Stephan Sagl

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Education

Ph.D. Economics, The Pennsylvania State University, 2018–Present. *Committee: Paul Grieco (chair), Joris Pinkse, Mark Roberts, Edward Jaenicke*.

MSc Economics, University of Vienna, 2015–2017.

BSc Economics, University of Vienna, 2012–2015.

Research Fields

Industrial Organization, Applied Microeconomics

Research

Working Papers

• "Dispersion, Discrimination, and the Price of Your Pickup", November 2023.

Abstract: Using repeat purchase data on pickup trucks, I establish that the same consumers pay persistently high or persistently low prices across vehicle purchases. Less than 1% of this persistence can be explained by demographics. This result suggests that dealers use consumer information beyond coarse demographics to personalize prices. Using a novel discrete choice model with personalized pricing, I study the role of consumer information firms use for pricing in the welfare effects of price discrimination. To do so, I overcome a common problem in settings with transaction data: personalized prices of non-chosen alternatives are unobservable. I solve this problem by recovering unobserved personalized prices and consumer-specific price sensitivity from the observed transaction price via firms' first-order conditions. I simulate two counterfactuals: uniform pricing and price discrimination based on coarse demographic groups. Compared to uniform pricing, personalized pricing increases profits and total welfare but, on average, harms consumers. On the other hand, compared to uniform pricing, price discrimination based only on demographics is not profitable. This highlights the importance of the amount of consumer information firms can use for pricing in the welfare effects of price discrimination.

• "Conformant and Efficient Estimation of Discrete Choice Demand Models" with Paul Grieco, Charles Murry, and Joris Pinkse, May 2023, **R&R** at *Econometrica*.

Abstract: We propose a conformant likelihood-based estimator with exogeneity restrictions (CLER) for random coefficients discrete choice demand models that is applicable in a broad range of data settings. It combines the likelihoods of two mixed logit estimators—one for consumer-level data, and one for product-level data—with product-level exogeneity restrictions. Our estimator is both efficient and conformant: its rates of convergence will be the fastest possible given the variation

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available in the data. The researcher does not need to pre-test or adjust the estimator and the inference procedure is valid across a wide variety of scenarios. Moreover, it can be tractably applied to large datasets. We illustrate the features of our estimator by comparing it to alternatives in the literature.

Seminar and Conference Presentations

2024 (including scheduled): University of Nottingham (Nottingham, UK); NHH – Norwegian School of Economics (Bergen, Norway); Aalto University (Espoo, Finland); Indiana University – Kelley School of Business (Bloomington, IN); Bates White (Washington, DC); Digonex (*canceled*; Indianapolis, IN); International Industrial Organization Conference (Boston, MA).

2023: Penn State IO Brown Bag (University Park, PA); Penn State (University Park, PA); Penn State – Ag. Economics (University Park, PA).

2020-2022: 4x Penn State IO Brown Bag (University Park, PA).

Research Experience

Graduate Research Assistant, The Pennsylvania State University, 2018–Present.

Predoctoral Researcher, Vienna Graduate School of Economics, University of Vienna, 2017–2018.

Research Assistant, Oesterreichische Nationalbank (Austria's Central Bank), 2016.

Teaching Experience

Teaching Assistant, Department of Economics, University of Vienna.

Introductory Microeconomics (Philipp Schmidt-Dengler): Winter 2015, Summer 2016, Winter 2016.

Awards and Honors

RGSO Dissertation Fellowship (\$5,000), The Pennsylvania State University, 2022.

Rosenberg Liberal Arts Centennial Scholarship (\$7,000), The Pennsylvania State University, 2021.

Class of Excellence, Faculty of Business, Economics and Statistics, University of Vienna, 2014.

Performance Scholarship, University of Vienna, 2012–2017.

Languages and Skills

Languages: English (fluent), German (native).

Computer: Julia, Matlab, Python, R, Stata.

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References

Prof. Paul Grieco (chair) Department of Economics The Pennsylvania State University +1 (814) 867-3310 paul.grieco@psu.edu Prof. Joris Pinkse Department of Economics The Pennsylvania State University +1 (814) 933-2194 joris@psu.edu Prof. Mark Roberts Department of Economics The Pennsylvania State University +1 (814) 863-1535 mroberts@psu.edu

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