from the fact that the decline in economic activity proved to be much more moderate than forecast: –1.4% against –4%.

The forecast for the unemployment rate (8.0% in Q4) has proved to be accurate, however, as at the same time the active population declined less than expected. •

### **Consumer prices**

In February 2021, headline inflation was down to +0.4% yearon-year, according to the provisional consumer price index, after +0.6% in January. This was due mainly to the winter sales being postponed then extended until the beginning of March, resulting in a decline, year-on-year, in prices of clothing-footwear. From March onwards, consumer prices are expected to accelerate strongly, driven mainly by energy prices which are considerably higher in 2021 than their level a year ago. Oil prices in particular fell back significantly when part of the world's economy was brought to a standstill last spring. As a result, inflation is expected to be higher than 1.0% from March onwards and should reach +1.3% year-on-year by June 2021. Core inflation, which was at +0.5 % in February, according to the provisional estimate, is also likely to increase to +1.0% year-on-year in June: it will probably be driven by several products whose prices declined a year earlier in the context of the first lockdown or when lockdown was lifted (manufactured products and transport services).

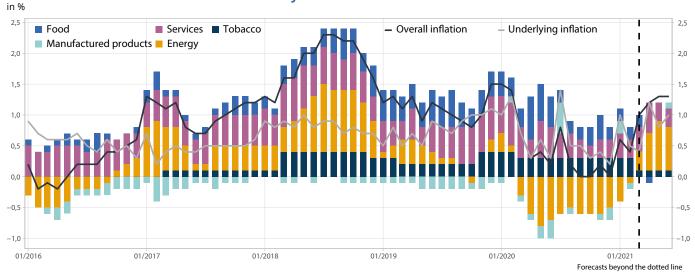
### Headline inflation rebounded sharply in January 2021...

In January 2021, headline inflation rebounded sharply, to +0.6% year-on-year, after stability in December ( figure 1). The start of the winter sales was pushed back by two weeks (to 20 January instead of 8 January in 2020) and this had a considerable effect on the year-on-

year figures for clothing-footwear prices. These increased by 3.7%, year-on-year, contributing 0.1 percentage points to the rise in headline inflation, and declined by only 4.8% over a month, significantly less than in previous years (**Figure 2**).

However, some of the rebound in January is due to the annual updating of the weightings for the consumer price index, which is based mainly on the structure of consumption observed in 2020. This structure was certainly very much affected by the health crisis and an adapted methodology had to be used (see Note méthodologique "Indice des prix à la consommation: les changements de l'année 2021" (Methodological note "Consumer price index: changes for 2021") INSEE, February 2021). For example, the weight of food has increased because the consumption of food products during the health crisis was maintained while consumption overall fell dramatically. Conversely, the weight of air transport greatly decreased. The differences in weightings affect the measurement of the price index overall, especially because products whose price is very volatile, such as air transport, are not weighted in the same way in 2020 and 2021. Year-on-year changes in the consumer price index are therefore liable to be affected as seasonal phenomena will have a different weight between 2020 and 2021. Thus, in January the price cuts in air transport after the seasonal increases in December

#### ▶ 1. Headline inflation and contributions by item



Source: INSEE

have less weight in the 2021 basket. All in all, updating the weightings contributed around 0.2 percentage points to headline inflation in January. Air transport is the sector that contributed most, at 0.07 percentage points.

Due to the rise in the price of Brent in January, prices of energy products increased slightly during this month compared to December 2020, while remaining well below their level of one year earlier (–5.8% year-on-year in January, after –7.0% in December). Prices of services accelerated to +0.8% year-on-year in January, after +0.7% in December. Finally, the year-on-year change in food prices remained stable over one year, at +1.0%, the same as in December.

#### ...before declining in February 2021

In February 2021, headline inflation dropped to +0.4% after +0.6% In January. This decline is basically due to the two-week extension to the winter sales period, resulting in a fall in the prices of clothing-footwear because there were more days at discounted prices than usual. These prices dropped by 5.2% over the month (▶ figure 2) and by 2.7% year-on-year in February. Thus the year-on-year change in the prices of manufactured products declined by 0.5% in February, after +0.8% in January. The price of food products slowed slightly in February, to +0.8% year-on-year, after +1.0% in January, in the wake of prices of fresh products, the same as for services, at +0.7% year-on-year; after +0.8%. Energy prices decreased by 1.7% year-on-year, despite the buoyancy of the price of Brent during the month.

### By June 2021, inflation is expected to increase sharply

Since March 2020, inflation has remained low, linked to the health crisis and the economic situation. In particular, the prices of energy products fell back sharply in spring 2020 as world economic activity was particularly depressed. Since then they have gradually moved back towards their previous level, reflecting the upturn in the global economy. Thus from March 2021, and assuming that the price of a barrel of Brent is \$60, the prices of energy products are expected to be considerably higher than one year ago. More specifically, they are likely to accelerate strongly to +9.0% year-on-year in June, after -1.7% in February, due to the effect of exiting from the year-on-year figures. Prices of petroleum products are expected to accelerate to +9.7% year-on-year in June, after -5.2% in February. Gas prices too should recover their pre-crisis momentum and reach +10.7% year-onyear in June 2021.

This upturn in energy prices should contribute to an upturn in headline inflation, which is likely to reach +1.3% year-on-year in June 2021 (▶ figure 3). Core inflation is also set to rise to +1.0% in June, as a result of the prices of manufactured products and services contained in the core price index exiting from the year-on-year figures. They slowed last year at the same period and are therefore likely to contribute positively to core inflation by June 2021.

#### ▶ 2. Monthly changes in clothing and footwear prices



Source: INSEE

After a rise in January then a decline in February, the prices of manufactured products are expected to rebound year-on-year in June, to +0.4%, after −0.5% in February. This significant decline in February is likely to be followed automatically by a rebound in prices in March (► figure 2), which will not be offset by the two days of sales at the start of the month. The prices of health products are expected to remain below their 2020 levels and settle at −1.3% year-on-year in June.

Inflation in services looks set for a one-off increase to +1.0% year-on-year in April 2021, before slowing to +0.7% year-on-year in June, as it did in February. The prices of transport services are likely to slow slightly, to +1.0% year-on-year, after +1.7% in February. The prices of rents are expected to accelerate slightly year-on-year, whereas the prices of health service and other services are likely to decrease at the same pace as in February.

The prices of food products are expected to slow, to +0.2% year-on-year in June, after +0.8% in February, in the wake of fresh food prices, due to the notable buoyancy observed one year earlier. Indeed, in 2020 the increased demand for fresh produce during the first lockdown and the difficulties surrounding supply for so-called "essential" shops contributed to the acceleration in their prices. Prices of food products excluding fresh produce are likely to increase slightly by June 2021, to +0.5% year-on-year.

Finally, tobacco prices should slow significantly by June 2021, to +5.3% year-on-year, after +12.8% in February: this is because over this forecasting period, there is unlikely be any further price increases on packets of cigarettes, unlike other years.

#### ► 3. Consumer prices change in %

S .													
CPI groups*		December 2020		January 2021		February 2021		March 2021		June 2021		Annual averages	
(2021 weightings)	yoy	суоу	yoy	cyoy	yoy	суоу	yoy	суоу	yoy	суоу	2019	2020	
Food (17.9%)	1.0	0.2	1.0	0.2	0.8	0.1	0.9	0.2	0.2	0.0	2.5	1.9	
including: fresh food (2.6%)	6.2	0.2	5.1	0.1	3.5	0.1	4.1	0.1	-1.7	0.0	4.3	7.3	
excluding: fresh food (15.2%)	0.2	0.0	0.3	0.0	0.4	0.1	0.3	0.0	0.5	0.1	2.1	1.0	
Tabacco (2.4%)	12.5	0.3	12.7	0.3	12.8	0.3	5.8	0.1	5.3	0.1	10.6	13.7	
Manufactured products (25.0%)	-0.9	-0.2	0.8	0.2	-0.5	-0.1	-0.2	0.0	0.4	0.1	-0.6	-0.2	
including: clothing and footwear (3.5%)	-3.3	-0.1	3.7	0.1	-2.7	-0.1	-2.1	-0.1	2.1	0.1	-0.3	-0.5	
medical products (4.4%)	-1.5	-0.1	-1.4	-0.1	-1.5	-0.1	-1.5	-0.1	-1.3	-0.1	-2.8	-2.0	
other manufactured products (17.1%)	-0.3	0.0	0.7	0.1	0.0	0.0	0.5	0.1	0.5	0.1	-0.1	0.3	
Energy (7.5%)	-7.0	-0.5	-5.8	-0.4	-1.7	-0.1	4.1	0.3	9.0	0.7	1.9	-6.1	
including : oil products (3.4%)	-13.8	-0.5	-11.7	-0.4	-5.2	-0.2	1.5	0.1	9.7	0.3	0.6	-11.8	
Services (47.3%)	0.7	0.3	0.8	0.4	0.7	0.3	0.8	0.4	0.7	0.3	1.0	0.9	
including : rent-water (8.5%)	0.2	0.0	0.3	0.0	0.2	0.0	0.5	0.0	0.5	0.0	0.4	0.3	
health services (6.5%)	0.5	0.0	0.1	0.0	-0.3	0.0	-0.4	0.0	-0.3	0.0	-0.1	0.4	
transport (1.7%)	-1.6	0.0	0.2	0.0	1.7	0.0	4.3	0.1	1.0	0.0	0.7	-1.7	
communications (2.4%)	0.8	0.0	2.0	0.0	0.9	0.0	0.8	0.0	2.6	0.1	-1.1	1.0	
other services (28.1%)	1.1	0.3	0.9	0.2	0.8	0.2	0.8	0.2	0.8	0.2	1.6	1.4	
All (100%)	0.0	0.0	0.6	0.6	0.4	0.4	1.0	1.0	1.3	1.3	1.1	0.5	
All excluding energy (92.5%)	0.7	0.6	1.2	1.1	0.8	0.7	0.7	0.7	0.7	0.6	1.1	1.1	
All excluding tabacco (97.6%)	-0.2	-0.2	0.3	0.3	0.3	0.2	0.8	0.8	1.1	1.1	0.9	0.2	
Core inflation (60.1%)**	0.2	0.1	1.0	0.6	0.5	0.3	0.4	0.2	1.0	0.6	0.8	0.6	

Provisional

yoy: year-on-year

Forecast

cyoy: contribution to the year-on-year value of the overall index

<sup>\*</sup> Consumer price index (CPI)

<sup>\*\*</sup> Index excluding public tariffs and products with volatile prices. corrected for tax measures Source: INSEE

### **Household income**

Households' gross disposable income (GDI) shrank in H1 2020 with the decline in activity, then rebounded in H2. On average for 2020, GDI and its purchasing power increased a little (+1.1% after +3.1% in 2019 for GDI and +0.6% after +2.1% in 2019 for purchasing power), despite the significant decline in activity. Government support, like the enhanced short-time working schemes and other support measures for households and sole proprietors, certainly helped to preserve incomes overall in the face of the crisis, even though this average change covers a wide and varied range of household situations.

At the start of 2021, GDI looks set to continue to increase (+1.0% in Q1, after +1.5% in Q4 2020): assuming that the health situation remains stable, activity and the income that it generates are expected to pick up slightly, while emergency aid is likely to continue to be substantial. Taking into account the rise in consumer prices (+0.6%), purchasing power is expected to slow in Q1, increasing by +0.4% after +1.5% in the previous quarter (or +0.3% per consumption unit, after +1.3%).

### After the slowdown in Q4 2020, earned income is expected to increase slightly

In 2020, earned income declined by 3.5% ( figure 1), mainly as a result of job destructions and the reduction in working time (introduction of the short-time working scheme, absences for sick leave and child care, reduction in overtime) especially in H1. Gross payroll in particular decreased by 3.7%. More specifically, in Q4 and with the introduction of the second lockdown on 30 October, it contracted slightly (-0.5% after a rebound of +12.2% in Q3).

In addition, sole proprietors saw their gross operating surplus (GOS) fall by 1.9% overall in 2020 although it bounced back significantly in H2. The upturn in activity in Q3 and the support mechanisms put in place, especially Solidarity Fund payments in Q4, contributed to this.

In Q1 2021, earned income is expected to increase a little (+1.0%). Gross payroll (+0.7% forecast) is likely to be driven by the increase in the average wage per capita (> Box).

#### ► 1. Household gross disposable income

	Quaterly changes									Annual changes			
	2019				20	020		2021	2019	2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	2019	2020		
Gross disposable income (100%)	0.7	0.2	0.7	0.9	-0.5	-1.7	2.8	1.5	1.0	3.1	1.1		
including:													
Earned income (73%)	1.0	0.4	0.8	0.6	-2.4	-9.9	12.0	0.1	1.0	2.6	-3.5		
Gross wages and salaries (64%)	1.1	0.4	0.9	0.6	-2.3	-10.2	12.2	-0.5	0.7	2.9	-3.7		
GOS of sole proprietors* (8%)	0.3	-0.1	0.3	0.5	-3.0	-7.3	10.7	4.7	2.8	0.4	-1.9		
Social benefits in cash (35%)	1.3	0.4	0.6	0.5	2.8	10.0	-7.1	2.3	-0.3	3.1	8.0		
GOS of "pure" households (14%)	-0.2	0.0	0.3	0.5	0.0	-1.6	3.3	0.5	0.5	0.2	1.1		
Property income (6%)	2.0	-0.2	-2.3	-4.4	-7.1	-4.8	-1.7	1.0	2.0	3.9	-15.0		
Social contributions and taxes (-28%)	2.1	0.8	-0.1	-2.0	-2.5	-8.1	10.2	-1.9	-1.0	0.7	-5.6		
Household consumer prices	0.1	0.3	0.2	0.3	0.2	-0.2	0.2	0.0	0.6	0.9	0.5		
Purchasing power of gross disposable income	0.6	-0.2	0.5	0.7	-0.7	-1.6	2.7	1.5	0.4	2.1	0.6		
Household purchasing power by consumption	0.5	-0.3	0.4	0.5	-0.8	-1.7	2.5	1.3	0.3	1.5	0.0		

Forecast

How to read it: after a rebound of 2.8% in the Q3 of 2020, household gross disposable income would increase strongly in the Q4, with +1.5%. The annual change would then be 1.1% in 2020.

Note: he figures in parentheses give the structure of the year 2018.

<sup>\*</sup> The gross operating surplus of "pure households" corresponds to the output of housing services, less the intermediate consumption required to generate this output (particularly financial services related to loans) and taxes (land tax). This output corresponds to the rents which property owners receive from their tenants, or could receive if their property was rented («imputed rents»).

\*\*Source: INSEE\*

The GOS of sole proprietorships is expected to increase further in Q1 2021, from 2.8%: their value added should be more or less stable, while operating subsidies should increase with the effect of the Solidarity Fund.

Property income increased slightly in Q4 2020 (+1.0% after -1.7%). Across the whole of 2020, it fell dramatically by 15.0%, mainly due to the decline in dividends paid. It should bounce back in early 2021, by +2.0% in Q1, driven by the upturn in the payment of dividends.

### Social benefits provided very strong support for GDI in 2020

In 2020, social benefits accelerated very sharply (+8.0%, after +3.1% in 2019). The very large number of businesses that turned to the short-time working scheme, the increase in daily allowances (for sick leave or childcare leave), and ad-hoc aid packages (one for those receiving the statutory minimum in Q2 and Q4 2020, and the other an award of €900 for workers in precarious employment and young people from November 2020) contributed greatly to limiting the decline in household income. Also contributing were the more "automatic" effects in periods when activity declines, such as a rise in the amount of social benefits (earned income supplement (RSA), specific solidarity allowance (ASS)) or unemployment benefit paid by Unédic.

In Q4 notably, social benefits increased by +2.3%, after an automatic decline in Q3 (-7.1%) mainly as a result of fewer businesses taking up the short-time working scheme. Social benefits are expected to suffer a slight backlash in Q1 2021 (-0.3%), but should nevertheless remain high: the extension of the ad-hoc assistance for young people and precarious workers, and the stability in the numbers using the short-time working scheme (which is expected to concern all three months in the quarter, whereas it was only November and December in the previous quarter), should almost entirely offset the reaction associated with the end of assistance for beneficiaries of the statutory minimum and the reform of housing allowances.

## Social and tax contributions were more dynamic in H2 2020 than in H1, but are expected to fall back slightly in early 2021

All social and tax contributions fell back in 2020 (–5.6%). Meanwhile, the decline in payroll contributed to the reduction in social contributions and part of income tax, which also decreased as a result of the reform of the income tax scale. In addition, the last housing tax relief was effective in Q4. Across the whole year, household contributions and taxes fell by 4.0% and 6.6 % respectively.

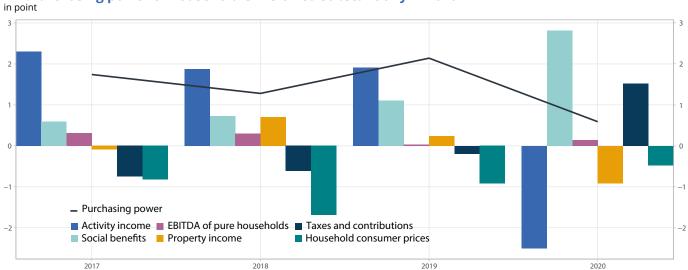
In Q4, social and tax contributions decreased by 1.9%, after the +10.2% rebound in Q3. This decline is mainly due to the last housing tax relief and, to a lesser extent, to the slight drop in payroll, which resulted in fewer social contributions and a decrease in the activity part of the Generalised Social Contribution (CSG). Social and tax contributions are expected to fall back by 1.0% in Q1 2021, as a result of a technical backlash associated with regularising the tax at source system.

### Purchasing power of household gross disposable income is likely to slow in Q1 2021

Across the whole of 2020, despite the collapse in activity, GDI increased (+1.1%), although less than in 2019 (+3.1%). Taking into account the change in consumer prices (+0.5% after +0.9%), purchasing power slowed considerably, although without slipping back (+0.6%, after +2.1% in 2019) ( figure 2). However, when correlated to consumption units (or CUs, to take demographic changes into account), it remained stable.

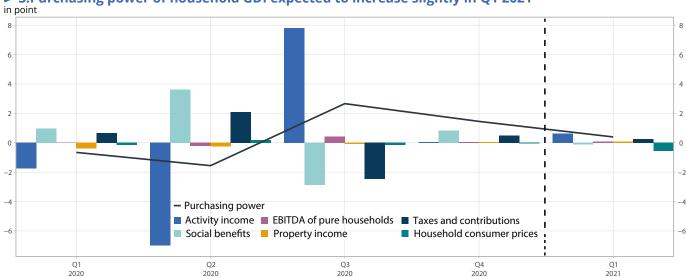
In Q1 2021, households' GDI is expected to grow by +1.0%. Taking into account the rise in consumer prices (+0.6%), purchasing power (including per consumption unit) should increase (figure3) by +0.4% (and +0.3%).

#### ► 2.Purchasing power of household GDI slowed substantially in 2020



How to read it: in 2020, household purchasing power increased by 0.6%. The main contribution to this small rise was social benefits, which stood at 2.8 points. Source: INSEE

#### ▶ 3.Purchasing power of household GDI expected to increase slightly in Q1 2021



How to read it: in Q1 2021, household purchasing power is expected to increase by 0.4%. The contribution of household consumer prices is expected to be -0.6 points.

Source: INSEE

## At the start of 2021, the average wage per capita is expected to be close to its pre-crisis level

In Q4 2020, the average wage per capita (SMPT) in the non-agricultural market branches declined by 1.5% compared to Q3. It stood at 1.3% below its level of one year earlier. These changes brought 2020 to an end, a year notable for some unprecedented variations, all attributable to the health crisis: –3.1% as a quarterly variation in Q1, –10.5% in Q2, +15.6% in Q3. These fluctuations were mainly due to the uptake of the short-time working scheme, which was adopted on a very large scale during the spring lockdown then significantly less in the summer. This scheme involved substituting compensations, which are not considered as wages, for part of wages. In Q4 2020, the curfew and the second lockdown resulted in people turning once again to short-time working, but to a much lesser extent than during the first lockdown.

In Q1 2021, the SMPT is expected to increase slightly, by a little less than 1% as a quarterly variation. This increase is likely to be part of the gradual upturn in economic activity, although the use of short-time working is likely to be maintained, at least in the sectors most concerned by the administrative closures in place (especially accommodation-catering). However, the rise in SMPT is expected to be limited by the ending of the extraordinary purchasing power bonus (PEPA), which was put in place for Q1 2019 then renewed and extended in 2020 in the light of the health crisis. PEPA represented 0.4% of payroll in Q4 2020. The fact that this measure is not to be renewed is likely to have an effect of –0.4 points on quarterly change in SMPT in Q1 2021. This quarter looks close to reaching its pre-health crisis level of late 2019, although it would still be slightly below (–0.4%).

The change in SMPT mainly reflects the movements of the most short-term components of pay, affected first of all by the health crisis (response to the use of short-time working, overtime, bonuses). The basic monthly wage (SMB) reflects the underlying trend of wages and does not include these effects. Thus, fluctuations in SMB were much more moderate in 2020: +0.7% to +0.8% per half-year. In Q1 2021, SMB is expected to slow very slightly (+0.3%), in a context of increasing unemployment and a rise in the minimum wage on 1st January that is less than that of the previous three years (+1.0%).

### Changes in average wage per capita (SMPT) and basic monthly wage (SMB) Nominal wages, changes in %, data SA

	Quarterly growth rates				Change since Q4 2019						Average an- nual change		
		20	20		2021		20	20		2021	2019	2020	
	Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1	2019	2020	
Average wage per capita (SMPT) in the non-agricultural sector (SMNA)	-3.1	-10.5	15.6	-1.5	0.9	-3.1	-13.3	0.2	-1.3	-0.4	1.9	-4.0	
Basic monthly wage (SMB)	0.4	0.4	0.4	0.4	0.3	0.4	0.7	1.1	1.5	1.8	1.7	1.5	

#### Forecast

Note: the ACEMO quarterly survey by DARES was suspended in Q2 2020 (data for Q1 2020). The quarterly growth rates of SMB in Q1 and Q2 2020 presented here are the result of estimates, consistent with the half-yearly variation in SMB observed between Q4 2019 and Q2 2020. Sources: DARES, INSEE

### **Household consumption**

After a sharp rebound in December, with the reopening of "non-essential" businesses, consumption would appear to have been in decline in January 2021 (-6% compared to its pre-crisis level of Q4 2019, after -4% in December). This weakened consumption in January, which can partly be explained as a backlash from the December rebound, is probably also the result of the postponing of the start of the winter sales and the strengthening of restrictive health measures (in particular the curfew being gradually brought forward to 6pm instead of 8pm). In February, despite no improvements in the health situation compared to January, consumption would seem to have picked up to some extent, driven by the rebound in purchases of manufactured goods, linked to the delay and the extension of the winter sales. In a context of strengthened restrictive measures at local level (weekend lockdown in some areas) and continuing

uncertainty over the development of the epidemic, consumption in March is expected to return to a similar level to that of January. All in all, household consumption is likely to increase by 1% in Q1 2021, after having nosedived by 5.4% in Q4 2020 because of the second lockdown.

Since the Economic Outlook of 4 February 2021, publication of the household consumption of goods for January has confirmed the forecast of a sharp decline in the consumption of industrial goods, compared to December: consumption of goods did indeed settle below its precrisis level (–1%), after an increase of 4% in December. This weakening was due mainly to consumption of "other industrial products" (–7% in January compared to the pre-crisis level, after a sizeable 13% increase in December, figure 1) and especially clothing-footwear, where

### ▶1. Estimated and projected household consumption levels difference in the Q4 of 2019, in %

Products	Share of consump- tion*	Oct. 2020	Nov. 2020	Dec. 2020	Jan. 2021	Feb. 2020	March 2021	Q4 2020	Q1 2021
Agriculture, forestry and fishing	3%	-3	-9	-5	-3	1	0	-5.6	-1
Industry	44%	4	-16	4	-1	4	0	-2.7	1
Manufacture of food products, beverages and tobacco-based products	15%	5	-2	1	3	5	3	1.4	3
Coke and refined petroleum	4%	-4	-27	-13	-7	-6	-5	-14.7	-6
Manufacture of electrical, electronic, computer equipment; manufacture of machinery	3%	12	-9	37	11	28	6	13.4	15
Manufacture of transport equipment	6%	-1	-18	-7	-4	-8	-3	-8.6	-5
Manufacture of other industrial products	12%	2	-33	13	-7	7	-1	-5.8	0
Extractive industries, energy, water, waste treatment and decontamination	4%	12	-5	1	7	5	0	2.5	4
Construction	2%	2	0	0	0	0	0	0.7	0
Mainly market services	46%	-8	-18	-14	-14	-14	-15	-13.2	-14
Trade; repair of automobiles and motorcycles	1%	0	-11	-6	-6	-6	-6	-5.3	-6
Transport and storage	3%	-33	-58	-54	-50	-52	-52	-48.1	-51
Accommodation and catering	7%	-27	-61	-56	-57	-57	-59	-47.8	-58
Information and communication	3%	-1	-4	1	-2	0	0	-1.5	-1
Financial and insurance activities	6%	1	1	1	1	1	1	0.9	1
Real estate activities	19%	2	2	2	2	2	2	1.9	2
Scientific and technical activities; administrative and support services	2%	-7	-8	-7	-7	-7	-8	-7.4	-7
Other service activities	4%	-15	-43	-16	-21	-20	-22	-24.7	-21
Mainly non-market services	5%	1	-4	0	0	0	0	-0.9	0
Territorial correction		-76	-85	-91	-83	-76	-76	-84	-78
Total		-1	-15	-4	-6	-4	-6	-6.6	-5

<sup>\*</sup> weight in final household consumption spending in 2018 (excluding territorial correction) Forecast

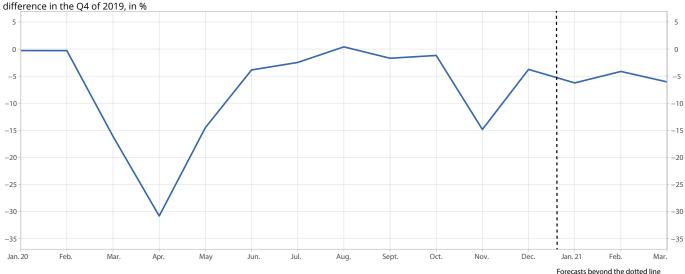
How to read it: in February 2021, household consumption of accommodation and catering services would seem to have been 57% lower than in Q4 2019. Source: INSEE calculations from various sources

purchases were probably affected by the delay in starting the winter sales.

In January therefore, given the overall stable consumption of services compared to December, household consumption would appear to be 6% below its pre-crisis level (after –4% in December, Figure 2).

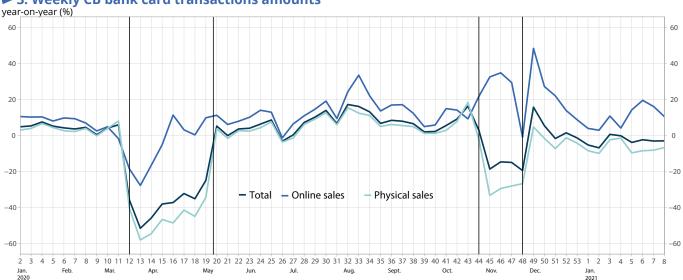
In February, consumption would seem to have picked up moderately compared to January, at 4% below its precrisis level. This estimate is mainly based on bank card transaction amounts and scanner data from major retail outlets, available up to 28 February. The profile of bank card transaction amounts shows up a slight momentum in February, driven mainly by online sales ( figure 3). Postponing the start of the winter sales (Wednesday 20 January instead of 8 January) and then extending them until 2 March (instead of 16 February) is probably the main factor to account for this upturn in consumption in February: in this respect, bank card transaction amounts in clothing-footwear and household equipment showed

#### ► 2. Estimated and forecast level



How to read: in February, household consumption is expected to stand at 4% below its Q4 2019 level. Source: INSEE calculations from various sources

#### ► 3. Weekly CB bank card transactions amounts



How to read: in week 4 of 2021 (22 – 28 February), total CB bank card transaction amounts were 3% higher than in week 4 of 2020. The vertical lines show the dates when "non-essential" retail outlets closed and reopened during the two lockdowns 2020

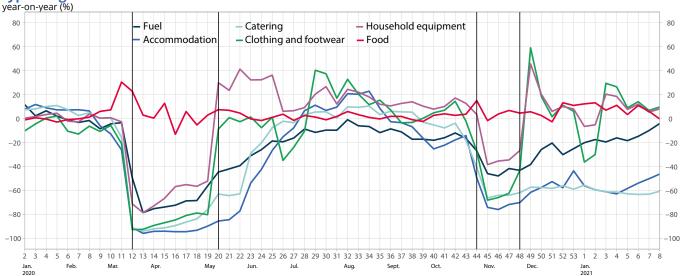
Note: the dynamism of these transaction amounts may be due to, from March onwards, a higher proportion of payments by bank card. This factor is taken into account when forecasting losses or increases in consumption compared to the pre-crisis level.

Source: CB Cartes Bancaires, INSEE calculations

some particularly dynamic profiles from the third week of 2021 (corresponding to 20 January), which continued during February ( figure 4). Although the 2021 winter sales appeared to be rather lagging behind compared to the previous two years ( Focus), the delayed start seems to have encouraged household spending in February, compared to January.

As in December, only consumption of industrial goods would seem to have returned to well above its pre-crisis level in February (+4%), driven by spending on clothing-footwear and household equipment. Despite an increase in February, spending on fuel would seem to have remained at a depressed level compared to pre-crisis, in a context where movement is limited, with more people

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

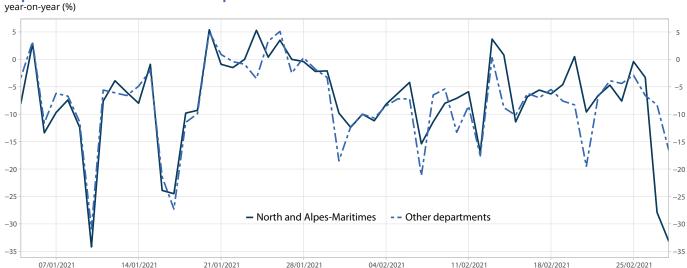


How to read it: in week 8 of 2021 (22 – 28 February), bank card transaction amounts related to purchases of fuel were 4% lower than amounts in week 8 of 2020. The vertical lines show the dates that "non-essential" stores closed and reopened during the two 2020 lockdowns.

Note: the dynamism of these transaction amounts, from March 2020, may reflect a greater use of payments by bank card. This factor is taken into account when estimating losses or increases in consumption compared to the pre-crisis level.

Source: CB Cartes Bancaires, INSEE calculations

## ▶ 5. Daily bank card transaction amounts (physical sales), in the Alpes-Maritimes and Nord departments and in the other departments



How to read it: on Sunday 28 February 2021, bank card transaction amounts in the Nord and Alpes-Maritimes departments were 33% lower than on a comparable day in 2020. Bank card transaction amounts in the other departments were 17% lower than on a comparable day in 2020. Source: CB Cartes Bancaires, INSEE calculations

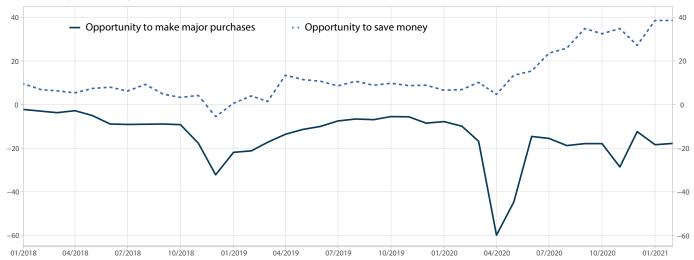
teleworking and the introduction of a curfew (**Figure 4**), and purchases of transport equipment would appear to have declined sharply (-8% compared to the pre-crisis level after -4% in January).

Concerning market services, however, household consumption would appear to have remained sluggish in February, at 14% below its pre-crisis level, as in December and January. With restrictions on activity still in place in some sectors (accommodation-catering, cultural and leisure activities) it would seem that household spending continues to be restricted. Spending on transport would appear to be still strongly penalised by the use of teleworking, the continuing health restrictions on tourism (especially winter sports) and by the strengthening in February of restrictions on travel abroad. In construction and non-market services, household consumption would seem to have maintained its January level, which is very close to its pre-crisis level.

The strengthening of restrictive health measures at the end of February, with the introduction of local weekend lockdowns, is likely to affect household consumption. Physical sales paid for by bank card in the departments concerned in part by these local lockdowns (Alpes-Maritimes and Nord) do indeed show that for the last weekend of February, there was a wide difference compared to other departments ( figure 5). In addition, these restrictions have been introduced in a context already very uncertain with regards to developments in the health situation. In the outlook surveys, households say that they are fairly reluctant to consume ( figure 6). Conversely, the balance of opinion in households in February regarding the opportunity to save remained at the high point reached in January, the highest in recent years.

Household consumption is therefore expected to weaken once again in March, and return overall to its January level (–6% compared to its pre-crisis level). This downturn is likely to be due mainly to the consumption of goods which, after being boosted by the delay in the sales in February, will probably return to around its pre-crisis level in March. In market services, the health context is still not favourable for an upturn in consumption, which is expected to be slightly down in March compared to February, and still very much in decline compared to its pre-crisis level (–15% in March, after –14% in February).

### ► 6. Balance of opinion on the opportunity to make major purchases and on the opportunity to save balance of responses SA, in points



Source: INSEE, business surveys of households

### ▶ 7. Difference in household consumption compared to Q4 2019 and as a growth rate in %

		2020						
	Q1	Q2	QЗ	Q4	Q1			
Difference compared in % to Q4 2019	-5.6	-16.4	-1.3	-6.6	-5			
Quarterly growth in %	-5.6	-11.5	18.1	-5.4	1			

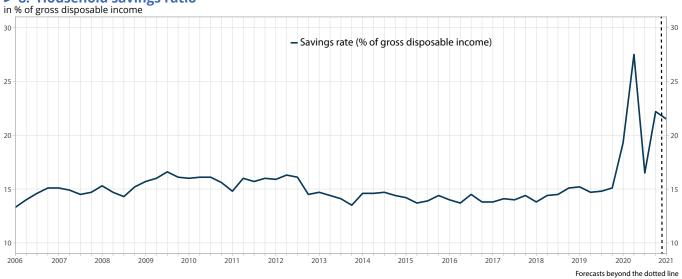
Forecast Source: INSEE

Across the whole of Q1 2021, household consumption is likely to be 5% below its pre-crisis level, after −6.6% in Q4 2020 due to the second lockdown (► figure 7). Consumption should therefore improve by about 1% in Q1 2021, after dropping by 5.4% in the previous quarter.

On average over 2020, the household savings ratio was 21.3% of gross disposable income after 14.9% in 2019. This increase in the savings ratio by more than 6 points

is mainly the result of consumption falling drastically in 2020 because of the two lockdowns, while households' gross disposable income saw a more moderate change ( Household Income Sheet). In Q1 2021, and taking into account a slightly larger rise in consumption than in gross disposable income, the household savings ratio is expected to fall slightly (21.5%, after 22.2% in Q4 2020, figure 8).

#### ► 8. Household savings ratio



How to read: in Q1 2021, the household savings ratio would amount 21.5% of gross disposable income. Source: Insee

#### The 2021 winter sales took place in an unusual context

The sales are an important period of consumption in several sectors of retail trade. In 2021, the context of the winter sales was rather unusual: on the one hand total transactions over the season were affected particularly badly by the second national lockdown, generating potentially large quantities of unsold inventory, especially in clothing and sports articles. On the other hand, different economic measures may have influenced the usual commercial activity of this period. The two-week delay in starting the sales and the two-week extension may well have helped reduce the unsold goods. However, restrictive measures, especially the curfew, the introduction of limits on the number of people in shops and the closure of non-food retail outlets in shopping centres larger than 20,000 m² may have limited any increase in sales. The jump in consumption as a result of the first markdowns seems less clear-cut.

## The sales are a critical time for purchases in several retail sectors

In several sectors of retail trade, the winter sales are a time when particularly large amounts of goods are sold. This is especially the case in clothing, sports articles, household electrical goods and, to a lesser extent, furniture and household equipment.

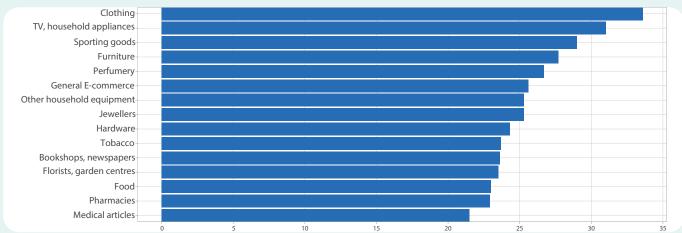
In January 2020, 34% of bank card transactions in clothing took place during the first week of the sales ( figure 1). In other sectors, such as food or pharmacies, the first week of the sales was similar to a standard week: 23% of purchases in January took place during this week, which corresponds to the proportion of the number of working days in the month.

#### An autumn-winter season full of contrasts

In 2021, the sectors affected by the winter sales (i.e. where the winter sales represent a significant increase in bank card transactions) faced an autumn-winter season of contrasts. On the date the sales were originally due to start (Wednesday 6 January 2021), the cumulated total of bank card transactions recorded for clothing and sports articles over the autumnwinter season 2020-2021¹ was in fact 10% lower than that in 2019-2020 over the same period (▶ figure 2). The furniture sector was 8% down, while conversely, general e-commerce and household electrical goods transactions saw a significant increase (+30 to +40%). The second lockdown and the reopening of "non-essential"

1 For illustrative purposes, the start of the autumn-winter season is taken to be 15 September.

#### ▶ 1. Importance of the first week of the sales in January 2020



How to read it: in January 2020, 34% of bank card spending on clothing took place during the first week of the sales. Source: Cartes Bancaires CB,INSEE caculation

businesses in December were in fact accompanied by a strong momentum in bank card transactions in these sectors of activity. The following commentary mainly focuses on bank card transactions in clothing, sports articles and furniture.

# When the winter 2021 sales started, the cumulated total of bank card transactions in the sectors concerned was identical to that on the first day of the 2020 sales

Postponing the start of the 2021 winter sales by two weeks automatically extended the autumn-winter season. For clothing, sports articles and furniture, this delay meant a longer period of exposure of this season's articles, therefore reducing the risk of being left with unsold items. On the first day of the 2021 sales, the cumulated total of bank card transactions for the 2020-2021 autumn-winter season (15 September 2020 – 20 January 2021) appeared to be similar<sup>2</sup> to that for the 2019-2020 autumn-winter season when the 2020 sales began ( figure 2) (total from 15 September 2019 to 8 January 2020), but over a longer period of time.

#### Fairly sluggish winter sales in 2021

In 2021 and compared to previous years, the first week of the sales was less dynamic in terms of bank card transactions, especially in clothing and sports articles. In 2019 and 2020, on the first Wednesday of the sales period, there were 4.2 to 4.8 times more transactions in clothing than on the Monday preceding it. In 2021, this increase was only 3.3 times (▶ figure 3). The first Saturday of the sales is usually the day with the highest amount of bank card transactions: once again, the peak observed in 2021 was lower than in 2020 or 2019. However, the second week saw a return to similar transaction amounts to those of 2020 and 2019. Findings were the same in sports shops, while furniture stores seem to have been less affected overall. Some restrictive health measures (limiting numbers in shops, 6pm curfew) can account for this slower rebound in consumption.

Bank card transactions in clothing and furniture experienced a relatively large fall-off during the third, fourth and fifth Saturdays of the sales. There are several factors that can account for this phenomenon. First, the extended duration of the sales in 2021 (6 weeks instead of 4 in 2020) may have resulted in a dilution of purchases of sale goods over a longer period (▶ Box). Second, some restrictive measures (limiting numbers in shops, closure of non-food shops in shopping centres larger than 20,000 m²) affected clothing and furniture shops more severely. ●

2 This observation has to be qualified, however, as the rate of payment by bank card has been higher since the start of the health crisis.

Arthur Cazaubiel

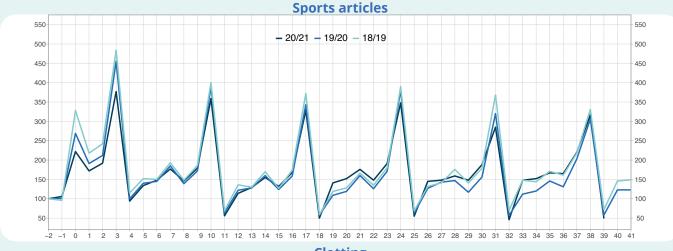
#### ▶ 2. Cumulated bank card transactions during the autumn-winter season

Sectors	Annual ch	nange (%)
	From 15 September to the first Wednesday in January	From 15 September at the opening of the sales
Sports articles	-13	1
General e-commerce	29	43
Clothing	-12	-1
Furniture	-8	6
TV, electrical household appliances	39	53

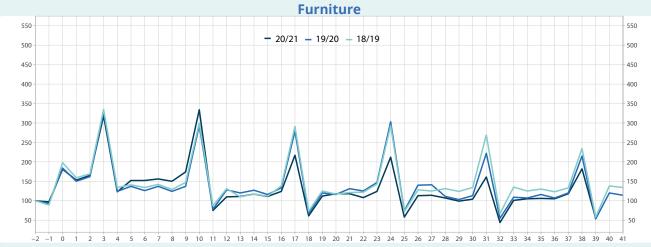
How to read it: the cumulated total for bank card transactions in clothing during the autumn-winter season 2020-2021 (from 15 September 2020 to 6 January, 2021) was 12% lower than in the previous season (from 15 September 2019 to 8 January 2020). Changes in the right-hand column are compared to the same period 2019-2020

Source: Cartes Bancaires CB, INSEE calculations

#### ▶ 3. Daily bank card transactions during the sales period







How to read it: in the furniture sector, the amount of bank card transactions on the first day of the sales (0) in the 18/19 season was double that for the Monday preceding the start of the sales (-2).

Note: daily amounts standardised to the Monday preceding the start of the sales.

Source: INSEE

11 March 2021 79

## An increase in bank card transaction amounts slightly impacted by the length of the sales

In 2021, the total duration of the winter sales was extended by two weeks, to 6 weeks, as in 2019, compared to four weeks in 2020. In 2020, the shorter winter sales period did not significantly affect the bank card transaction amounts in clothing, sports articles or furniture ( figure 4). In fact, during the 2019-2020 winter sales, bank card transactions were more concentrated during the available sales period, with more marked increases in transactions during the last weeks, compared to the previous year. The rebound in transactions generated by the last markdowns was more clearly visible here than during the 2018-2019 winter sales.

#### The first week of the sales corresponds more to physical sales

Concerning bank card transactions, the share of online sales showed substantial volatility throughout the year. In 2019 and 2020, Black Friday represented a high point in online sales, as opposed to physical sales made in the run-up to Christmas. Meanwhile, the winter sales did not seem to favour one payment method over another. The 2020-2021 autumn-winter season was very much affected by the second lockdown, a period when online sales boomed. During the winter sales, online purchases seemed to follow their general trend of increasing their share in the total bank card transaction amounts. The first week of the sales was again above all a time of consumption in the shops: the share of online purchases in the first weekend of the sales seemed to be down on the previous weeks. In the second and third weeks of the sales, the share of online transactions increased more significantly: more than 50% of clothing transactions on Sundays took place online, and this increased more substantially in the second and third weeks (**Figure 5**). •

#### ▶ 4. Total standardised amount sold during the six weeks following the start of the sales period

Secteurs	2019 (6 semaines de soldes)	2020 (4 semaines de soldes et 2 semaines suivantes)	Variation annuelle (%)			
Habillement	8,3	8,4	2			
Articles de sport	6,8	7,0	3			
Meubles	6,9	6,8	-2			

How to read it: during the 6 weeks of the 2019 winter sales, the total amount of bank card transactions represented 8.3 "standard weeks". In 2020, the 4 weeks of sales, and the following two weeks counted for 8.4 "standard weeks".

Note: amounts standardised in relation to the average weekly transactions in weeks 7, 8 and 9 after the sales.

#### Source: Cartes Bancaires CB, INSEE calculations

#### ► 5. Share of online transactions in 2021



How to read it: on Sunday 24 January 2021, 38% of bank card transactions in clothing were made online. Source: Cartes Bancaires CB, INSEE calculations

## **Entreprises' earnings**

After a sharp contraction in H1 2020, the margin rate of non-financial corporations (NFCs) bounced back in Q3 2020. It continued to increase in Q4 2020, rising to 30.4% (after 29.7%) despite the strengthening of health measures. The effect of the decline in activity, which was much less than in the spring, was therefore largely offset by the short-time working scheme and the scaling up of the Solidarity Fund mid-quarter. On average across 2020, the margin rate stood at 29.3%, against 33.2% in 2019. During Q1 2021, the slight increase in the value added of NFCs, the reduction of taxes on production and the use of the new Solidarity Fund throughout the quarter, which will be more targeted on affected companies, should result in a further rise in the margin rate (31.3%).

## After a limited decline in Q4 2020, the value added of NFCs looks set to increase slightly

The value added of NFCs declined by 9.7% in 2020 (▶ figure 1), due to the temporary shutdown of part of the economy in the spring and the compulsory closure of businesses. However, in Q4, and despite the second lockdown, the value added of NFCs was more resilient than expected (-1.3% as a quarterly variation), in the wake of economic activity overall.

Assuming that the health situation remains generally stable, similar in March to January and February, the value added of NFCs is expected to increase by 1.4% in Q1 2021: sectors that are required to close were already shut down for a large part of Q4 2020, while economic activity in industry is likely to pick up slowly.

## Subsidies are expected to increase further in early 2021, driven by changes in the Solidarity Fund

The profile over time of subsidies received by NFCs has been severely disrupted since the start of 2020. Until 2019, these subsidies consisted of the competitiveness and employment tax credit (CICE), which disappeared in 2020 when it was transformed into a reduction in employer contributions. This resulted in a significant decline in subsidies in Q1 2020. Subsequently, subsidies increased due to the ramping up of the Solidarity Fund. At first, it provided one-off grants of €1,500 per month to businesses experiencing hardship, but it has since been modified several times and considerably strengthened during the November lockdown to provide more support for larger structures: now, eligible businesses can receive either a grant of up to €10,000, or up to 20% of their 2019 turnover, capped at €200,000 per month. This has resulted in a sharp increase in payments from the Fund, and hence in subsidies received by NFCs in Q4 2020.

In Q1 2021, with the Solidarity Fund extended until mid-2021, NFCs should once again receive more subsidies than in the previous quarter.

## Remunerations paid to employees mirrored the use of the short-time working scheme

Remunerations paid to employees by non-financial corporations fell by 6.1% in 2020. This significant decline reflects the fact that a proportion of employees' salaries was paid by general government, via the short-time working scheme: the quarterly profile of remunerations paid is therefore the reverse of the profile for use of this scheme. In Q4 2020, remunerations paid out fell a little, by 1.0%: the increased use of short-time working in November and December was partly offset by the slight increase in employment on average over the quarter. In Q1 2021, remunerations are expected to increase by 0.9%,

▶ 1. Breakdown of the margin rate of non-financial corporations

quarterly change, in %											
	Quarters changes								Annual changes		
		2019				2020				2019	2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	2019	2020
Value added	1.5	8.0	0.5	0.0	-6.8	-17.2	23.3	-1.3	1.4	4.1	-9.7
Subsidies	7.6	1.6	2.3	1.8	-38.7	5.1	-41.4	64.9	18.7	11.9	-42.0
Total resources	1.7	0.8	0.6	0.1	-7.7	-16.7	21.6	-0.5	1.7	4.3	-10.6
Payroll	-1.0	0.3	0.7	0.1	-3.0	-15.0	18.7	-1.0	0.9	0.7	-6.1
Taxes on production	10.9	1.5	0.4	-0.7	-1.8	-5.3	2.8	-2.6	-3.0	15.8	-5.0
Total charges	-0.1	0.4	0.6	0.0	-2.9	-14.2	17.2	-1.1	0.6	1.9	-6.0
Gross operating surplus	5.8	1.6	0.4	0.1	-17.9	-22.9	33.9	1.2	4.4	9.8	-20.4
Margin rate (in %)	33.0	33.3	33.3	33.3	29.4	27.3	29.7	30.4	31.3	33.2	29.3

Forecast Source: INSEL

linked with the expected rise in the average wage per capita (**Box in Household Income Sheet**).

## The margin rate declined sharply in 2020 but rallied in the course of the year and should continue to increase in early 2021

The margin rate in 2019 stood at 33.2%, but increased occasionally, by about one percentage point, due to the "double payment" from the CICE. In 2020, the margin rate of NFCs declined overall as a result of the sharp fall in activity and hence in sales, and stood at 29.3%, however, it started to pick up in Q3 2020. In Q4, the modest drop in value added combined with the scaling up of the

Solidarity Fund and the take-up of the short-time working scheme led to an increase in the margin rate, to 30.4% (**Figure 2**).

In Q1 2021, the margin rate continued to increase, and reached 31.3%: businesses most affected by the restrictive health measures will probably continue to be supported by the reinforced Solidarity Fund, thus limiting their loss of income, while the sectors least affected should see their situation improve slightly. Businesses should also start to benefit from the reduction in taxes on production. This was adopted as part of the stimulus package and involves a €10 billion reduction in taxes on production across a full year. ●

### ► 2. Contributions to the change in margin rate in points

 Change in the margin rate ■ Ratio of employee remuneration to value added -2 Ratio of production taxes to value added Ratio of subsidies to value added -3 -3 O2 2019 O3 2019 O4 2019 Q1 2020 Q1 2019 02 2020 O3 2020 04 2020 Q1 2021

How to read it: in Q1 2021, the margin rate of non-financial corporations is expected to increase by 0.9 points. The contribution of the ratio is expected to be 0.4 points

Subsidies Value added

Note: - contributions are based on the breakdown

$$\begin{split} \textit{Margin rate} &= \frac{\textit{Gross operating surplus}}{\textit{added value}} \\ &= 1 - \frac{\textit{Employee remuneration}}{\textit{added value}} = \frac{\textit{Taxes on production}}{\textit{added value}} + \frac{\textit{Grants}}{\textit{added value}} \end{split}$$

Source: INSEE

<sup>-</sup> in 2019, contributions associated with the ratio of remunerations for employees to value added included the change in the rate of employer contributions associated with the reform of the CICE.

## **Corporate investment**

After a strong rebound in Q3 2020 (+20.7%), investment by non-financial enterprises (NFEs) increased further in late 2020 (+0.9%), driven by investment in services. As a result, investment by NFEs in Q4 2020 was 5% below the level in Q4 2019, before the start of the health crisis. As an annual average, overall investment by NFEs declined by 9.6% in 2020, a slightly larger drop than that in activity.

Information available at the start of this year, especially from business tendency surveys, suggests that NFE investment is likely to continue to bounce back: it is expected to be supported in Q1 2021 by investment in construction.

#### Gross fixed capital formation (GFCF) of nonfinancial enterprises (NFEs) held up better in 2020 than in 2009

NFE investment picked up significantly in Q3, returning to 6% below its pre-crisis level. Investment in "other industrial products" (mainly the installation and repair of machinery and equipment) and investment in services

are the components of investment that come closest to their pre-crisis level. In Q4, despite the second lockdown, NFE investment – again driven by investment in services – continued to rebound, settling at 5% below is level at the end of 2019.

The NFE investment rate is defined as the ratio of their investment to their value added. It would appear to have increased slightly as an annual average in 2020, standing at 23.2% after 22.9% in 2019. This slight increase during a year of unprecedented crisis is in sharp contrast to the change in the NFE investment rate during the 2009 economic and financial crisis: at this time the rate decreased by 2 points and only gradually returned to its original level. Perhaps part of the explanation lies in the specific nature of the decline in activity in 2020, motivated mainly by health factors.

When broken down by product, the NFE investment rate seems to deviate on average in 2020 from its pre-crisis trend ( figure 2). First, the rate of NFE investment in services increased even more strongly in 2020 than before the crisis, driven by investment in information and communication services (including computer software): it increased by 0.8 points in 2020, after 0.2 points per year on average from 2010 to 2019. In addition, the rate of NFE investment in manufactured products fell back in 2020, whereas between 2010 and 2019 it increased. Therefore, at the end of 2020 at least, the health crisis seems to have contributed to changing the distribution of NFE investments, in favour of services and to the detriment of manufactured goods and construction.

### ► 1. Investment by non-financial enterprise (NFEs) Q4 2019 volume variance, in %

	Weight in	Difference at Q4 2019 level <b>2020</b>							
	Q4 2020	Q1	Q2	Q3	Q4				
Manufactural products	32%	-14	-32	-7	-9				
of which equipment goods	11%	-14	-29	-9	-7				
of which transport material	10%	-21	-47	-9	-15				
of which other industrial products	11%	-7	-20	-2	-4				
Construction	22%	-15	-33	-7	-11				
Services	46%	-2	-8	-4	1				
of which Information and communication	25%	-1	-5	-4	2				
of which corporate services	21%	-3	-10	-4	0				
All NFEs	100%	-9	-22	-6	-5				

Source: INSEE, quaterly national accounts in 2014 base

## The second lockdown affected NFE investment much less than expected

Investment by NFEs increased by 0.9% in Q4 2020, after the strong +20.7% rebound in Q3 (▶ figure 3). Only investment in services increased in Q4 (+5.6%), driven by information and communication services. Investment in construction fell back by 3.6% and investment in manufactured goods lost 2.0%, mainly due to the decline in vehicle registrations during the second lockdown.

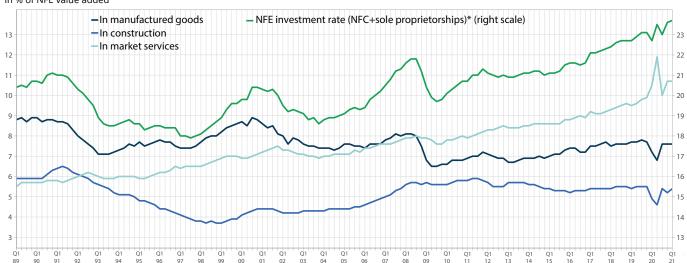
NFE investment therefore resisted much better at the close of the year than the forecast in the December 2020 *Economic Outlook* suggested, as it rather expected a contraction in line with the lockdown. In fact, in the manufacture of capital goods, analysis of the business tendency surveys published since November shows that the businesses interviewed were pleasantly surprised by their sales in the last two months of 2020: in November, the balance of opinion on future sales fell dramatically, whereas in January and February the balance of opinion on sales actually achieved remained high. Enterprises in the information and communication services sector were also pleasantly surprised by their sales at the end of 2020. These surprises after the fact illustrate the high level of uncertainty inherent in the present situation.

## Opinions expressed by enterprises at the start of 2021 suggest that the rebound in investment will continue

The business outlook surveys in January 2021 provide information on companies' readiness to invest at the start of the year. They suggest that the rebound in investment will continue, even though, in industry for example, production capacity at this stage remains less in demand than before the crisis. Thus, according to the quarterly outlook survey on industry, the production capacity utilisation rate would seem to have increased to 79% in January, still below its January 2020 level (83%).

According to the January outlook survey on investment in industry, industrialists are expecting a 10% increase in value of their tangible investments and software in 2021, after they estimated a decline of −13% for 2020 (► figure 4). However, in this quarterly survey, the estimate given in January is often higher than the change ultimately observed a year later.

### ► 2. The non-financial enterprise investment rate continued its rise in 2020 in % of NFE value added



Note: the investment rate of non-financial enterprises is defined as the ratio of their GFCF in current euros to their value added in current euros. The value for Q1 2021 represents a forecast.

Source: INSEE, quaterly national accounts in 2014 base

## In Q1 2021, corporate investment is expected to continue its rebound

Investment in manufactured goods should pick up in Q1 (+1%). Investment in transport equipment is of course expected to decline, as suggested by the strong fall in vehicle registrations in February. However, the business climate in the manufacture of capital goods, metallurgy, and the installation and repair of machinery and equipment sectors increased on average in January and February. In addition, the industrial production index rose in these three sectors in January.

Investment in construction is expected to grow significantly in Q1 (+3%). The balances of opinion on expected activity in the outlook surveys of companies in

building construction and civil engineering increased in January and February.

Investment in services is expected to increase slightly (+1%): investment in information and communication services is certainly increasing structurally, while investment in research and development is already back to its pre-crisis level and should now grow slowly.

All in all, NFE investment should increase in Q1 2021 (+2% forecast). At the end of this quarter, its growth overhang for 2021 is likely to be 8%, which means that with zero growth in volume over the rest of the year, NFE investment should still pick up by 8% in 2021 compared to 2020.

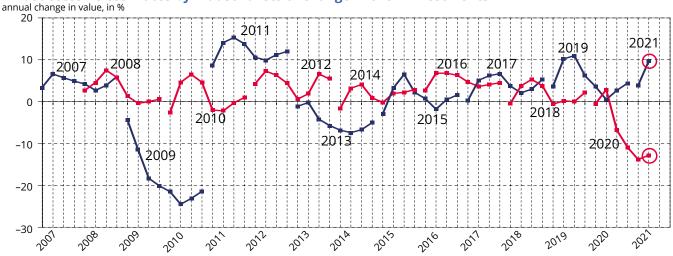
#### ► 3. Investment by non-financial enterprise (NFEs)

at previous year's prices, chain-linked, seasonally adjusted, in %.

		Quaterly changes							Annual changes			
		2019			2020				2021	2019	2020	2021
	Q	l Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1			ovhg
Manufactured product (32%)	2.	1.0	1.2	-0.9	-14.2	-20.7	37.0	-2.0	1	4.3	-15.3	9
Construction (22%)	-0.	6 1.1	0.5	-0.6	-15.2	-21.2	39.0	-3.6	3	1.1	-16.4	11
Services (46%)	0.	5 1.2	1.7	1.1	-1.7	-6.4	4.1	5.6	1	4.9	-1.3	6
All NFEs (100%)	0.	3 1.1	1.3	0.0	-9.1	-14.1	20.7	0.9	2	3.7	-9.6	8

Forecast

#### ▶ 4. Successive estimates by industrialists of change in their investments



Date de l'enquête sur les investissements dans l'industrie

Note: the quarterly survey of investment in industry estimates investments in a given year eight times, with enterprises revising their investment plans during the year. As can be seen from the regular shape of the curves for successive estimates of change in investments, for any given year, this revision follows a seasonal profile. For example, as a general rule, the second estimate is higher than the first. Estimates therefore cannot be compared unless they were produced in the same month.

How to read it: growth in value of spending on tangible investments and software between 2019 and 2020 was estimated at –1% in October 2019, +3% in January 2020, –7% in April, –11% in July, –14% in October, and –13% in January 2021. Estimates from the January 2021 survey are circled. *Source: INSEE, quaterly survey on investment in manufacturing* 



### Oil and commodities

In Q4 2020, the price of Brent stood at \$44 per barrel on average, down 3% compared to Q3 2020.

As a result of the health crisis, oil demand fell sharply in Q2 and then rebounded without returning to its previous level. Supply also rebounded, but at a more moderate pace. According to the IEA (International Energy Agency), oil demand is therefore expected to exceed supply in Q1 2021. For this forecasting exercise, the conventional assumption is that the price of Brent will stabilise at around \$60 per barrel until the end of the quarter.

This scenario is subject to several uncertainties. On the supply side, there is uncertainty about whether OPEC countries will comply with their new production quotas. The possible exacerbation of geopolitical tensions in the Middle East could also trigger a rise in prices; however, the return of the United States to the Iranian nuclear agreement could lead to a drop in prices. There are also demand-side uncertainties, particularly concerning the impacts of the coronavirus epidemic and the effects of the US stimulus plan in the medium term.

Commodity prices were very volatile throughout 2020. After falling by 3.6% in Q2 2020, prices stagnated in Q3 and rebounded by 5.4% in Q4, exceeding pre-crisis levels.

## Brent prices were very volatile in 2020, fluctuating between \$9 and \$70

During 2020, oil prices fluctuated significantly (► figure 1). Prices briefly peaked at \$70 in early 2020, in

reaction to the geopolitical tensions between Iran and the United States, before plummeting to a record low of \$9 in April 2020 under the impact of the health crisis. Prices have gradually picked up since then, averaging \$44 in Q4 2020. Prices have continued to rise since the beginning of 2021, exceeding \$60 per barrel of Brent in February. Assuming a conventional price of \$60 from that date onwards, the price of oil is expected to reach \$59.1 in Q1 2021.

#### Global oil demand remains well below precrisis levels

H1 2020 saw the biggest drop in worldwide oil demand in the history of the oil industry. The global recession linked to the COVID-19 epidemic led to a sharp decline in demand from all consumer countries ( figure 2). However, Chinese demand picked up in Q2 2020. In the summer of 2020, global oil demand from all consumer countries rebounded, driven by the easing of health restrictions, but remaining at a much lower level than before the health crisis. In Q4, global demand slowed under the impact of further restrictions introduced in a number of countries. In Q1 2021, demand is likely to slow down further, remaining almost flat and mainly sustained by European demand due to particularly cold winter temperatures. Chinese demand is expected to have a negative impact on global oil demand on an exceptional basis, with the introduction of new health restrictions significantly curbing the traditional Chinese New Year festivities.

### ► 1. Price of a barrel of Brent in dollars and euros currency of the barrel



Source: Commodity Research Bureau

#### After an unprecedented decline in the first three quarters of 2020, oil supply rebounded moderately thereafter and should remain at a very low level in Q1 2021

In Q1 2020, global oil supply declined, despite higher production in the United States, with OPEC deciding to further reduce its production. In Q2 2020, the output of all producing countries nosedived due to production difficulties linked to the restrictive measures in force, and a desire to adapt output to sharply declining demand. Consequently, OPEC countries decided to cut their production drastically in May and June in order to buoy up the prices of oil products.

In Q3 2020, OPEC decided on a further reduction in supply. Production recovered slightly in the United States. In Q4 2020, global supply increased, continuing to rise in the United States and picking up in OPEC countries. In particular, OPEC production increased, mainly as a result of higher production in Libya following the ceasefire in September. Iran, for its part, increased its production slightly, although it remains affected by the sanctions in force since the United States' withdrawal from the Vienna agreement on the Iranian nuclear programme in 2018. Iraq produced 3.83 million barrels per day - slightly above the OPEC threshold, and Saudi Arabia produced more than in Q3 2020, while still complying with its quotas. On 5 January 2021, OPEC agreed to extend the Algiers agreement, and to increase production only slightly, given the tightening of health restrictions in several countries. All in all, world output is expected to increase moderately in Q1 2021, driven mainly by the recovery of production in the United States, where shale gas output

rose at the end of the year. However, the market is likely to remain in deficit in Q1 2021, with supply remaining below demand (► figure 2).

#### Stocks remain high

US crude oil stocks fell to 492 million barrels in Q4 2020 but remain at very high levels – well above (+45%) the 2011-2014 average. Upward pressure on prices could therefore be curbed by the level of trade reserves continuing to remain high.

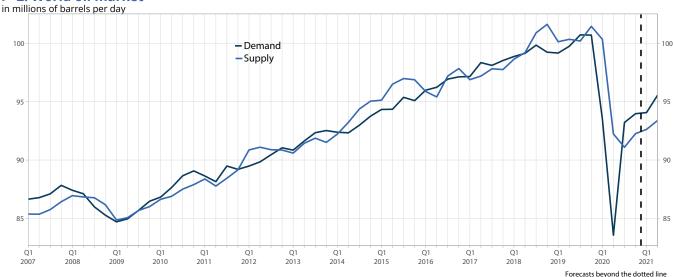
#### **Commodity prices were very volatile in 2020**

After declining in H1 2020, the prices of all commodities rebounded in Q4 (+5.4%), even exceeding their pre-crisis levels. This profile is mainly attributed to the price of mineral commodities. The price of iron ore rose by 20.2% in Q3 and by 4.5% in the Q4 2020 (▶ figure 3). Prices were driven up by the rebound in Chinese demand for manufactured steel products, and by adverse weather conditions in Australia, the main producer. The upswing in Chinese demand also buoyed up copper prices, which rebounded in Q3 and Q4 (+16.8% and +6.5%). The surge in mineral prices is likely to result in higher production costs in industry. In this respect, the producer price of metal products rose sharply in January (+5.0% in the initial estimate).

The profile of food and agri-food commodity prices was similar but more stable (▶ figure 3). However, these relatively moderate variations may mask much more marked developments in certain specific commodities. In cereals, for example, corn prices rose sharply in Q4 (+22.6%). Indeed, biofuel production and the end

1 At its meeting in Algiers in September 2016, OPEC expressed its desire to limit its production in order to reduce the surplus supply due to the sharp rise in US shale oil output. The agreement was ratified in November 2016, and came into effect on 1st January 2017. Several countries, including Russia, joined this effort. The production quotas have been reconsidered on a regular basis since then.





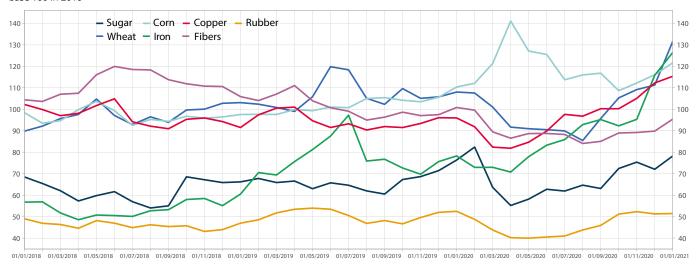
Source: AIE, INSEE

of swine flu in China drove up demand at a time of shorter supply caused by climatic disturbances (La Niña). Wheat prices also surged in Q4 (+20.2%), driven by unexpectedly record-breaking demand due to precautionary buying. On the other hand, sugar prices tumbled in Q2 2020 (-20.8%), in connection with the collapse of oil prices, which prompted producers to switch from sugar to ethanol production. They bounced back strongly thereafter, particularly in Q4 (+15.6% after +7.7% in Q3), in the wake of oil prices. In agro-industrial commodities, textile fibre prices rebounded significantly in Q4 2020 (up 4.6%, after dropping by 9.2% and 2.3% in Q2 and Q3 respectively), driven by strong demand from China, where clothing activity has started to increase again, after a slower

textile season due to the health crisis. Rubber prices bounced back in Q3 (+8.3%) and particularly in Q4 (+18.4%). The health crisis had caused prices to plummet in Q2 2020, with demand impacted by the closure of tyre manufacturing plants in countries affected by the pandemic, even as rubber production was rising.

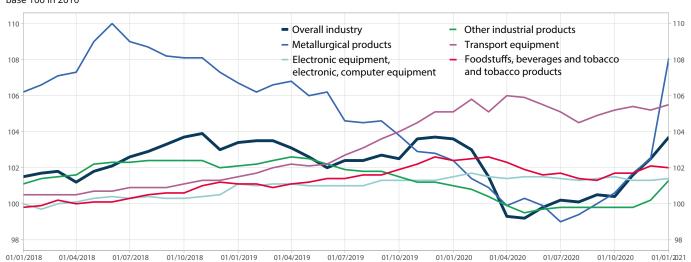
These rises in commodity prices are reflected by producer prices in industry (▶ figure 4), and are likely to fuel the rise in the consumer price index, even though it remains moderate at this stage and can also be explained by cyclical factors (new weightings in the structure of the market basket for the index to take account of changes that occurred during the health crisis, changes to the dates of winter sales, etc.). ●

### ➤ 3. Commodity prices increased significantly in late 2020 – early 2021 base 100 in 2010



Source: INSEE

#### ► 4. French producer price index in industry for all markets, domestic and foreign base 100 in 2010



Source: INSEE

## **International developments**

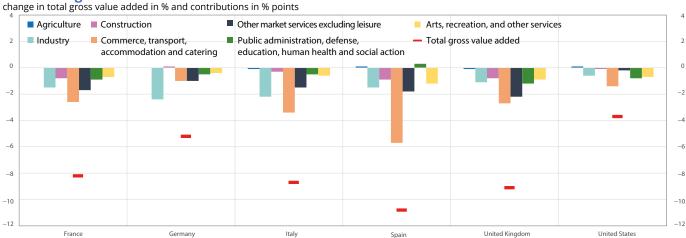
In 2020, the health crisis affected all Western economies. On the supply side, the trade, transport services, and accommodation and food services sectors contracted particularly sharply. On the demand side, the main consequence of the abrupt decline in activity was a drop in private consumption. At the end of the year, industrial production was maintained despite the tightening of health restrictions associated with the second wave of the epidemic, while retail sales were more seriously affected by lockdowns and curfews. In addition, the maintenance of health restrictions this winter has raised fears of a decline in activity in the worst-affected countries, as reflected by the «high frequency» indicators, despite a slight improvement at the end of February.

#### In 2020, the health crisis affected all the major Western economies, albeit to different extents

Global economic activity was severely disrupted by the health-crisis-related restrictions in 2020. On average over the year, GDP in the main European countries contracted by 5.3% in Germany, 8.2% in France and 8.9% in Italy (▶ figure 1). GDP dropped more markedly in Spain (−11%) and the United Kingdom (−9.9%). In the United States, the contraction in activity was more moderate, at −3.5%.

On the supply side, all productive sectors contributed to the drop in total value added (▶ figure 2). With the exception of Germany, the trade, transport, and accommodation and food services sectors made the largest contribution to the decline in total value added - of between 1 and 3 percentage points - in France, Italy, the USA and the United Kingdom. The negative contribution made by these sectors reached almost 6 points in Spain given the importance of tourism (10% of GDP). German industry, on the other hand, was hit harder by the partial production stoppages and the decline in foreign trade in 2020, contributing 2.4 percentage points to the drop in total value added. In the other countries monitored, industry also contributed to the decline in total value added, but to a lesser extent: from -0.6 to -2.2 points depending on the country. Conversely, on average during 2009, the industrial sector had made the biggest negative contribution to the decline in activity in all of these countries. In 2020, the downturn in activity in Europe was also driven by the decline in other market service activities excluding leisure; it contributed 1 to 2 points to the drop in GDP depending on the country, in contrast to the United States, where this sector made an almost neutral contribution.

## ► 1. Apart from in Germany, the trade, transport, and accommodation and food services sectors made the largest contribution to the contraction of total value added in 2020



Note: for the United States, detailed data for Q4 2020 have not yet been published: the contributions are therefore calculated on the basis of Q3 data. The breakdown per sector corresponds to NACE Rev. 2, level A\*10, with the reaggregation of information, communication, financial, insurance and real estate activities, professional, scientific and technical activities, and administrative and support services into the "Other market services excluding leisure" category. Source: Eurostat, Destatis, Istat, ONS, Bureau of Economic Analysis

In all of these countries, the drop in GDP was mainly due to the decline in private consumption, which contributed more than 3 points in France and Germany, more than 6 points in Italy, and almost 7 points in Spain and the United Kingdom. Indeed, the health measures were the main brake on household consumption, unlike during the 2008 financial crisis when investment had made a greater contribution to the decline in activity. In 2020, investment was nonetheless impacted by the health crisis in all countries, and contributed to the contraction in activity, from around 1 point in Germany and the United States to more than 2 points in France and Spain. The contribution of foreign trade varied from one country to another: negative in France, Germany and Italy by around 1 point, marginal in the United States and Spain, and positive in the United Kingdom (+0.7 points). Government consumption, which may have been accounted for differently in different countries, particularly in the spring, also made a variable contribution from one country to another.

At the end of 2020, the resurgence of the epidemic affected retail sales more than industrial production, but the latter still remained below its pre-crisis level

In Europe and the United States, industrial production remained broadly stable at the end of the year. In December, it was below its pre-crisis levels everywhere (> figure 3). The introduction of tougher health measures in certain countries, including lockdowns (see below), was not accompanied by significant declines in industrial production. The IPI, excluding construction,

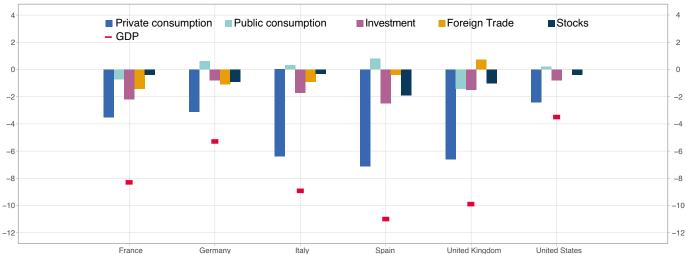
rose slightly in the United States. In most European countries, production stabilised at the end of the year, except in Germany where it approached its end-2019 level, marking a return to the pre-crisis levels of variance with other European countries.

In January, production remained resilient despite the introduction of more stringent health measures. In the major European economies and the US, it remained below its 2019 level. In Europe, the situation was variable: although the IPI weakened slightly in Germany and Spain (dropping by –0.4 points and –0.7 points compared to the average for Q4 2019, to 98.0 and 97.0, respectively), it increased moderately in Italy (+1.0 point to 98.1) and more strongly in France (+3.1 points to 98.4). On the other side of the Atlantic, the US index rose by 0.9 points to 97.8.

Retail sales in 2020 indicated that demand was gaining ground at a faster pace in the major European economies and in the United States ( **figure 4**): by the end of the summer, they had already reached their pre-crisis levels. However, in comparison to supply, the retail trade was hit harder by the health restrictions during Q4.

In November, retail sales plummeted, notably in France and Italy (and to a lesser extent in the UK). In France, they bounced back strongly in December thanks to the reopening of "non-essential shops", whilst they stagnated in Italy, where shops remained closed in some areas. Meanwhile, the German retail trade slumped after the closure of "non-essential" stores in mid-December. In Spain, the retail sales index was very gradually approaching its pre-crisis level by the end of the year.





Source: INSEE, Destatis, Istat, INE, ONS, Bureau of Economic Analysis

Demand in the US was more vigorous than in Europe: in January 2021, US retail sales were almost 10% above their pre-crisis level, in contrast to European retail sales, all of which remained below their pre-crisis levels in January. In France, Germany and the United Kingdom, they stood at around –5% compared to their pre-crisis level, while in Italy they were –10% down.

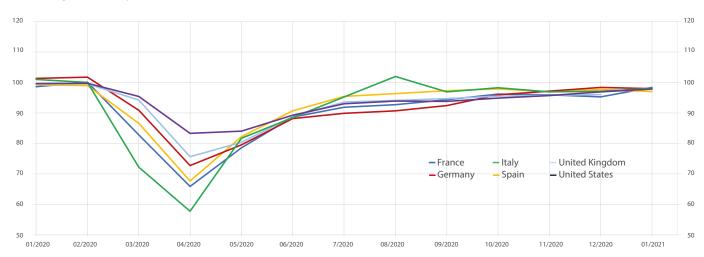
## In both Europe and the United States, certain health restrictions have been extended

In Europe, the health measures put in place in December and January were maintained and extended in February – and until at least the beginning of March in some countries – as shown by the Oxford indicator measuring

the stringency of health restrictions ( figure 5). In France, the 6 p.m. curfew was maintained, along with the closures of bars and restaurants. Local lockdowns were also introduced at weekends. In Germany, the lockdown that began on 16 December was extended in February until 28 March, including an extended closure of "non-essential" businesses and schools. However, since the beginning of March, the reopening of some "non-essential" shops and schools has been authorised by certain Länder. The gradual easing of lockdown measures in Germany is expected to continue throughout March and early April, depending on the 7-day incidence rates in the different Länder. Similarly, in the United Kingdom, the lockdown declared at the beginning of January remains in force in England: schools reopened on 8 March, but

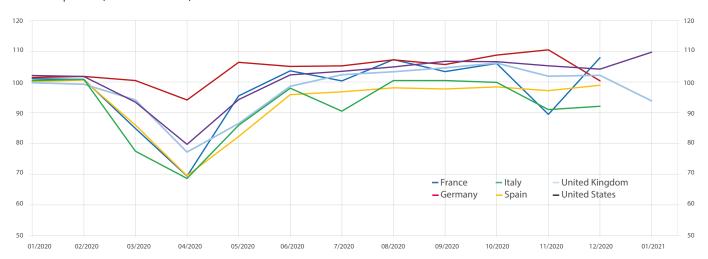
#### ➤ 3. At the end of the year, industrial production remained relatively stable in Europe and the United States, despite the health restrictions

IPI excluding construction per level (base 100 = T4 2019)



Source: ONS, Istat, INE, Destatis, INSEE, Federal Reserve Board

### ► 4. Adversely affected by lockdowns, retail sales trends were variable at the end of 2020 Retail sales per level (base 100 = T4 2019)



Source: Eurostat, ONS, Census Bureau

"non-essential" stores remain closed. The other British nations are locked down under similar conditions to the English restrictions. In Italy, the number of regions classified as orange under the COVID colour-code system was reduced at the end of January following a drop in the number of cases, allowing bars and restaurants to open temporarily until 6 p.m. However, the circulation of the so-called "English variant" reversed this trend at the end of February, leading to an increase in the number of areas classified as orange, and by definition, to the closure of bars and restaurants in the areas concerned. Lastly, in Spain, the measures decided at the regional level were generally maintained at an equivalent level in February, with an easing of restrictions in only a few local cases, such as in Extremadura and Galicia, or conversely a reinforcement of measures in the Valencian Community.

On the other side of the Atlantic, the health situation is clearly improving with a significant decrease in the number of cases since mid-January, allowing California, for example, to end its lockdown.

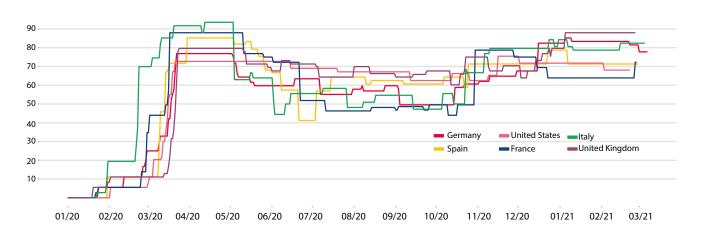
The extension of these restrictive measures has impacted services more negatively than industry, as shown by the slight deterioration in the service-sector PMI in France and Germany in February (45.6 after 47.3, and 45.7 after 46.7, respectively). In Italy and Spain, the lower level of restrictions led to an increase in the service-sector PMI in February (+4.1 points and +1.4 points, respectively) but the levels remain below the expansion threshold (48.8 in Italy and 43.1 in Spain). In the United Kingdom, after falling at the beginning of the year due to the lockdown, the service-sector PMI surged by

10.0 points in February after the low point reached in January, placing it just below the expansion threshold (49.5). The US service-sector PMI recorded a moderate improvement, reaching a high level (59.8 in February after 58.3). Meanwhile, manufacturing-sector PMIs rose throughout Europe, all exceeding the expansion threshold in February, in contrast to the service-sector PMIs in these same countries. The manufacturing-sector indices rose sharply in France, Germany and Spain (+4.5 points to 56.1, +3.6 points to 60.7 and +3.6 points to 52.9, respectively). The rise in Italy, however, was more moderate (+1.8 points to 56.9). In the United Kingdom, a more modest increase of +1.0 point to 55.1 was recorded. In the United States, after reaching a historic high, the manufacturing-sector PMI slipped back slightly in February (-0.6 points to 58.6) but remains well above the expansion threshold.

#### «High-frequency» indicators improved slightly at the end of February but are still affected by health restrictions

Consumption behaviour continues to be affected by the health restrictions: "high frequency" indicators reflect a situation that has deteriorated since the beginning of the year, despite a slight improvement at the end of February. Consequently, there appears to have been a relative improvement in the number of visitors to nonfood retail outlets and recreational facilities ( figure 6), except in Italy where they are stabilising after the dip linked to the end-of-year festivities: after slumping to -45% compared to the pre-crisis level in January,

## ► 5. With the exception of France and Germany, the severity of sanitary restrictions remained constant in Western countries at the end of February Oxford University Stringency Index

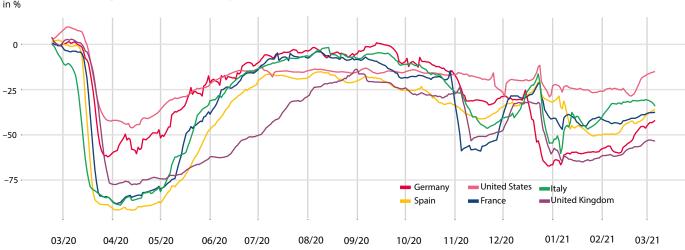


Note: this index lists and summarises all health containment measures in a single indicator, including personal mobility restrictions and closures of businesses, administrations and schools. Last update between 22 February and 7 March depending on the country Source: Hale, T., Webster, S., Petherick, A., Phillips, T., et Kira, B. (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government

visitor numbers picked up slightly to –30% at the end of February. In other countries, the number of visitors to these outlets improved at the end of February, although they were still significantly down, standing at around –55% and –45% in the United Kingdom and Germany – the countries with the strictest lockdowns. The impacts on visitor numbers were appreciably lower in Spain and France (around –40%), and much lower in the United States (–20%).

This relative improvement in consumer behaviour compared to the beginning of the year was also reflected by the number of searches for the word «restaurant» on Google (▶ figure 7). This number of searches was close to the level reached during the March lockdown in the UK, Germany and France, but recovered slightly at the end of February and beginning of March in these same countries. In Spain, the situation had deteriorated in January in relation to the end-of-

## ► 6. With the exception of Italy, the number of visitors to non-food retail outlets and recreational facilities improved in February

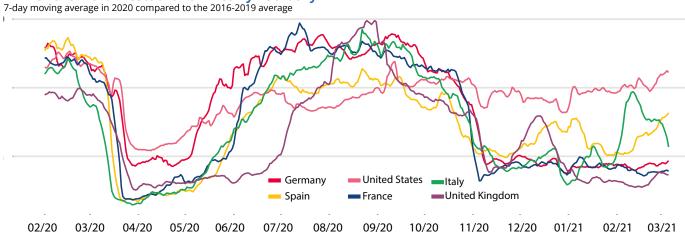


How to read it: the number of visitors to non-food retail outlets and recreational facilities in Germany was 60% lower on 13 February (calculated as a 7-day moving average) than the median value calculated by Google between 3 January and 6 February 2020.

Note: the date of the last point is March 2, 2021.

Source: Google Maps Mobility

## ▶7. The reopening of restaurants in many parts of Italy led to a significant increase in Google searches for the word "restaurant" in early February



How to read it: on February 19, the 7-day moving average for the number of searches for the word "restaurant" on Google in France was 61% lower than the average of the 7-day moving averages recorded on 15 January between 2016 and 2019. Note: the date of the last point is March 5, 2021.

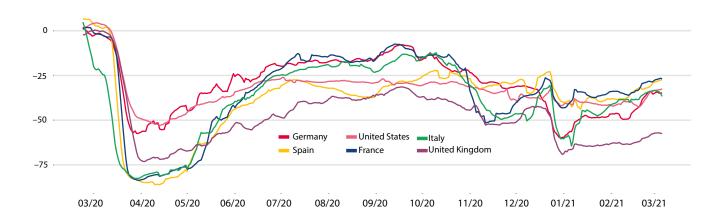
94 Economic outlook

Source : Google Trends

year holiday period, but it improved more markedly at the end of February due to the easing of some local restrictions. In Italy, there was a sharp increase the number of these searches: from –50% to 0% in a fortnight, corresponding to the temporary reopening of restaurants in a large number of regions. The renewed closure at the end of February then reversed this trend, causing the number of searches to drop to –25% below its pre-crisis level in mid-February, and then to almost –40% in early March. In the United States, since mid-January, these searches have been back above their average levels recorded between 2016 and 2019.

Continued restrictions in these countries are still hampering mobility, as evidenced by public transport passenger numbers (▶ figure 8). However, mobility picked up at the end of February, in line with the improvement in the number of visitors to retail stores: from -50% to -35% in Germany, consistent with the public transport passenger levels in Italy and the United States. It also increased in France and Spain, reaching -30% compared to the pre-crisis levels. And despite a slight improvement, mobility in the UK remains the most affected, at around -60% below its pre-crisis levels. ●

### ▶ 8. Public transport use also picked up at the end of February in all countries in %



How to read it: The number passengers using public transport in Italy was 40% lower on 13 February (calculated as a 7-day moving average) than the median value calculated by Google between 3 January and 6 February 2020.

Note: the date of the last point is March 2, 2021.

Source: Google Maps Mobility

## Comparative employment and unemployment trends in the main Western countries in 2020

While the health restrictions had a strong impact on economic activity everywhere in 2020, unemployment rates followed more contrasting trajectories. Throughout the year, unemployment rose in all the major Western economies. However, at the height of the health crisis in the spring of 2020, an "misleading" drop in the unemployment rate was recorded in France and Italy, whereas it remained stable in the UK, but rose in Spain, Germany and the United States. These differences have multiple origins. Firstly, employment trends differed from country to country, and in some countries, short-time working arrangements or less stringent restrictive measures were introduced to maintain some employment. Secondly, labour-force trends also differed from country to country, sometimes to significant extents. Finally, concerning the United States, there are differences in the operation of the labour market and the associated statistical conventions.

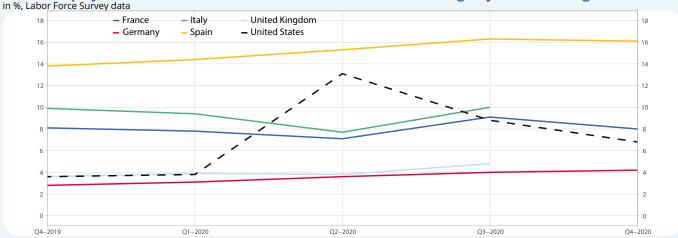
## At the height of the crisis, unemployment rates varied heterogeneously throughout Western economies

In 2020, the sharp decline in economic activity led to an overall increase in the unemployment rate in Western economies (> figure 1). However, the extent of these variations and their infra-annual dynamics differed greatly from country to country. In Spain and Germany, the unemployment rate increased between Q1 and Q3 2020 (from 14.4% to 16.3%, and from 3.1% to 4.0%, respectively). In contrast, the unemployment rate in France and Italy ran counter to the trend for economic activity in Q2, decreasing by 0.7 and 1.7 points respectively, before rebounding strongly in Q3 (+2.0 and +2.3 points). In the United Kingdom, the unemployment rate remained stable in Q2 before increasing by 1.0 percentage point to 4.8% in Q3.

In addition, in the United States, the changes in unemployment seemed to bear no comparison with other countries (+9.3 points in Q2 followed by -4.3 points in Q3), notably due to the sudden increase in "temporary layoffs". This category includes people who have been laid off but expect to return to work (normally within six months or when the situation improves during the health crisis), even though they no longer have an employment contract, no longer receive even partial remuneration from their employer, and have no formal legal assurance of being rehired<sup>1</sup>. This designation differs from the "temporary layoffs" category in Eurostat that includes European short-time working arrangements such as the French chômage partiel scheme, which is considered to be a form of employment<sup>2</sup>.

According to ILO standards, people who have not worked for a short period of time, but who have maintained links with their job during that period, are considered to be "employed". These links are determined on the basis of duration (absence lasting less than three months, or in the pandemic context, if these people expect to return to the same job once the restrictions have been lifted), or salary (partial remuneration by the employer). The BLS considers workers on "temporary layoffs" as having little or no connection to their jobs, and therefore counts temporary layoffs as an unemployment category.
 Despite certain aspects that bring them closer to the American definition of "temporary layoffs", people on the French short-time working scheme retain strong links with their jobs, and are therefore counted as employed, but absent from their job, in the ILO classification.

#### ▶ 1. Unemployment rates in Western countries have followed differing trajectories during the crisis



Note: for Germany, as labour force survey data were not available via Eurostat, the unemployment rate has been recalculated using data from Destatis. For the United States, the method of accounting for unemployment includes "temporary layoffs". This makes it very difficult to compare the US unemployment rate dynamics with the those of European countries.

Source: INSEE, Eurostat (Labor Force Survey), Destatis, Census Bureau

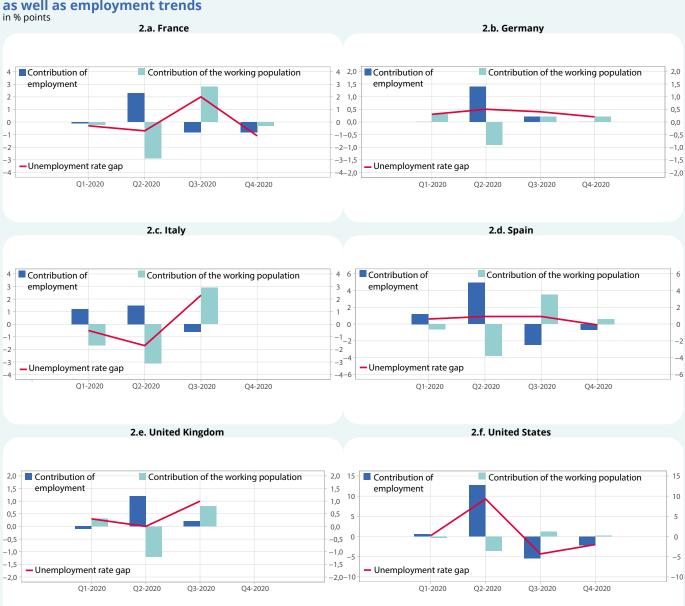
In the United States, the rise in unemployment in the spring of 2020 can therefore be mainly attributed to the increase in temporary layoffs (+17.3 million between February and April 2020). In February 2021, the majority of these unemployed people had returned to employment, but 2.3 million people were still classified as temporary layoffs, 2.2 million of whom considered that they had permanently lost their jobs. These temporary layoffs do indeed appear to be temporary in nature, but they nevertheless embody a form of unemployment, given the specificity of the US labour market. The differences in the functioning of the labour

market, and in the statistical conventions that describe it, thus call for caution when comparing the dynamics of the US unemployment rate with those of the unemployment rates in European countries.

## "Misleading" trajectories mask simultaneous fluctuations in employment and the labour force

These differences in unemployment rate trends from country to country can be analysed by distinguishing between the contributions of the two components of the unemployment rate: employment on the one hand,

## ▶ 2. The heterogeneous variations in unemployment across countries stem from labour force trends as well as employment trends



How to read it: in Q2 2020, the French unemployment rate decreased by 0.7 percentage points: the labour force contracted and contributed -3.0 points to the change in the unemployment rate, absorbing the effect of the decline in employment which nonetheless contributed +2.3 points.

Note: for the United States, the method of accounting for unemployment includes "temporary layoffs". This makes comparisons between the dynamics of the US unemployment rate and those of European countries very difficult.

Source: INSEE, Eurostat (Labour Force Survey), Destatis, Bureau of Labor Statistics

and the labour force on the other ( figure 2). In this way, in Q2 2020, at the height of the health crisis, two simultaneous trends impacted the unemployment rates of the countries in question. The introduction of health restrictions led to job losses, linked to the decline in activity, but also to a contraction of the labour force. In fact, some of the people who were unemployed or had just lost their jobs due to the adverse effects of the restrictions on activity, stopped actively looking for work and were therefore not counted as unemployed within the meaning of the International Labour Office (ILO).3 They were then considered as falling within the halo of unemployment,4 and therefore no longer belonging to the labour force. While job destructions linked to the decline in activity push the unemployment rate upward, the contraction of the labour force pushes it downward: a "misleading" drop, since in this case, the unemployment rate decreases while the number of unemployed people increases.

The differences in unemployment rate trends in Q2 2020 can therefore be explained, in accounting terms, by the relative importance of these two underlying movements: job destructions and the contraction of the labour force<sup>5</sup>. In Germany and Spain, for example, the effect of the decline in employment was predominant and the unemployment rate rose in Q2 2020. In contrast, the decline in employment in France and Italy - although significant, contributing +2.3 points to the rise in the unemployment rate in France and +1.5 percentage points in Italy - was overshadowed by the sharp decline in the labour force (making a negative contribution of -3.0 points in France and -3.2 points in Italy, much more than in Germany: -0.9 points). In the United Kingdom, a balance was struck between the employment and labour force trends, leading to a stable unemployment rate in Q2 2020. The labour force makes the greatest contribution in countries with the most stringent health restrictions, since this is where the biggest changes in the labour market access conditions occur, including opportunities to find a job, the availability of people, and the emergence of new job offers in the affected sectors.

In Q3, marked by a strong rebound in activity, the unemployment rate once again varied heterogeneously. In France, Italy and Spain, for example, the spill-over effects from the halo of unemployment on the labour force took precedence over the rebound in employment, causing unemployment to rise during the summer. In the

United Kingdom, employment continued to deteriorate in Q3, pushing up the unemployment rate, which was further increased by the rebound in the labour force. In Germany, however, labour force fluctuations seemed much more limited, and employment remained the dominant factor in the change in the unemployment rate.

The statistics for Q4 2020 have not yet been published for all countries; however, labour force fluctuations appear to have been much more moderate. In France, another contraction of the labour force was observed, but this time combined with an increase in employment, as a quarterly average: these two effects contributed simultaneously to a drop in the unemployment rate (> Employment sheet).

## Labour retention behaviour was contrasting across sectors and countries

Changes in employment in Q2 2020 followed variations in activity in a heterogeneous manner in different countries and sectors (▶ figure 3). European countries, most of which have implemented short-time working arrangements, have recorded limited drops in employment, which are not commensurate with their losses of activity. In the United States, however, where "temporary layoffs" are counted as job losses, employment contracted by 13.2% in Q2 compared to Q4 2019, i.e. more strongly than the decline in economic activity. The breakdown of the US economy into major sectors (▶ figure 3.f) shows similar changes in activity and employment within each of these sectors.

In European countries, workforce retention appears to have been strong in all sectors of activity. This concept refers to the short-term rigidity of employment in relation to activity: retaining employees during a slump - especially when they are placed on shorttime working schemes – may be more profitable than laying off employees and hiring again soon after. The difference between activity losses and sectoral job losses can shed light on the extent of workforce retention within each sector. In Q2, retention thus seems to have been particularly strong in sectors with better prospects for recovery, such as industry and construction, in countries where construction projects were halted (France, Italy, Spain and the UK), while the most durably affected sectors (transport, hospitality and catering, culture) suffered relatively substantial job losses, from -3.0% in Germany to -12.5% in Spain (variation in relation to Q4 2019).

<sup>3</sup> An unemployed person, as defined by the International Labour Office (ILO), is a person aged 15 years or older, without a job during a given week, and available for work within two weeks, who has been actively looking for work during the last four weeks or has found a job that starts within three months.

4 An unemployed person who has either looked for work but is not available for work, or has not looked for work but wants to work and is available for work.

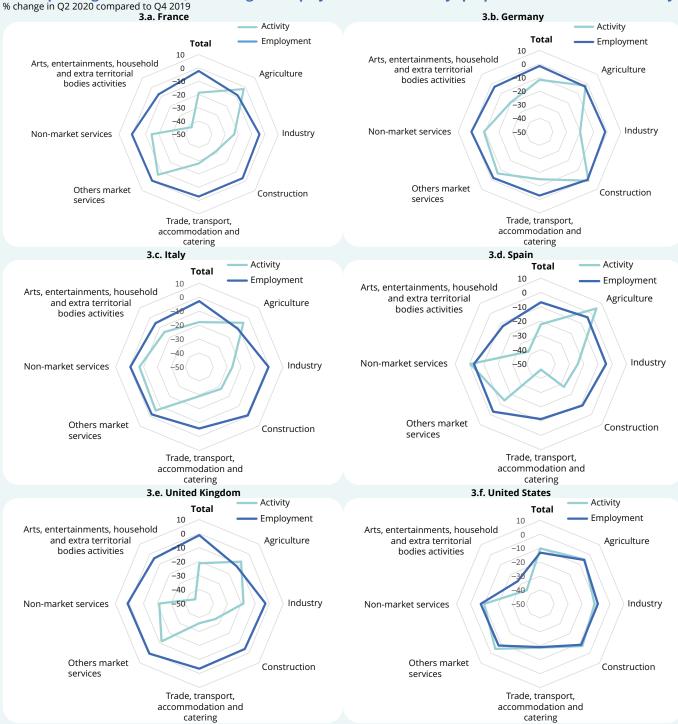
For accounting purposes, the change in the unemployment rate in each quarter is calculated as follows. The unemployment rate in quarter t is expressed as u(t) = 1 - L(t) / P(t) is total employment and P(t) is the labour force. The change in the unemployment rate in quarter t is expressed as follows:  $u(t) - u(t-1) = -[1/P(t)]^*[L(t) - L(t-1)] + [1-u(t-1)]^*[P(t)-P(t-1)]/P(t)$ , where the first term of the sum is the contribution of the change in employment, and the second term is the contribution of the change in the labour force.

Several factors may help to explain these differences between countries. Firstly, mobility restrictions – especially lockdowns – have caused some unemployed people to temporarily stop looking for work. Moreover, while employment trends are also

linked to health measures, since they are caused by the drop in activity induced by these measures, they are also influenced, and in this case mitigated, by the short-time working arrangements that have been put in place in several countries. •

Jules Baleyte, Eliette Castelain, David Fath, Jérémy Marquis, Robin Navarro

#### ▶ 3. Depending on the sector, the change in employment was not always proportional to the loss of activity



How to read it: in France, total value added contracted by 18.7% between Q4 2019 and Q2 2020, while total employment fell by 2.3% over the same period. Source: Eurostat (Labour Force Survey), Destatis, Bureau of Economic Analysis, Bureau of Labor Statistics

#### Box: The US job market underwent exceptional variations in 2020

In the United States, the coronavirus epidemic, and its economic consequences, triggered unprecedented variations in unemployment. In April, the unemployment rate surged to 14.8% – its highest level in the country's recent history – whereas it had not exceeded 10% during the 2008 crisis (> figure 1). If the labour force had not contracted by almost 2 points over the same period, this unemployment rate would have reached 19% in April 2020. This increase is explained by the massive job destructions coinciding with the first wave of the epidemic: up to 22 million in March and April for non-farm employment. Many of these job destructions were initially categorised as "temporary layoffs" (see *above*). The number of people on temporary layoffs reached 18 million in April 2020, a figure that had never previously exceeded 2.5 million. The lack of a special remuneration scheme for these unemployed people justified exceptional increases and extensions of unemployment benefits. The following section is based on data provided by the US *Bureau of Labor Statistics*, which considers anyone on the temporary layoffs scheme to be unemployed.

Employment then rebounded strongly in the following months with the creation of almost 10 million non-farm jobs until July, when these job creations levelled off and then gradually slowed down in H2 2020, before declining again in December as the epidemic intensified. In February 2021, the labour market still had 9.5 million fewer non-farm jobs than in February 2020.

The *Bureau of Labor Statistics* provides detailed monthly labour market statistics, enabling the shock that occurred in 2020 to be analysed in greater detail. Firstly, it enables, the characteristics of the individuals most affected by this shock to be examined. Women are shown to have been hit harder than men by this contraction of the labour market (employment down by 18% for women in March-April compared to –14% for men, and –16% for all employment), as have younger workers (–31% for workers under 25, compared to –14% for workers over 25). The least skilled jobs were also more severely affected, as shown by a decline of –25% for workers with less than a high-school diploma, compared to –6% for those with a bachelor's degree or higher.

Indeed, analysing job losses per sector highlights the fragility of these low-skilled jobs when more stringent health restrictions were introduced. The flexibility of the private sector made the holders of such jobs more vulnerable to job losses than their counterparts in the public sector (–17% versus –4% between February and April 2020). Job losses in the public sector were actually spread out over a longer duration, given that the layoff arrangements are less flexible than in the private sector. In particular, local authorities and the different states were severely affected by the reduction in their revenues in 2020: job losses were spread out until May and then resumed from August until the end of the year. In contrast, federal employment did not decline in the spring, and even increased temporarily at the time of the decennial census in late summer.

Within the private sector, the epidemic shock hit services harder than production (–17% against –12% between February and April). This sharp decline in the service sector was mainly due to the impact of job losses in the leisure and hospitality sector ( figure 5): in March, these job losses contributed 6.1 points, amounting to almost half of the 14% drop in service employment, in addition to the losses in trade and transport (2.7 points), education and health (2.2 points) and business services (1.8 points). This vulnerability of the hospitality and catering sector is easily understood for two reasons: on the one hand, it includes low-skilled and flexible jobs that can easily be shed, when necessary, and on the other hand it is particularly exposed to the restrictions affecting mobility and household consumption, imposed during this health crisis. The massive job losses (–49%) in the leisure and hospitality sector can be analysed in even greater detail ( figure 6). All the different sectors were very severely affected, with the exception of "museums and historic sites" which were relatively unaffected at the time of the April-May shock. However, there was virtually no rebound in employment in this sector after the first wave of the epidemic, or in the "performing arts" sector, in contrast to the "food and catering" and "entertainment, betting and recreation" sectors which, by November, had recovered almost two thirds of the jobs lost during the first wave.

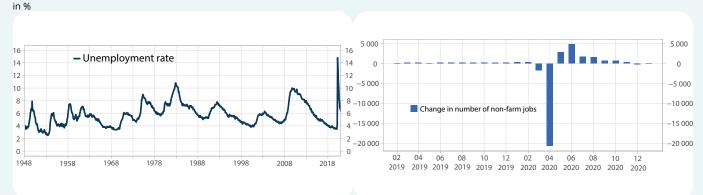
These job losses can also be analysed by carrying out a geographical analysis, based on the Local Area Unemployment Statistics survey, which provides data at the county level ( figure 7). Urban areas, which are more densely populated and attract more services and low-skilled jobs in sectors such as hospitality and catering, were logically the most severely affected by the decline in employment, whether in the Great Lakes region (Michigan, Indiana, Illinois), in the West (California, Nevada), on the East Coast (New York, Massachusetts, Rhode Island, New Hampshire) or in the South (Texas, Florida). In contrast, job losses were very limited in the central agricultural regions (Nebraska, North Dakota). A particularly noteworthy exception is Clark County, Nevada – home to Las Vegas

.../...

- where 37% of jobs were lost between February and April 2020, largely due to the closure of Las Vegas' leisure and hospitality activities, which account for a significant proportion of the county's jobs.

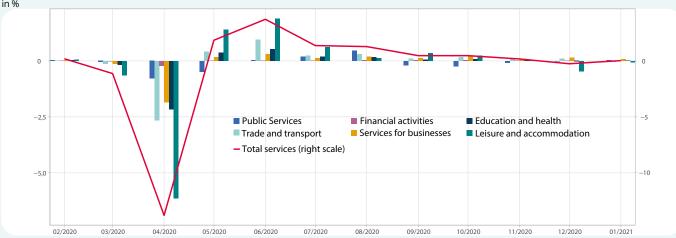
Today, the employment situation is a major issue in the United States, due to a slowdown in the pace of job creations given that a significant number of people have not yet returned to employment. This is reflected by the aid for the unemployed and the amounts invested in stimulus plans. Indeed, the number of long-term unemployed (more than 27 weeks) reached 4 million in January 2021 (more than three times its level in January 2020), raising questions about the expiry of their benefits and their opportunities to re-enter the labour market after a long period of inactivity ( figure 5). This increase goes hand in hand with the rise in the number of "permanent layoffs" (3.5 million unemployed in this situation in February 2021, i.e. 2.2 million more than in February 2020), with an upward trajectory continuing well after the shock in March-April. The labour force has remained at around 61.5% of the civilian population for several months, almost 2 points below its February 2020 level. •

## ▶ 4. After the destruction of 22 million jobs in March-April, the US unemployment rate reached record levels in 2020



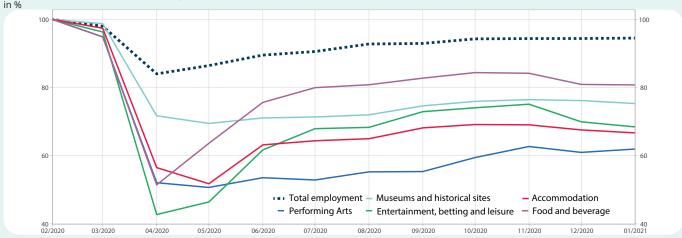
Source: Bureau of Labor Statistics

#### ▶ 5. The leisure and hospitality sector made the biggest contribution to job losses in the service sector



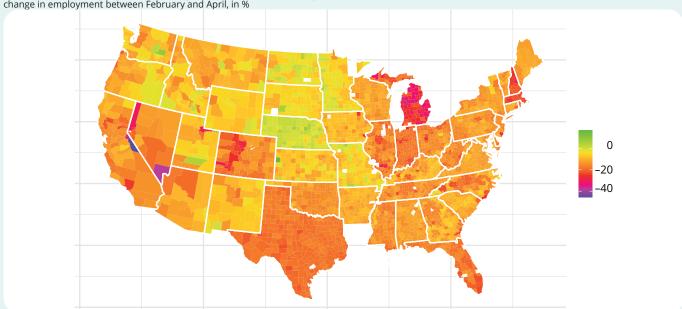
Source: Bureau of Labor Statistics

#### ▶ 6. The leisure and hospitality industries were all adversely affected by the health restrictions but rebounded in different ways



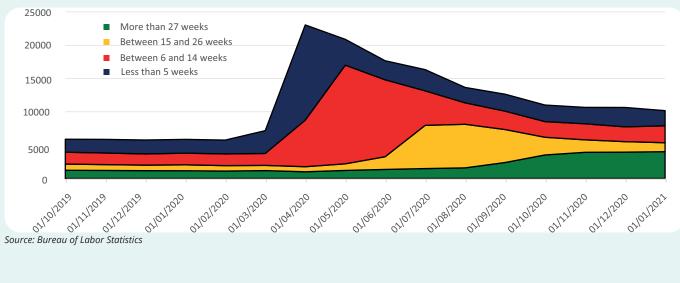
Source: Bureau of Labor Statistics

### ► 7. The most populated regions lost the most jobs change in employment between February and April, in %



Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

#### ▶ 8. The number of long-term unemployed has risen sharply



## Brexit triggered stockbuilding behaviour by UK businesses in late 2020, followed by a probable contraction in trade in early 2021

The United Kingdom left the European Single Market on 1st January 2021. Its new trade relationship with the European Union is shaped by a free-trade agreement that does not impose customs tariffs but includes non-tariff barriers affecting trade flows of goods. Even after its entry into force, Brexit remains a source of significant uncertainty for many UK businesses. As the deadline of 1st January 2021 approached, imports benefited from stockbuilding effects at the end of the year, in the context of a recovery in Q4. In this respect, French exports to the United Kingdom rose more quickly than to its EU partners. In January, the "high-frequency" port traffic indicator reflected a decline in British foreign trade, probably as a result of the non-tariff barriers introduced at the British border and in reaction to the preceding stockbuilding trend.

# The free-trade agreement signed on 24 December 2020 defines the new trading relationship between the United Kingdom and the European Union

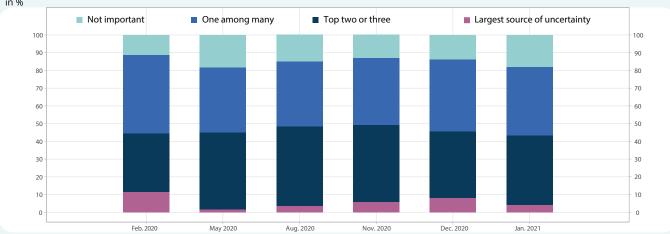
On 1<sup>st</sup> February 2020, the United Kingdom officially withdrew from the European Union, but retained access to the Single Market during the transition period until 31 December 2020. Negotiations on the nature of the relationship between the UK and the EU led to a trade deal agreed by both sides on 24 December 2020, one week before the deadline.

The agreement reached is a free-trade agreement, which means that there are no quotas or tariffs on the traded goods. However, non-tariff barriers are introduced at the UK border: goods traded between

the EU and the UK are subject to sanitary and phytosanitary inspections, as well as checks on their origin and destination by customs in both directions. These administrative formalities mean additional costs for UK businesses wishing to export to the Single Market and vice versa.

In the short term, the impacts on flows of goods from the EU to the UK should be gradual: UK customs are unilaterally applying transition periods and derogations in order to mitigate problems due to inflexibility at the border. They will not start performing full inspections until July 2021. However, no easing of the administrative burden is envisaged for goods originating from the UK and bound for the EU market. British producers exporting to the EU are therefore subject to all administrative controls.





Note: answers to the question: "How much has the result of the EU referendum affected the level of uncertainty affecting your business?"; only one answer possible.

Source: Bank of England "Decision Maker Panel" survey

## Even after its entry into force, Brexit remains a source of significant uncertainty for UK businesses

The Bank of England's "Decision Maker Panel" business tendency surveys provide an indication of the degree of uncertainty that Brexit has caused among UK businesses, even before an agreement had been reached ( figure 1). Between February 2020 and January 2021, the share of businesses that saw Brexit as a major source of uncertainty remained stable at between 40% and 50%. The validation of the free trade agreement does not seem to have dispelled the uncertainty surrounding Brexit at the beginning of the year. However, the proportion of firms indicating that Brexit is the main source of uncertainty has dropped since January 2020 and is now at a very low level, the health crisis also being a significant source of uncertainty.

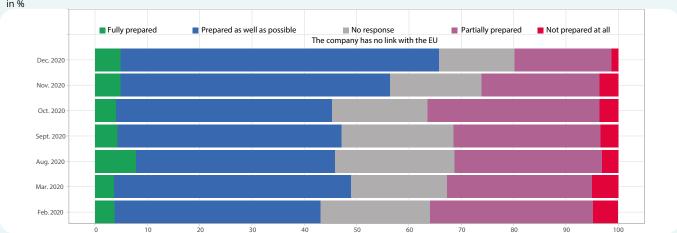
In addition, some of the questions in the Decision Maker Panel concerned the progress made in businesses' preparations for Brexit. In December, around two in three businesses felt that they had prepared for the withdrawal from the Single Market as best they could – a significant increase compared to previous months and the rest of the year (> figure 2). However, according to a survey conducted by the British Chamber of Commerce in January, half of all businesses involved in exporting goods to the European Union still reported difficulties in adapting to the changes in procedure.

As before the previous Brexit deadlines, UK imports increased at the end of 2020, benefiting from stockbuilding effects and an economic rebound despite health uncertainties

In Q4 2020, from an accounting standpoint, British growth (+1%) benefited from a 2.2 point contribution made by changes in inventories – one of the highest levels in a decade. Indeed, UK businesses are likely to have been stockbuilding ahead of the withdrawal from the Single Market, as was the case before previous deadlines (March 2019 and October 2019, in particular, see the June 2019 Economic Outlook). According to the Markit surveys, in December, manufacturing companies reported an increase in their inventories (mainly of input products, ► figure 3). The balance of opinion peaked in December at a level almost matching that of March 2019, the month before the first (ultimately postponed) Brexit deadline.

This stockbuilding behaviour by British businesses boosted British imports at the end of the year. Indeed, in Q4, they rose by 8.9% in volume (after +13.3% in Q3), also benefiting from an increase in domestic demand. Imports of goods grew by 14.2%, reflecting increases in flows from the European Union and from non-European trading partners (**b** figure 4).





Note: answers to the question: "Do you think your business is prepared for the potential extra requirements for trading with the EU once the current transition period comes to an end?"; only one answer possible.

Source: Bank of England "Decision Maker Panel" survey

In France, over the last three months of 2020, exports to the UK increased more than exports to the EU ( figure 5). In January, exports to the UK fell, while exports to the EU remained steady, probably as a result of the non-tariff barriers introduced at the UK border in early 2021.

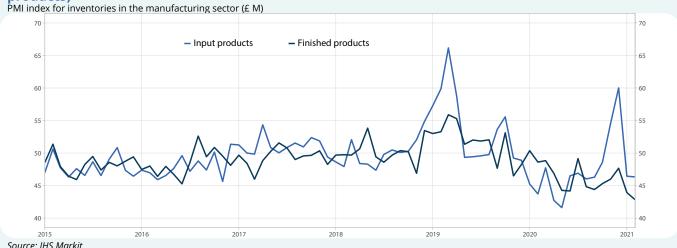
According to the Office for National Statistics (ONS), this increase in imports in Q4 2020 concerned specific products, including health products. The health context is one of the probable explanatory factors, as the production of COVID-19 tests requires specific goods. However, the Brexit context is another important factor. For example, the British government had advised British suppliers of pharmaceutical drugs

to build up their inventories in anticipation of the increased inspections specific to this type of goods at the border with the European Union. In addition, the ONS reported a marked rise in imports of transport machinery and equipment related to motor vehicle production, again reflecting possible Brexit-related anticipatory behaviour.

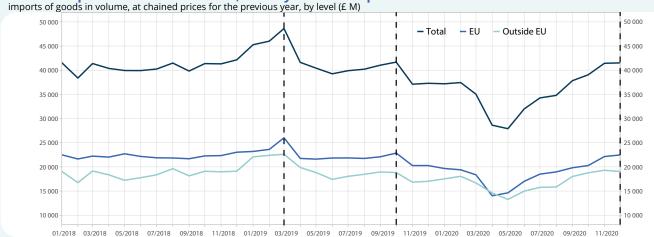
The "high-frequency" port traffic indicator suggests a significant drop in UK trade since 1st January

Although UK Customs statistics for January 2021 are not yet available, the UK's "high-frequency" port traffic indicator reports a significant drop in cargo

#### ▶ 3. In December 2020, businesses reported a sharp increase in their inventories (especially of input products)



#### 4. UK imports rose before Brexit, as they did before previous Brexit deadlines



Note: the vertical bars represent the months before a Brexit deadline.

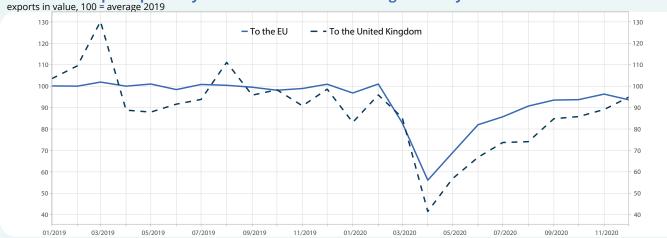
Source: ONS

11 March 2021 105

and tanker vessel transits through UK ports since the beginning of the year. During the week of 4-10 January, traffic was 25% lower than during the same week in 2020. Since then, seaborne trade appears to have recovered slightly, but remained below its level recorded one year ago in February, overall. Furthermore, according to the Bank of England, road vehicle traffic carrying goods around Dover was significantly down on the January figures for the previous three years. These early indicators therefore point towards a likely decline in trade at the UK border at the beginning of the year.

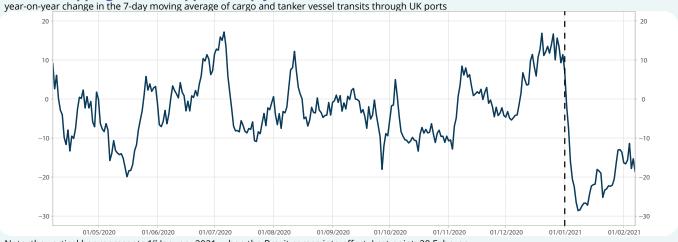
David Fath

#### ▶ 5. French exports probably benefited from stockbuilding trends by British businesses



Source: French customs

#### ► 6. UK shipping traffic dropped sharply after Brexit entered into force



Note: the vertical bar represents 1<sup>st</sup> January 2021, when the Brexit comes into effect. Last point: 28 February. *Source: ONS* 

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### In the United States, a massive new stimulus plan focusing primarily on households, whose income growth in 2020 masked contrasting situations

In the United States, after two economic support plans in response to the health and economic crisis, the new government is preparing to implement a new stimulus plan. This \$1.9 trillion stimulus plan sets out to bolster the immunisation campaign, provide economic support to households and the unemployed, and generally ensure a rapid and robust economic recovery. Although the exceptional scale of this new plan has sparked debate among economists, particularly given fears of the return of inflation, the contrasting situations of US households seem to justify increased support for the most struggling households, particularly given that levels of general social support and benefits are lower than in Europe.

#### Three massive plans make up the colossal budget support package implemented by the US in response to the health and economic crisis

The US response to the economic crisis caused by the coronavirus epidemic comprises three successive components (► figure 1). The first part - the "Coronavirus Aid, Relief, and Economic Security Act" (CARES Act) - passed on 27 March 2020, amounted to a fiscal stimulus of \$2.2 trillion, or around 10% of GDP, with the aim of supporting households and businesses. It included a one-time taxpayer stimulus cheque of \$1,200 per adult, unprecedented unemployment insurance, and the Paycheck Protection Program (PPP), providing loans to cover the wages paid by businesses. After the expiry of a proportion of this aid, the need for a second stimulus plan became apparent in the autumn. After being debated at length between

the Democratic House of Representatives and the Republican Senate in the context of the presidential election, the plan was finally enacted in late December ("Year-End Covid Relief Bill"). The \$900 billion (2.8% of GDP) package included a new \$600 household check, an extension of unemployment benefits and a new version of the PPP. Considering this second plan as a «down payment», the new US government then presented a third budget support plan totalling \$1,900 billion (8.7% of GDP), which has been approved by the House of Representatives and the Senate, and should be enacted quickly by Joe Biden. Measures under discussion include a \$1,400 stimulus cheque for taxpayers, new unemployment benefits and an increase in food aid. Funds are also being provided to step up the immunisation campaign, support local communities in need, and enable the reopening of schools and universities.

#### ▶ 1.The new stimulus plan focuses on households and local authorities





How to read it: the stimulus cheques provided as part of the Biden plan amount to 2.1% of GDP, or \$450 billion. Note: the amounts put forward in the Biden plan are not final due to ongoing negotiations in Congress. Sources: Congressional Budget Office, Committee for a Responsible Federal Budget

11 March 2021 107

## The rise in overall household income masks a very contrasting situation

The discussion of a third household-oriented stimulus plan raised concerns over the changes in the gross disposable income of households in 2020, which actually surged by +10.0% in Q2, driven by the CARES Act in particular, before falling back slightly in H2. It increased by +7.2% for the year as a whole compared to 2019. As a result, and given the decline in consumption, the household savings rate rose sharply from 7.5% of gross disposable income in 2019 to 16.2% in 2020. In accounting terms, these extra household savings could be sufficient to revive consumption once the economic recovery takes hold, without additional fiscal support. However, this increase in household income masks a contrasting situation at the microeconomic level, notably because social support and benefits in the United States are generally insufficient to mitigate the impacts of crises for a certain number of households, which explains the need for additional intervention in support of these households.

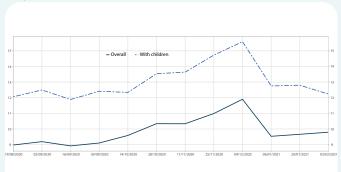
Indeed, the new US government's justification for the need to implement another stimulus plan is the situation facing the poorest households in the United States, including the ten million or so additional unemployed people (Focus on unemployment trends in Western countries). Indeed, according to a Census Bureau survey aimed at measuring the economic and social consequences of the health crisis among households

(Household Pulse Survey, conducted on a bi-monthly basis since August 2020), nearly 10% of Americans surveyed at the beginning of 2021 declared that they did not always have enough to eat, a proportion that rises to 12.5% for households with children ( figure 2). This survey shows an increase in food insufficiency between the end of August and the end of 2020, followed by a decrease at the beginning of 2021, which could be linked to the payment of aid under the second stimulus plan. Such causality would justify the need for further support to the most disadvantaged households. Similarly, around one in three Americans reported that they struggled to cover their day-to-day household expenses (► figure 3); A similar pattern is reported for food insufficiency, with a gradual increase in the autumn followed by a decline in the New Year and the implementation of a second fiscal stimulus plan.

## The use of the money paid to households in January is consistent with the objectives of the fiscal stimulus plan

In this Household Pulse Survey, households were also asked how they had used the amounts received from the fiscal stimulus package in January. Among the 60% of respondents who reported that a member of their household had received a stimulus payment during the last seven days, half stated that they mostly used it to pay off debts, a quarter mostly saved it, and the remaining quarter mostly spent it (Figure 4). This survey shows that uses vary according to the income

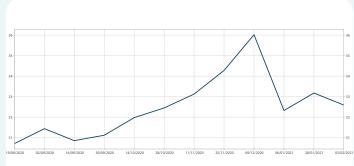
## ► 2. Approximately 10% of respondents reported that they did not always have enough to eat in %



How to read it: for the survey period between 20 January and 1st February, 9.7% of respondents reported that they "sometimes" or "often" had not had enough to eat during the last seven days.

Source: Household Pulse Survey, Census Bureau

## ► 3. More than 30% of respondents declared that they struggle to cover their day-to-day expenses



How to read it: for the survey period between 20 January and  $1^{\rm st}$  February, 33% of respondents stated it is "very difficult" or "somewhat difficult" to pay for usual household expenses.

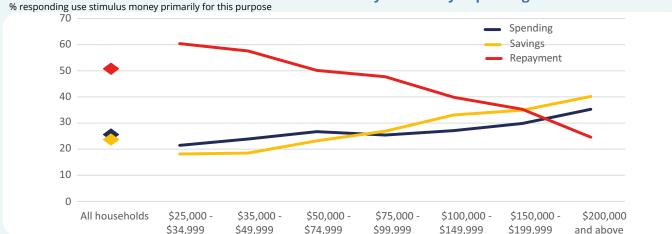
Source: Household Pulse Survey, Census Bureau

level of the household receiving the financial assistance: households with lower incomes have a much higher tendency to use the money mainly for repayments. In more detail, these payments seem to be primarily used for basic necessities (food, hygiene products) as well as unavoidable expenditure (electricity, gas, Internet, debt repayment, rent, loans, Figure 5). Other types of

expenditure appear more marginally. However, these results should be viewed with caution given the high non-response rate for this question (approximately 40%), a bias that probably concerns respondents whose responses would imply that they did not need to receive the extra money. •

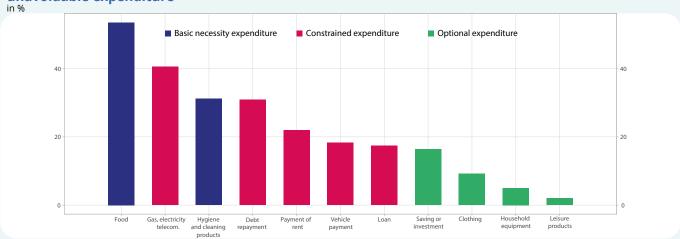
Jules Baleyte

#### ▶ 4. Households used December's fiscal stimulus money differently depending on their income



How to read it: for the survey period between 20 January and 1st February, among respondents receiving a stimulus payment who had declared their income level, 60% of respondents with incomes below \$34,999 per year reported that they had used the payment primarily to pay off debts. Source: Household Pulse Survey, Census Bureau

## ▶ 5. In January, households reported using the fiscal stimulus mainly for basic necessities or unavoidable expenditure



How to read it: for the survey period between 20 January and 1 st February, 54% of respondents who answered the question on the use of stimulus payments stated that they had used them to buy food. The respondents could check several responses.

Source: Household Pulse Survey, Census Bureau