The Best vs. the Rest: The Global Productivity Slowdown Hides an Increasing Performance Gap across Firms

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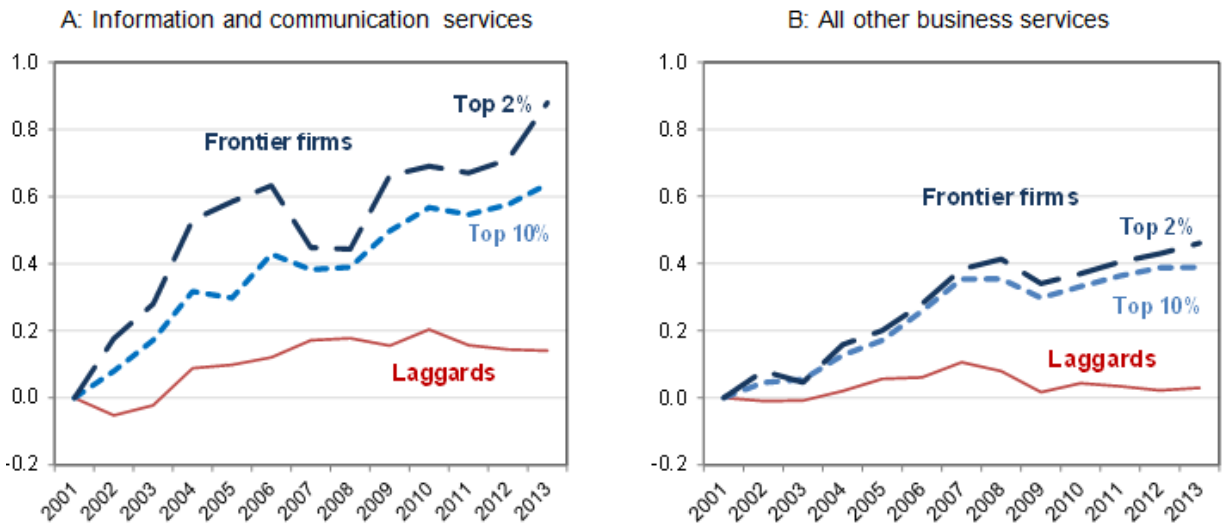
Well-known global companies such as Google, Apple and Amazon of the digital era as well as more traditional ones of the likes of BMW, L'Oreal and Nestlé have recorded impressive productivity gains over the 2000s as they created more and more revenue per employee. At the same time, aggregate productivity growth in the OECD – that reflects the performance of all businesses not just the few most successful ones – has stagnated. What explains this discrepancy?

We reconcile the apparent success of a few firms with the poor performance of the economy as a whole. Our analysis based on several million company accounts indeed shows that very strong labour productivity performance of the best firms (the frontier) has been accompanied by a persisting large productivity gap between them and all the other businesses. Worryingly, this gap has been growing over time. This pattern also remains after accounting for differences in investments (in machinery, equipment and structures as well as R&D, data and software) and market power across frontier and non-frontier firms. This suggests that the productivity divergence may in fact be driven by a growing difference in innovation performance in a broad sense.

What could explain these patterns? Ongoing structural trends

in the global economy – namely digitalisation, globalisation and the rising importance of tacit knowledge – likely have contributed to the rapid productivity gains at the global frontier. Indeed, multifactor productivity (MFP) divergence is strongest among information and communication (ICT) services (Figure 1). These are sectors where "winner-takes-all" dynamics are likely to be more relevant, given very low marginal costs. This makes upscaling a product or service much easier and cheaper, and combined with powerful network effects can lead to the most successful producer capturing the whole or the large part of the market. The examples of Google as the main search engine or Amazon as the largest online retailer illustrate this point.

Figure 1. The role of *winner-takes-all* dynamics: frontier productivity is especially strong among ICT services



Notes: In Panels A and B, the global frontier group of firms is defined by the top 5% of companies with the highest MFPR levels within each 2-digit industry, while laggards capture all the other firms. Unweighted averages across 2-digit industries are shown for sales and MFPR, separately for services and ICT services, normalized to 0 in the starting year. Time period is 2001-2013. Services refer to non-financial business services.

Source: calculations by Andrews, Criscuolo and Gal (2016) using the Orbis database provided by Bureau van Dijk.

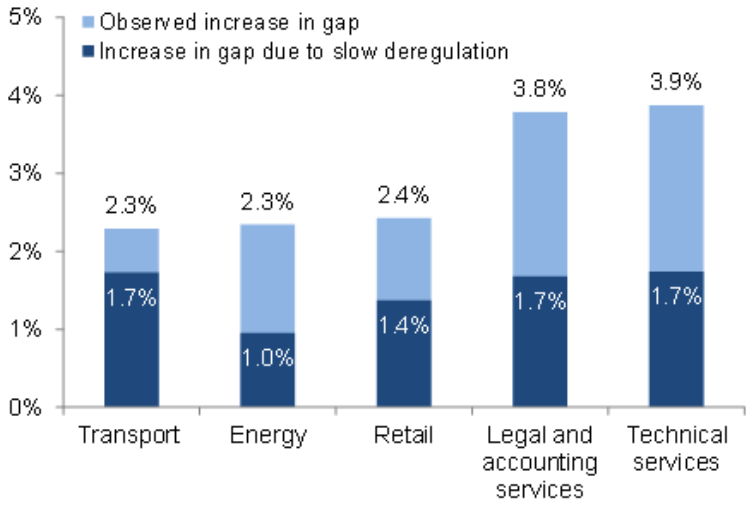
Yet, aggregate productivity performance was significantly weaker in sectors where divergence was more pronounced, suggesting that these patterns do not solely reflect frontier firms pushing the technological boundary. Instead, it could reflect a slowdown in the diffusion of best business practices from the frontier to other firms. One symptom of stalling diffusion is that it has become more difficult for laggard firms to join the frontier. More broadly, this phenomenon

could be a reflection of increasing costs for laggard firms of moving from an economy based on production to one based on ideas.

This brings us to the role of *incentives* of the laggard firms to adopt best practices. A key concern is that market contestability has weakened, given the decline in firm entry and increasing share of firms surviving on the margins of exit. This highlights the potential for policy to boost growth by promoting market competition, especially in services which are generally more sheltered from international markets. This would also create better conditions for growth-enhancing reallocation through the entry of more productive businesses and the exit of less successful ones. In fact, we find the rise in productivity divergence between the best firms and the rest to be much more extreme in sectors where the pace of pro-competitive product market reforms was slowest (Figure 2). In sum, while structural changes in the global economy meant that technological diffusion became more difficult for the typical firm over the 2000s, these difficulties were compounded by policy weakness that needs to be remedied if aggregate productivity has to rise faster than in the recent past.

Figure 2. The role of policy: productivity of laggards could be lifted by reforms in product market regulation

Contribution to the annual change in the productivity gap between the best firms and the rest driven by the slower pace of reform relative to the best practice industry



Notes: The figure shows the annual change in the MFPR gap between the frontier and laggard firms ("observed increase in gap), and the part that is explained by slower deregulation than that observed in the fastest deregulating industry (telecom, "increase in gap due to slow deregulation"). Technical services capture engineers and architects.

Source: regression results and further calculations by Andrews, Criscuolo and Gal (2016) using the Orbis database provided by Bureau van Dijk and the OECD's product market regulation (PMR) database.

References

Andrews, D., C. Criscuolo and P. Gal (2016), " The Best *versus* the Rest: The Global Productivity Slowdown, Divergence Across Firms And the Role of Public Policy", OECD Productivity Working Papers, No. 5, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/63629cc9-en