

MapProdIGI Conference
*“Fuelling productivity and business dynamism:
Long-term trends and the post-pandemic economy”*



SETTING THE SCENE: PRODUCTIVITY AND BUSINESS DYNAMICS TRENDS

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Productivity and business dynamics are key to boost aggregate growth...

- Distributed micro-data projects (MultiProd, DynEmp) supported by MapProdIGI have been crucial in finding evidence on long term productivity and business dynamics trends:
 - In a cross country setting
 - relying on harmonised and representative data
- Combined with commercial micro-data (Orbis, Zephyr), they contributed **uncovering firm heterogeneity** and **shaping the long-term narrative** on:
 - **Productivity and business dynamics, scale-up and the role of young firms**
 - The main **structural drivers** - a non-inclusive digital transformation as one of the “main suspects”
 - The role of policies to boost growth and inclusiveness...
 - ...particularly relevant over the COVID-19 pandemic.
- This presentation: overview of some of the most recent work done at the OECD on productivity and business dynamics trends.



but there is evidence of increasing divergences,
decline in the speed of catch-up...

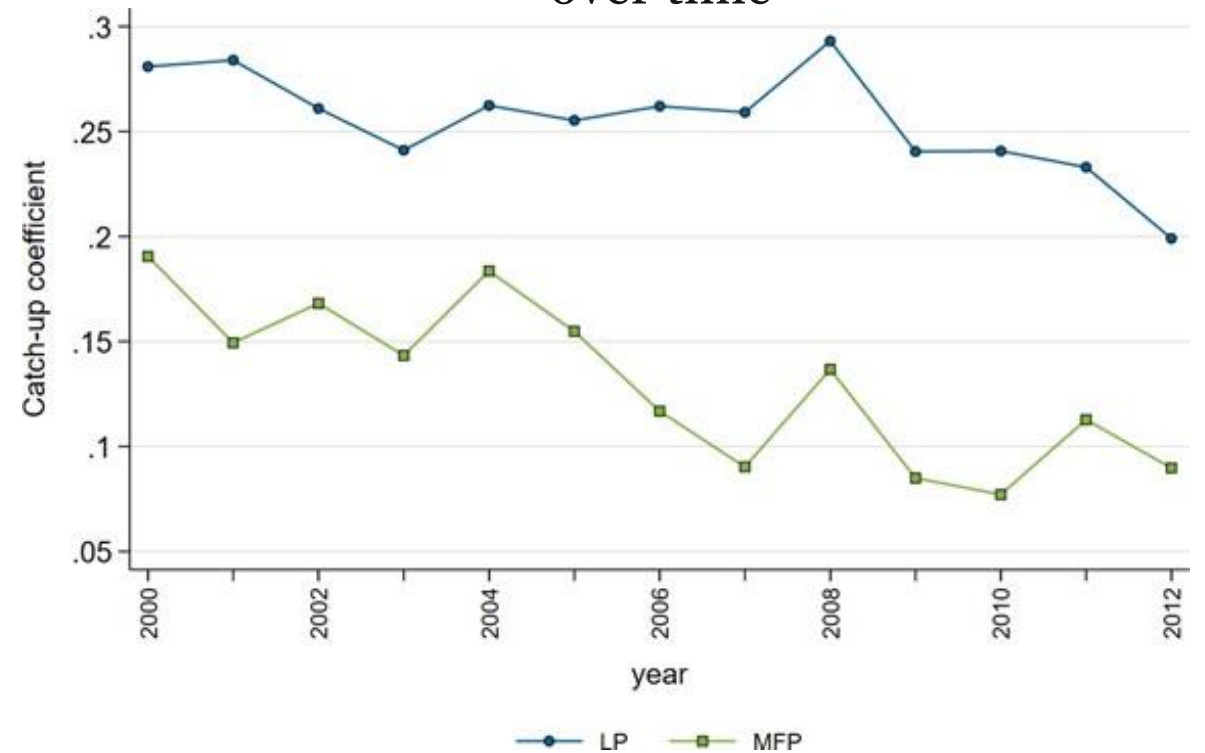
Productivity dispersion has increased over time



Notes: productivity dispersion (90-10 ratio in MFP à la Woolridge) within manufacturing and market services, normalised to 2000.

Source: [Corrado, Criscuolo, Haskel, Himbert, Jona-Lasinio \(2020\)](#)

The speed of catch-up of laggards has slowed down over time



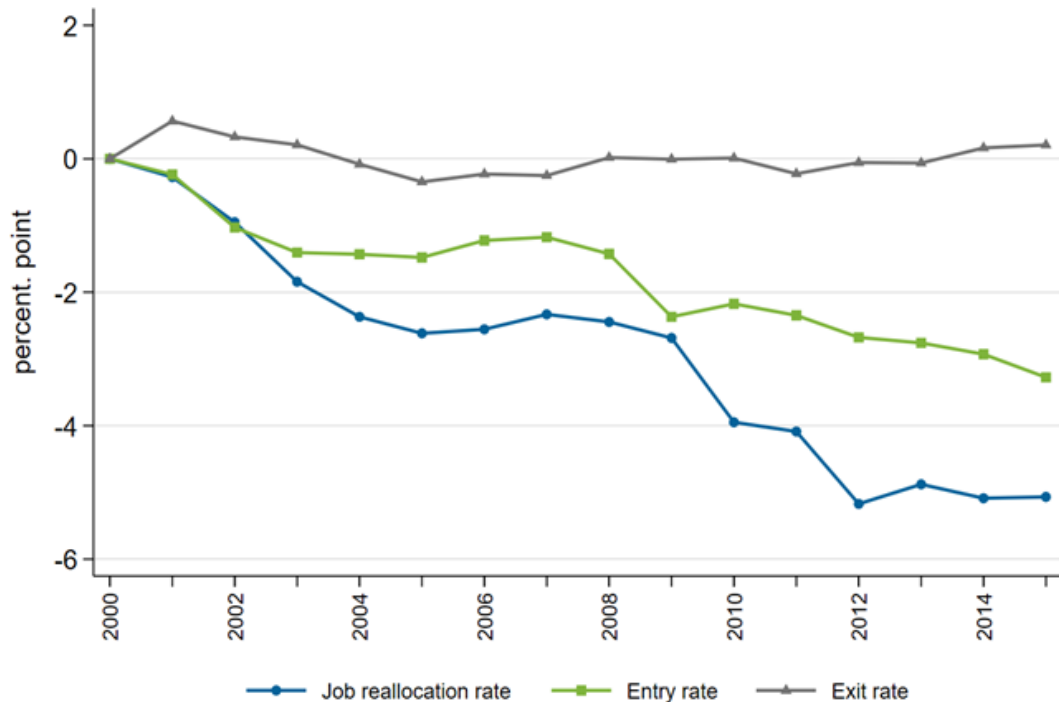
Note: estimates for the catch-up effect over time in manufacturing and market services.

Source: [Berlingieri, Calligaris, Criscuolo and Verlhac \(2020\)](#)



...as well as declining business dynamism, increasing industry concentration...

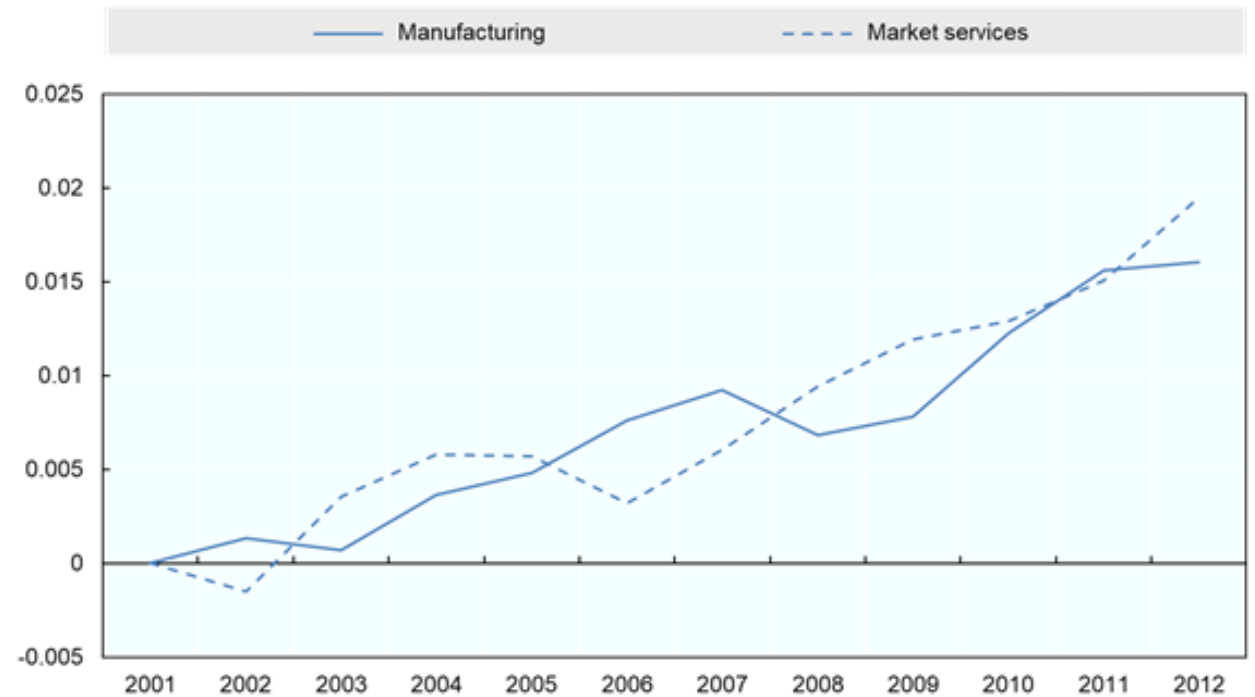
Entry rates and job reallocation rates have decreased over time



Notes: Averages within country-sectors. Cumulative changes in percentage points from the DynEmp dataset.

Source: [Calvino, Criscuolo and Verlhac \(2020\)](#)

The share of sales accounted for by 10% largest firms has been increasing



Note: share of sales of the firms in the top decile of the sales distribution in each country and 2-digit industry from the MultiProd dataset.

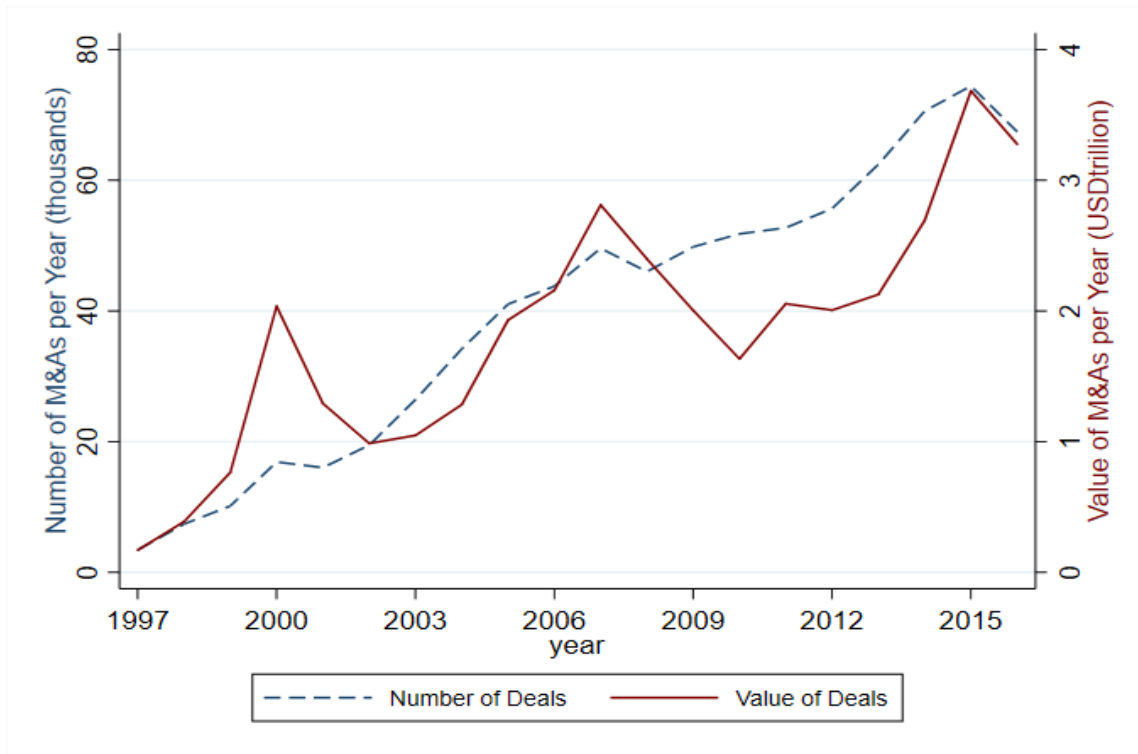
Source: elaboration based on

[Bajgar, Berlingieri, Calligaris, Criscuolo, Timmis \(2019\)](#)



...and increasing M&As and mark-ups

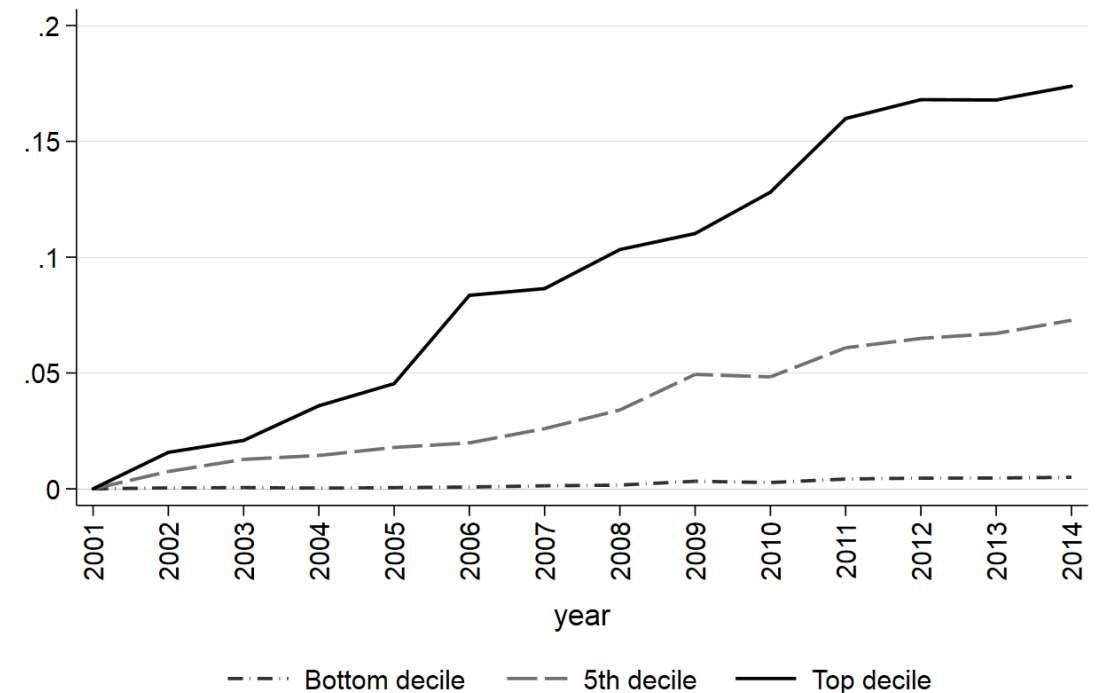
The number and value of M&As has been increasing



Notes: Annual total number and value of acquisitions, purchasing minority stakes and issuing of new share capital involving target firms in the non-farm non-financial business sector.

Source: Bajgar, Criscuolo, Timmis (2018).

The increase in mark-ups is driven by top half of the distribution



Note: Unconditional averages of firm-level log mark-ups in the chosen part of the distribution of mark-ups. Deciles are defined in each 2-digit industry-year.

Source: elaboration based on [Calligaris, Criscuolo, Marcolin \(2018\)](#)



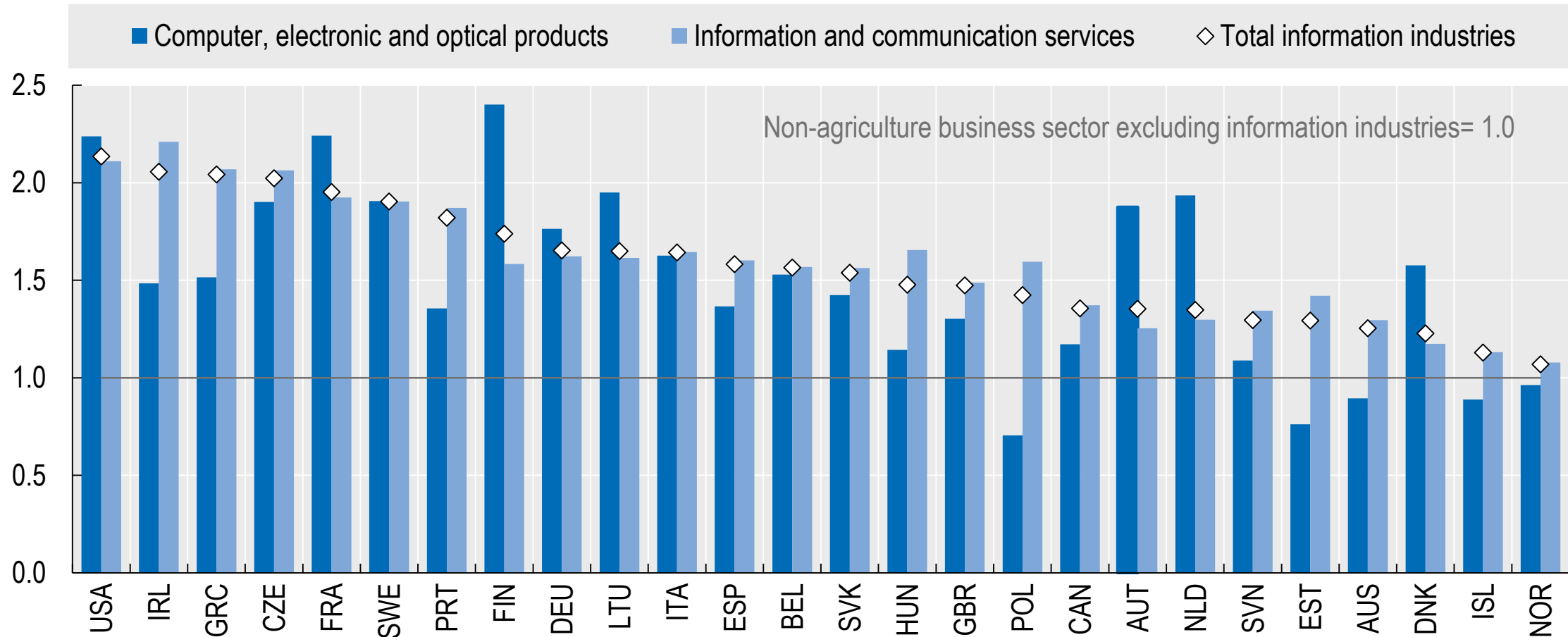
Why?

- Key role of the digital transformation and shifts to a knowledge economy
 - Digital technologies lower entry costs, ease sharing of ideas, ease market penetration
 - Need complementary investments, increasing importance of tacit knowledge, intangibles are non-rival and scalable
 - Economies of scale and network externalities can reinforce winner-takes-most dynamics
- This may generate
 - Higher barriers to diffusion, lower experimentation and dynamism
 - Advantages for larger firms that gain market shares and apply higher mark-ups



Although productivity tends to be higher in intangible- and digital-intensive sectors...

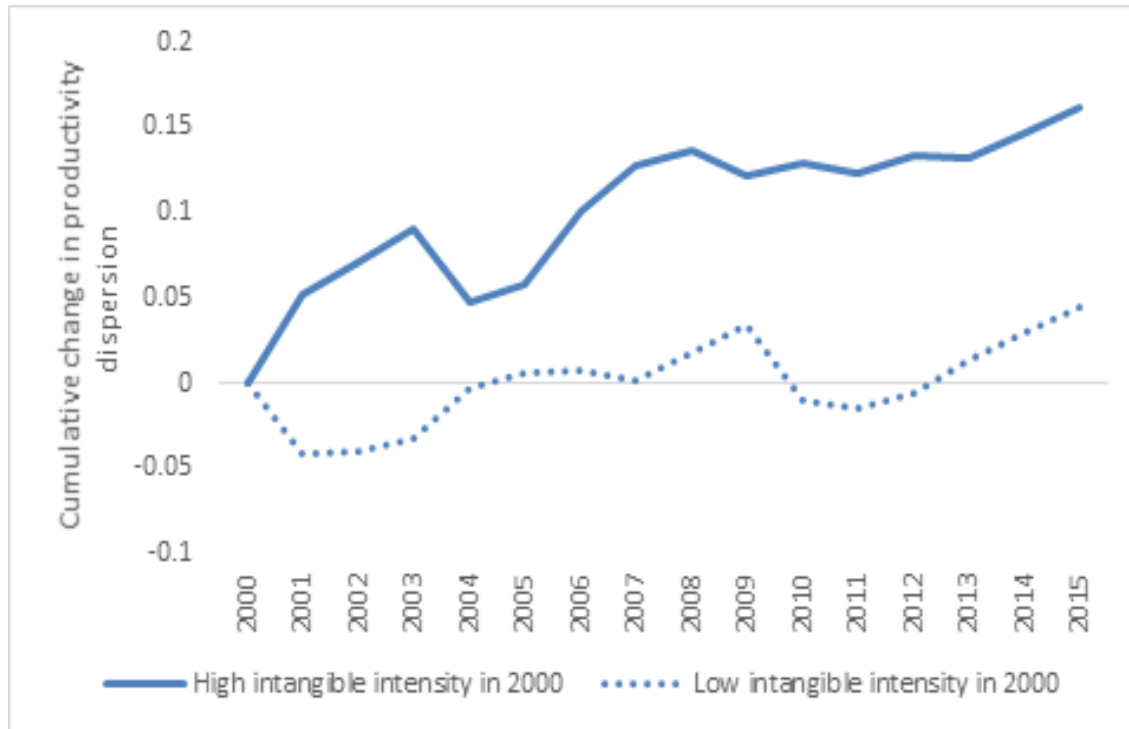
Labour productivity in information industries, manufacturing and service activities, 2016
Relative to labour productivity of other industries in the non-agriculture business sector





...these sectors also experienced stronger divergences...

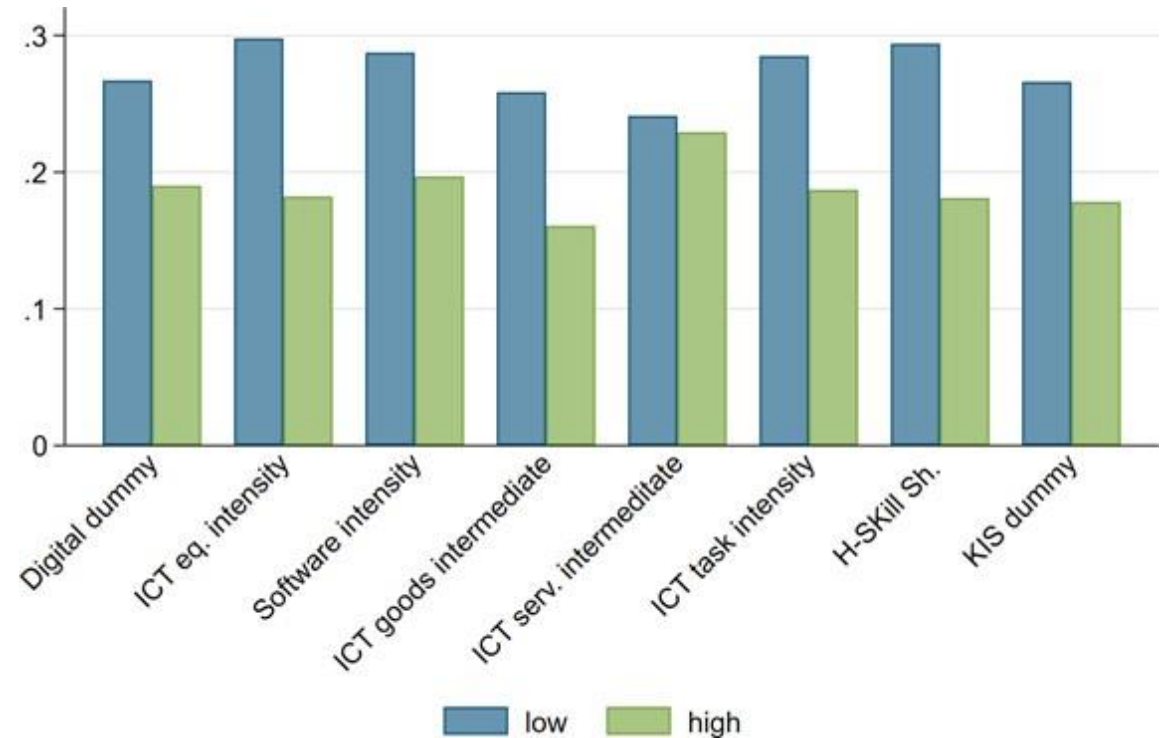
Intangible investment contributes to productivity dispersion



Notes: productivity dispersion (90-10 ratio in MFP à la Woolridge) for high and low intangible intensive sectors, normalised to 2000.

Source: [Corrado, Criscuolo, Haskel, Himbrt, Jona-Lasinio \(2020\)](#)

Laggards catch-up at a lower speed in more digital and knowledge-intensive industries



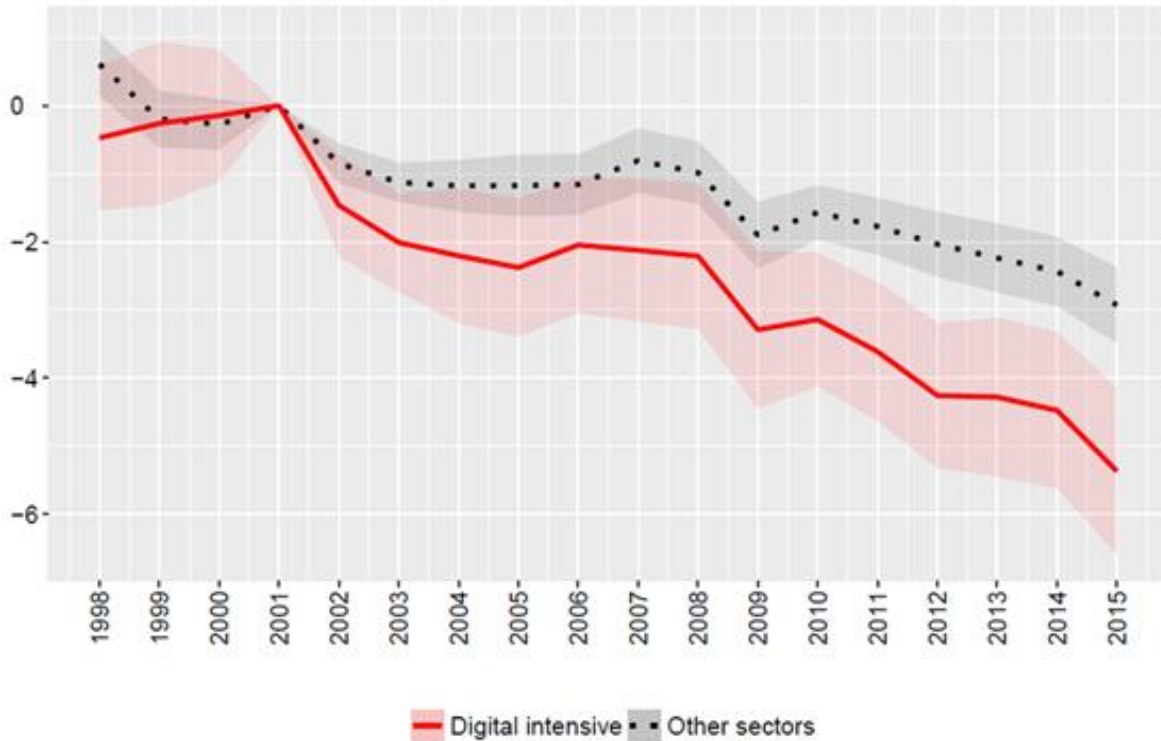
Note: difference in LP growth, due to the catch-up effect in industries with low vs. high values of the indicators considered.

Source: [Berlingieri, Calligaris, Criscuolo and Verlhac \(2020\)](#)



...faster declines in dynamism and higher increases in concentration...

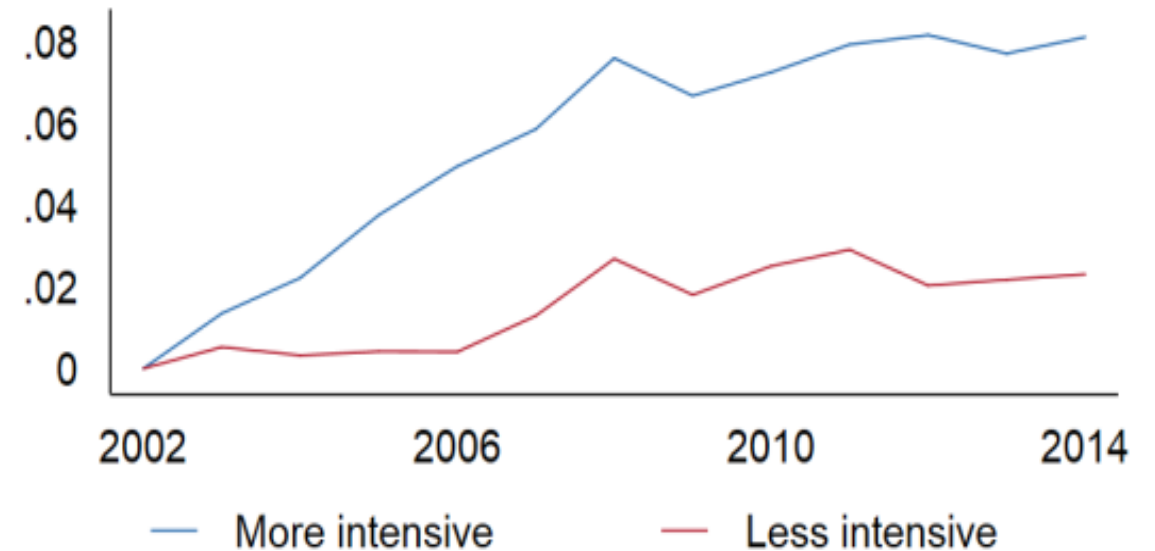
Entry rates declined faster in digital intensive sectors



Notes: averages within country-sectors. Cumulative changes in percentage points.

Source: [Calvino and Criscuolo \(2019\)](#)

Increases in concentration have been higher in intangible intensive sectors



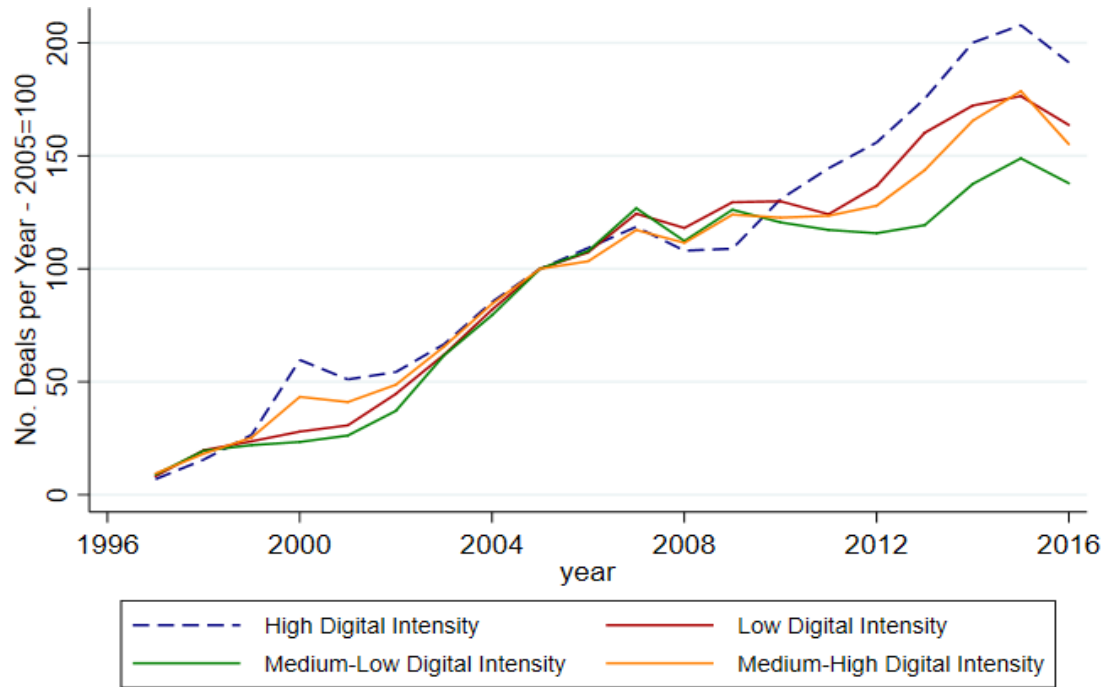
Note: Concentration measured by the share of top 8 business groups in the sales of each industry in each country. Changes in the (unweighted) mean concentration across country-industry pairs with above- and below-median intensity of intangible investment.

Source: [Bajgar, Criscuolo and Timmis \(2020\)](#)



...as well higher increases in M&As and mark-ups...

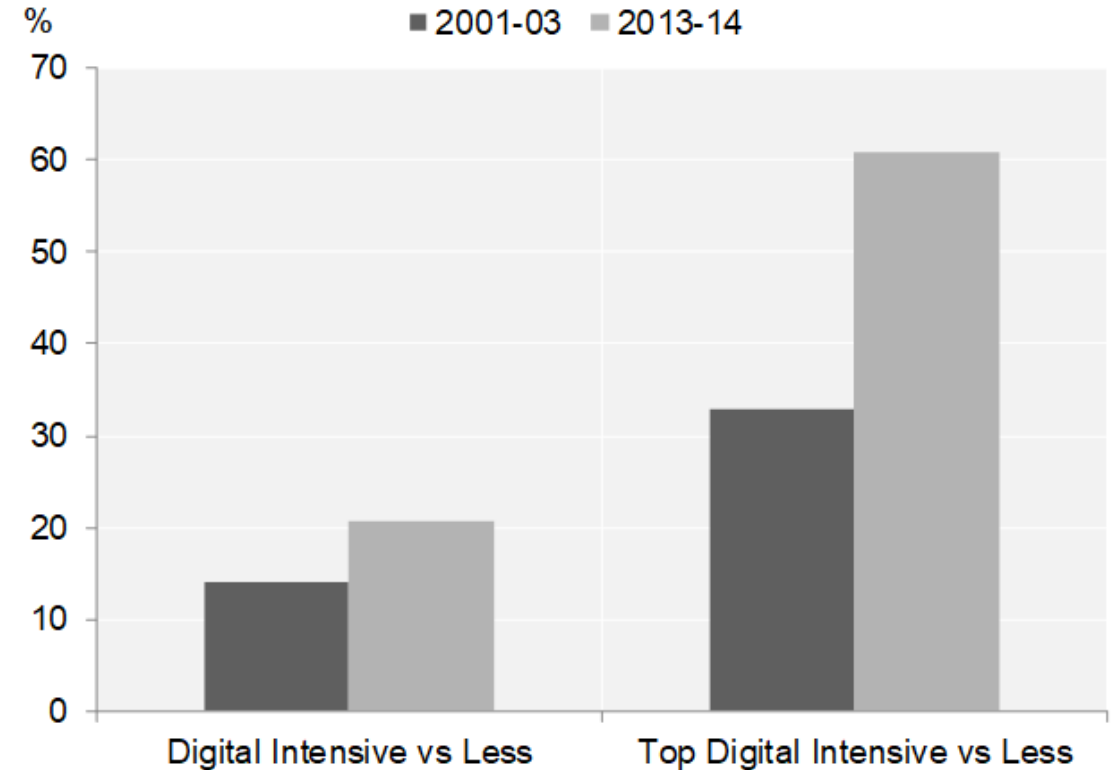
Large increase in number of deals with digital targets



Notes: annual total number of acquisitions, purchasing minority stakes and issuing of new share capital involving target firms in the non-farm non-financial business sector.

Source: Bajgar, Criscuolo, Timmis (2018).

Mark-ups are higher in digital intensive sectors



Note: estimates of a pooled OLS regression explaining firm log mark-ups. All coefficients are significant at the 1% confidence level.

Source: elaboration based on [Calligaris, Criscuolo, Marcolin \(2018\)](#)



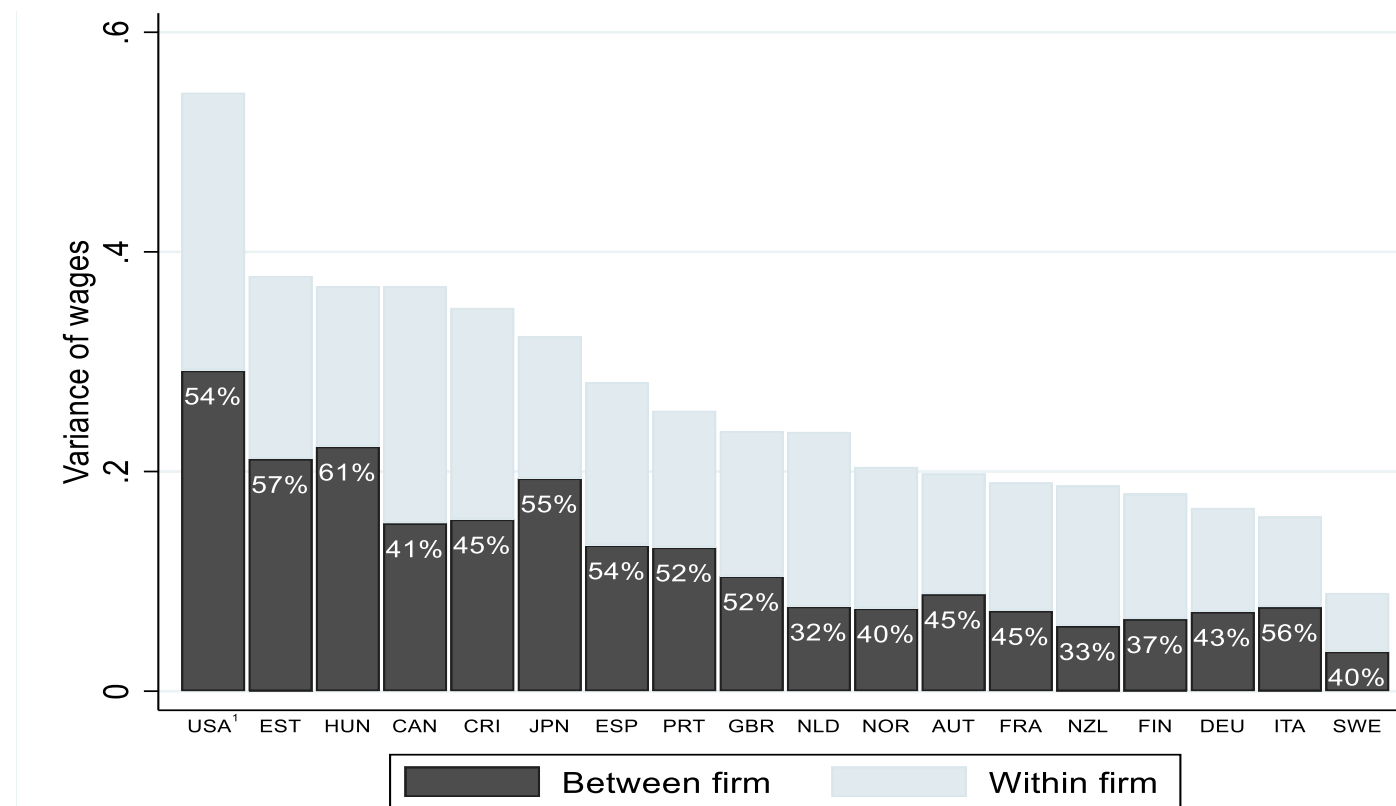
...with negative implications for inclusiveness that spill over into the job market

- Young firms can be an entry point into labour markets for younger workers and provide employment opportunities for women and immigrants (Calvino and Scholl, forthcoming)
- Productivity divergence affects wage inequality ([Criscuolo, Hijzen, Koelle, Schwellnus et al., 2021](#))
 - Dispersion of firm wage premia is larger in countries with larger productivity dispersion, with productivity-wage differentials of around 15%:
 - And systematic importance of job mobility, competition in product and labour markets and wage-setting institutions



Firms play an important role in explaining aggregate wage inequality

The dispersion of average wages between firms accounts for about half of the overall dispersion of wages



Notes: . Level of (log) wage variance, latest available year. The total height of the bars shows the total variance of log wages, with the percentages on top of the dark-shaded bars denoting the ratio of the between-firm component to the total variance.

Source: Criscuolo, Hijzen, Schwellnus et al. (forthcoming).



Policy is key to make growth more inclusive...

- Fostering innovation, mobility and experimentation
 - Innovation at the top and sharing of knowledge
 - Framework conditions for entrepreneurship and reallocation
 - Reducing barriers to job mobility
- Boost technology diffusion
 - Increase firms' awareness and absorptive capacity
 - Skills, finance, support to R&D
 - Competitive pressures, openness and market size
- Some policies are likely to bring double dividends
 - They also contribute levelling the playing field
 - They are also critical to advance on the SDGs and the green transition

Particularly relevant over the COVID-19 crisis and in the recovery



What's next?

- Distributed micro-data projects will continue answering policy-relevant questions at the frontier of policy analysis
 - With relevant implications for industrial policy, and particular attention to the COVID-19 pandemics, climate change and the digital transformation
- Continue and extend ongoing work on
 - Business dynamics, productivity and inclusiveness
 - How much of the slowdown in productivity can be accounted for by the divide?
 - Determinants of mark-up and concentration trends over time, and across countries and sectors
- Explore
 - Adoption and diffusion of advanced digital technologies using direct measures across countries
 - Link between employment, business dynamics and productivity
 - Climate change and sustainability



THANK YOU!

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