Competition and Digitalisation
What’s the buzz?

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Broad economic trends that raise concerns

- Productivity gaps rising and productivity slowing
- Declining business dynamism
- Increasing mark-ups
- Acceleration of M&A activity targeting digital firms
- Growing concentration in many industries
Productivity gaps have widened especially in digital-intensive sectors.

Industries with **high** digital intensity

Industries with **low** digital intensity

Total factor productivity (2009=100)

Source: Gal et al. (2019)
Evidence of **declining business dynamism**, especially in digital sectors

Firm entry rates have fallen faster in digital, though from higher levels

Source: Calvino and Criscuolo, 2018 based on OECD DynEmp3 database, August 2018.
Digital markets have features that both **deter** and **encourage** competition

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<thead>
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<th>Supply</th>
<th>Market</th>
<th>Demand</th>
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<tr>
<td>• Scale economies</td>
<td>• Switching costs</td>
<td>• Network externalities</td>
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<td>• Network effects</td>
<td>• Collusion</td>
<td>• Non-rival/often non-excludable</td>
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<td>• Vertical integration</td>
<td>• Interaction users/suppliers</td>
<td>• Pricing strategies</td>
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<td>• Complementarities</td>
<td>• Lower transaction costs</td>
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<tr>
<td>• Scale without mass</td>
<td>• Lower asymmetries</td>
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<td>• Modularity</td>
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The combination of these factors can affect **efficiency** and **welfare** in different ways as well as have repercussions in other markets using digital inputs.
Concern 1: Digital superstars and market structure

- Winner-take-all effects
- Higher concentration
- Greater rents

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Intra-platform

Policy levers
Interoperability, access to data, transparency rules, M&A and IPR review, competition enforcement, level playing field, avoid regulatory bypass...

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Inter-platform

Competition issues

Risks
- Winner-take-all effects
- Higher concentration
- Greater rents

Tipping points

Risks
- Exclusion of market players
- Misappropriation
- Greater rents

Losses ≥ Gains
Industry concentration has increased in Europe and North America

Evolution of CR8 (Orbis and OECD STAN data)

Source: Bajgar et al. (2019), Industry concentration in Europe and North America
Evidence of increasing mark-ups, especially at the top of digital-intensive sectors

Increasing mark-ups across 25 countries for firms with more than 20 employees

Note: Includes 25 countries (AUS, AUT, BEL, BGR, DEU, DNK, ESP, EST, FIN, FRA, GBR, HUN, IDN, IND, IRL, ITA, JPN, KOR, LUX, NLD, PRT, ROU, SVN, SWE, USA).
Source: Calligaris et al., (2018) “Mark-ups in the digital era”.
The positive effects of platform development on productivity decline with market concentration

Effects of “aggregator” platforms on productivity of incumbents at different levels of market concentration and persistence

Source: Gal et al. (2019), Like it or not? The impact of online platforms on the productivity of service providers
Concern 2: Digital diffusion and productivity

- Uneven and slow digital adoption
- Complex and costly complementarities with other intangibles
- Rising productivity gaps
- Weak overall productivity gains

Policies should address:
Skill shortages, financing constraints, barriers to market dynamism, low incentives for innovation, inappropriate regulation, low infrastructure
More productive firms benefit more from a digitalized environment

Firm-level increase in productivity from a 10 percentage point increase in industry-level digital adoption of high speed broadband

Source: Gal et al. (2019)
Skill shortages reduce gains from digital technologies in low productive firms

Productivity shortfall from digital adoption in low productive firms relative to most productive firms (average OECD country)

Industries without skill shortages

Industries with skill shortages

Source: Gal et al. (2019)
Conclusions

- Digital markets embed features that are likely to change the nature of competition and the structure of markets.
- Taken together, empirical evidence suggests that in digital-intensive sectors:
  - market power is on the rise and dynamism and competition are under stress.
  - rising complementarities with intangibles (data, skills) challenge adoption and productivity gains.
  - the combined effect of market dominance and complementarities can be pernicious for competitive pressures and productivity.
- However, a number of issues are still open:
  - Does all this reflect rewards for innovation and efficiencies?
  - From a competition perspective, big is not always bad.
  - We need more evidence concerning contestability and the efficiency impact of platforms.
  - Is the ability of digitalisation to counter the many headwinds that cause the aggregate productivity slowdown hampered by rising gaps between top and laggard firms?
- Looking forward, key risks for efficiency and welfare emerge from:
  - Entry barriers and access to key complementary intangibles.
  - Anticompetitive conduct by dominant firms (in both product and labour markets).
  - Competition-distorting regulation (or lack of regulation) in digital markets.
Annex Slides
OECD References on digital competition and productivity


Competition Committee resources on a variety of digital topics (available at http://www.oecd.org/competition/):
- Concentration, Big data and competition, Ex-post evaluation of agencies’ enforcement decisions, Market studies, Multi-sided platforms, Analysing innovation and privacy in merger control
Industry concentration has increased in Europe and North America

Evolution of CR8 (Orbis and OECD STAN data)

Source: Bajgar et al. (2019), Industry concentration in Europe and North America
Rising **M&A activity**, especially in digital sectors

The yearly number of M&A has increased rapidly over the past two decades, especially in digital services.