Artem Kuriksha

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Education

2018 – Present	University of Pennsylvania, Ph.D. in Economics
2015 – 2017	New Economic School, M.A. in Economics (*cum laude*)
2011 – 2015	NRU Higher School of Economics, B.Sc. in Mathematics

Research Fields

Applied Microeconomics, Industrial Organization, Computational Economics

Job Market Paper

Illegal Drug Use and Government Policy: Evidence from a Darknet Marketplace
with Priyanka Goonetilleke, Anastasia Karpova, and Peter Meylakhs

This paper develops a structural model of demand for illegal drug varieties and studies how consumers substitute between different types of drugs in response to government policies. We use a unique longitudinal dataset on prices, quantities, and individual decisions that we obtained by scraping a darknet marketplace that covered the majority of the retail illegal drug trade in Russia. Our estimation procedure exploits a novel set of micro-level moment conditions to identify correlations in preferences for specific drug types and the degree of attachment to them. We find that the median own-price elasticity of demand for illegal drugs is -3.6, and there is high substitution within two classes of drugs: medium-risk stimulants and cannabis. We validate our estimates using exogenous variation in the price of hashish caused by increased policing. The estimated model is used to evaluate counterfactual drug policies. We find that the legalization of cannabis has the benefit of decreasing the use of riskier drugs while increasing cannabis use. For every 4 additional doses of cannabis consumed, 1 less dose of another drug is consumed. Our estimates show that the recent introduction of a new family of synthetic drugs has increased total drug demand in the country by 40%, suggesting that governments should allocate resources to prevent the introduction of new drug products. Finally, our model helps identify the optimal drugs to target for interdiction, specifically those without close substitutes, such as α-PVP.

Working Papers

An Economy of Neural Networks: Learning from Heterogeneous Experiences
PIER Working Paper No. 21-027

This paper proposes a new way to model behavioral agents in dynamic macro-financial environments. Agents are described as neural networks and learn policies from idiosyncratic past experiences. I investigate the feedback between irrationality and past outcomes in an economy with heterogeneous shocks similar to Aiyagari (1994). In the model, the rational expectations assumption is seriously violated because learning of a decision rule for savings is unstable. Agents who fall into learning traps save either excessively or save nothing, which provides a candidate explanation for several empirical puzzles about wealth distribution. Neural network agents have a higher average MPC and exhibit excess sensitivity of consumption. Learning can negatively affect intergenerational mobility.

Publications

"Hydra: Lessons from the World's Largest Darknet Market." With Priyanka Goonetilleke and Alex Knorre. *Criminology & Public Policy*, 22, 735–777, November 2023.

References

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Presentations

2024	University of Cambridge, Ohio State University, New Economic School, Penn Grad Talks, Annual International Industrial Organization Conference *(scheduled)*
2023	New Economic School, WashU Economics Graduate Student Conference, Annual Meeting of the Southern Economic Association
2022	International Conference on Computing in Economics and Finance, Young Economist Symposium

Teaching

Instructor

Summer 2021	ECON 897, "Math Institute", summer math camp for Economics and Wharton Ph.D. students, UPenn
Summer 2020	ECON 104, "Econometrics", UPenn

Teaching Assistant

Spring 2024	ECON 2300, "Statistics for Economists", UPenn
Fall '19 & Fall '23	ECON 4480, "Economics of Education", UPenn
Summer 2021	"Continuous-Time Methods in Macroeconomics", summer school, Oxford University
Spring 2021	ECON 246, "Money and Banking", UPenn
Fall 2020	ECON 236, "Health Economics", UPenn
Spring 2020	ECON 274, "History of Economic Thought", UPenn
Fall '16 & Spring '17	"Macroeconomics", M.A. sequence, NES
Spring 2015	"Higher Algebra", HSE
Fall 2014	"Topology", HSE

Employment

2021 – 2023	Research Assistant to Prof. Jesus Fernandez-Villaverde, UPenn
Summer 2022	Applied Scientist PhD Intern, Uber
2019 – 2020	Research Assistant to Prof. Santosh Anagol, The Wharton School
2017 – 2018	Data Scientist, Yandex

Awards and Honors

GAPSA Individual Grant Award ($750), 2023

Dean's Travel Subvention ($600), 2023

SASGov Large Research Grant ($2000), 2023

Dean's Travel Subvention ($500), 2022

University Fellowship, University of Pennsylvania, 2018-2023

Petr Aven Scholarship (awarded to 3 second-year M.A. students with highest GPA), NES, 2016-2017

Econometric Game, international team competition in econometrics, Amsterdam, 2017 (final round)

Service

Organizer: Empirical Micro Lunch, UPenn, 2020 – 2021

Refereeing: Young Economist Symposium

Master's Thesis Examiner: New Economic School

Skills

Programming: Python (PyTorch, Numba, PyBLP), SQL, R, Stata, MATLAB, Git

Languages: English (fluent), Russian (native)