

# The law of the strongest? Firm performance during the COVID-19 crisis

By Guido Franco, Mauricio Hitschfeld, Álvaro Pina and Damien Puy

The large decline in economic activity triggered by the COVID-19 pandemic posed significant risks to the corporate sector. In the wake of the crisis, two major concerns that emerged were i) the potentially-higher vulnerability of smaller or younger firms, which could make them bear the brunt of the severe recession, with the likelihood of lasting economic damage; and ii) the risk of a debt overhang effect, whereby firms, even if rescued, would accumulate more debt, negatively impacting their post-pandemic investment and growth.

In a recent paper (Franco, Hitschfeld, Pina and Puy, 2023), we investigate whether these concerns materialised by analysing more than 150,000 non-financial companies, listed and non-listed, from both manufacturing and services sectors, operating in more than 50 countries, through the COVID-19 cycle until end 2021.[1]

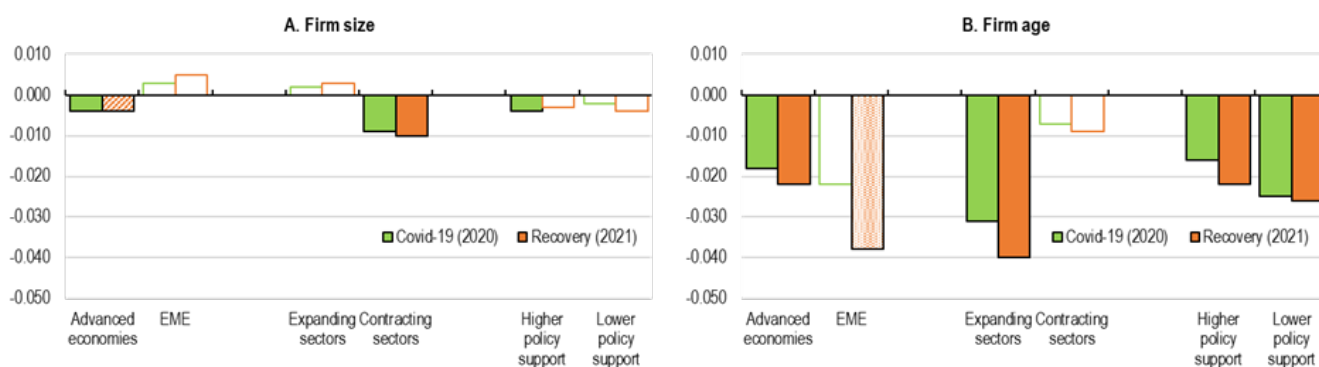
## **Larger and older firms have not outperformed smaller and younger ones**

A first key finding is that larger and older firms did not outperform their smaller and younger counterparts in terms of revenue growth and investment spending, both during COVID-19 and the subsequent recovery. The underperformance of large firms in terms of revenues was driven by firms operating in advanced economies (Figure 1), where concerns about rising concentration and market power have been the strongest in the last decade. The relative performance of smaller and larger

firms depends on whether their sector of activity in the respective country expanded or contracted over the COVID-19 cycle. In contracting industries, the underperformance of larger firms in terms of revenues is statistically significant, suggesting that smaller firms might have gained market share at the expense of larger competitors in the sectors hit hardest by the pandemic. In contrast, the effect of firm size is more muted in expanding sectors. For firm age, the results for revenues are even stronger in advanced economies but, in contrast to size, are mainly driven by expanding sectors.

Abundant policy support mainly targeted at smaller firms only provides a partial explanation of their comparative resilience. Differences in the “size penalty” between subsamples of countries with larger or smaller fiscal policy support were generally found to be limited, with some evidence of a comparatively better performance of smaller firms in higher-support countries only in 2020.

**Figure 1. The effect of firm size and age on revenues in different subsamples**



*Note:* Each bar corresponds to the coefficients on the log of assets in 2019 and the dummy variable of age in 2019 (top quartile of the sectoral age distribution) in a regression model for the log of firm revenues, with the debt burden measured using the interest coverage ratio. A negative (positive) bar indicates that larger or older firms have performed worse (better) in terms of revenues compared to

their smaller or younger counterparts. Empty bars indicate non-significant coefficients, dotted bars indicate significance at 90%, dashed bars indicate significance at 95% and filled bars indicate significance at 99%. Country groups with higher and lower policy support are defined based on total fiscal support (above and below the line) excluding contingent liabilities. See Franco, Hitschfeld, Pina and Puy (2023) for further details. *Source*: Authors' calculations based on IMF (2021) and S&P Capital IQ database.

The absence of a “size premium” suggests that, at least until 2021, the COVID-19 pandemic did not induce a systematic reallocation of revenues and investment towards industry leaders, and thus did not result in a broad-based increase in concentration. Larger firms did not even systematically over-perform in sectors under particular scrutiny from a competition standpoint, such as technology and healthcare.

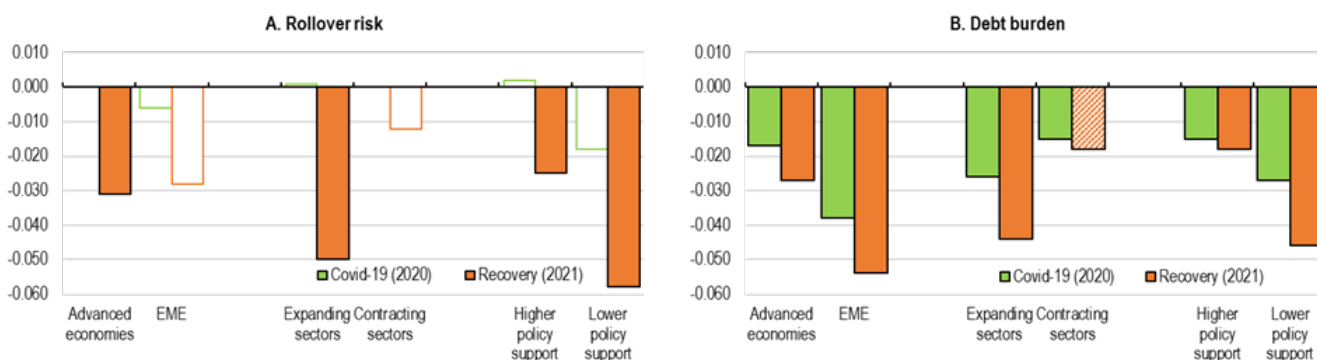
### **Financial vulnerabilities have weighed on revenues and investment**

Ex-ante financial strength clearly attenuated the effects of the shock on revenues during the COVID-19 cycle. Firms that entered the pandemic in poorer financial shape – with a higher leverage ratio, a heavier debt service burden or a larger share of short-term debt – tended to do worse in terms of revenues. These findings hold across advanced economies and emerging markets, expanding and contracting sectors, and countries with different levels of policy support (Figure 2).

There is also some evidence of a debt overhang effect. Firms that entered the crisis with a higher leverage ratio invested less than others, including on R&D, both in 2020 and in 2021, and firms which became more financially fragile during 2020 (e.g. experiencing an increase in their leverage ratio or a decline in either their interest coverage ratio or their liquidity ratio) tended to record weaker investment spending in 2021. The debt overhang channel thus appears a more likely

source of any scarring effects left by the pandemic than the impact of reduced competition.

**Figure 2. The effect of firm financial characteristics on revenues in different subsamples**



*Note:* Each bar corresponds to the coefficients associated with rollover risk in 2019 (the ratio of short-term debt to total debt) and the debt burden in 2019 (bottom quartile of the sectoral interest coverage ratio distribution) in a regression model for the log of firm revenues. A negative (positive) bar indicates that more financially vulnerable firms have performed worse (better) in terms of revenues compared to their financially healthier counterparts. Empty bars indicate non-significant coefficients, dotted bars indicate significance at 90%, dashed bars indicate significance at 95% and filled bars indicate significance at 99%. Country groups with higher and lower policy support are defined based on total fiscal support (above and below the line) excluding contingent liabilities. See Franco, Hitschfeld, Pina and Puy (2023) for further details.

*Source:* Authors' calculations based on IMF (2021) and S&P Capital IQ database.

## References

Franco, G., Hitschfeld, M., Pina, A. and D. Puy (2023), "The law of the strongest? Exploring the drivers of firm performance during the COVID-19 crisis", *OECD Economics Department Working Papers*, No 1779,

<https://www.oecd.org/economy/the-law-of-the-strongest-exploring-the-drivers-of-firm-performance-during-the-covid-19-crisis-98397076-en.htm>

IMF (2021), "Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic", Fiscal Policies Database (imf.org)

---

[1] The empirical analysis relies on a number of different econometric methods. A difference-in-differences approach is used for the baseline model, with a set of cross-sectional and first differences regressions being employed to complement and check the consistency of the findings.