Competition Law and Economic Inequality: A Panel Data Econometric Approach

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Project: The Effect of Competition Policy on Economic Inequality

- **Aims**
  - Develop a better, empirically grounded, understanding of how competition policy could materially affect the distribution of wealth and economic inequality:
    - **What's the evidence on the relationship between competition law and inequality?**
  - Provide clarity as to the role competition policy could play alongside other policies in addressing social inequality:
    - **Could competition law provide a viable and effective instrument to address inequality?**

- **Approach**
  - Identify potential transmission mechanisms; then test using available data.
  - Multiple angles and different scales: Macro, industry/sectoral, household, individual/behavioural.

- **Studies in progress**
  1. **Cross-country macro analysis:** large cross-country panel dataset.
  2. **Industry/sectoral analysis:** data for 12 OECD countries for 22 industries connecting markups and the labour share to competition law enforcement.
  3. **Household micro study:** impact of EU and UK competition law enforcement on UK households over 2005 to 2020.
  4. **US case study**: Comparison of US antitrust and EU models of law and inequality.
  5. **Behavioural study:** can particular 'biases' of low-income households be manipulated/targeted (especially online): impacts on search and switch costs.

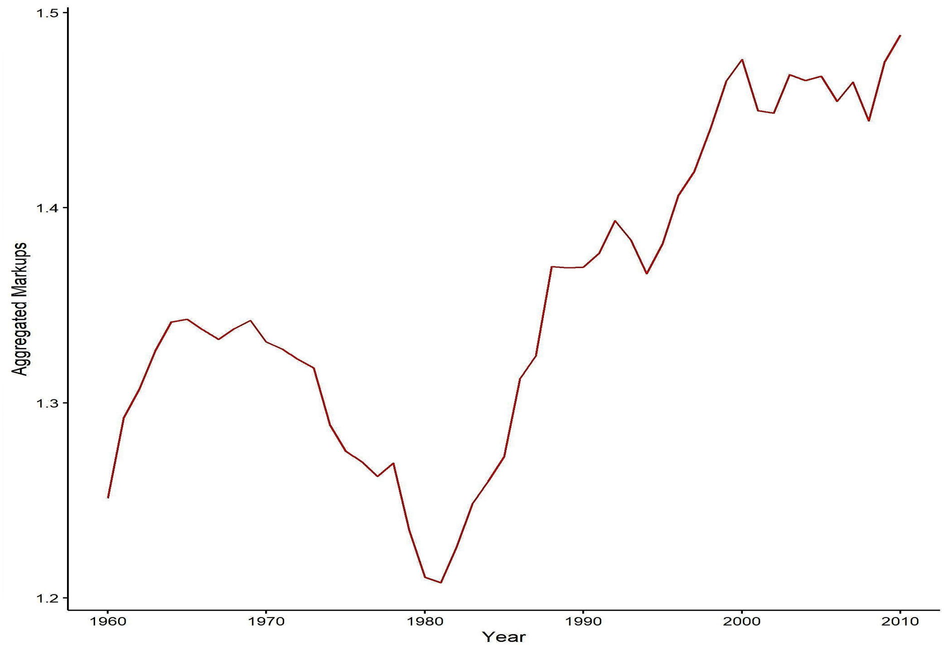
Motivation for this study

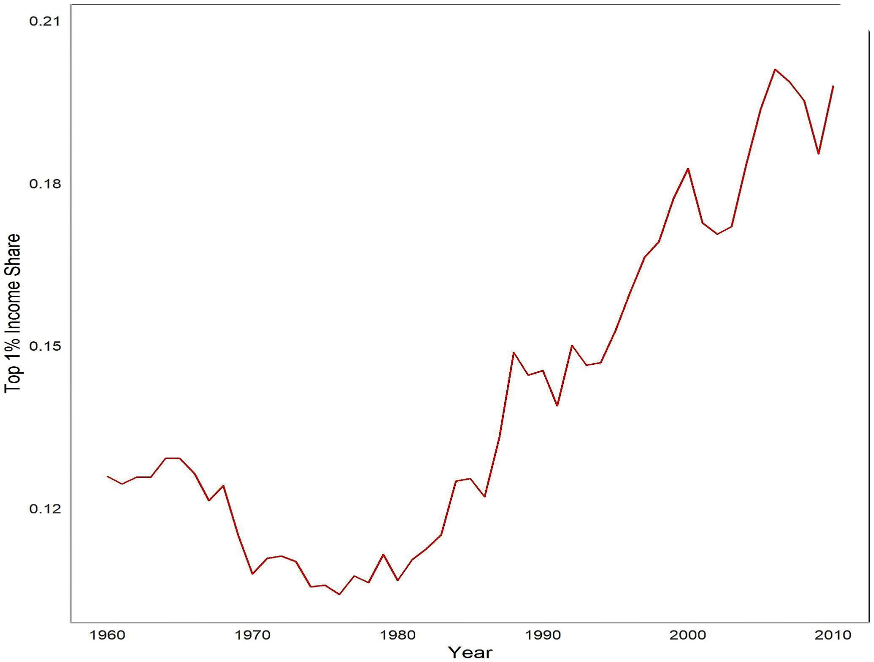
- **The big-picture: a macro-perspective on the relationship**
  - Can we see anything in the statistics at the macro scale?
  - Do small scale interventions ‘scale up’? If not, why not?
- **Increasing awareness that market power/high mark-ups might be linked to higher inequality (see next slide)**
  - Suggests that low levels of competition could be associated with higher inequality
- **Widely held presumption of that competition law *does* affect economic inequality**
  - Is this presumption well-founded/robust/supported by evidence?
- **Understand the mechanics of transmission**
  - How might we get from laws in statute to changes in inequality?
  - What are the high-level conceptual links?

Evolution of Mark-ups and top 1% share in USA

Markups

Top 1% share

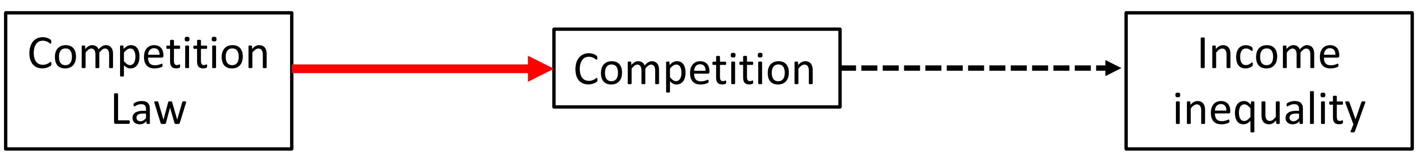




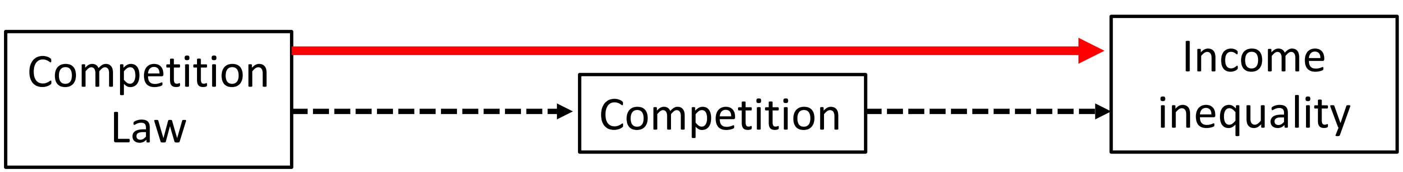
Sources: Zac A (2020) 'Competition Law and Economic Inequality: A Comparative Analysis of Text Similarity using General Synthetic Control Method (April 20, 2021). Working Paper CCLP(L) 53, 2020 ; De Loecker, J., & Eeckhout, J. (2018). Global market power (No. w24768). National Bureau of Economic Research; De Loecker, J., Eeckhout, J., & Unger, G. (2020). The rise of market power and the macroeconomic implications. The Quarterly Journal of Economics, 135(2), 561-644. 7, 2020; World Inequality Database.

Hypothesis: what do we test?

- Is there evidence of a statistical link between the effectiveness/scope of competition law and levels of income inequality at the macro scale? (i.e.: within and across countries over time)
- **Investigate by focussing on two links:**
  - **Link 1:** Are changes in competition law associated with changes in competition intensity?
    - Assumes that more intense competition will, other things equal, reduce inequality, or conversely, that greater market power/mark-ups are associated with higher levels of inequality (see previous slide)



  - **Link 2**: Are changes in (various) competition law indicators associated with changes in (various) income inequality metrics?
    - Assumes competition law affects competition, which in turn, affects inequality



Data and methods

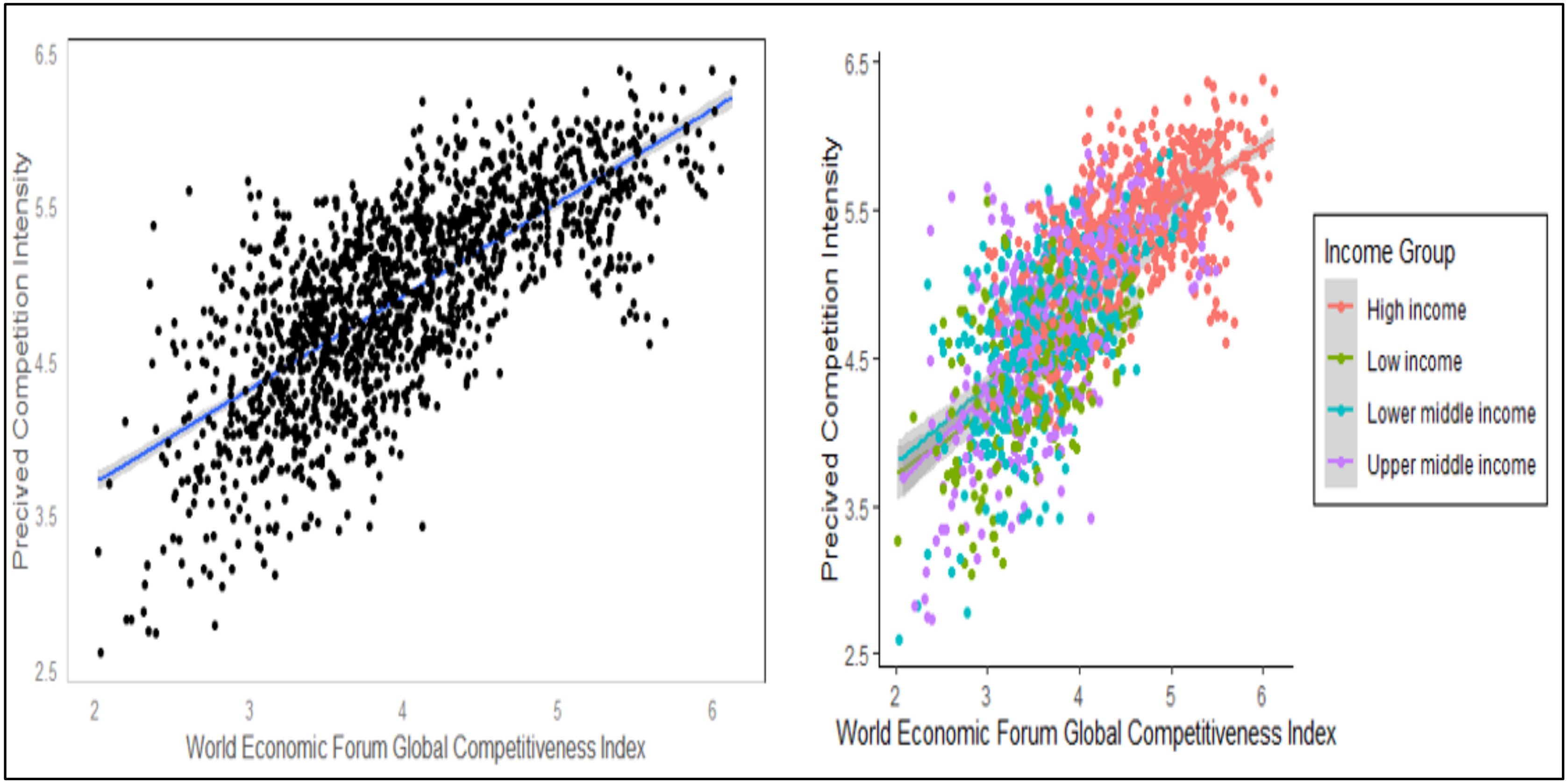
- **Data**

Three economic inequality metrics	Three Competition Law Indices
▪ **Gini (market)** – pre tax (1960-2019)	**Competition Law Index (CLI)** – Bradford and Chiltern (2018) - 123 countries (1889-2010)
▪ **Gini (disposable)** – post tax (1960 – 2019)	**Competition Policy Index (CPI)** – Buccirossi et al. (2011) - 12 OECD countries (1995-2005)
▪ **Estimated Household Income Inequality (EHII)** – wage inequality (1963-2015)	**Global Competitiveness Index (GCI)** – World Economic Forum - 152 countries (2007 -2017).

- **Methodology**
  - Descriptive statistics
  - Econometric models
    - **Link 1 model**: Effectiveness of anti-monopoly policy (GCI) on intensity of competition (GCI)
    - **Link 2 model**: Competition Law Index (CLI) and three economic inequality metrics (Gini_disp; Gini_mkt; and EHII)
  - Include various standard control variables (GDP, public exp., inflation, education, unemployment, imports etc).
  - Adjust for time fixed effects and geographic regional trends.

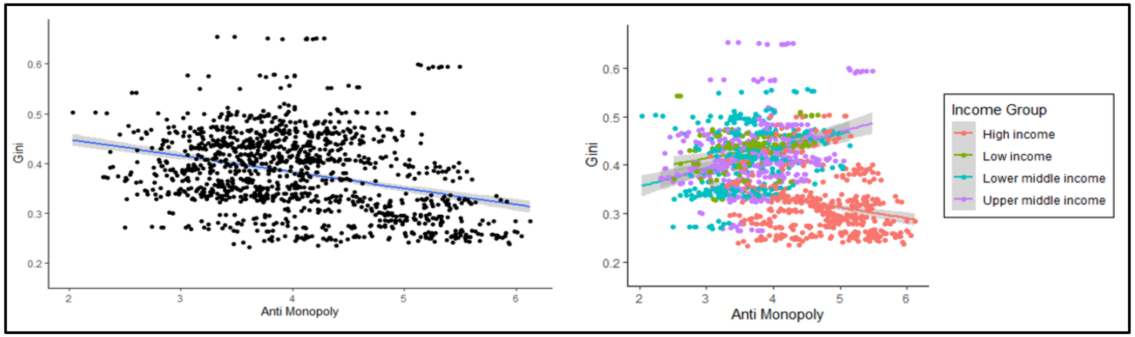
Descriptive statistics: Link 1 (competition law and competition intensity)

- Strong positive correlation: suggests that more effective competition laws associated with more intense competition

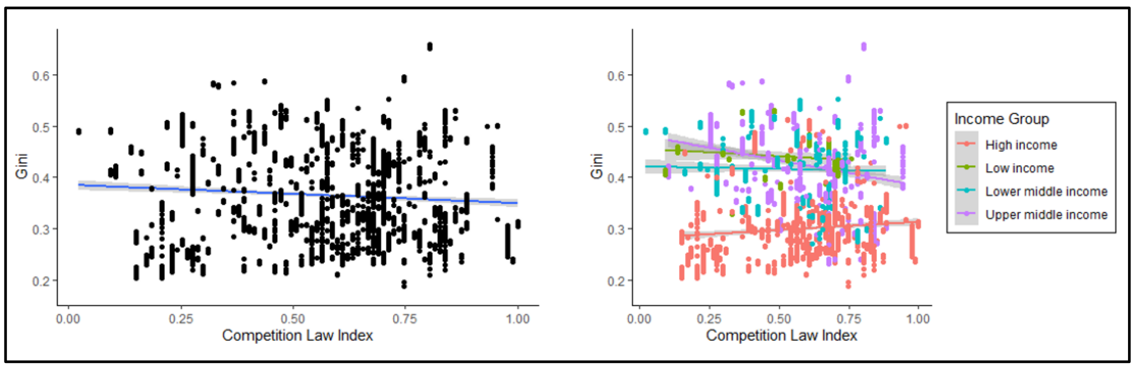


Descriptive statistics: Link 2
(competition law and income inequality)

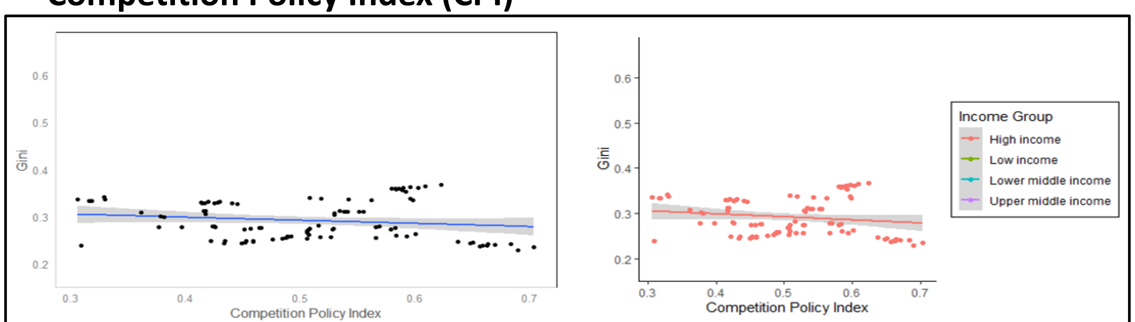
- **Global Competition Index (GCI)**



- **Competition Law Index (CLI)**



- **Competition Policy Index (CPI)**



- When aggregated across countries (left hand panels), all three competition law indicators (GCI,CLI and CPI) are negatively associated with inequality (Gini) (i.e. more effective competition law associated with lower inequality)

- However, when countries are separated into income groups (right hand panels), the relationship is less uniform.

Econometric results

Link 1: (competition law and competition intensity):

- We find evidence of a positive and statistically significant relationship between competition law (GCI anti-monopoly policy indicator) and (perceived) intensity of competition (GCI competition indicator).
  - Robust across our two sub-samples of the data, including both developed (OECD) and non-OECD countries, accounting for each of the controls.

- These regressions suggest a relationship between effective competition laws and more intense competition; which on standard presumption of a link between competition and inequality should affect on inequality levels .

Link 2 : (competition law and inequality):

- We find a consistent negative relationship between the our competition law proxy (CLI) index and most of the GINI and EHII inequality measures.

- However, the relationship is statistically significant in only three specifications
  - Two which use the EHII inequality proxy and one that uses the Gini (market) inequality proxy.

- Overall, results across all the specifications are not sufficiently robust to confidently conclude that there is a consistent and systematic relationship between competition law and inequality using this data.

Discussion and Implications

How should we interpret the results?

- Does this mean that there is no evidence of a relationship between competition law and economic inequality?
- Is the widely held presumption of a relationship misplaced?

We think not, for a number of reasons:

- First, some indicators are suggestive of a relationship :
  - Descriptive statistics; Link 1 econometric results; Link 2 econometric results show consistent negative sign and produce some statistically significant results.
- Second, there are well-known limitations of competition law indices and inequality metrics. Far from perfect proxies, but the best we have.
- Third, and the most likely explanation in our view, is that the scale of the analysis is inappropriate to draw firm conclusions:
  - Highly aggregated and heterogenous data: important differences between countries (and within countries over time) which could affect inequality and that are not controlled for in our analysis.
  - Transmission mechanism is too general: more precise mechanisms needed.
  - More fruitful to examine the relationship at more disaggregated/micro scale: sector/industry/market/ household.
  - Confirmed by the results of our analyses at these scales so far (see tomorrow's presentation)

Thoughts, questions?

Thank you!

website: https://www.law.ox.ac.uk/effect-competition-policy-economic-inequality