MARKET STRUCTURES AND INCOME DISTRIBUTION

A DISCUSSION

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Important Issue that needs to reach a broad audience!

Great book! #whateconomistsdo

Very well written with a great narrative...also for non economists (e.g. aeronautical engineers!)

Focus mainly (but not only) on the US (evidence for other EU and OECD countries?)
Key point for this discussion: little agreement on causes of rising concentration. 6 hypotheses

- Much ado about nothing (wrong measure)
- **Decreasing Domestic Competition** (TP book’s main point)
- **Rise of Superstar Firms** (Autor et al; Andrews, Criscuolo and Gal; etc.)
- Lower Search Costs (easier price comparison; winner-takes-all dynamics)
- **Intangible Assets** (Crouzet and Eberly; Haskel and Westlake; and...ongoing work at OECD)

“Not mutually exclusive, the truth is a mix of these hypotheses with varying relevance across industries and time periods” (and I would add across countries)
STYLIZED FACTS ACROSS COUNTRIES:

THE RISE OF SUPERSTARS IN AN INTANGIBLE, DIGITAL INTENSIVE ECONOMY…
winner takes most dynamics

Source: Andrews, Criscuolo and Gal, 2016
... of Superstar firms

Multifactor Productivity

ICT-intensive services

Non ICT-intensive services

Andrews, Criscuolo and Gal., 2016
With implications for wage inequality

Rising inequality in wages and productivity

Source: Berlingieri, Blanchenay and Criscuolo (2017)
Rising mark-ups especially in Digital Intensive sectors (even excluding the US from the analysis)

Source: Calligaris, Criscuolo and Marcolin, (2018) “Mark-ups in the digital era”.

Average percentage differences in mark-ups

- Bottom decile
- 5th decile
- Top decile

2001-03 vs 2013-14

Digital Intensive vs Less
Top Digital Intensive vs Less
Declining Business Dynamism beyond the US—particularly in digital intensive sectors

Source: Calvino and Criscuolo, 2018
Concentration increased in both Europe and North America...

19 countries considered as a single market

Increase in 3 out of 4 industries (2-digit) in each region

Increase stronger in intangible-intensive industries

Stronger the more globalised and digital intensive the industry
Sectors with higher intangible intensity also observe higher productivity dispersion (ongoing project)

12 Countries: BEL, DNK, ESP, FIN, FRA, GBR, GRC, ITA, JPN, PRT, SWE, USA
Questions for discussion

more analysis needed:

• Different drivers across space, industries and over time? (Crouzet and Eberly, 2018; Gutierrez and Philippon, 2019; Covarrubias et al., 2019)

• Grow to top through innovation, remain there through entry barriers? (Van Reenen, 2018; Ayyagari et al., 2019)

• Break-down of knowledge diffusion? (Andrews et al., 2016; Akcigit and Ates, 2019a,b; Berlingieri et al., forthcoming)

• Beyond Competition Policy/Enforcement and regulation (with new rules?), need for policies that support
  – investment in intangibles and digital (finance; complementarities); role of skills?
  – level-playing field (large incumbents vs start-ups) and potential entrants
  – knowledge diffusion (re-think IP?)
Thank you!

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### Systematic variation in concentration changes across industries

**Change in the share of sales due to 8 largest groups (2002-2014)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Industry Description</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manufacture of computers</td>
<td>0.23</td>
</tr>
<tr>
<td>2</td>
<td>Manufacture of textiles, apparel &amp; leathers</td>
<td>0.17</td>
</tr>
<tr>
<td>3</td>
<td>Telecommunications</td>
<td>0.16</td>
</tr>
<tr>
<td>4</td>
<td>Manufacture of motor vehicles</td>
<td>0.15</td>
</tr>
<tr>
<td>5</td>
<td>Retail trade</td>
<td>0.11</td>
</tr>
<tr>
<td>6</td>
<td>Warehousing</td>
<td>0.11</td>
</tr>
<tr>
<td>7</td>
<td>Manufacture of machinery eq.</td>
<td>0.10</td>
</tr>
<tr>
<td>8</td>
<td>Manufacture of wood</td>
<td>0.09</td>
</tr>
<tr>
<td>9</td>
<td>Water transport</td>
<td>0.09</td>
</tr>
<tr>
<td>10</td>
<td>Publishing</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Accommodation &amp; food services</td>
<td>-0.01</td>
</tr>
<tr>
<td>34</td>
<td>Real estate activities</td>
<td>-0.01</td>
</tr>
<tr>
<td>35</td>
<td>Manufacture of basic metals</td>
<td>-0.02</td>
</tr>
<tr>
<td>36</td>
<td>Manufacture of coke / petroleum</td>
<td>-0.16</td>
</tr>
<tr>
<td>37</td>
<td>Travel agency and related</td>
<td>-0.18</td>
</tr>
</tbody>
</table>

**Countries:** BEL, DNK, ESP, FIN, FRA, GBR, GRC, ITA, JPN, PRT, SWE, USA
...in many countries...

Increase in 11 out of 12 countries
…and in many (but not all) sectors
DATA AND MEASUREMENT
Concentration measure

Share of sales due to 8 (4, 20) largest business groups...

...within each country and 2-digit industry
  – Industry vs. market
  – Country vs. world region vs. local
Apportioning into countries and industries

Business Group
Sales €100m

GROUP
telecom
Spain

FIRM_A
parent
telecom
Spain
Sales = €40m

FIRM_B
subsidiary
telecom
Spain
Sales €20m

FIRM_C
subsidiary
broadcasting
Germany
Sales €40m
Data

**Sales Data for Subsidiaries, Parent & Group**
(100 Countries)

**Group-Subsidiary Ownership Data**
(2.8 million firms)

**Sample**
- Europe (BEL, DNK, FRA, FIN, GBR, GRC, ITA, PRT, ESP, SWE)
  + United States + Japan
- Manufacturing + non-financial market services
- 2002-2014
Data on drivers of concentration

• **Intangible investment**: INTAN-Invest
  – Innovative assets, computerised information, economic competencies
  – by country and A21 industry

• **Industry digital intensity**: Calvino et al. (2018)

• **Tangible investment, trade openness, exposure to FDI, product market regulations**: OECD
The role of the digital transformation for competitive dynamics

Digital Technologies:

- lower costs of entry, operation, and experimentation;
- Ease sharing of ideas and innovation;
- network effects;
- Improve real-time measurement;
- Ease penetration of several markets and faster scaling up.

These characteristics can potentially:

- Increase efficiency and productivity growth;
- Be source of increased competition (Brynjolfsson et al., 2005).

But also:

- Lead to “Winner-takes-most” dynamics (Brynjolfsson et al., 2008; Bessen, 2017);
- Increase importance of complementary investments in intangibles (Haskel and Westlake, 2017; Brynjolfsson and McElheran, 2016; Brynjolfsson et al., 2017).
How can we explain these trends? Competing explanations

- **Decline in Knowledge diffusion** Akcigit and Ates (2019)

- **Implementation lags**: Digitalisation, like other GPT needs complementary innovations and investment in intangible capitals (including organizational changes, and new skills)
  - Brynjolfsson, Rock and Syverson, 2017

- **Increase in Market Power** driven by both changes in market structure and changes in technology (importance of intangibles)
  - De Loecker, Eeckhout, Mongey, 2019

- Heterogeneous and cyclical response of technology adoption to **low interest rates**
  - Liu, Mian and Sufi, 2019 (heterogeneity); Anzoategui, et al., 2016 (cyclicality)