Matthew O'Keefe

Last updated 9th October, 2023

Northwestern Economics

Placement Director:	Professor Alessandro Pavan	847-491-8266	alepavan@northwestern.edu
Placement Administrator:	Lola M. Ittner	847-491-8200	econjobmarket@northwestern.edu

Contact Information

Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208

MatthewOKeefe2023@u.northwestern.edu
www.sites.northwestern.edu/mfo275/
Citizenship: USA

Fields

Research: Industrial Organization, Energy and Environmental Economics
Teaching: Industrial Organization, Econometrics, Microeconomics

Education

Ph.D., Economics, Northwestern University (anticipated) 2018-24
Dissertation: Empirical Studies in Industrial Organization
Committee: Robert Porter (Chair), Mar Reguant, Vivek Bhattacharya

B.S., Mathematics with specialization in Economics, University of Chicago 2011-14

Job Market Paper

"Firm Boundaries and External Costs in Shale Gas Production'

Abstract: Shale gas production is highly decentralized, complicating efforts to address the local environmental impacts of fracking. Motivated by this, I analyze optimal environmental regulation when firm boundaries are relevant to external costs. I focus on the market for fracking wastewater in Pennsylvania. In this setting, firms transport wastewater long distances by truck to avoid market exchange, exacerbating greenhouse gas emissions, air pollution, and spill risk. Exploiting regulatory data on firms' insourcing and outsourcing decisions, I embed frictions at the firm boundary in an empirical model of wastewater management. In the model, augmenting a simple uniform tax on trucking with outsourcing subsidies can reduce social costs by up to 64% of private trucking costs if frictions at the firm boundary are viewed as welfare-irrelevant internalities. Otherwise, a uniform tax is socially optimal, and results in external costs that are 14% lower. My findings highlight two distinct inference problems for a Pigouvian regulator: the problem of inferring transaction costs, and the problem of assessing their welfare-relevance.

Working Papers

"Improving FTR Markets with Better Product Design: Contract Tenor, Market Thickness, and Efficiency "

Abstract: Financial transmission rights (FTRs) are an important class of contracts in decentralized energy markets. This paper explores how market operators' contract design choices affect the efficiency of FTR allocation. With shorter contract tenors, generators and electricity customers can obtain better hedging portfolios for anticipated deliveries. However, short contracts can directly or indirectly reduce market thickness in the FTR auction, leading to welfare losses. In order to understand the significance of this tradeoff I build and estimate a stylized empirical model of the Midcontinent ISO (MISO) FTR allocation mechanism. Relative to a counterfactual with longer contracts, MISO's current contract design reduces welfare losses from congestion risk by $2.4M, or about 1% of total welfare, at firms' estimated risk preferences. However, reduced auction proceeds result in aggregate welfare losses, highlighting the value of careful contract design.

Research in Progress

"Information Aggregation in Auctions: Evidence from the MISO FTR Market"

Abstract: The rate at which prices aggregate information is difficult to characterize analytically in many realistic environments, such as when ex ante asset endowments are heterogeneous, information is distributed asymmetrically, and the number of competing bidders is not known in advance. In this paper, I estimate an empirical model of

Bayes-Cournot competition to quantify the rate of information aggregation in financial transmission rights (FTR) auctions, which among other purposes are intended to elicit accurate information about future congestion prices in electricity markets. FTR auctions are particularly well suited to this purpose because key primitives such as ex post asset values, agents' types, and asset endowments are directly observable. Moreover, the structured and multi-round nature of FTR auctions results in significant cross-sectional heterogeneity. I discuss the implications of the model estimates for the design of FTR markets.

Presentations

21st Annual International Industrial Organization Conference (IIOC) 2023

Fellowships & Awards

Dissertation University Fellowship, Northwestern University 2022–24
Northwestern University Fellowship 2018–19
University Scholarship, University of Chicago 2011–14

Teaching Experience

Teaching Assistant, Northwestern University 2019–22
Introduction to Microeconomics (Undergraduate)
Business Strategy (Undergraduate)
Econometrics (Undergraduate)
Teaching Assistant (Problem Sets), Yale University 2021–22
Competition Economics and Policy (MBA/JD)

Research Assistance

Prof. Vivek Bhattacharya, Northwestern University 2020–23
Prof. Eric Budish, University of Chicago Booth (Full-time) 2016–18
Profs. Anup Malani and Christian Leuz, University of Chicago 2013–14

Internships

Microsoft Research (with Vasilis Syrgkanis) 2021

Employment

Analyst, Analysis Group 2015–16

Languages

English (native)

Personal

Married, one child

References

Professor Robert Porter
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.3491
r-porter@northwestern.edu

Professor Vivek Bhattacharya
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.8213
vivek.bhattacharya@northwestern.edu

Professor Mar Reguant
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847.491.8221
mar.reguant@northwestern.edu