Detecting Price Anomalies Indicative of Antitrust Violations with Unsupervised Machine Learning

Computational Antitrust uses computational methods in the context of competition law. One aim is to detect (possible) antitrust violations, most prominently bid rigging, in data. An understudied antitrust violation is **resale price maintenance**, where manufacturers set and enforce a mandatory resale price for vendors. The aim of the master thesis is to apply unsupervised machine learning methods to identify manufacturer anomalies in price variation using panel data of washing machine prices in Austria. A suitable dataset of 1M+ prices from Austrian vendors over 3 months is provided.

Literature

- 1. Amthauer, J., Fleiß, J., Guggi, F., & Robertson, V. H. (2023). Ready or not? A systematic review of case studies using data-driven approaches to detect real-world antitrust violations. *Computer Law & Security Review*, 49, 105807.
- 2. Amthauer, J., Fleiß, J., Guggi, F., & Robertson, V. H. (2023). Detecting resale price maintenance for competition law purposes: Proof-of-concept study using web scraped data. *Computer Law & Security Review*, *51*, 105901.

Supervision

- Stefan Thalmann & Jürgen Fleiß, BANDAS-Center, University of Graz. Contact: juergen.fleiss@uni-graz.at
- Viktoria H.S.E. Robertson, Prof. of Competition Law and Digitalization, WU Wien