



# The French Labour Market in the Aftermath of the Pandemic

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The state of the French labour market may seem surprising. Despite sectoral and geographical disparities, it has stood up well to the health crisis. The situation today is not very different from before the crisis, with the coexistence of recruitment problems and a high unemployment rate.

This *Note* shows that the persistence of high levels of unemployment is not due mainly to the problem of a mismatch between labour supply and demand, in terms of either geography or skills. While professional training should facilitate the reallocation of workers across occupations, one should not expect significant effects on aggregate unemployment. Training should primarily target workers that are less skilled and further from employment, but an increase in the number of trainees does not look necessary.

A more promising avenue to solve systemic unemployment would consist in supporting recruitment. Employers often lack information about applicants to their job vacancies. Developing support targeted at employers could improve the efficiency of the labour market by reducing amount of time jobs remain unfilled and by accelerating the exit from unemployment. In practice, this would mean

developing recruitment support services for business. These services should be targeted primarily at small and medium enterprises that have fewer resources to devote to recruitment. Service providers could be put in competition with each other, on a market organised by the public employment service. The public employment service could also subsidise certified tests to assess the skills of candidates and help bring suitable candidates to the attention of employers.

This *Note* also looks at the results of the employment policies pursued during the pandemic. First, state-guaranteed loan may have increased corporate debt, but this increase does not seem to be a cause for concern. Second, short-time work seems to have effectively protected its beneficiaries but it is necessary to be careful about deadweight effects and the concentration of the scheme on inefficient companies. For these reasons, short-time work could be incorporated in the future into the recent bonus-malus system, which should also be extended to all sectors and companies. As regards policies aiming to reduce employment charges, they do have an effect on employment in times of crisis but they need to be targeted on specific groups with low wage levels and for a limited period of time.

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## Labour market matching and efficiency during the health crisis

Following the lifting of the health restrictions in spring 2021, the issue of recruitment difficulties has come back to the fore. These are not new difficulties: a recent study by DARES<sup>1</sup> indicated that, even controlling for changes in unemployment, the proportion of companies reporting recruitment difficulties had risen over the last ten years. The point is therefore to understand the origin of these difficulties and to see whether they have increased or changed in nature with the health crisis. There are several reasons why recruiting can be difficult:

- A mismatch between labour supply and demand, either in terms of skills or geographical location;
- Inadequate job quality, making it difficult to fill certain positions;
- A lack of effort in the job search;
- Ineffective recruitment methods.

## Employment, unemployment, and inactivity during the crisis

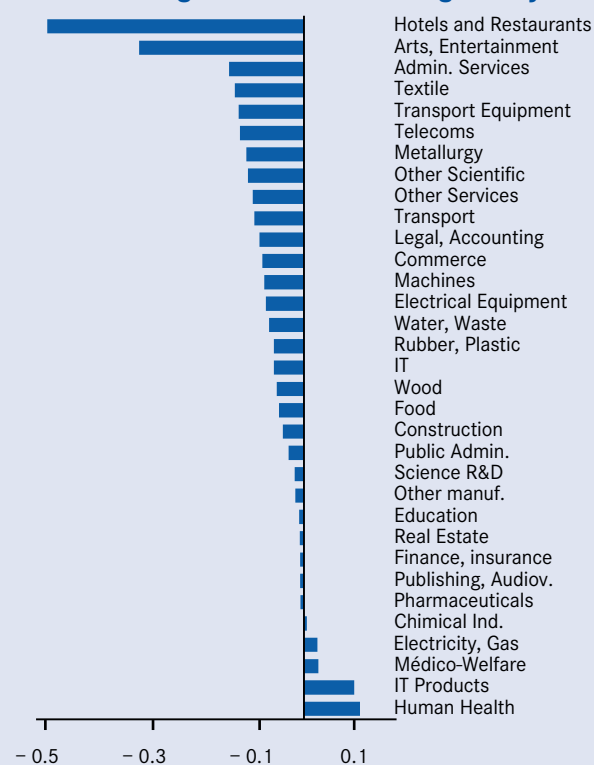
Before addressing these questions, it is worth considering the trajectory the French labour market has taken since March 2020. The unprecedented nature of the health crisis dealt an unparalleled shock to the French labour market: establishments faced administrative closures, jobseekers all faced new constraints, companies and employees were hit by a series of lockdowns, with persistent difficulties in supply.

In general, and compared to other countries, the fluctuations in France's labour market during the pandemic were relatively moderate.<sup>2</sup> At the height of the crisis, in the 2<sup>nd</sup> quarter of 2020, for example, the share of employed persons in the population aged 15-65 fell by only one point compared to the previous year, to 65%.

The share of people who are inactive, unemployed or in what is called in France the "unemployment halo"<sup>3</sup> returned at the end of 2020 to values close to those of 2019. In the 3<sup>rd</sup> quarter of 2021, the share of those in the labour force was one point higher than in 2019, which is a quantitatively important positive turnaround. The number of hours worked by individuals was slightly lower than before the crisis, which can be explained by short-time working, which affected almost 3% of 15-64 year-olds during 2021.

Most of the indicators therefore point to a very favourable situation for the French labour market from the summer of 2021. This generally optimistic observation does, however, obscure a certain heterogeneity of situations between the different segments of the labour market. This can be seen by studying changes in company wage bills according to the sector of activity or the region.<sup>4</sup> To assess the impact of the crisis, we calculate the difference between the growth rate of the wage bill after the crisis (2019-2021) and before the crisis (2017-2019), for each sector of activity, for the 2<sup>nd</sup> quarter of each year. This yields a rather mixed picture (Figure 1): some sectors have grown more since the crisis than before it, as in the case of Human health (+ 10 points), IT products (+ 9 points), Medical and social services (+ 3 points) and Electricity and gas (+ 3 points). Two sectors show a sharp decline: Hotels and Restaurants (- 48 points) and Arts and Entertainment (- 31 points).

1. Difference in growth rates of the wage bill by sector



Reading: In the Hotels and Restaurants sector, the difference in the growth rate of the wage bill between 2017-2019 and 2019-2021 (in the 2<sup>nd</sup> quarter) was - 0.48.

Sources: INSEE, detailed quarterly Epure files and authors' calculations.

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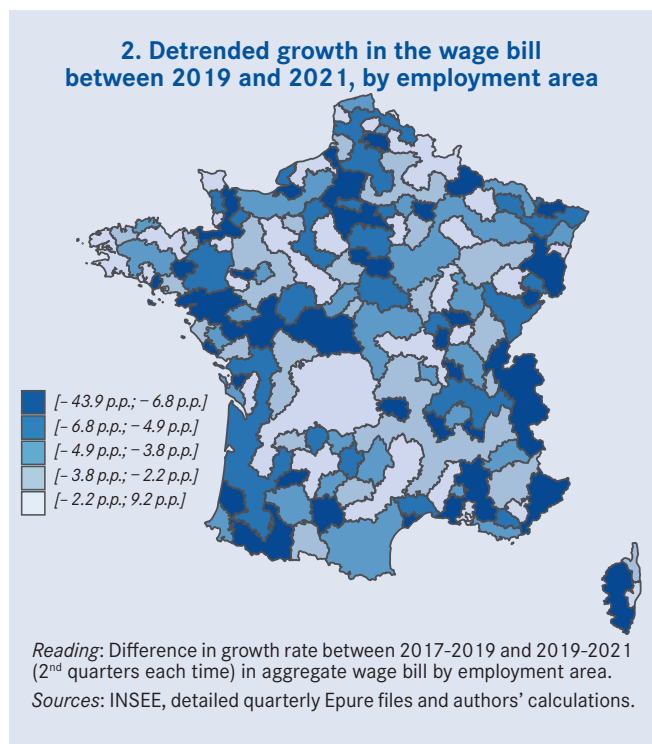
<sup>1</sup> Grobon S., I. Ramajo and D. Roucher (2021): "Quelle relation entre difficultés de recrutement et taux de chômage ?", *DARES Publications*, October.

<sup>2</sup> Figure 1.5 of the OECD (2021) report: OECD Employment Outlook 2021: Navigating the COVID-19 Crisis and Recovery shows that most OECD countries have had a higher peak in unemployment than France, and that in the second quarter of 2021 their unemployment rate remained higher than before the crisis.

<sup>3</sup> The French statistics agency's definition of the "unemployment halo" is: "Not employed person seeking work but not available for work, or not seeking work but wanting to work and available for work, or wanting to work but not seeking work and not available for work".

<sup>4</sup> The Stat'ur Conjoncture publication of September 2021 presents the evolution of the wage bill by sector and by region, cf. URSSAF (2021): "La masse salariale et les effectifs salariés du secteur privé au deuxième trimestre 2021", *Stat'ur Conjoncture*, no. 329, September. What we show here is a difference in growth rates between before and after the crisis. The idea is to isolate the impact of the crisis on the growth of the wage bill by subtracting structural variations.

Calculating the same indicator according to the company's employment zone leads to two main findings (Figure 2). First, there is a great disparity of situations at a very local level, including within regions, and second, a dichotomy exists between most of metropolitan France and the south-western half of the country, which seems to have been relatively spared by the crisis.<sup>5</sup>



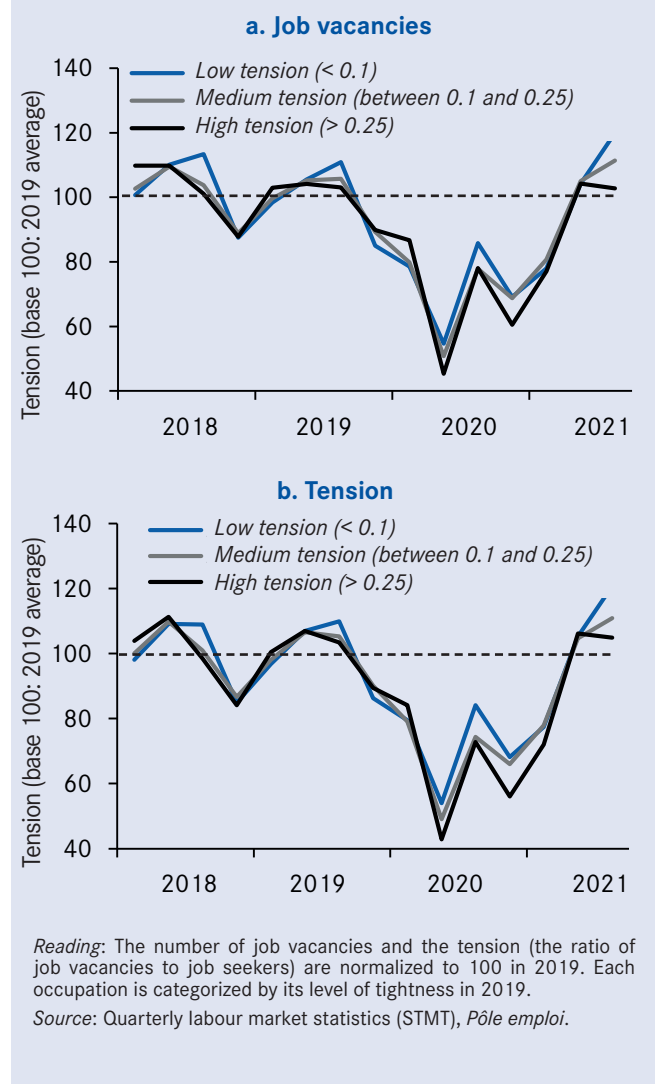
**Finding 1.** The French labour market seems to have recovered from the violent shock inflicted by the health crisis. However, this observation at the national level masks significant sectoral and territorial differences.

### The evolution of tension on the labour market

The tension on the labour market and the number of job vacancies<sup>6</sup> change in almost identical ways, as the number of unemployed changed very little over the period. The number of job vacancies, which was already slightly falling in the 1<sup>st</sup> quarter of 2020, dropped rapidly, and by the 2<sup>nd</sup> quarter of 2020, the number of jobs (and the tension) was half the average level of 2019. From this low point, job vacancies and tightness rose to exceed the 2019 level by the 2<sup>nd</sup> quarter of 2021. Trades with different levels of tightness (as measured

before the crisis in 2019) have also evolved in a very similar way during the crisis, with no change in the ranking of tight trades in the period (Figure 3). After declining sharply during the crisis, tension seemed to return in the 3<sup>rd</sup> quarter of 2021 to a level close to or slightly above that of 2019.

### 3. Job vacancies and tension between 2018 and 2021



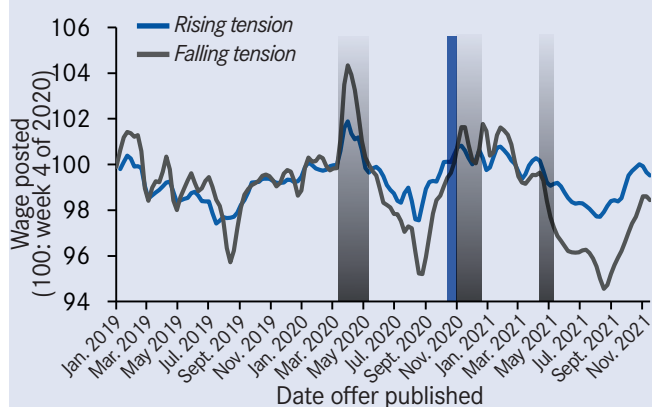
Has this return to normal tension on the labour market also been observed for wages? To answer this question, we used the salaries indicated in the job offers collected by the French unemployment agency *Pôle emploi* (Figure 4). These salaries are an indicator of the difficulties that employers face in hiring, which could force them to offer more attractive salaries.

<sup>5</sup> The report to the Prime Minister by Barrot J-N. (2021): *Accélérer le rebond économique des territoires* also illustrates the contrasting effects of the crisis at the territorial level.

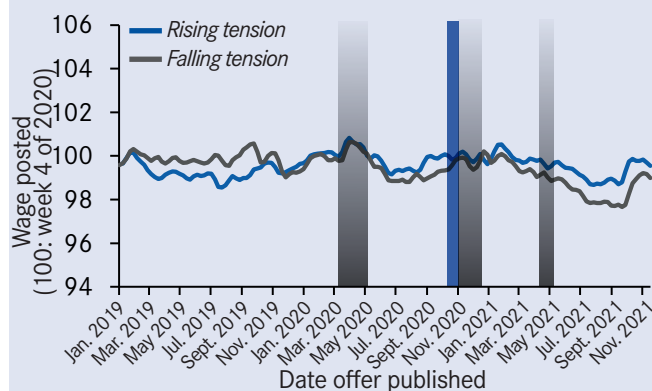
<sup>6</sup> Labour market tension is the ratio between the number of job vacancies and the number of unemployed. The number of unemployed (categories A, B, C) and the number of job vacancies collected come from the quarterly labour market statistics produced by *Pôle emploi*. In this analysis, we use an extraction at the level of the *Répertoire opérationnel des métiers et des emplois* (ROME) and by quarter. For example, in 2019, Food and Beverage Services had high tension, Domestic Services medium and Building cleaning services low.

#### 4. Changes in real wages posted in job offers between 2019 and 2021

##### a. Simple controls



##### b. Additional controls



*Reading:* We separate job vacancies into two groups based on a positive or negative change in tension between 2019 and 2021 in the vacancy of the profession. For each group, we regress the lower bound of the posted wage in each vacancy, deflated by the consumer price index, on the following indicators: week-year, day of the week, location of the vacancy, public holiday, sector (NAF 38 positions), employment zone, and occupation (ROME). The curves correspond to the coefficients of the week-year indicators. The highlighted areas correspond to curfews (blue) and lockdowns (grey).

*Source:* DoJob vacancy data, Pôle emploi.

When we do not control for the trade or the sector of the offers collected, we find that wages rise during lockdowns and then fall. This phenomenon is more pronounced for trades with declining demand than for others. There are two possible explanations for this phenomenon. First, posted wages rise within each market as lockdowns make it more difficult for employers to travel and hire, so they must offer higher wages. Second, the trades and sectors that recruit during lockdowns are different and tend to be those that pay higher wages. When controlling for the trade, sector and employment area of the job offers surveyed, the fluctuations in the posted wage are much smaller, suggesting that the average increase in wages during lockdowns is mainly due to a compositional effect.

Between the end of the first lockdown (in May 2020) and September 2021, real wages posted by employers rose less rapidly than before the health crisis, with a more pronounced downward trend for trades where the tightness eased over the period. In contrast, the average wages posted rose relatively strongly at the end of the period. Half of this recent sharp increase is due to the fact that more of the higher-paid trades and sectors were recruiting, and the other half by an increase in wages across trades, sectors and geographic areas (linked at least in part to the rise in the minimum wage in October 2021). It should also be noted that this recent increase in wages was not specific to trades experiencing greater tightness.

#### Changes in contract durations during the health crisis

To understand how different segments of the labour market may have been affected by the health crisis, we also looked at changes in the ratio of hires to vacancies. This ratio is an indicator of recruitment difficulties: when the same number of offers generates more hires, it is relatively easy for an employer to hire. We distinguish several contract durations, as this is an important dimension of job quality.

In general, hiring on short-term contracts fell sharply during the crisis.<sup>7</sup> Taking all sectors together, hiring on long-term contracts has tended to be facilitated during the crisis (Figure 5), while there have been several periods where it became difficult to hire on short-term contracts (ratio below 100): this was true particularly in the springs of 2020 and 2021. These periods correspond to the end of lockdowns, where there were still strong restrictions,<sup>8</sup> which seems to have discouraged employees and job seekers from accepting short-term contracts. The gap between contract types seemed to be closing, but still present, at the end of our observations. A confirmation of this trend would indicate that part of the workforce has moved out of the most unstable jobs. In this regard, it should be noted that, in general, the share of permanent (CDI) and longer fixed-term (CDD) contracts in hires has increased overall, rising from 32.5% to 37% of hires between the 3<sup>rd</sup> quarter of 2019 and the 3<sup>rd</sup> quarter of 2021.

#### The changing mismatch between labour supply and demand

To complete our understanding of hiring difficulties, we can ask whether the match between labour supply and demand has deteriorated. This could explain the hiring difficulties expressed by employers. More generally, can the structurally high level of unemployment in France be explained by a demand for labour that is concentrated in markets with an inadequate supply? To answer this question, we calculated for

<sup>7</sup> The decline in the Hotels and Restaurants sector was spectacular, with up to 90% fewer CDI contracts in Q4 2020.

<sup>8</sup> After the first lockdown in 2020, restaurants had to wait until 2 June to restart activity, with zonal restrictions and an 11pm curfew. The reopening took place on 19 May for the year 2021. For restaurants and hotels alike, dining activities, excluding hotel guests, were then limited to terraces. The curfew was set at 9pm and then moved to 11pm on 9 June. Restrictions were finally lifted in full at the end of June.

### 5. Ratio of hires to vacancies



Reading: Base 100 in Q2 2019. In Q3, the ratio of job hires to offers was 12% lower than in Q2 for contracts of less than one month.  
Sources: ACOSS (DPAE for hires) and Pôle emploi (job offers).

each quarter between 2011 and 2021 a mismatch indicator, noted  $M$ , which allowed us to quantify the mismatch between labour supply and demand:

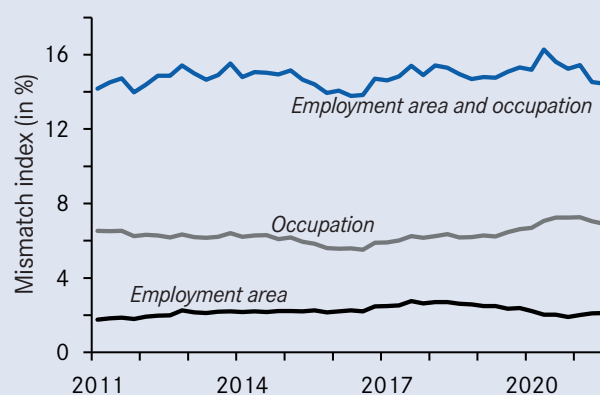
$$M = 1 - \sum_i \left(\frac{V_i}{V}\right)^\alpha \left(\frac{U_i}{U}\right)^{1-\alpha}$$

where  $V_i$  is the number of job vacancies in market  $i$ ,  $U_i$  is the number of job seekers in market  $i$ ,  $V$  is the total number of job vacancies and  $U$  is the total number of job seekers.<sup>9</sup> Following the literature, we take  $\alpha = 0.5$ .  $M$  can be interpreted as the share of hires that fail to be realized due to a mismatch between the situation (geographical, sectoral or occupational) of the vacancies and the job seekers. The mismatch is greatest when some markets have vacancies but no job seekers, while others have job seekers but no vacancies. The mismatch is minimal when the tightness (defined as the ratio of job vacancies to job seekers) is the same in all markets. This indicator measures the maximum that a public policy could achieve by shifting unemployed people from markets where vacancies are scarce to those where they are relatively abundant.

We calculate this indicator per quarter, for three different definitions of labour markets: the employment area, the occupation, and the intersection between occupation and employment area. Our results show that the geographic dimension is very secondary at the aggregate level (Figure 6): if we were able to move job seekers between employment areas in such a way that all employment areas had the same level of tension, we would only increase the total number of jobs by 2%. As for the problems of mismatch between occupations, eliminating these would result in 6-7% more jobs

being filled. This is more than for the geographical dimension, but still a modest contributor to the aggregate unemployment rate. When these two sources are combined, a larger figure of around 15% is obtained, which is an upper bound on the possible contribution of the labour mismatch to aggregate unemployment. In other words, if policies were successful in equalizing the tension in all markets (for example, between cashiers in the Cahors employment area and boilermakers in the Nemours employment area), the unemployment rate would fall, at most, from 8.1% to 6.9%.

### 6. Lack of match between labour supply and demand



Reading: In Q1 2011, 14% more jobs could have been filled by correcting for the relative mismatch in employment area and occupation between job seekers and job vacancies.

Source: Quarterly labour market statistics, Pôle emploi.

**Finding 2.** The crisis has not increased the labour mismatch. The situation has been stable for 10 years.

Thus, to make a major dent in the aggregate unemployment rate, the effects of public policies intended to match labour supply and demand should not be overestimated, even if policy tools may be useful in helping the jobseekers furthest from the labour market. Professional training for jobseekers, which is the preferred tool to enable jobseekers to reorient themselves towards occupations where the demand for labour is relatively high, is useful to help the populations furthest from employment and the least qualified. However, such interventions should not be expected to make a quantitatively significant impact on aggregate unemployment.

**Recommendation 1.** To increase its impact on employment, concentrate professional training on the less qualified and those furthest from employment, rather than increasing the number of trainees.

<sup>9</sup> The indicator we use is a simplified version of the one used by Sahin S., J. Song, G. Topa and G. Violante (2014): "Mismatch Unemployment", *American Economic Review*, vol. 104, no. 11, pp. 3529-3564, to measure the contribution of the labour supply-demand mismatch in the United States between 2005 and 2012.



One of the most effective measures to improve integration into the labour market is the apprenticeship, which is strongly supported by the government. The number of apprenticeship contracts will exceed 710,000 in 2021, an increase of 90% compared to 2019.<sup>10</sup> However, those with three or more years of higher education (+ 188%) have benefited more from this increase than those with fewer qualifications (+ 17% at CAP level). Given, in the absence of an apprenticeship, the most qualified have much higher employment rates than the least qualified, recent targeting choices can be expected to limit the contribution of apprenticeships to solving the aggregate unemployment problem.

### What role for placement agencies?

The fact that the unemployment rate is still high in France, even when the economy is doing well, could be due to a labour market where matches are particularly slow. The slow pace could be due to a mismatch between the jobs offered and the jobs actually sought, but, as our mismatch indicators show, aggregate unemployment is affected only slightly by this factor. The coexistence of high and persistent unemployment and unmet labour needs may be due to insufficient prospecting efforts and inefficient search strategies on the part of job seekers, or insufficient advertising efforts and inefficient recruitment methods on the part of employers. In terms of public policy, part of the answer to this problem lies in unemployment insurance and the public employment service. The recent reform of unemployment insurance – in line with past recommendations by the CAE<sup>11</sup> – includes several elements aimed at intensifying jobseekers' search efforts,<sup>12</sup> even if it was generally intended to limit the use of short-term contracts. In addition, extra support has been put in place to re-mobilize the long-term unemployed through training and an early reconnection with a counsellor. Nevertheless, even this support and the intensified efforts to find work for jobseekers are not enough.

Indeed, when there are a large number of jobseekers, the gains to be expected from intensifying the search efforts are small, because this increases congestion on the labour market. In terms of support, jobseekers who benefit from support find employment more easily, to the detriment of the unemployed who lack support (Crépon *et al.*, 2013).<sup>13</sup> In a situation that is getting tighter, due for example to reducing the generosity of unemployment benefits, congestion effects

limit the acceleration of exits from unemployment, especially in the short term (Lalive *et al.*, 2015),<sup>14</sup> since firms do not respond immediately by posting more job offers. This also means that if the decision criterion is unemployment exit rates, it is more efficient to intensify job searches in market segments where jobs are numerous relative to the number of unemployed. Recent experiments carried out by *Pôle emploi* in coordination with researchers have shown that for more autonomous groups, fairly light and inexpensive actions can yield good results.<sup>15</sup> Thus, in a context where the recent reform of unemployment insurance has already given some jobseekers greater incentives to leave unemployment, the priority does not seem to be strengthening support for all jobseeker profiles, even if there are still questions about the governance of the scheme.<sup>16</sup>

A more fruitful avenue seems to be the development of interventions targeted at employers. In recent years, *Pôle emploi* has developed its recruitment support services for companies, and a recent evaluation based on French data<sup>17</sup> testifies to their effectiveness. Among the range of services offered, assistance with the selection and verification of candidates' profiles has proved particularly useful. This shows that companies face problems of information about both how well candidates master the skills needed and how suitable they are for the proposed job or work environment. Overcoming these difficulties would improve the efficiency of the labour market by cutting job vacancy times. This would accelerate the exit from unemployment and encourage the creation of new jobs. The services that intermediaries provide to companies are aimed at improving the information that companies have about job applicants and job seekers. Two questions arise if they are to be better supported. First, why don't companies invest more in solving these problems? It may be that they do not internalize the social benefits of such an investment (the fact that it relieves congestion in the labour market) or that they consider the fixed costs a disincentive, especially if the company is small with limited finances. Not all companies have an HR department or people with the skills to screen candidates effectively. This suggests that the additional public effort should be concentrated primarily on small and medium-sized enterprises, for which these fixed costs pose the biggest obstacle.

Second, if support for companies is to be bolstered, who should be responsible for doing this? One possibility is to rely

<sup>10</sup> DARES (2022): *Les chiffres de l'apprentissage en 2021*, Ministère du Travail, de l'Emploi et l'Insertion, February.

<sup>11</sup> Cahuc P. and C. Prost (2015): "Improving the Unemployment Insurance System in Order to Contain Employment Instability", *Note du CAE*, no. 24, September.

<sup>12</sup> For example, the decrease in benefits for the highest benefits, the change in the eligibility criterion from 4 to 6 months or the change in the calculation of benefits, which mainly affects workers alternating between unemployment and employment.

<sup>13</sup> Crépon B., E. Duflot, M. Gurgand, R. Rathelot and P. Zamora (2013): "Do Labor Market Policies have Displacement Effects? Evidence from a Clustered Randomized Experiment", *The Quarterly Journal of Economics*, vol. 128, no. 2, pp. 531-580.

<sup>14</sup> Lalive R., C. Landais and J. Zweimüller (2015): "Market Externalities of Large Unemployment Insurance Extension Programs", *American Economic Review*, vol. 105, no. 12, pp. 3564-96.

<sup>15</sup> Dromundo S. and M. Gurgand (2021): *Digital Job Search Assistance: Evidence from the French Program "Activ'Emploi"*, Mimeo.

<sup>16</sup> Cahuc P., S. Carcillo and C. Landais (2021): "Rethinking Unemployment Insurance: Rules and Governance", *Note du CAE*, no. 61, January.

<sup>17</sup> Algan Y., B. Crépon and D. Glover (2020): "Are Active Labor Market Policies Directed at Firms Effective? Evidence from a Randomized Evaluation with Local Employment Agencies", *Working Paper*. The study shows that supported firms post more job offers (+ 20%) and hire more permanent employees (+ 10%).

on the skills developed by *Pôle emploi*. This could be done on the one hand by strengthening the human resources at its disposal or on the other by outsourcing part of this service to private service providers. Temporary employment agencies or certain online recruitment players have developed the resources needed to increase the volume of these services, which they often already offer. These two methods are not exclusive, and the law allows the public employment service to conclude service contracts with private companies.

The public employment service could therefore organize a market for business support, putting several service providers –including possibly *Pôle emploi* itself– in competition with each other. Performance indicators could be displayed in order to help businesses to orient themselves. Ultimately, this would enable the public employment service to offer companies a wide range of effective services better adapted to their situation. Particular attention should be paid to ensuring that the development of these services does not benefit only temporary workers, which could make the most precarious segments of the labour market even more unstable.

**Recommendation 2. Develop recruitment support services for companies. Organize competition between service providers selected by the public employment service, with companies choosing a provider based on publicly-available performance indicators and their own needs. Concentrate resources on helping small and medium-sized enterprises in their recruitment process.**

Many employers use tests to assess applicants for their job vacancies. These tests are particularly useful when the information available is imperfect, especially when candidates have no degree or certified qualifications and little experience. Academic research shows that these tests lead to longer-term recruitment, while limiting some discrimination in the recruitment process.<sup>18</sup> Nevertheless, this method has two limitations. First, it is socially inefficient for several companies to evaluate the same candidate. Second, these tests can be expensive to implement for companies that are not used to recruiting. It might therefore be useful for the public employment service to centralize this effort by taking charge of and systematizing these tests. The results could be certified by *Pôle emploi* or a private partner and then, conditional on the jobseeker acceptance, presented to employers when the jobseeker applies for a position. It will be important to evaluate the effectiveness of these services.

**Recommendation 3. Allow jobseekers to take certified skills tests, the results of which would be available to employers.**

## What lessons can be learned from the public policies implemented during the health crisis?

As we have seen, looking at the labour market during the pandemic means looking at the structural problems it faces in normal times. In a similar way, we can analyse some of the public policies enacted during this period, in order to understand their benefits and limitations and to draw some more general lessons.

### How has the end of state-guaranteed loans impacted employment?

In September 2021, outstanding loans to businesses reached around 1,000 billion euros, an increase of 15% since September 2019, with particularly strong rises for Hotels and Restaurants (+ 40%) and SMEs (+ 25%). A significant part of this increase corresponds to loans guaranteed by the state, which amounted to 143 billion in October 2021. For a large proportion of companies, this increase in debt has been accompanied by an increase in cash flow, so that net debt has risen only modestly. The CAE<sup>19</sup> has shown that the net financial position of VSEs-SMEs had improved on average, but that the share of companies with a weak or very weak net financial position had increased in certain sectors (construction and manufacturing) and regions (Greater Paris region), and more so for SMEs than for VSEs.

The situations that deteriorated are therefore concentrated and potentially cover a limited part of the labour market. For the companies concerned, one can nevertheless wonder about the risks in terms of employment. A company that has taken on more debt could indeed be more fragile in the face of future shocks. To answer this question, we draw on data from company accounts between 2009 and 2019 and measure whether an increase in the debt ratio at a given date predicts a slowdown in growth or even a decrease in employment and wages in the future. Note that our estimates take into account the fact that each company has its own employment and wage trend over the period. Our results should therefore be understood as a deviation from this trend.

Our results, summarized in Biernat and Fontaine (2022),<sup>20</sup> show that the overall impact was quantitatively limited,

<sup>18</sup> Hoffman M., L.B. Kahn and D. Li (2018): “Discretion in Hiring”, Quarterly Journal of Economics, vol. 133, no. 2, pp. 765-800.

<sup>19</sup> Épaulard A., É. Fize, T. Le Calvé, P. Martin, H. Paris, K. Parra-Ramirez and D. Sraer (2021): “La situation financière des PME/TPE en août 2021 au vu de leurs comptes bancaires”, Focus du CAE, no. 065-2021, September.

<sup>20</sup> Biernat C. and F. Fontaine (2022): “Les effets des variations du taux d’endettement sur les salaires et l’emploi”, Focus du CAE, no. 081-2022, March.

weaker than what Giroud and Mueller (2021) found on US data with a similar methodology. While in the first year following the increase in debt the company's employment trend was not affected, a negative effect was felt after the second year. The effect was small, since an increase in the debt ratio of 100 percentage points would lead to a deviation of only -0.4 percentage points in the company's employment growth. The impact of an increase in debt is therefore statistically significant but quantitatively negligible for many companies that experience only a limited increase in debt. The impact on wages is negative from the first year but again quantitatively very small and tends to disappear in subsequent years.

The fact that increases in debt are only weakly predictive of declines in employment and wages suggests that the increase in debt during the crisis should not be the primary cause for concern. However, as reassuring as these results are, the methodology adopted excludes the possibility of a company going bankrupt. If we compare cumulative insolvencies over 12 months in October 2021 and in October 2019, the number has fallen by 48% (62% in the Hotels and Restaurants sector), and there is no sign that they are picking up again. If insolvencies were to return to a level like that seen in the past, a surge in unemployment would be expected. A recent note from *France Stratégie*<sup>21</sup> gives an idea of the volume of jobs involved. In 2019, business failures concerned around 100,000 employees. The fall in insolvencies during the health crisis reduced this number to around 65,000 in 2020 and 31,000 for the first nine months of 2021. Assuming that future insolvencies make up the shortfall in insolvencies in 2020 and 2021, an additional 90,000 or so employees could be affected compared to normal. It should be noted, however, that in practice some of the employees affected by insolvencies will change jobs without becoming unemployed or will retire. Furthermore, some insolvencies do not lead to the closure of the business. Finally, this figure should be set against the one million permanent hires recorded on average each quarter in France in 2019.<sup>22</sup> Any additional insolvencies that might materialize will therefore not fundamentally alter the balance of flows in the French labour market, even if they could sometimes constitute a major shock at local level.

### Short-time work and unemployment insurance

Short-time work seeks to limit redundancies due to fluctuations in activity, whether at company, sector or aggregate level. Using this scheme, companies can reduce the number of hours worked while receiving a subsidy to pay for the hours lost. The reduction in employment is thus limited, as is the reduction in income for employees. Short-time work concerned up to 8,300,000 employees at the height of the crisis and still covered 400,000 employees in October 2021, mainly in the Hotels and Restaurants, Transport and Storage sectors. The fiscal cost of short-time work is significant: approximately 35 billion euros since the beginning of the crisis,<sup>23</sup> one-third of which was paid by UNÉDIC and the rest by the state, but this can be justified for several reasons. First, the system can help avoid very costly redundancies in social terms. This is particularly the case if these job losses are accompanied by significant losses of human capital: the possibilities of rehiring employees would then be permanently degraded, and labour productivity at the end of the crisis would be weakened. This is also the case in the presence of credit constraints preventing companies from taking on debt to smooth out unanticipated variations in activity. In this situation, even if short-time work generates a strong fiscal externality, this may be weaker than what would be induced by the avoided redundancies.

The use of this measure in times of crisis is not new,<sup>24</sup> but its use during the pandemic was unprecedented quantitatively. Academic work<sup>25</sup> shows that it is an instrument that makes it possible to preserve employment in the short term,<sup>26</sup> but it is potentially subject to moral hazard and windfall effects on the employer's side that can slow down reallocations towards the most productive companies. In what follows, we examine two little-studied aspects of short-time work: has the system been concentrated especially on the most vulnerable employees, according to their occupation or sector? Was its use concentrated on companies that were least efficient before the crisis?

<sup>21</sup> Boekwa Bonkosi E., Epaulard A. and F. Gache (2021): "Défaillances d'entreprises : où en est-on ?", *Point de vue France Stratégie*, December.

<sup>22</sup> Cf. Data from declarations prior to hiring (DPAE), ACOSS-URSSAF National Fund.

<sup>23</sup> See DARES, <https://dares.travail-emploi.gouv.fr/donnees/le-chomage-partiel>.

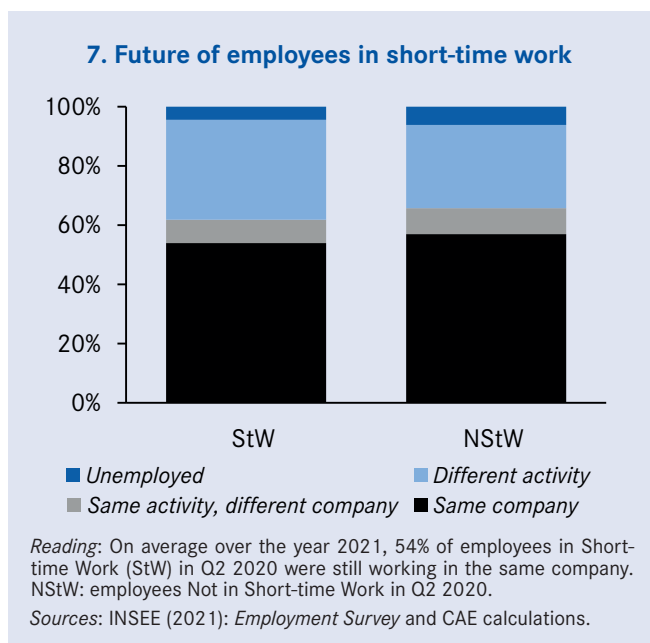
<sup>24</sup> The use of short-time work, whose origin dates back to an industry-wide trade agreement (ANI) of February 1968, expanded during the 2008 crisis. It has undergone a number of reforms, in particular in 2013 when the short-time work and long-term short-time work schemes were merged. It was modified again in March 2020 to adapt to the scale and particularities of the health crisis.

<sup>25</sup> Hijzen A. and S. Martin (2013): "The Role of Short-Time Work Schemes during the Global Financial Crisis and Early Recovery: A Cross-Country Analysis", *IZA Journal of Labor Policy*, vol. 2, no. 5; Cahuc P., F. Kramarz and S. Nevoux (2021): "The Heterogeneous Impact of Short-Time Work: From Saved Jobs to Windfall Effects", *IZA DP*, no. 14381 or Giupponi G. and C. Landais (2020): "Subsidizing Labor Hoarding in Recessions: The Employment and Welfare Effects of Short Time Work", *CEPR Discussion Paper*, no. 13310.

<sup>26</sup> Its effectiveness in terms of protecting jobs is also underlined by France Stratégie and Inspection Générale des Finances (2021): *Rapport final du Comité de suivi et d'évaluation des mesures de soutien financier aux entreprises confrontées à l'épidémie de Covid-19*, July.

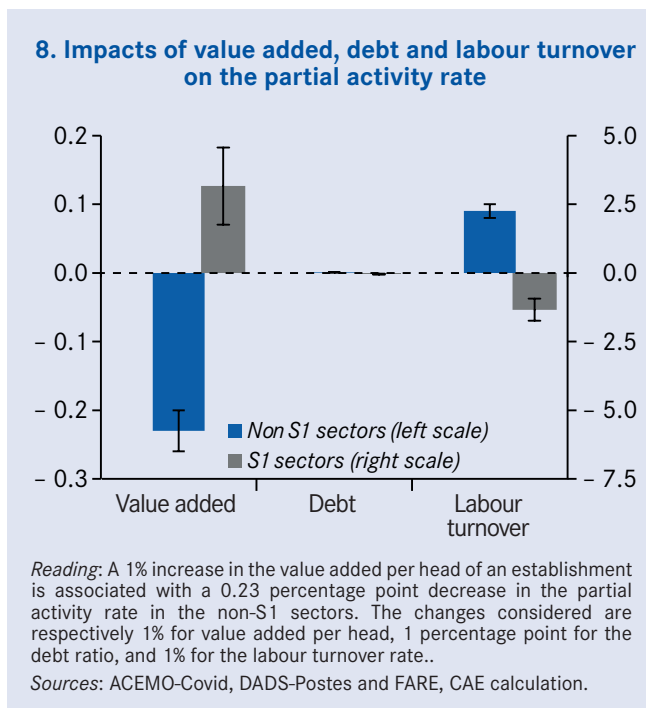


First, we compare employees who benefited from short-time work in the 2nd quarter of 2020 with those who did not benefit from it but who worked in the same occupations and the same sectors: we study the fate of these two groups during the following six months (Figure 7).<sup>27</sup> It is striking to note that short-time work beneficiaries do not have a significantly higher probability of keeping or leaving their job or of being unemployed in the months following their short-time work episode than those who did not benefit from this measure. One might have feared that employees in short-time work were more vulnerable than others, on the one hand because, for the same job and sector, they are employed by companies that have chosen to resort to short-time work and are therefore more vulnerable to the crisis, and on the other hand because, having not worked during this period, they have become less qualified. This does not seem to be the case.



Then, in order to understand the redistribution effects of the scheme between companies and in particular the way it was used in relation to pre-crisis efficiency, we used various administrative sources that provide information both on companies' use of the scheme and on their characteristics before the crisis (indebtedness, value added per capita, stability of their workforce).<sup>28</sup> We estimated a model that allows us to model both the use of the scheme (the extensive margin) and the number of employees effectively put on

short-time work (the intensive margin).<sup>29</sup> In addition to the characteristics of the establishments and companies concerned, we controlled for differences between sectors and regions, as well as for changes in the scheme during the crisis. Our results show contrasting effects, depending on whether we consider all sectors or those subject to administrative restrictions on activities (so-called "S1" sectors) (see Figure 8).



For establishments outside "S1", the share of employees in short-time work decreases with their efficiency, which is measured by the average value added per capita of the companies to which they belonged between 2018 and 2019. In addition, the higher the rate of short-time work, the higher the rate of labour turnover in the establishment in the two years preceding the crisis. Finally, the share of employees on short-time work increases with the debt ratio, but the effect is quantitatively negligible. These results, and in particular those on value added, do not call into question the scheme's effectiveness in terms of safeguarding jobs during the crisis, but rather the inter- and intra-sectoral reallocations that it could induce, since transfers seem concentrated among the less efficient companies and establishments with high labour turnover. These findings are in line with those of Cahuc *et al.* (2021) and Giupponi and Landais (2020).<sup>30</sup> While short-time

<sup>27</sup> It is important to underline the added difficulty in carrying this out due to the break in the series linked to the redesign of the employment (Emploi) survey. For more details see INSEE (2021): "L'enquête Emploi se rénove en 2021: des raisons de sa refonte aux impacts sur la mesure de l'emploi et du chômage", *INSEE Analyses*, no. 65, June. For this reason, our interpretation focuses on relative changes in the two groups rather than on the evolution of the curves in absolute terms.

<sup>28</sup> We draw on both the monthly Flash ACEMO-Covid survey, which makes it possible to study the use of short-time work at establishment level between April 2020 and September 2021, and retrospective data from the DADS Postes (for the calculation of the labour turnover rate) and from FARE for information on company accounts (value added, debt).

<sup>29</sup> See details in Fontaine F. and B. Roux (2022): "Activité partielle et situation pré-crise des entreprises", *Focus du CAE*, no. 082-2022, March.

<sup>30</sup> Giupponi and Landais (2020) and Cahuc *et al.* (2021), *op. cit.*

work makes it possible to safeguard jobs, the scheme carries a risk of limiting the effectiveness of reallocations between companies. It should be borne in mind that this risk naturally tends to increase as the shock persists.

These results must nevertheless be compared with the results for establishments in the “S1” sectors that were affected by very restrictive protocols and administrative closures. For these, the results are reversed. Short-time work was concentrated among the most efficient employers, the least indebted and those with the most stable workforce. This shows that for sectors where there are few opportunities of adjustments, it is a relevant tool even in terms of efficiency. Indeed, the health crisis is unique in that some establishments have suffered administrative restrictions on their activity, which is not the case in a normal economic crisis when there is scope for internal reorganizations and adjustments to cope with demand or supply shocks.

Given its effectiveness to protect employment, and although its scale has been exceptional during this crisis, short-time work is likely to be used in the future. Careful thought must therefore be given to the design of the scheme. The adjustment variables have up to now been the replacement rate for the workers when they are not working and the rate at which the state compensates the employers which maintain employment. The rate of reimbursement was 100%<sup>31</sup> until May 2020, then 85% (100% for sectors subject to restrictions on activity, known as “S1”) until December 2020, and then 36% (70% for “S1”). It has been kept at these rates, with only 60% of gross pay being maintained for non-S1 sectors. In practice, it is always difficult to strike the right balance between incentive and insurance, and the residual cost is a frustrating way of encouraging employers to limit the use of short-time work. One alternative would be to integrate the share of expenses for short-time work that is the responsibility of UNÉDIC into a bonus-malus system: the future contributions of companies would be affected by how intensely they have used the scheme.

This would not remove the need to define the residual costs or the level of compensation, but it would ease the constraints and improve the scheme’s efficiency by ensuring that moral hazard is integrated more effectively. In principle, it also allows for a smoother exit from the scheme and avoids excessive steps. Moreover, since the calculations of any reward or penalty are generally based on multi-year averages, the carry-over, albeit limited, of the cost of short-time work is smoothed over several years. Finally, it is possible to consider inter- and intra-sectoral differences. In a bonus-malus system where the point that separates bonus and malus is defined within each sector, it is not so much the use of the scheme that is taken into account but rather its

use compared to companies in the same sector. In a situation like Covid, it is of course pertinent to exclude sectors where administrative closures may take place. UNÉDIC forecasts that spending on short-time work will reach almost 12 billion euros between 2020 and 2022, not counting an additional shortfall of 3 billion because short-time work is not subject to contributions.<sup>32</sup> This extremely high additional expenditure will have to be compensated in the long term. Since a bonus-malus mechanism does not exist, and unless one bets on a very sharp fall in unemployment in the coming years, this can only be made up by a cut in benefits, an increase in contributions or an exceptional contribution by the state to the unemployment insurance budget. Integrating short-time work into the bonus-malus system would make it possible, in future crises, to better distribute the effort and reduce the scheme’s cost to the community.

However, for it to be possible to integrate short-time work into a bonus-malus system, it must be based, not on the job separation rate as is the case in France, but on the balance between the contributions paid and the costs generated by each company to unemployment insurance. This would improve the existing system, since the link between the separation rate and unemployment insurance expenditure is imperfect: a company can have a high separation rate but low expenditure if its employees exit unemployment quickly. Moreover, this also implies integrating all companies and sectors, whereas the system is currently restricted to companies with more than 11 employees and to only 7 sectors. Beyond short-time work, generalizing this is justified by the fact that even if some sectors have a better expenditure-contribution balance than others, intra-sectoral heterogeneity remains important whatever the sector (Fontaine and Vidalenc, 2020).<sup>33</sup>

**Recommendation 4.** Include short-time work into a new bonus-malus system that takes direct account of unemployment insurance expenditure and is extended to all sectors and companies.

### Support for the hiring of young people

The programme to support hiring young people (AEJ) was introduced as part of the “1 young person, 1 solution” plan to deal with the consequences of the health crisis on the labour market. It concerns young people under age 26 who were newly hired between August 2020 and May 2021, excluding renewals of existing employees. It provides a maximum of 4,000 euros, paid at a rate of 1,000 euros every three months, if the employee concerned is still in employment.

<sup>31</sup> During short-time work, the employer pays the employee 70% of their gross pay (84% of net pay) up to 4.5 times the SMIC.

<sup>32</sup> UNÉDIC (2021): “Situation financière de l’assurance chômage”, *Éclairages*, October.

<sup>33</sup> Fontaine F. and B. Vidalenc (2020): “Faut-il moduler les cotisations des employeurs à l’assurance-chômage ?”, *Note IPP*, no. 57.

The aid is granted only if the employment contract is a long-term contract (CDI), a temporary fixed-term contract (CDD) or a fixed-term contract of at least three months (CDD), and if the employee is not in short-time work. It cannot be combined with other existing schemes. At its inception, the AEJ was reserved for hires between 1 August 2020 and 31 March 2021 whose salary was less than two times the minimum wage (SMIC). It was then extended between 1 April and 31 May 2021 for hires whose salary was less than 1.6 SMIC. This aid had been preceded on 1 July 2020 by aid for the recruitment of young people on work-linked training schemes: 5,000 euros for an apprentice or a contract for professional qualification (*contrat de professionalization*) under the age of 18, and 8,000 euros for an adult.

To assess the impact of the AEJ, we used aggregate data from the pre-employment declarations collected by ACOSS. This data consists of the number of contracts signed per month between January 2017 and September 2021, crossing different criteria: the type of contract (8 categories), age (8 categories) and sector (20 categories). We excluded from the main analysis fixed-term contracts of less than one month, which are very numerous and very short, and which are not covered by the scheme, as well as fixed-term contracts of more than 10 months, which are likely to correspond to work-study contracts. We used a triple-difference method to assess the impact of the AEJ. The idea is to compare the evolution of the number of contracts signed according to the type of contract (short-term contracts are not eligible for the AEJ) and the age of the people hired (those aged 26 and over are not eligible).

Our results indicate that the number of hires on non-CDI long-term contracts increased by 7% as a result of the AEJ during the period of its implementation. If we include long-term CDI contracts, the impact on all contracts is very similar, at around 6%. The impact for the Arts and the Hotels and Restaurants sectors was similar to that for the other sectors. After May 2021, when the policy was no longer in effect, there was a small and insignificant positive effect. This can be interpreted as inertia in company hiring practices, and there is no indication that companies would have compensated for the end of the scheme by hiring far fewer young people after May 2021. When comparing the effect of the AEJ to that of a comparable intervention, such as the “Zero Charges” scheme designed to address the impact of the 2009 crisis, the effect of the AEJ was less than half as great.<sup>34</sup> This difference may be due to the fact that only companies with fewer than 10 employees were eligible for “Zero Charges”, whereas this restriction did not apply to AEJ. Charge reduction schemes may also be less effective in a context where the demand for

labour and the possibilities of reorganizing work are limited by health restrictions, which have temporarily frozen part of the production system.


In total, an effect of 7% means that in order to create seven jobs that would not have existed in the absence of the scheme, the AEJ subsidizes 100 jobs that would have been created even in its absence. The existence of deadweight effects is inevitable for this type of scheme and does not disqualify the AEJ: the cost of the job created is assessed relatively and must be compared to other measures. However, the extent of the AEJ’s deadweight effects in the context of this crisis underlines the fact that such aid should be concentrated on specific groups and remain temporary.

### Recommendation 5. Concentrate employment subsidies in times of crisis on specific groups, at low wage levels and for a limited period.

In summary, the state of the labour market is now close to what it was before the crisis, despite sectoral and geographical disparities. The public policies to support the labour market that were implemented during the crisis have therefore had beneficial effects, although adjustments are needed to limit their deadweight effects and ensure their effectiveness. With the return of pressure on the labour market to its 2019 level, recruitment difficulties coexist with a relatively high level of unemployment, even if it is declining. These recruitment difficulties do not appear to stem from a mismatch between supply and demand in terms of skills or the location of labour. Several structural labour market reforms have been adopted in recent years (reform of the Labour Code in 2016 and again in 2017, reform of unemployment insurance): their impact should be evaluated with necessary hindsight. It now seems appropriate to look at support arrangements, in particular to respond to the needs of small companies in recruiting. These companies need better information about the skills of candidates and the suitability of their profile for the post offered. This *Note* therefore advocates the idea of augmenting support for companies during the recruitment process, which could be done by organizing a market of service providers under the aegis of the public employment service. The introduction of certified tests by *Pôle emploi* or private service providers could also make more information available to companies about job seekers. Improvements like this in recruitment methods currently appear to us to be a promising way of alleviating recruitment difficulties and helping to reduce the aggregate unemployment rate. ●

<sup>34</sup> For an estimate of the impact of the Zero Charges programme, see, Cahuc P., S. Carcillo and T. Le Barbanchon (2019): “The Effectiveness of Hiring Credits”, *Review of Economic Studies*, vol. 86, no. 2, pp. 593-626. For the calculation comparing the impact of the AEJ with that of Zero Charges, see Martin P. and R. Rathelot (2021): “Évaluation de l’aide à l’embauche des jeunes à partir des déclarations préalables à l’embauche”, *Focus du CAE*, no. 060-2021, May.

## To extend your reading (in French)

 **Focus**

N° 081-2022  
Mars 2022

### Les effets des variations du taux d'endettement sur l'emploi et les salaires

Camille Biernat et François Fontaine<sup>(\*)</sup>

L'endettement d'une entreprise varie en fonction de ses choix et des chocs non anticipés auxquels elle fait face. La crise épidémique, qui peut s'apparenter à la fois à un choc de demande et un choc d'offre, a conduit à une augmentation de l'endettement de certaines entreprises. En septembre 2021, notamment par le biais de prêts garantis par l'État (143 milliards en octobre 2021), les encours de crédits aux entreprises étaient en hausse de 15 % par rapport à septembre 2019, avec des évolutions particulièrement fortes dans l'hébergement et la restauration (+ 40 %) ou pour les PME (+ 25 %) (Banque de France, 2021).

Pour une large part des entreprises, cette augmentation de l'endettement s'est accompagnée d'une augmentation de la trésorerie, si bien que la dette nette n'a crû que modestement. Cependant, les situations sont très hétérogènes : en 2020, si l'on considère l'ensemble des secteurs, seul 14 % des entreprises avaient connu simultanément une augmentation de leur endettement et une baisse de leur trésorerie, contre 22 % dans l'hébergement et la restauration ou 18 % dans les Arts et Spectacles. À côté s'ajoutent des chiffres plutôt favorables sur les défaillances d'entreprises (Cros et al., 2020; Boekwa Bonkosi et al., 2021).


On pourrait penser que l'accroissement de la dette des entreprises durant la crise sanitaire pourrait n'avoir ni effet ni effet très limité sur le marché du travail, en particulier sur l'emploi et les salaires. Cependant, comme nous l'avons noté, l'hétérogénéité entre les secteurs et au sein des secteurs est importante. Il est possible que pour certaines entreprises, l'accroissement de l'endettement soit un facteur de risque pour le futur. On peut par exemple se demander comment les entreprises les plus endettées réagissent en cas d'augmentation de leurs coûts ou de nouveaux chocs de demande. Ainsi, le fait que la crise sanitaire se poursuive et se double de problèmes plus généraux d'approvisionnement pose la question de l'endettement en de nouveaux termes.

Pour essayer d'apporter quelques éléments quantitatifs sur la question, ce Focus cherche donc à évaluer si une entreprise qui voit son endettement augmenter est plus fragilisée aux chocs futurs et, en particulier, si on peut s'attendre à ce que son emploi diminue dans les périodes qui suivent cette augmentation. Pour répondre à ces questions, nous mobilisons des données sur les comptes des entreprises entre 2009 et 2019 et reproduisons à grande échelle le travail proposé dans un article de Giroud et Muiraut (2021). Il est difficile de répondre sur des variations exogènes de dette pour répondre à ces questions, l'approche de Giroud et Muiraut est donc de voir si une augmentation de l'endettement à une date  $t$  prédit un changement du taux de variation de l'emploi (nous étudions également l'impact sur les salaires) dans les périodes futures, tout en contrôlant pour l'hétérogénéité observée, de la variation des ventes et de celle de l'investissement.

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<sup>(\*)</sup> Respectivement : CAE (au moment de la rédaction), Université Paris 1-Panthéon-Sorbonne, PSE et Membre du CAE.



<https://www.cae-eco.fr/les-effets-des-variations-du-taux-dendettement-sur-lemploi-et-les-salaires>

 **Focus**

N° 082-2022  
Mars 2022

### Activité partielle et situation pré-crise des entreprises

François Fontaine et Baptiste Roux<sup>(\*)</sup>

En réponse à la crise sanitaire les pouvoirs publics ont facilité l'accès au dispositif d'activité partielle. Celui-ci permet à une entreprise de bénéficier de subventions afin de suspendre l'activité de ses salariés tout en maintenant tout ou partie de leurs rémunérations. La littérature académique, encore rare sur le sujet, évalue généralement positivement ses effets sur l'emploi mais interroge son efficacité, notamment du fait d'importantes externalités fiscales et de son effet sur les réallocations de main d'œuvre entre entreprises et secteurs. Ce Focus s'intéresse à la manière dont le dispositif, durant la crise, a été mobilisé par les entreprises selon leurs caractéristiques ou l'échelle du secteur ou de la taille de l'entreprise, mais aussi d'indicateurs de performance pré-crise comme la valeur ajoutée par tête, le taux d'endettement ou le taux de rotation de la main d'œuvre. Nos résultats semblent indiquer que, si l'on exclut les secteurs sujets aux restrictions administratives les plus fortes (S1), ce sont les entreprises les moins efficaces (faible valeur ajoutée par tête et fort taux de rotation pré-crise) qui ont davantage utilisé le dispositif d'activité partielle. Dans les secteurs S1, c'est au contraire les entreprises les plus efficaces qui ont davantage mobilisé le dispositif. Cette différence peut se comprendre par les faibles marges d'ajustement possible à la crise sanitaire pour le S.

#### 1. Quel est le rôle de l'activité partielle ?

L'activité partielle cherche à limiter les licenciements dus aux fluctuations d'activité, que celles-ci se manifestent au niveau de l'entreprise, du secteur ou au niveau agrégé. Face à une baisse temporaire d'activité, les entreprises peuvent sous certaines conditions diminuer les heures travaillées tout en recevant une subvention leur permettant de rémunérer les heures chômées. La baisse de l'emploi est limitée tout comme la baisse de revenu pour les salariés. Le dispositif d'activité partielle n'est pas nouveau mais son usage

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