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

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Economic and Financial Affairs

European Commission

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*

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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*

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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**

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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*

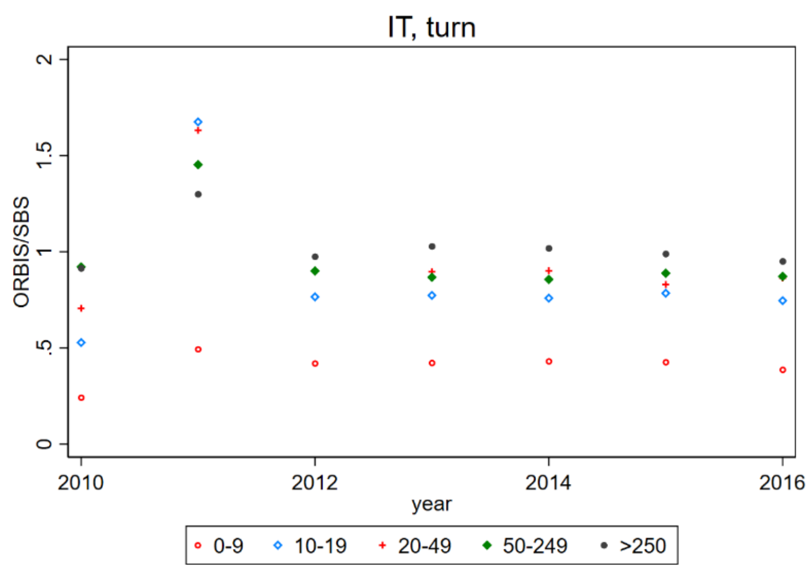
The pilot study

- *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)*

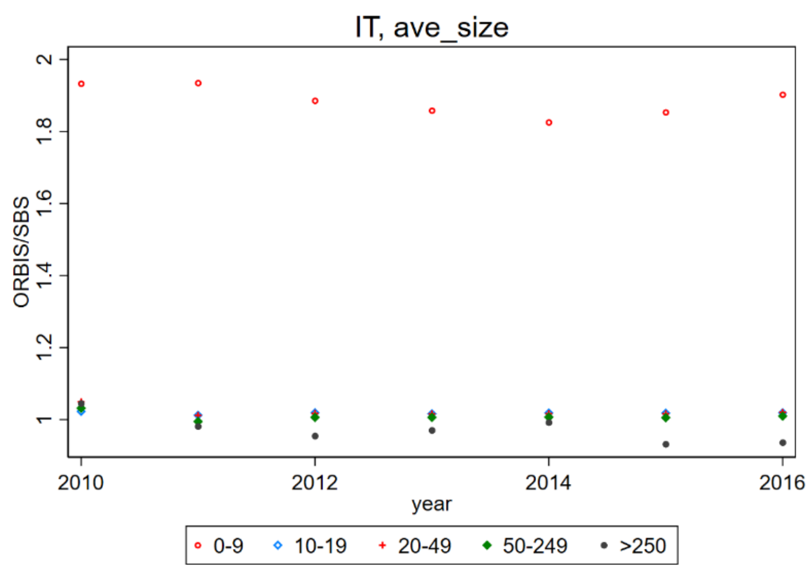
Coverage in Orbis vs. SBS

- *Italy*

Coverage, turnover by size class



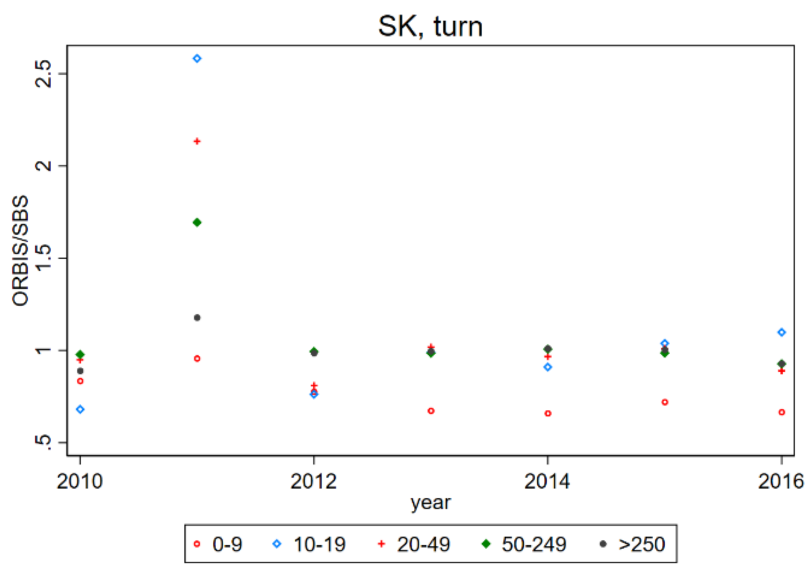
Average firm size by size class



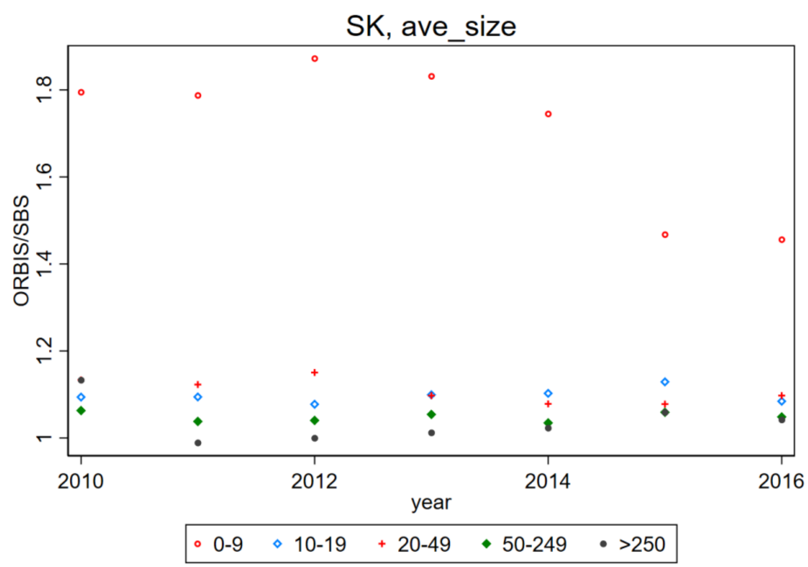
Coverage in Orbis vs. SBS

- *Slovakia*

Coverage, turnover by size class



Average firm size by size class

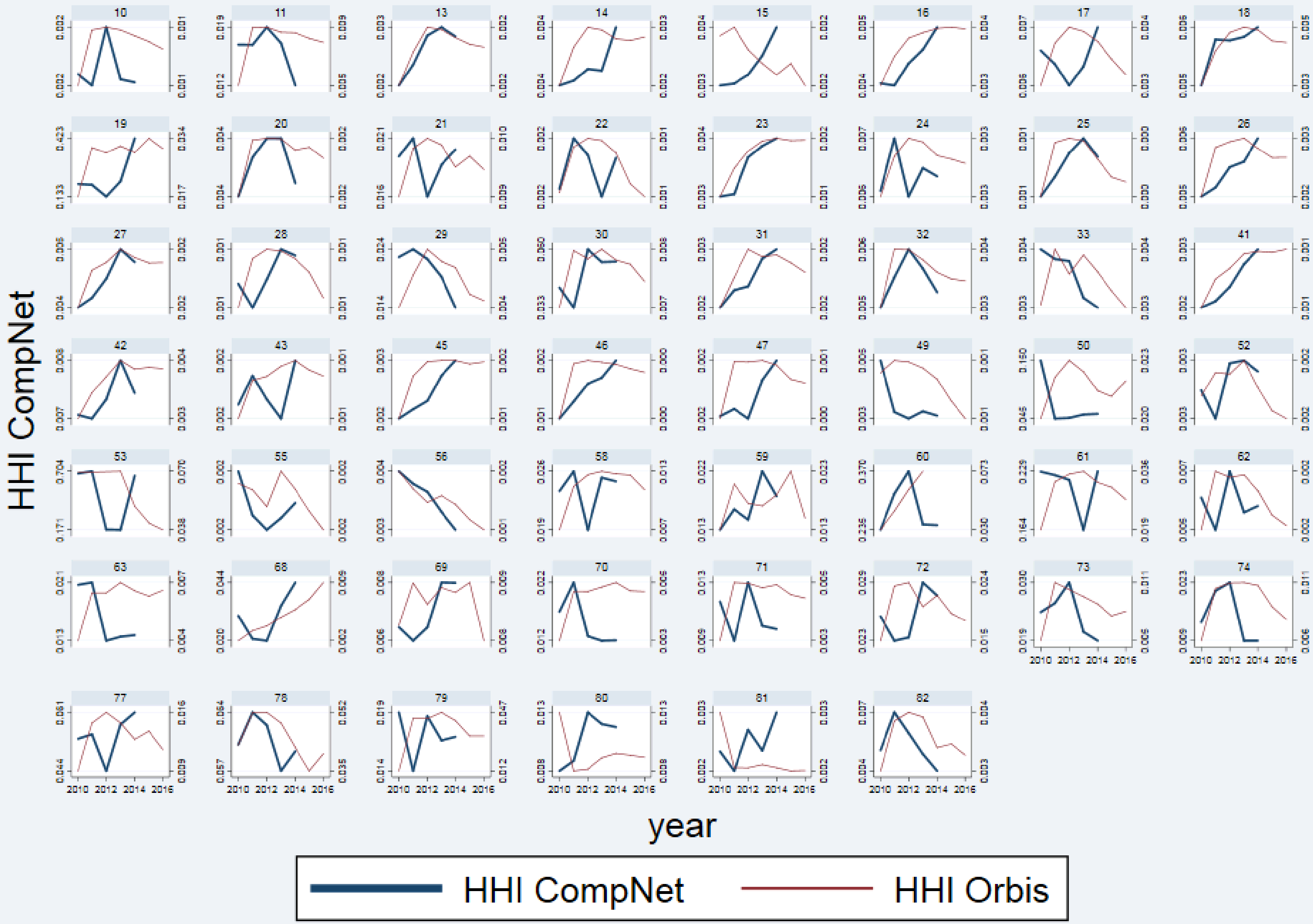


Concentration: Orbis vs. CompNet

- *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)**

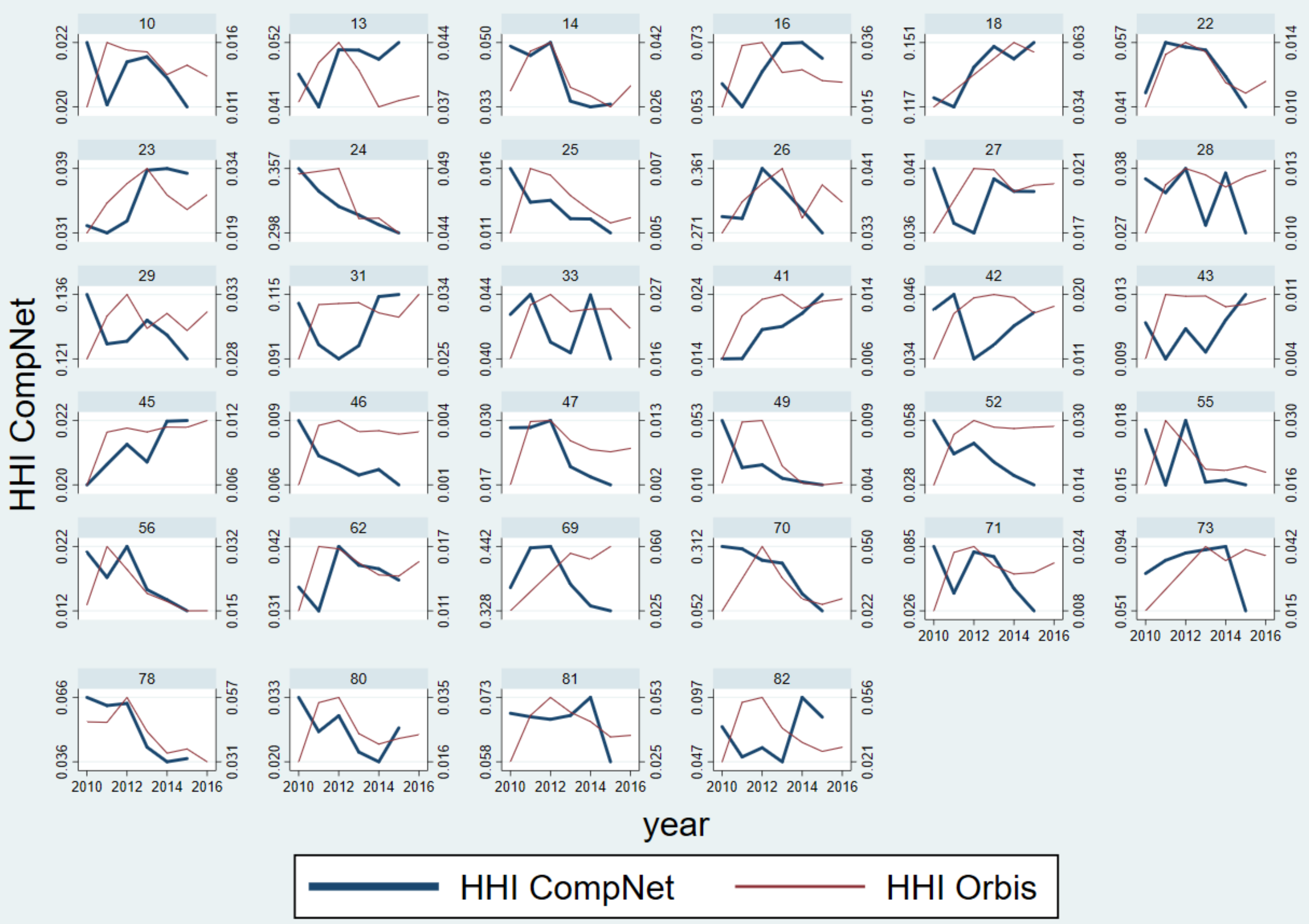
Concentration: Orbis vs. CompNet

- *Italy*



Concentration: Orbis vs. CompNet

- *Slovakia*

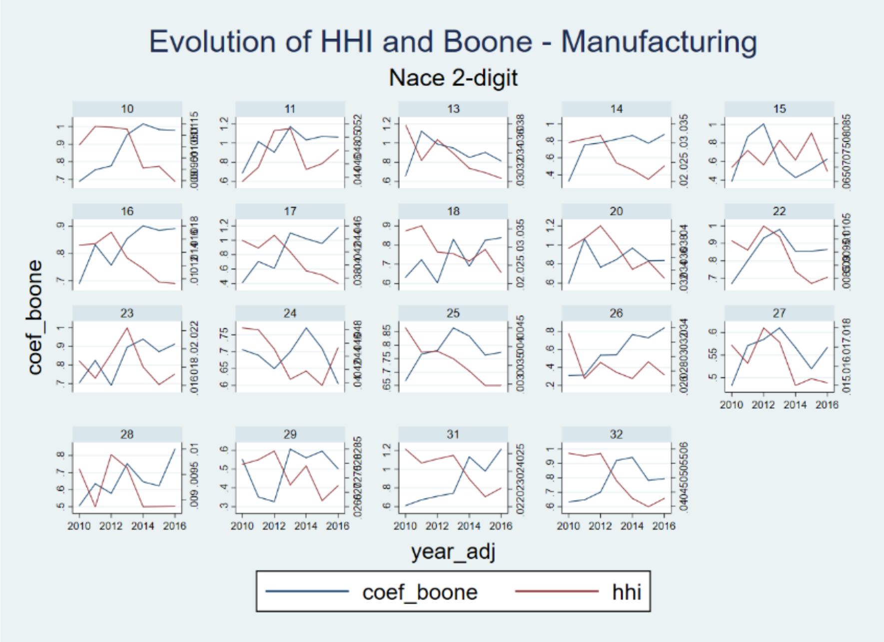


Profit elasticity vs. concentration

- *Our (preliminary) estimation of the Boone indicator confim 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



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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*

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Additional slides

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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*