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Business Failures in France during the COVID-19 Crisis

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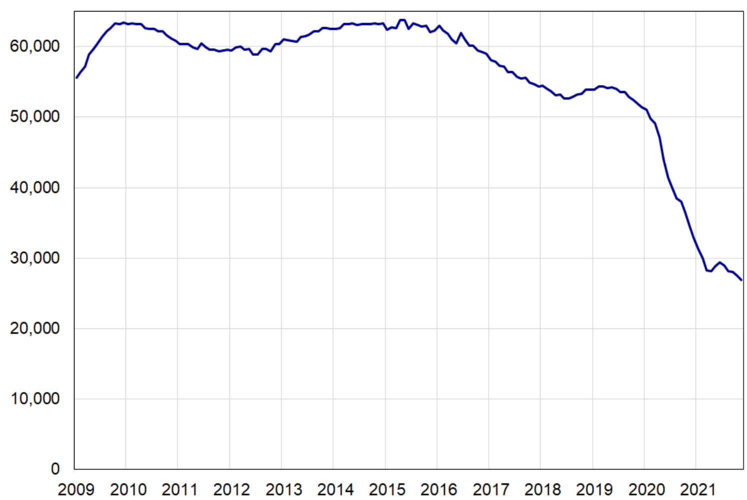
- French government support for businesses during the COVID-19 pandemic-induced economic crisis helped avert a wave of bankruptcies. In 2020, support measures led to a record-breaking year-on-year drop in the number of business failures (i.e. court-ordered reorganisations or liquidations), with 31,000 recorded that year, compared to 50,000 in 2019. This trend continued in 2021, with a total of 40,000 bankruptcies "avoided" from March 2020 to October 2021, or a 45% decline compared to the equivalent pre-pandemic period.
- Thanks to government support measures, the sectors hardest hit by the COVID-19 crisis and the rest of the economy have recorded a similar drop in bankruptcies. On a more granular scale, however, certain subsectors severely affected by the crisis saw virtually no change in the number of bankruptcies.
- While the number of bankruptcies among small– and medium-sized enterprises (SMEs) fell shortly after the end of the first lockdown, bankruptcies increased among the largest firms. This temporary rise delayed the fall in the number of jobs affected by business failures.
- Reorganisations were down 59%, whereas liquidations fell by a lower 39%. The financial situation of failing firms during the crisis was worse than in normal circumstances, with the most vulnerable firms continuing to go bankrupt, while government support was keeping better-off companies afloat.
- Although market selection remained at work during the crisis, an econometric analysis shows that its effectiveness was diminished, indicating that the crisis blurred the typical determinants of bankruptcy.

Number of business failures over a 12-month period



Source: BODACC data, DG Trésor calculations.

1. Bankruptcies hit an unprecedented low

A business failure, or bankruptcy, is a court procedure occurring when a company or other business is unable to meet its liabilities. This inability to pay leads to one of two types of insolvency proceedings: reorganisation (*redressement*) or liquidation. Reorganisation proceedings allow a business to continue operating, keep its employees on the payroll and discharge its liabilities. In liquidation proceedings, a business ceases to operate and sells all or a portion of its assets, but if it is acquired by another entity, it can continue to operate and jobs can be saved.

Box 1: Data

This paper draws on the following sources:

- Bankruptcy rulings come from the Bulletin Officiel d'Annonces Civiles et Commerciales (BODACC), which publishes all notices of insolvency proceedings. The data used spans the years 2008 to 2021 and covers 660,000 business failures.
- Non-financial company information, such as a firm's business sector or age, comes from the National Statistical Institute's (INSEE) Répertoire des Entreprises et Etablissements (REE) and spans the years 2017 to 2020.
- Employment data has been taken from INSEE's EPURE database and covers the years 2016 to 2019.
- The 2020 pandemic-induced economic shock was measured using company tax returns provided by the Public Finances Directorate General (DGFiP).
- Financial data for the years 2016 to 2019 comes from the FARE database, itself produced by INSEE's ESANE system. This gave us access to the financial data of 60% of all failing firms.

Although our initial sample consisted of businesses from the FARE database, we later reduced the size of the sample to ensure reliable results. More specifically, we eliminated sectors A (agriculture), K (financial and insurance activities), O (public administration), P (teaching) and Q (human health and social action), as well as dormant businesses. Moreover, we restricted our sample to businesses reporting turnover of more than €1,000 and excluded financial ratio outliers. We ended up with a database of approximately 1,450,000 legal units per year, including 1,250,000 microenterprises, 180,000 small– and medium-sized enterprises (SMEs), and 6,000 large enterprises (LEs). Our sample represented 78% of turnover and 75% of the workforce of French firms in 2019.

Since 2008, the annual number of business failures has been relatively stable, at around 60,000, with two peaks: in 2009, in the wake of the financial crisis, and in 2015, after the European debt crisis (see Chart, page 1). Since 2015, the number of business failures has been on the decline, but in 2020 their number fell to an all-time low, with fewer than 31,000 bankruptcies recorded,[1] compared to 50,000 in the previous year, amounting to a 37% decrease. All told, the number of business failures fell from 85,000 for the period March 2018–October 2019, to 46,000 for the period March 2020-October 2021, representing a 45% decrease.

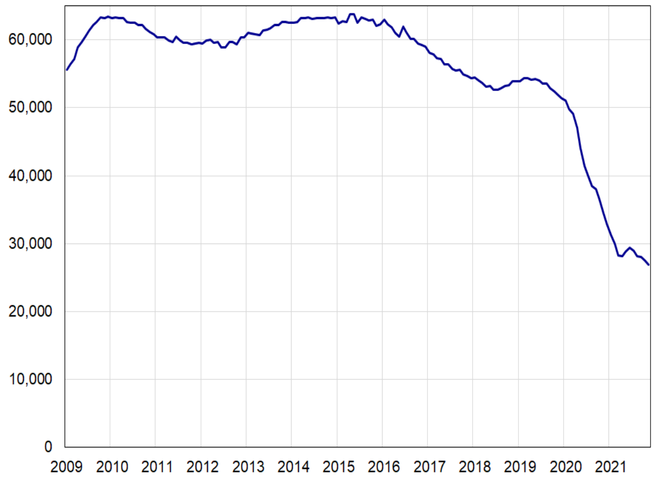
After dropping during France's first lockdown, the number of business failures remained low thereafter. In the last two weeks of March 2020, business failures fell by a sharp 81% year on year, partly affected by court closures. Monthly numbers continued to remain low until the end of May 2020 (with business failures down more than 60% on previous years), in part due to the

(1) The figures shown here are slightly different than those published by the Banque de France, which recorded a total of 49,891 and 29,954 bankruptcies for 2019 and 2020, respectively.

French Government Order of 27 March 2020, which provided for insolvent debtors to be assessed, up to 24 August 2020, based on their status on 12 March 2020.

Throughout 2021, bankruptcies remained well below pre-pandemic levels (see Chart 1). The cumulative total of business failures up to week 44 (end-October) was down 45% on the same period in 2019.

Chart 1: Percent change in number of business failures compared to the same months in 2018 and 2019



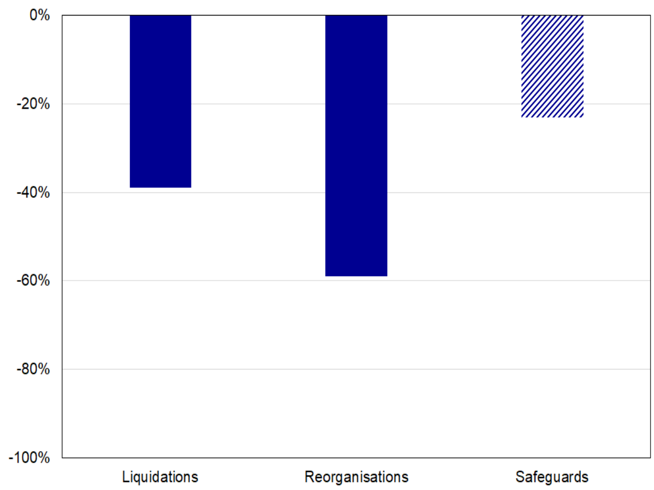
Source: BODACC data, DG Trésor calculations.
How to read this chart: The dotted red line shows the average for the period.

Lower bankruptcies were primarily the result of a marked decline in reorganisations: down from 27,000 for the period March 2018–October 2019 to 11,000 for the period March 2020– October 2021, reorganisations fell 59%, compared to a 39% decline – from 58,000 to 35,000 –for liquidations over the same period (see Chart 2). Consequently, liquidations went from accounting for 68% of business failures pre-pandemic to 76% during the COVID-19 crisis.

The less pronounced decline in liquidations versus reorganisations suggests that government support did not prevent business failures among the least viable firms, with companies whose financial situation had substantially deteriorated pre-pandemic going through liquidation proceedings.

Moreover, uncertainty about the public health situation may have, in turn, made drawing up reorganisation plans more uncertain. For this reason, company managers generally opted to reach an out-of-court settlement with their creditors. According to the economic monitoring centre of the National Association of Court-Appointed Receivers and Trustees (CNAJMJ), the number of preventive out-of-court proceedings (conciliations or ad hoc mandates) decreased by only 17% in 2020 and proceeded to rise sharply over the first half of 2021, increasing 20% year on year. In addition, the number of safeguard proceedings initiated was down only 23%, as firms found this less restrictive route preferable in the absence of recognition of insolvency assessments.

Chart 2: Decline in number of court-ordered and safeguard proceedings during the COVID-19 crisis



Source: BODACC data, DG Trésor calculations.
How to read this chart: Comparison of the periods March 2018-October 2019 and March 2020-October 2021.

2. Impact of government support measures by sector and region

To help firms facing restrictions on their operations and a significant decline in their business activity, the French government implemented a wide range of support measures, such as a short-time work scheme, the solidarity fund, government-backed loans, and social security contribution deferrals and exemptions. Some of these measures were designed to target the sectors hardest hit by the COVID-19 crisis, e.g. the solidarity fund and certain exemptions.

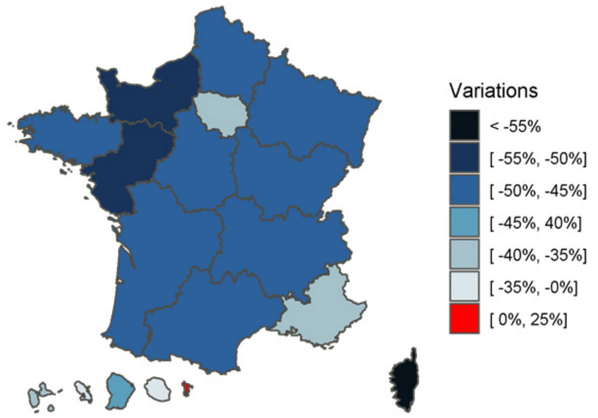
Given the general downward trend in business failures, it appears that these measures addressed drops in business activity which varied greatly from one sector to another. When comparing the COVID-19 crisis period (March 2020-October 2021) with the pre-pandemic period (March 2018-October 2019), we observed a comparable drop in the number of bankruptcies, which were down by 44% to 51%, across sectors closed due to the crisis,[2] those directly affected by the crisis, those indirectly affected[3] and those falling outside these categories. Yet the firms that took a direct hit from the crisis, such as those in the hospitality or the arts and entertainment industries, reported a larger contraction (32%) in aggregate turnover in 2020, far greater than that reported by companies from other sectors (average contraction of 9% for the economy as a whole).

These trends are especially visible in the hospitality industry: while bankruptcies in the food service sector fell 57% and those in the accommodation sector saw a decline of 39%, i.e. at rates approaching those for the economy as a whole, aggregate turnover in both sectors was down 31% and 41%, respectively.

At a more granular sectoral level, however, we found that some sectors majorly affected by the contraction of turnover recorded an increase in business failures. For example, turnover for travel agencies and booking services decreased 60%, driving bankruptcies up 5%.

At geographic level, the drop in business failures concerned all of mainland France and there was a small amount of differentiation regionally: the Île de France and Provence-Alpes-Côte d'Azur regions reported a relatively minor decline (below 40%), whereas business failures in Corsica were down more significantly (59%). Such figures for other regions of mainland France were relatively in line with one another (ranging from a drop of 46% to 53%, see Chart 3). Business failures in overseas *départements* and regions have fallen less dramatically (down 23%) than in other French regions, especially Réunion, where bankruptcies were only 4% lower. Our results were roughly similar when controlling for firms' industry and size.

Chart 3: Change in number of business failures by region, pre-pandemic vs during pandemic*



Source: BODACC data, DG Trésor calculations.
*Pre-pandemic: March 2018–October 2019. During pandemic: March 2020–October 2021.

3. Impact of measures based on company size

Whereas the monthly business failure rate began falling for SMEs at the onset of the COVID-19 crisis, bankruptcies among LEs increased before declining. A total of 56 ISEs/LEs failed between March 2020 and October 2021, compared with 36 between March 2018 and October 2019, i.e. a 56% jump. By contrast, bankruptcies among SMEs were down from 73,000 and 3,300 pre-pandemic, to 41,000 and 2,100 during the crisis, representing a fall of 45% and 37%, respectively.

When large firms fail, employment can take a big hit. That said, it is difficult to assess the direct impact of a bankruptcy on employees since not all bankruptcies result in job losses. If a company is undergoing reorganisation proceedings, it can continue to operate and, by extension, protect a number of jobs. If a company is undergoing liquidation proceedings, jobs can be saved where all or part of the company is being sold. Due to a lack of information on what became of jobs at failed firms, we were only able to analyse the crisis's impact on at-risk jobs, herein defined as the total number of jobs at failing companies.

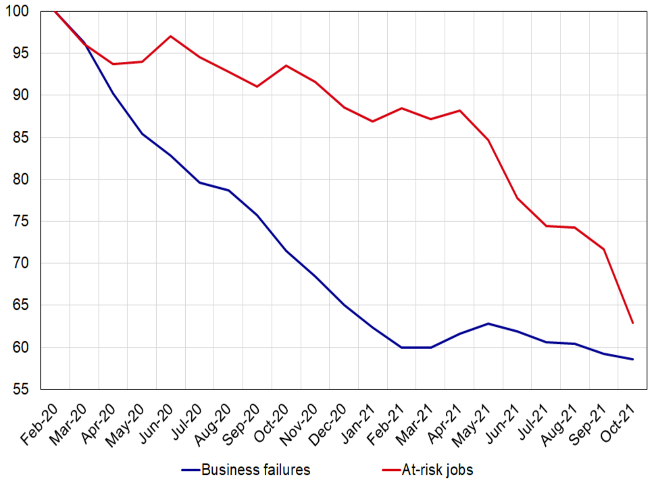
The number of at-risk jobs fell only slightly in 2020 and did not experience the same trend as the number of business failures until 2021 (see Chart 4). In the second quarter of 2020, even though business failures dropped by half year on year, the number of jobs concerned rose 4%. But over the first 10 months of 2021, the number of at-risk jobs declined 43%

(2) These include "S2" sectors subject to a business interruption in accordance with Decree no. 2020-293 of 23 March 2020.
(3) These include "S1" and "S1a" sectors defined in Appendices 1 and 2 to Decree no. 2020-371 of 30 March 2020 on the solidarity fund.

compared to the same period in 2019, with falling at-risk jobs reaching lows on par with business failures. Moreover, France Stratégie (2021) also highlighted this period of "catch-up" between the number of at-risk jobs and that of firms beginning insolvency proceedings, noting that companies with more than 250 employees were more often than not going through reorganisation proceedings, which can potentially save a greater number of jobs.[4]

Statistics regarding the wage guarantee scheme (AGS) corroborate these findings.[5] In 2020, the five largest cases brought under the scheme involved a total of 14,500 at-risk jobs, i.e. more than twice the number in 2019. Starting in July 2020, however, businesses with two employees or less were overrepresented among AGS beneficiaries.

Chart 4: Number of at-risk jobs and business failures over a 12-month period Base 100 in February 2020



Source: BODACC data, FARE database, DG Trésor calculations.
How to read this chart: Although the number of business failures reported between November 2019 and October 2020 was 29% lower than for the March 2019-February 2020 period, the number of at-risk jobs was down only 6%.

4. Firms that did not weather the crisis had a deteriorated financial situation pre-pandemic

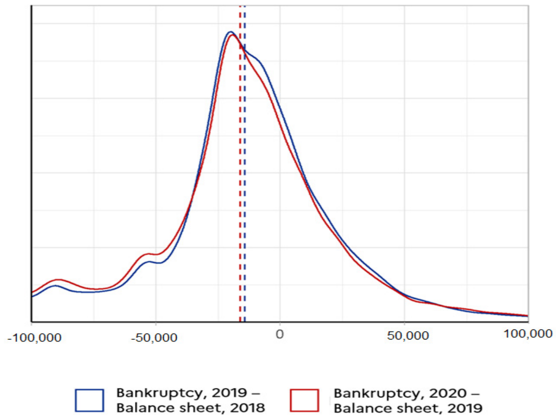
While it is typical for failing firms to exhibit major weaknesses in the year prior to filing bankruptcy, it seems that this was especially true of firms failing during the COVID-19 crisis.

For one, insolvency proceedings in 2020 concerned businesses that posted a weaker income statement than normal at the end of the year leading up to their bankruptcy: the median profit or loss relative to the value of assets a year prior to bankruptcy went from a 9.3% loss for bankruptcies filed in 2019 to an 11.6% loss for those filed in 2020, whereas other firms recorded a 6.6% profit in both years.

Labour productivity is another indicator where failing firms performed worse than those in operation.[6] The median productivity of failing firms fell from €22,800 to €20,800 per employee between 2019 and 2020, whereas for firms in operation it increased from €35,700 to €36,400. After taking into account business size and sector, the labour productivity distribution of failing firms moves to the left in respect of 2020, while that of firms in operation is unchanged (see Chart 5 and Chart 6).

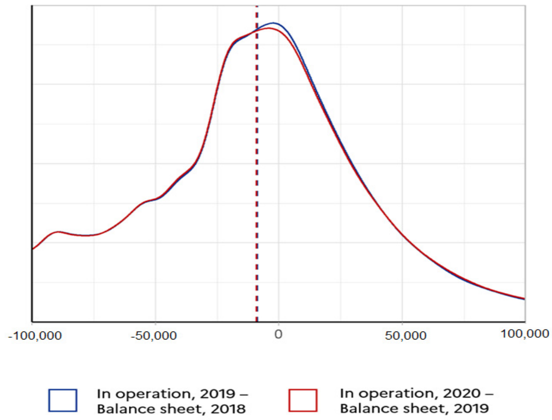
(4) Boekwa Bonkosi E., Épaulard A. and F. Gache (2021), "Défaillances d'entreprises : où en est-on ?", Point de vue, *France Stratégie*.
(5) AGS's primary purpose is to provide relief to companies undergoing insolvency proceedings by guaranteeing the payment of wages to employees.
(6) Measured as value added before tax divided by the firm's total number of full-time equivalent employees.

Chart 5: Labour productivity distribution of failing firms adjusted for size and sector



Source: BODACC data, FARE database, DG Trésor calculations.

Chart 6: Labour productivity distribution of firms in operation adjusted for size and sector



Source: BODACC data, FARE database, DG Trésor calculations.

How to read these charts: Each chart shows the residual of the regression of the productivity on sector (A21) and type of business. Values are centred on 0. The vertical dotted lines indicate the distribution medians. In the chart on the right, the two median lines are overlaid.

Moreover, there was a slight deterioration in the solvency of firms in the year leading up to their filing for bankruptcy, whereas companies still in operation saw their solvency improve. One year later, the net debt of failing firms rose from 92.0% to 93.0% of their liabilities (median value). By contrast, the net debt of companies still in operation one year later fell from 34.0% to 31.7% (median value).

These findings are consistent with market selection mechanisms remaining efficient during the crisis, which did not rescue the least viable firms, even as the number of business failures plummeted, and corroborate the more marked decline of reorganisations versus liquidations. Although businesses that ultimately went bankrupt bore the brunt of the economic shock of the crisis, with failing firms recording a median 27% drop in their business compared to a mere 5% decrease for other firms, the economic shock itself does not appear to be the sole determinant leading to a company's bankruptcy, with pre-existing financial troubles being an additional contributing factor.

5. Econometric analysis of determinants of bankruptcy

A firm's profitability, solvency and liquidity profile plays a major role in its probability of filing for bankruptcy.[7] The unprecedented drop in bankruptcies since the onset of the COVID-19 crisis brings us to the question: which determinants of bankruptcy had less of an impact during this period? An econometric analysis provides an answer. Cros et al. (2020)[8] notably used such an approach early on in the crisis to demonstrate that factors predicting that a firm would begin insolvency proceedings in 2019 were also valid for 2020, suggesting that lower bankruptcy rates did not alter the creative destruction process. Current data makes it possible to analyse trends in these determinants since the onset of the crisis (see Box 1).

(7) W.H. Beaver (1966), "Financial Ratios as Predictors of Failure", Journal of Accounting Research, 4, pp. 71-111, E. I. Altman (1968), "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy", *The Journal of Finance*, No. 4, Vol. 23, pp. 589-609, J. A. Ohlson (1980), "Financial Ratios and the Probabilistic Prediction of Bankruptcy", *Journal of Accounting Researc*h, No. 1, Vol. 18, pp. 109-131.

(8) Cros M., Epaulard A. and P. Martin (2021), "Les défaillances d'entreprises dans la crise Covid?19 : zombification ou mise en hibernation ?", No. 051-2020, *Focus du Conseil d'analyse économique*.

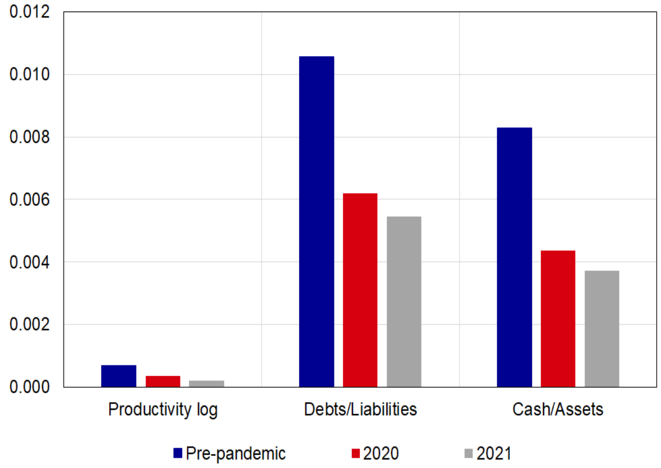
Under normal circumstances, SMEs and newer companies fail more often than other types of businesses.[9] What is more, our results corroborated insights from financial theory: high debt, low liquidity, weak productivity, declining turnover and underwhelming net income are also determinants in a firm's failure.

In 2020, we observe that traditional determinants of bankruptcy were mitigated:[10] in particular, while the sectors hardest hit by the crisis were typically less likely to experience bankruptcy under normal conditions, the period of crisis increased their vulnerability to it. Similarly, while SMEs usually have higher bankruptcy rates than large enterprises, they were less likely to have declared bankruptcy during the crisis. The effects of financial variables were also significantly moderated, demonstrating that the market selection effect was more limited.

In 2021, the effects of financial variables were further weakened[11] (see Chart 7). However, this was not the case for the effects of sector and size. Although the sectors hardest hit by the crisis had a higher probability of failure in 2020, there was no specific effect in 2021,[12] partly because these sectors benefited from targeted government support that year. In addition, while SMEs had a substantially lower probability of bankruptcy in 2020 compared to larger companies, the effect was no longer statistically significant in 2021, which likely reflects the expansion of government support, chiefly in the form of the solidarity fund, to aid larger firms.

In short, businesses that went bankrupt during the crisis were in a weaker position than usual, which suggests that government support helped prevent borderline firms from going bankrupt. Moreover, the pandemic-induced economic shock of 2020, which had a massive and disparate impact from one sector to another, created uncertainty and thus led to a more diverse cohort of firms declaring bankruptcy. Such an environment likely mitigated the effect of typical determinants of bankruptcy.

Chart 7: Effect of firms' characteristics on the probability of bankruptcy during the COVID-19 crisis in 2020 vs 2021



Source: DG Trésor calculations.
How to read this chart: A 1-percentage-point increase in the debt ratio translated into a 0.011-percentage-point higher probability of bankruptcy pre-pandemic.

(9) Results tables available online.
(10) Specifically, in the estimates the coefficient of the cross term systematically has the opposite sign of that of the coefficient under normal circumstances, which shows that the usual effect of the independent variable was diminished during the COVID-19 crisis.
(11) Differences in specific effects between 2020 and 2021 are mostly statistically significant at 1%.
(12) The difference in effect between 2020 and 2021 is statistically significant, see results table online.

Box 2: Methodology

To examine variation in the impact of business characteristics on the number of firm failures, we estimate the following econometric model:

$$Y_{i,t} = \alpha\beta 1_{crisis} + \gamma X_{i,t-k} + \delta 1_{crisis} X_{i,t-k} + \varepsilon_{i,t}$$

where $Y_{i,t}$ is a binary variable indicating whether company *i* went bankrupt in year *t*, and 1_{crisis} is a binary variable denoting whether year *t* is a year of economic crisis (2020 or 2021) and $X_{i,t-k}$ a set of business characteristics, measured by *t–k* (*k=1, 2*, see below).

The vector of coefficients γ indicates the effect, in normal circumstances, of each variable contained in $X_{i,t-k}$ on the probability of business failure; the vector δ related to the cross term with the crisis indicator shows the additional effect of the variables contained in $X_{i,t-k}$ during the crisis.

The model is estimated over two different time periods, using the balance-sheet data of firms whose financial year ends in December and dated between 2016 and 2019. In the first specification (*k=1*), we estimate the effect of the characteristics at the end of the year t–1 on the probability of business failure one year later, represented by *t*. In the second specification (*k=2*), we estimate the effect of characteristics at the end of the year *t–2* on the probability of business failure two years later, represented by t. This second specification primarily allows us to analyse whether the year 2021 produces a different effect than 2020, with the most recent balance-sheet data covering 2019. To this end, the crisis indicator is split into a 2020 effect and a 2021 effect, thus limiting variable $Y_{i,t}$ to bankruptcies occurring between March and October, with other months excluded, so as to take into account the crisis period only and because data for 2021 is only available up to 31 October 2021.

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