Indicators of concentration and competition based on CompNet and Orbis: a pilot study

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Outline

• Objectives and motivation
• Analysing competition trends: a "market monitoring" of EU Member States
• Orbis: advantages and limitations
• The pilot study
• Coverage in Orbis vs. SBS
• Concentration: Orbis vs. CompNet
• Next steps
Objectives and Motivation

- Increasing market power has been documented in a number of recent works
  - e.g. De Loecker & Eeckhout (2018), IMF (2019), OECD (2019)...
- There are differences across countries which require country-level analysis
- The balance between competition and market performance
  - Monitoring market performance for surveillance purposes means coupling regulation indicators with outcome (competition, efficiency) indicators
- Different competition and concentration indicators might provide (partly) conflicting conclusions: need for robustness
Objectives and Motivation

- *CompNet already provides a set of indicators...*
  - Mark-ups, concentration measures, profit margins
- *... However, not all EU Member States are covered...*
  - But coverage has already improved with the 6th vintage
- *... And this one can serve as a validation exercise*
  - For our estimations, but also to identify sources of possible deviations in the estimates from different sources
Analysing competition trends in the EU

• The EU's surveillance and monitoring cycle
  • Analysis at the basis of the Country Reports
  • Results of the Country Reports as a basis for Country-Specific Recommendations

• Preparing a "Market monitoring exercise" with a scoreboard of micro-based competition and performance indicators
Analysing competition trends in the EU

• Which measures of competition?
  • Concentration measures: HHI, C4/C8, P9(...)
  • Mark-ups

• ... But increasing market power is not necessarily equal to decreasing competition or worse market performance
  • Competition can increase due to a fall in entry barriers (HHI, mark-ups fall) or more aggressive behavior (HHI ↑; mark-ups ↓ or ↑ depending on reallocation)
  • => Profit elasticity (Boone et al. 2008); Allocative efficiency
Some (well-known) issues

• *Orbis limitations*
  • Coverage is not good among smallest (<10E) firms
  • Quality of coverage is heterogeneous across countries
  • Coverage improving over the years -> affecting the indicators' trends
• *Firms compete on products rather than sectors*
• *Ownership issues*
The pilot study

- Countries covered: IT, SK, CZ, DE, FR, NL
- NACE sectors C-N at 2-, 3-, and 4-digit level
  - Narrowly-defined sectors vs data availability
- Time coverage: 2010(*)-2017
- Currently still work in progress (presentation of the pilot: June 13th)
Coverage in Orbis vs. SBS

- Italy

Coverage, turnover by size class

Average firm size by size class
Coverage in Orbis vs. SBS

- **Slovakia**

Coverage, turnover by size class

Average firm size by size class
Concentration: Orbis vs. CompNet

- Some preliminary comparison between the two datasets show:
  - Quite good correlation overall (0.7-0.8, depending on the country)
  - Inconsistencies in sectors where coverage is bad or predominance of SMEs
  - Over time, the estimates appear to become more consistent (correlation increases)
Concentration: Orbis vs. CompNet

• Italy
Concentration: Orbis vs. CompNet

- Slovakia
Profit elasticity vs. concentration

- Our (preliminary) estimation of the Boone indicator confirms that it is negatively related to concentration, but the instances where this correlation is positive deserve further analysis (pro-competitive concentration or estimation issues?)

- The result is confirmed at higher disaggregation

Slovakia
Next steps

- Investigating the sources of inconsistencies
- Extending the pilot study to all EU-28
- Mark-ups estimations
- Relating the estimated indicators with regulation indicators (PMR, DBI,...), Competition Policy decisions and trade indicators
- Investigating the effect of competition on investment and innovation
Additional slides
Estimation of profit elasticity

- Intuition: in a more competitive market, less efficient firms should be «punished» more in terms of profits, i.e. the elasticity of profits to firm efficiency should be higher.
- Profit elasticity is thus the beta of the regression:
  \[ \tilde{\pi}_{it} = \alpha_i + \beta_i \tilde{e}_{it} + \varepsilon_{it} \]
- Efficiency proxied by marginal costs or productivity.
- Both profits and efficiency normalised to their range.