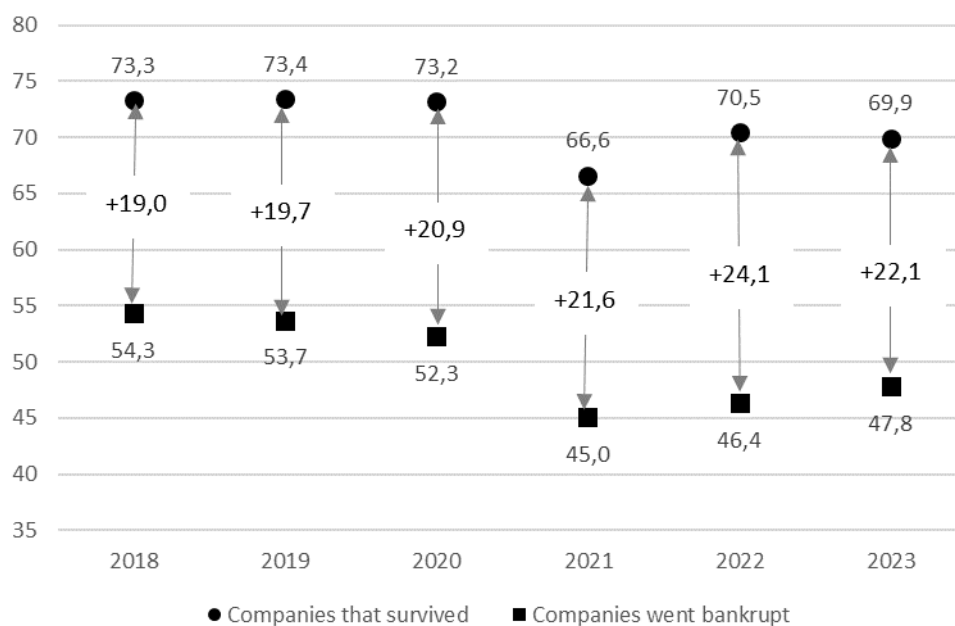


Corporate bankruptcies and productivity in the wake of the pandemic

By Olivier Gonzalez

Although fewer companies declared cessation of payments between 2020 and 2022, in median terms, less productive companies were the most prone to bankruptcy. However, the cleansing process was mitigated during the pandemic, as evidenced by the decline in the median productivity level of firms a year before their bankruptcy. This could explain part of the decline in productivity observed across French firms as a whole. This effect should be limited and temporary as firms, which would have become insolvent without the support measures, increasingly fail.

Chart 1: Apparent labour productivity of failing firms and surviving firms (median)
In thousands of constant 2020 euro/employee



Source: Banque de France – Author's calculations and INSEE for value added price indices.
Key: The productivity shown here is constant 2020 euro (value added price indices by sector from 2023 annual national accounts), adjusted for size and sector (based on the regression of the ratio of productivity to size and sector).

The number of corporate bankruptcies observed between 2020 and 2021, at the height of the COVID-19 pandemic, was particularly low. While 51,145 insolvency proceedings (receivership or liquidation) were recorded in 2019, there were only 31,217 in 2020, and just 27,582 in 2021.

The support measures for businesses that were swiftly put in place during the pandemic enabled many companies to stay in businesses. These likely included businesses enterprises that were fragile and unproductive even before the pandemic hit. However, by its very nature, low productivity – i.e. the low ratio between output and the resources used to generate it – increases the risk of bankruptcy. The cleansing process, which in principle leads to the exit of the least productive companies, could thus have been disrupted.

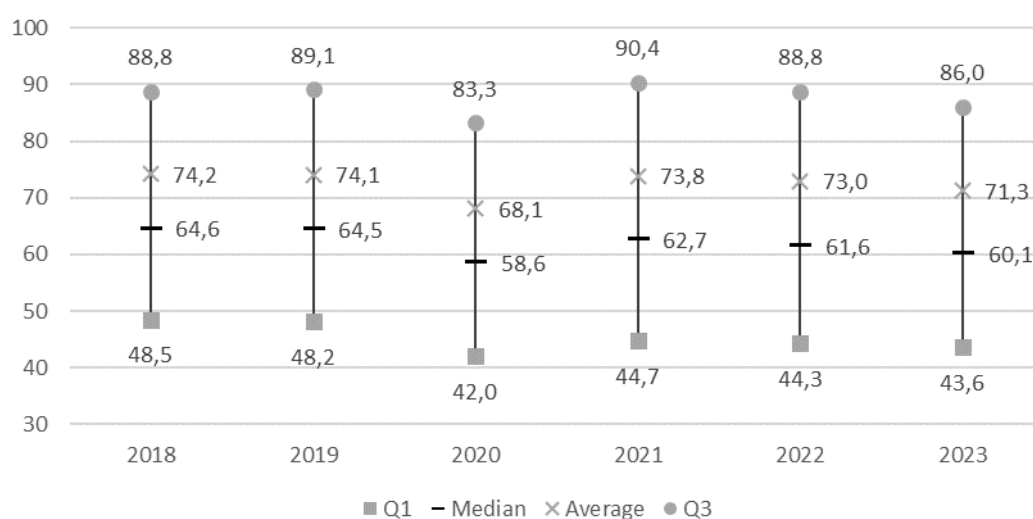
If this hypothesis proves correct, it could partly explain the decline in the productivity of French companies observed at the macroeconomic level.

Changes in the productivity of French businesses since the pandemic

Data from the [Banque de France's Fiben database](#) show changes in the distribution of corporate productivity since the pandemic. In order to obtain a homogeneous population of companies over the period observed, we excluded micro-enterprises, for which we lack sufficient historical data. The productivity observed here is apparent labour productivity, which is value added adjusted for sectoral inflation, divided by the number of employees in the company (productivity per employee).

The median labour productivity of French companies fell sharply in 2020 due to successive lockdowns and the resulting decline in activity, while most of the workforce remained in employment. After recovering in 2021, it stabilised in 2022, then declined in 2023, settling at a level below that of 2019 (see Chart 2). Moreover, the recovery witnessed in 2021 was less pronounced in the first quartile than in the third.

Chart 2: Changes in apparent labour productivity of French companies
In thousands of constant 2020 euro/employee



Source: Banque de France – Author's calculations and INSEE for value added price indices.

Note: Apparent labour productivity, measured as value added adjusted for sectoral inflation (base year 2020, value added price indices by sector from 2023 annual national accounts), divided by the number of employees in the company (productivity per employee).

These results are consistent with macroeconomic data showing a decline in real productivity after 2019. Based on the work of Devulder et al. (2024), we estimate that French business productivity will be 2.8% lower in 2023 than in 2019 (1.8% lower at the end of 2024). The authors attribute more than half of this difference to (i) permanent losses linked to job restructuring, and (ii) temporary losses due to labour retention during the pandemic, which had not yet been eliminated in 2023.

Changes in the intrinsic productivity of companies: the intensive margin

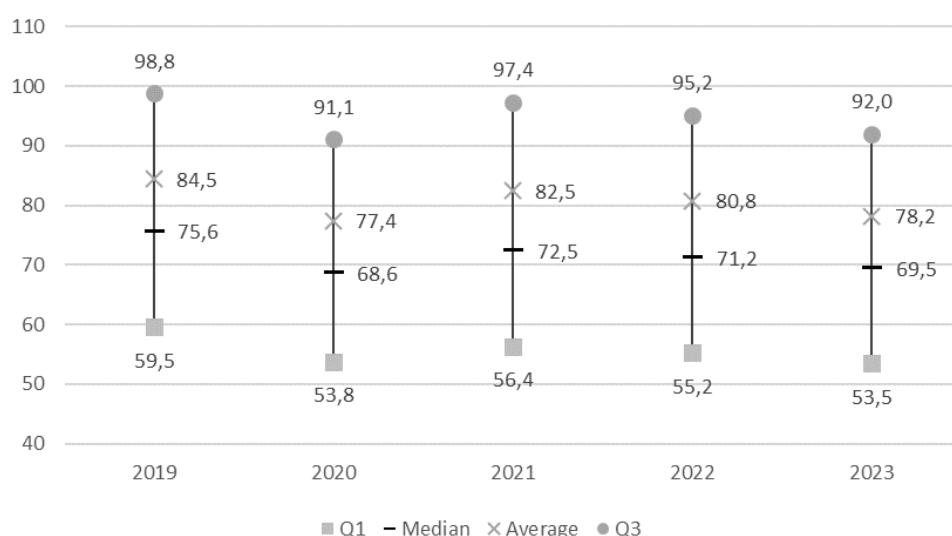
The decline in aggregate productivity measured across the population of companies as a whole could be due either to changes in its composition (through business creations and closures) or to intrinsic changes within an unchanged population.

To highlight the possible contribution of the intrinsic component to the change in French companies' productivity since the pandemic (intensive margin, i.e. relating to long-standing companies), we first focus on a population of companies in business during the 2019-23 period (i.e. with balance sheets for these five financial years and no cessation of payments, thus excluding companies that failed during this period).

Within this population of firms, apparent labour productivity is adjusted for size and sector to make labour intensive sectors (services) and more capital-intensive sectors (industry) comparable in this respect.

For this sub-population of companies in business throughout the period from 2019 to 2023, median productivity fell sharply in 2020 (see Chart 3) before recovering in 2021. It declined slightly in 2022 and 2023 across almost the whole the distribution, remaining below pre-Covid crisis levels in 2023. In the sample, the change in intrinsic productivity can be explained by the fact that the number of employees in companies remained relatively stable between 2019 and 2023 (median variation), while value added fell sharply in 2020, recovered in 2021 and declined slightly in 2022 and 2023.

Chart 3: Distribution of apparent labour productivity of firms in business between 2019 and 2023, adjusted for inflation, sector and size
In thousands of constant 2020 euro/employee



*Source: Banque de France – Author's calculations and INSEE for value added price indices.
Productivity here refers to productivity adjusted for size and sector.*

It is also possible that the lower number of market exits during the 2020-23 period contributed to the decline in aggregate productivity, as lower-productivity firms remained in business thanks in particular to public support measures.

Impact of corporate bankruptcy dynamics on overall productivity

In order to characterise businesses that fail, we look at their productivity in the year preceding the declaration of cessation of payments. This productivity is then compared with that of

companies that did not fail during that financial year, adjusting for the size and sector of the company.

The distributions of measures of productivity over the 2018–23 period for firms that remained in business and for firms that failed each year during this period are summarised by their respective medians (see Chart 1). From this point of view, failing companies appear less productive over the entire period. During the pandemic, and despite the introduction of support measures, it was therefore still the less productive companies that failed, thus maintaining the cleansing process in favour of relatively more efficient firms. This finding is consistent with earlier work by [Cros et al. \(2020\)](#) or [Maadini et Hadjibeyli \(2022\)](#).

However, the gap between the median productivity of firms that failed and those that remained in business widened in 2020 and 2021, and surged in 2022 (see the gaps shown by arrows in Chart 1). Thus, given the particularly low number of bankruptcies, it seems likely that it was the least productive companies that failed. Some of the less productive companies that would have failed in pre-COVID times were therefore able to remain in business. We observe that the bankruptcy rate of companies whose productivity was in the first quartile of the Fiben database fell significantly in 2020 and 2021 (from 1.26% in 2019 to 1.05% in 2020 and 0.78% in 2021).

This reduction in the cleansing of companies with lower productivity may explain part of the productivity gap observed at the aggregate level (through an “extensive margin” effect, i.e. linked to changes in the population of companies). However, its impact would have only been sustainable if these companies given a ‘lifeline’ remained in business after the support measures were withdrawn. However, we observe a decrease in the gap between the productivity of failing companies and that of companies in business in 2023, which could be explained by the delayed failure of the least productive companies. The increase in the number of corporate bankruptcies (56,000 in 2023 and nearly 66,000 in 2024) may reflect the fact that this catch-up process is underway, leaving only the intrinsic causes of productivity losses to persist.