



EMPIRICAL TRENDS IN MARK-UPS AND MARKET POWER:
IMPLICATION FOR PRODUCTIVITY AND GROWTH
PANEL DISCUSSION

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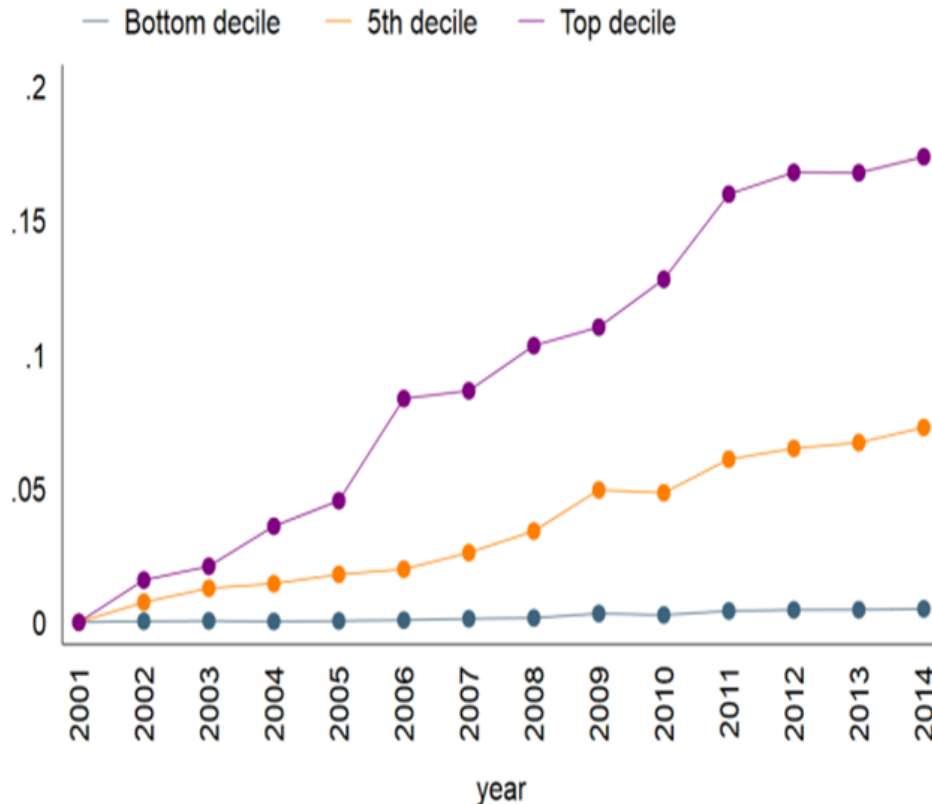
Some evidence from OECD work

- Rising markups and market power?
- Are there particular sectors (e.g. digital markets; services) where such empirical trends are more evident?
- Are these trends more or less prominent in Europe with respect to other areas?
- What are the implications of these empirical trends on productivity, inequality and growth?



Rising mark-ups

- Rising markups across 25 countries for firms with more than 20 employees.:



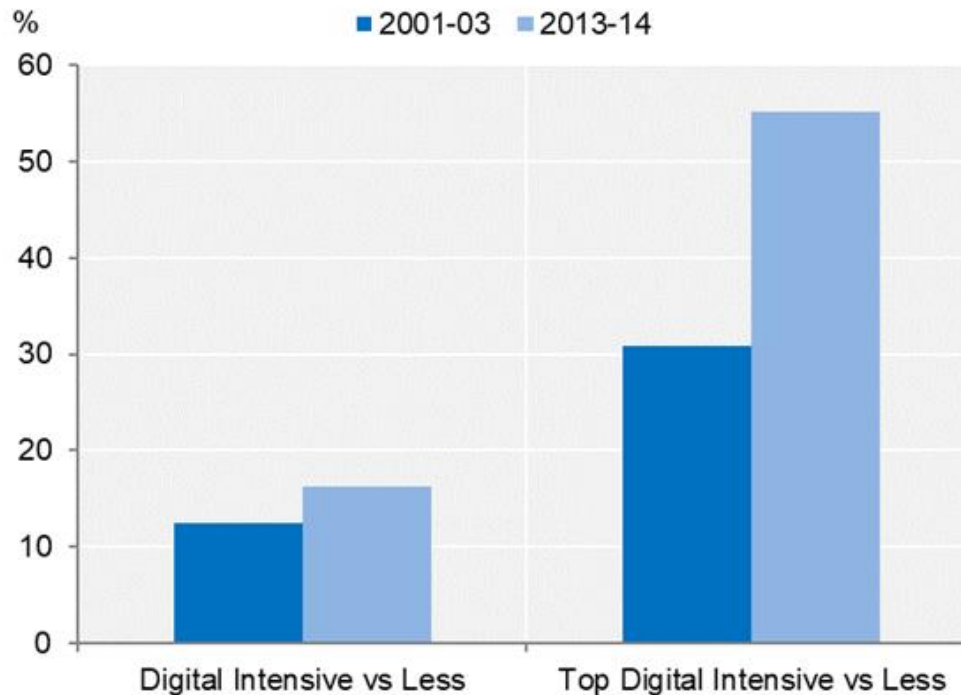
Heterogeneous increase: at the top



Rising mark-ups

- Different across sectors:
 - Manufacturing < services & Non-Digital < digital

Average percentage differences in mark-ups (digital vs less digital sectors)





Rising mark-ups...but not only

- Go beyond mark-ups (as high mark-ups might not reflect only high market power but changes in the production technology (e.g. increase in fixed costs) and potential criticisms on assumptions, measurements etc...)
- To reinforce the evidence we look at other measures of competitive dynamics:
 - Increase in Concentration;
 - Decline in Entry rates.
 - Increase in M&A activity



New evidence on industry concentration

Industry concentration increase in US...

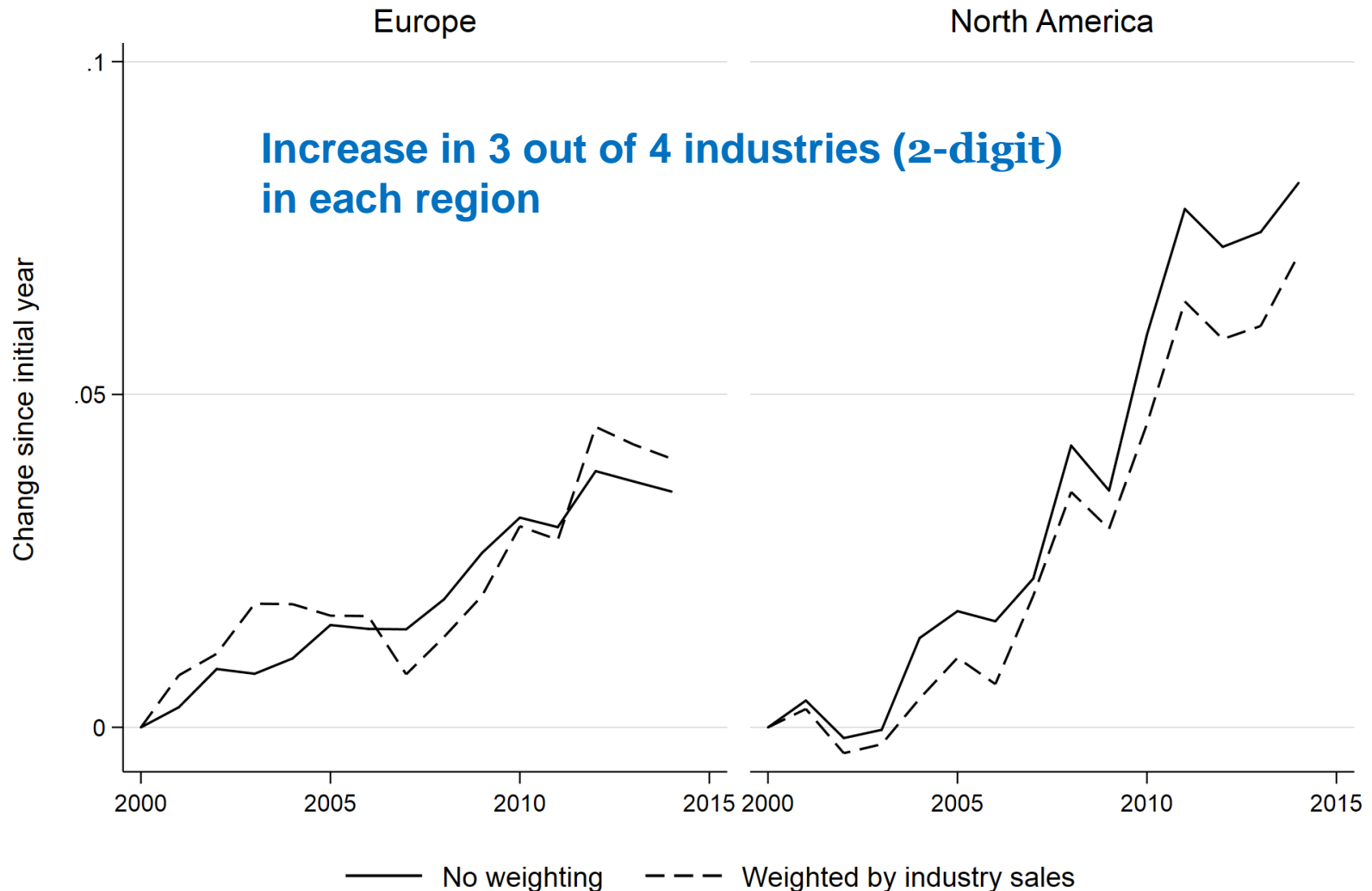
- Furman and Orszag (2015); Grullon et al. (2015); Autor et al. (2017)

... but evidence for other world regions limited

- Valletti et al., 2017; Social Market Foundation, 2017; Gutiérrez and Philippon, 2018



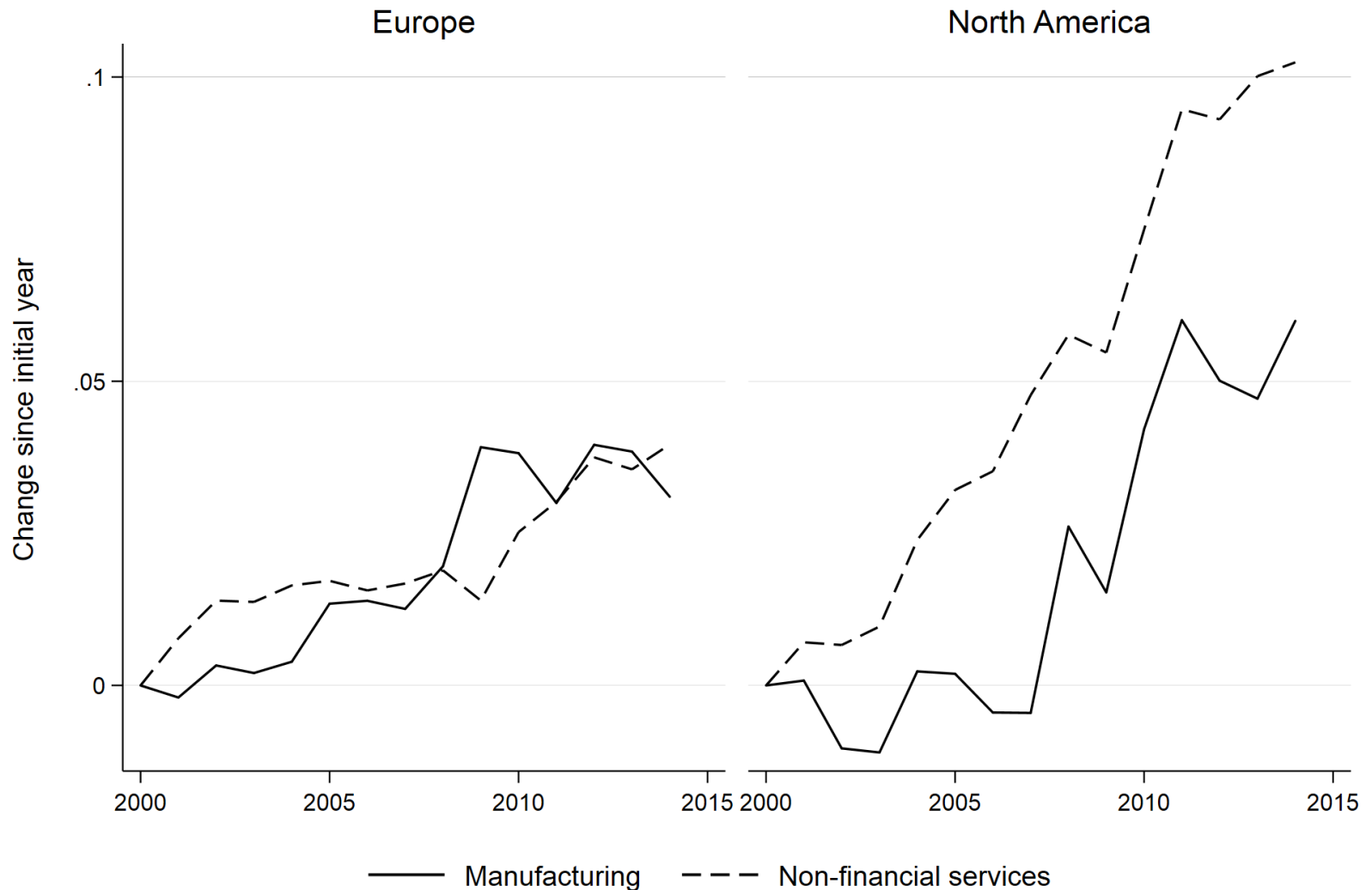
Concentration increased in both Europe and US



Source: Bajgar et al., (2019) "Industry Concentration in Europe and North America"



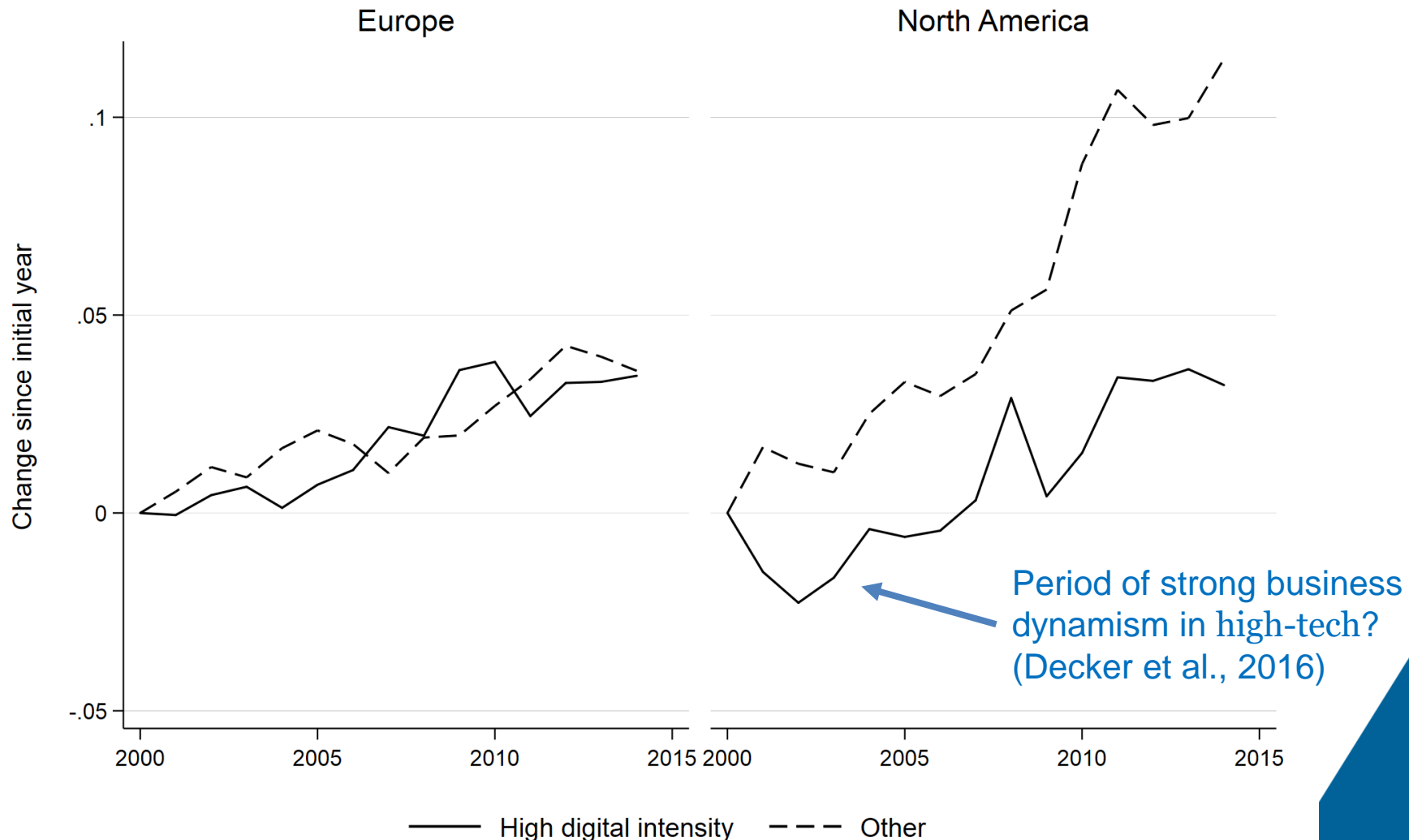
Increase in both manufacturing and services



Source: Bajgar et al., (2019) "Industry Concentration in Europe and North America"



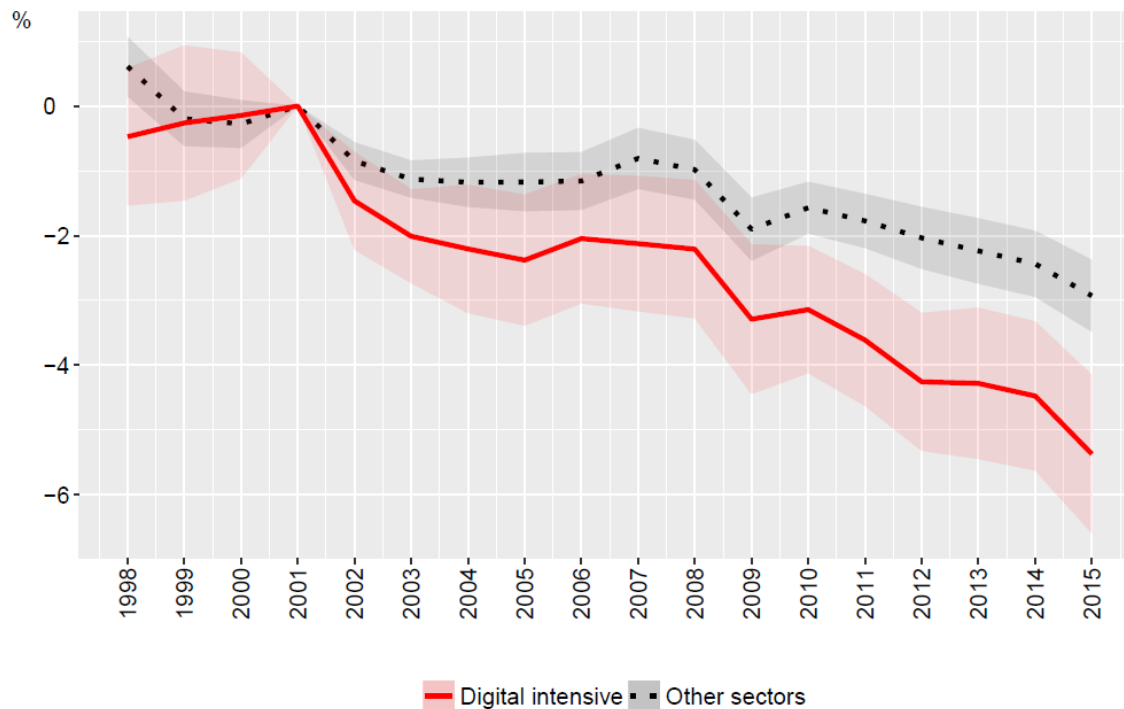
Increase not driven by digital-intensive industries



Source: Bajgar et al., (2019) "Industry Concentration in Europe and North America"



Decline in entry rates...especially in digital sectors



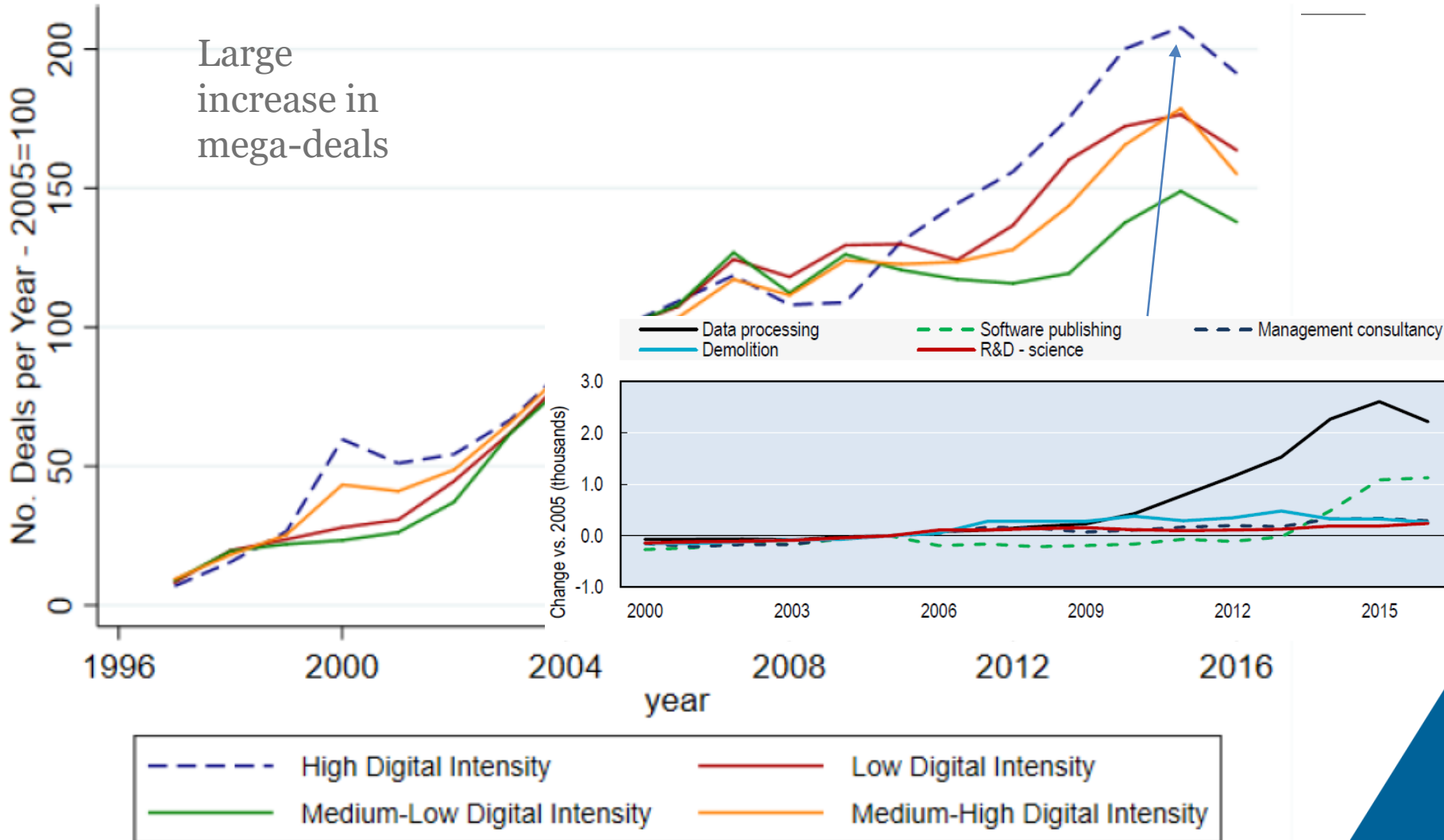
Source: Calvino and Criscuolo, 2018 based on OECD DynEmp3 database, August 2018.

job reallocation rates also declining while exit rates rather flat



Increase in M&As

Number of M&As per Year by Digital Intensity of the Target Firm Industry





Implications?

Implications depend on drivers

- Technological change or globalization allowing most efficient firms to expand?
- A competition problem?

And could lead to:

- More/less innovation and changes in “type of innovation”;
- More or less diffusion?
- Increased inequality
- Firms becoming “too big to fail“
- Monopsony power in some industries
- Stronger incentives for lobbying





How do we measure concentration?

1) Measure

CR8 = share of industry sales of the largest 8 firms

2) Industry definition

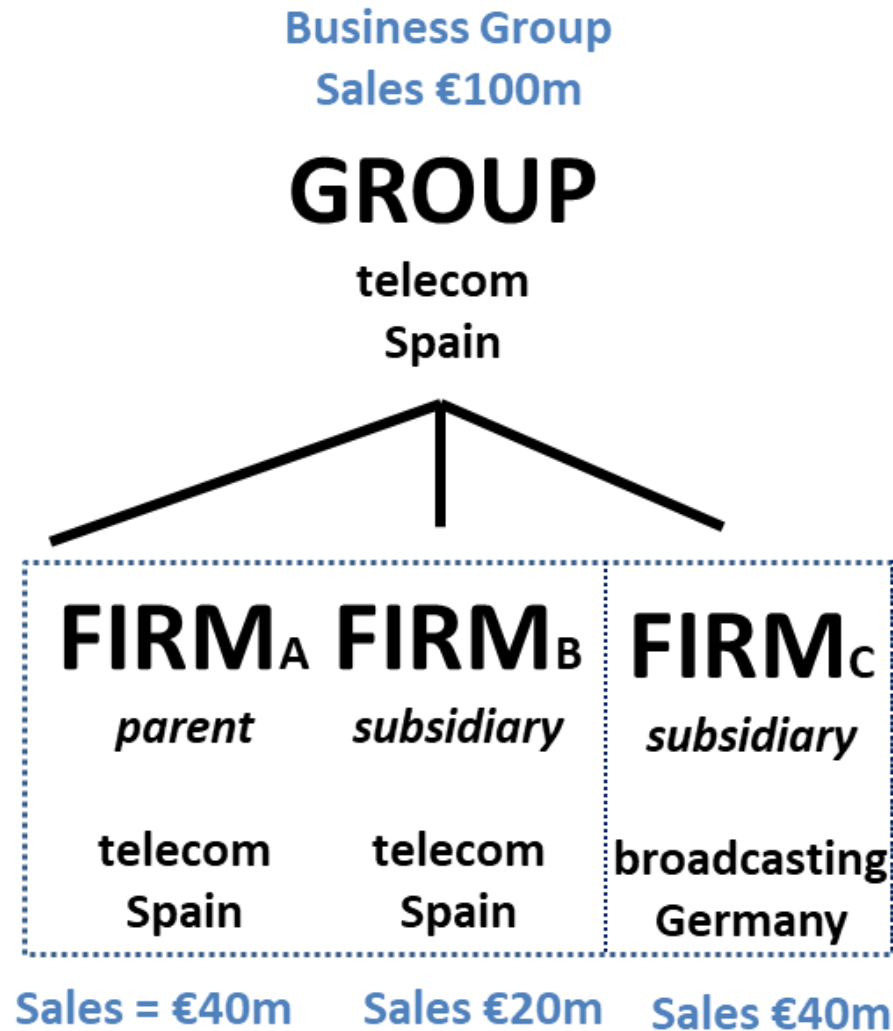
2-digit NACE/ISIC -> different from *product markets*

3) Level

Business groups



Apportion business-group sales to industries & countries

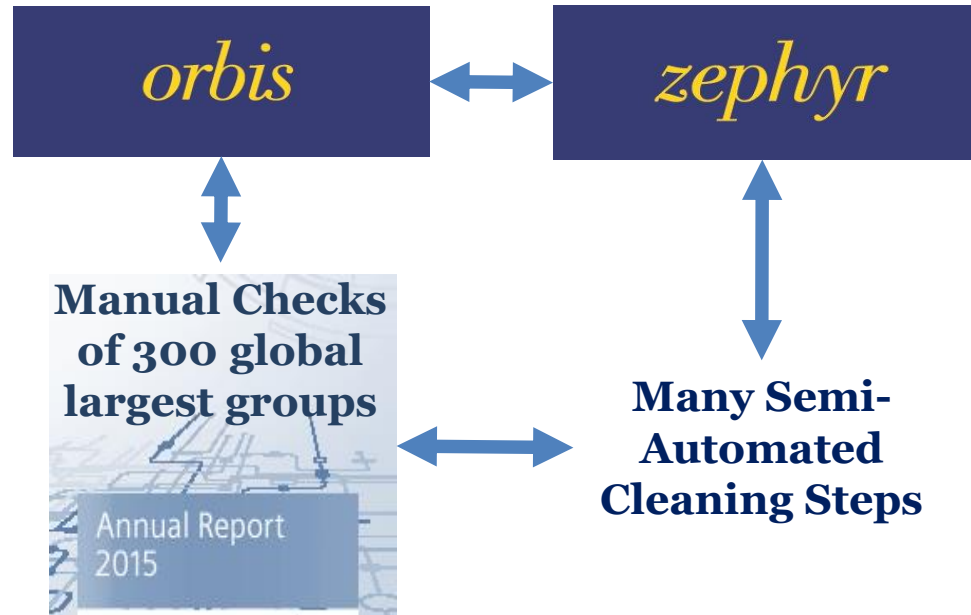




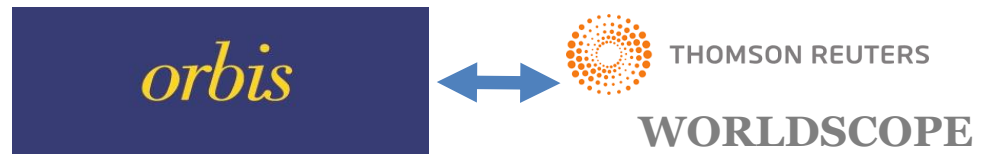
Requires extensive data work

Group-Subsidiary Ownership Data

(2.8million firms
2000-2014)



Sales Data for Subsidiaries, Parent & Group





Digital intensive sectors

- Balanced data for 36 sectors (ISIC4) in 12 OECD countries.
- Time series 2001-15.
- Multiple dimensions of the taxonomy:
 - *ICT investment intensity*: deflated ICT tangible GFCF / total GFCF;
 - *Software investment intensity*: deflated software GFCF / total GFCF;
 - *Robot intensity*: Stock of robots / employment (manufacturing);
 - *Intermediates ICT goods and ICT services* : deflated purchases of ICT intermediate goods (resp., services) / output;
 - *E-sales intensity*: % of total sales carried out online;
 - *ICT specialists*: # of ICT specialists in all countries / total employment.
- + “Global” ranking, across indicators (weighted average of the rankings of sectors by each indicator), for 2001-03 and 2013-15.



A taxonomy of digital intensive sectors

Sector (ISIC rev.4)	Quartile of digital intensity: 2013-15
Food products, beverages and tobacco	Low
Textiles, wearing apparel, leather	Medium-low
Wood and paper products, and printing	Medium-high
Chemicals and chemical products	Medium-low
Pharmaceutical products	Medium-low
Rubber and plastics products	Medium-low
Basic metals and fabricated metal products	Medium-low
Computer, electronic and optical products	Medium-high
Electrical equipment	Medium-high
Machinery and equipment n.e.c.	Medium-high
Transport equipment	High
Furniture; other manufacturing; repairs of computers	Medium-high
Wholesale and retail trade, repair	Medium-high
Transportation and storage	Low
Accommodation and food service activities	Low
Publishing, audiovisual and broadcasting	Medium-high
Telecommunications	High
IT and other information services	High
Legal and accounting activities, etc.	High
Scientific research and development	High
Advertising and market research; other business services	High
Administrative and support service activities	High