MARIA GARCIA-OSIPENKO

mosipenk@asu.edu
Tempe, AZ 85282 • (480) 819-5661

EDUCATION

Arizona State University	Doctor of Philosophy, Economics	Expected May 2026
Arizona State University	Master of Science, Economics	December 2022
Siberian Federal University	Bachelor, Economics	June 2020
University of Minnesota	Exchange Student, Economics	2017-2018

RESEARCH FIELDS

Environmental Economics, Energy Economics, Industrial Organization

RESEARCH

Published Papers

"Green Economy as a Labor Productivity Factor in the Manufacturing Industry of European Union Countries" with Vladislav N. Rutskiy**,** *Financial Journal***,** 2020

Working Papers

"Are Solar Panels and Electric Vehicles Complements or Substitutes?"
Government policies target air pollution and climate change by incentivizing adoption of electric vehicles (EVs) and/or residential solar panels (PVs). Knowledge of whether these goods are complements or substitutes can be used to design policies that target environmental externalities more efficiently. I use California household-level data to estimate a structural multi-product demand model. I find that consumers view PVs and EVs as complements, with the degree of complementarity varying with vehicle size and income. Counterfactual experiments reveal that complementarity significantly increases bundled EV-PV purchases. This complementarity can be leveraged to design policies that achieve emission targets at lower cost.

"Endogenous Rigidities and Capital Misallocation: Evidence from Containerships" *with Nicholas Vreugdenhil and Nahim Bin Zahur*
We investigate how endogenous rigidities inhibit physical capital reallocation. We focus on the role of contract duration - a classic example of an adjustment rigidity. We argue when agents sign longer contracts in booms when markets are thin, they generate a contracting externality which further amplifies thinness and impedes the adjustment of markets to shocks. We develop a framework with booms and busts where agents search and choose match duration. Applying the framework to the containership leasing market, we find substantial misallocation from endogenous rigidities, particularly in the transition after a crash. We also quantify implications for designing industrial policy.

Work in Progress

"Socially Efficient Menu Design for Residential Electricity Plans" *with Nicolai Kuminoff, Spencer Perry, and Nicholas Vreugdenhil*
This paper considers how to design a socially efficient menu of electricity price plans subject to realistic design constraints. We develop a model of plan choice, consumption, and intertemporal consumption-shifting, and estimate it using a dynamic panel of eight thousand consumers who choose between five static and dynamic price plans and then consume in 15-minute intervals for five years. We find evidence of substantial consumption-shifting among a subset of consumers, and selection into plans based on multidimensional heterogeneity.

Counterfactual simulations reveal that the menu can be redesigned to simultaneously increase consumer welfare, reduce private generation costs, and improve environmental outcomes.

RESEARCH EXPERIENCE

Arizona State University
August 2023 - Present: Research Assistant for Nicolai Kuminoff
May 2022 - Present: Research Assistant for Nicholas Vreugdenhil

Siberian Federal University
Dec 2016 - May 2017: Research Assistant for Vladislav N. Rutskiy and N N Tarun Chakravorty

ACADEMIC PRESENTATIONS

2024 SWEEEP at Georgia Tech University, Energy Camp at UC Berkeley, AERE Summer Conference
2023 NCSU Camp Resources, Berkeley/Sloan Summer School in Environmental and Energy Economics, AERE Sessions at the Western Economic Association Conference

TEACHING EXPERIENCE

Instructor
Microeconomic Principles

Teaching Assistant
Public Economics, Industrial Organization and Competition Policy, Environmental Economics, Business Statistics, Macroeconomic Principles

AWARDS

Spring 2023: Rondthaler Emeritus Award "Most Deserving Graduate Student in the Program", ASU Econ Dept
Spring 2023: "Best Progress Towards Dissertation", ASU Econ Dept
June 2020: Graduation with Honors, Bachelor's in Economics
May 2019: 2nd place in the International Statistical Competition, Plekhanov Russian University of Economics
Fall 2017- Spring 2018: Finalist of the YEAR (Year of Exchange in America for Russians) program sponsored by the U.S. government
April 2017: 2nd place in the Nationwide Competition on State Regulation of the Economy at Novosibirsk State University
September 2015 - June 2020: Academic Excellence Scholarship, Bachelor's in Economics

GRANTS

Salt River Project, 2024-2025. $68,866. For "Predicting Commercial and Industrial Electricity Load" *with Nicolai Kuminoff and Nicholas Vreugdenhil*

Salt River Project, 2023-2024. $50,042. For "Predicting Residential Price Plan Enrollment and Energy Use" *with Nicolai Kuminoff, Spencer Perry, and Nicholas Vreugdenhil*

ADDITIONAL INFORMATION

Languages: English (fluent), Russian (native)
Programming: Stata, Python, MATLAB, Latex