THE CHARACTERISTICS OF HIGHLY PRODUCTIVE ITALIAN FIRMS

From the early 2000s onwards, growth in average productivity has been modest in many OECD countries. According to some studies, based mainly on US data, this trend is due to more productive firms (frontier firms) which, having acquired a high degree of market power, are less likely to be motivated to innovate further.[1] In contrast, other studies suggest that the growing complexity of the new technologies has curbed their development.[2]

In Italy, where productivity growth has been disappointing for over twenty years, there has been an increasing divergence in the performance of firms, especially in terms of firm size, innovative capacity and propensity to internationalize.[3]

A recent paper, based on the universe of Italian firms in the period between 1995 and 2016, identifies frontier firms – defined as those whose total factor productivity (TFP) each year is in the highest tenth of their sector nationally – and studies their main characteristics, productivity performance and economic importance in terms of revenues and workforce.[4]

Frontier firms in Italy are known for their higher investment rate, profitability measured by return on equity (ROE) and capital intensity (capital-to-assets ratio); despite being larger than average in terms of workers, they are smaller than the firms in the eighth and ninth deciles. These firms are younger than average and make less use of long-term bank loans for funding, while there is little difference in their use of short-term loans. These characteristics indicate low sectoral variability, despite the differences in the use of technology and in market structure. The conditions of frontier firms are relatively persistent: about three quarters of manufacturing firms and two thirds of service firms are still in the vanguard the following year, but the figures decrease over a five-year period, to 43 and 33 per cent respectively.

Between 1995 and 2007, the average productivity of frontier firms increased in both manufacturing and services; with the onset of the global crisis this upward trend came to a halt in the manufacturing sector but continued in services, albeit at a slower pace (see panel (a) of the figure). Frontier manufacturing firms have consistently recorded higher productivity growth rates than those belonging to the fifth decile and to the lowest TFP-distribution decile, except for the years following the most acute phase of the crisis (2013-16), when an increase in the death of the

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1 G. Gutiérrez and T. Philippon, 'Declining competition and investment in the US', NBER Working Paper, 23583, 2017.

2 D. Andrews, C. Criscuolo and P.N. Gal, 'The best versus the rest: the global productivity slowdown, divergence across firms and the role of public policy', OECD Productivity Working Papers, 5, 2016.

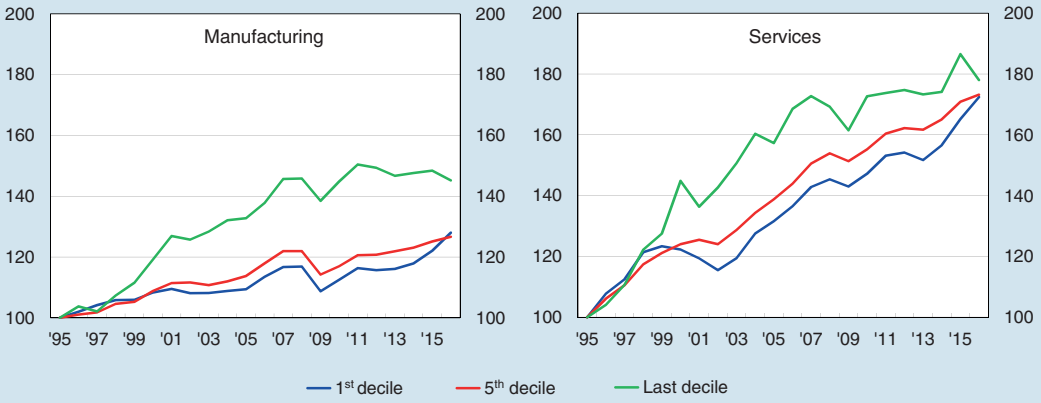
3 M. Bugamelli and F. Lotti (eds.), 'Productivity growth in Italy: a tale of a slow-motion change', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), 422, 2018.

4 F. Lotti and E. Sette, 'Frontier and superstar firms in Italy', Banca d'Italia, Questioni di Economia e Finanza (Occasional Papers), forthcoming.

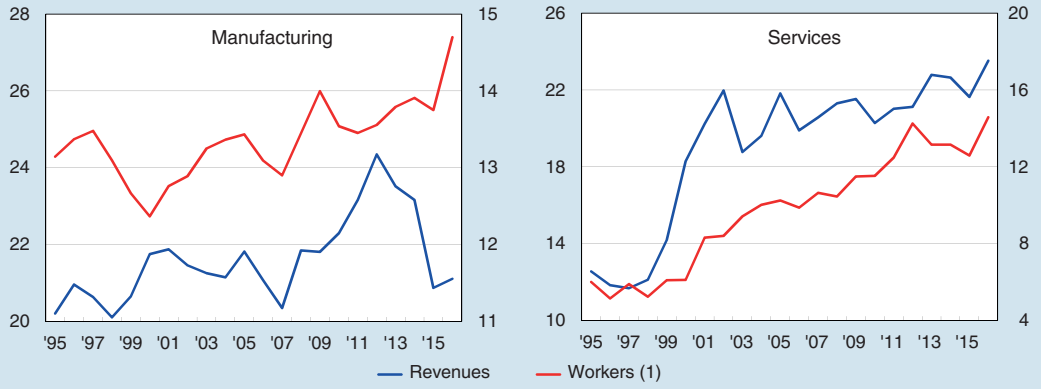
worst firms narrowed the gap.[5] The growth differential for services remained more stable.[6]

Productivity and firms' market share

(a) Firms' productivity
(index numbers; indices: 1995=100)



(b) Market share of the most productive firms
(percentage points)



Sources: Based on Cerved and INPS data.
(1) Right-hand scale.

Recent analyses, mainly carried out using US data, report the presence of 'superstar effects', which apply to the growing market share of a few highly productive firms.[7] This reflects on the one hand, a more efficient allocation of factors to more productive firms and on the other hand, an increase in the market power of a few firms that could have negative consequences on medium and long-term growth for the sector as a whole.

[5] A. Linarello and A. Petrella, 'Productivity and reallocation: evidence from the universe of Italian firms', *International Productivity Monitor*, 32, 2017, 116-136.

[6] The growth observed in manufacturing, a sector for which suitable data are available for an international comparison, is similar to the average for OECD countries and is therefore not specific to Italian firms. For further details, see D. Andrews, C. Criscuolo and P.N. Gal, 'Frontier firms, technology diffusion and public policy: micro evidence from OECD countries', OECD Working Paper, 2015.

[7] D. Autor, D. Dorn, L.F. Katz, C. Patterson and J. Van Reenen, 'The fall of the labor share and the rise of superstar firms', NBER Working Paper, 23396, 2017.

In Italian manufacturing, frontier firms have increased their share of workers, especially since the onset of the global financial crisis; their contribution has also risen in terms of turnover, although their performance has been more volatile (see panel (b) of the figure). This trend is more marked in the services sector. The sum of the market shares of the top four frontier firms in terms of their TFP (the most commonly used concentration index in the literature) stood at about 2 per cent in 2016 in terms of revenue and at 0.7 per cent in terms of workers in manufacturing (1.5 and 1.3 per cent in business services); these figures indicate that the 'superstar effects' have very little weight by international standards.[8]

Overall, this evidence suggests that the disappointing performance of the productivity of Italy's economy is not due to weak growth on the part of frontier firms nor to their excessive market power, but it may be attributable to more general structural weaknesses in the production system as a whole.[9]

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[8] There are no immediately comparable estimates available for an international comparison. As shown in G. Gutiérrez and T. Philippon, 'How EU markets became more competitive than US markets: a study of institutional drift', NBER Working Paper, 24700, 2018, the concentration in the EU's economic sectors is much lower than that in the United States.

[9] M. Bugamelli and F. Lotti (eds.), 2018, op. cit.