# **MIT** Economics

## KARL M. ASPELUND

OFFICE CONT MIT Departme 77 Massachuse Cambridge, M https://econom /phd-students/	EACT INFORMATION ent of Economics etts Ave, E52-301 IA 02139 hics.mit.edu/people karl-m-aspelund	CONTACT INFORMATIC Email: <u>kmasp@mit.edu</u> Mobile: (401) 808-1512	<u>DN</u>
DOCTORAL STUDIES	Massachusetts Institute of Techn Expected completion June 2025	ology (MIT) Ph.D., Economics,	
	Advisors		
	Professor Ben Olken MIT Economics 77 Mass. Ave, E52-542 Cambridge, MA 02139 (617) 253-6833	Professor Tobias Salz MIT Economics 77 Mass. Ave, E52-460 Cambridge, MA 02139 (617) 715-2266	
Prior Education	Harvard University2017Bachelor of Arts in Environmental Science and Public Policy, magna cum laude with highest honors (GPA 3.91)2017		
CITIZENSHIP	United States of America, Iceland		
LANGUAGES	English (native), Icelandic (native), German (reading)		
CODING	Fluent in Julia, Python, Stata, R. Intermediate in ArcGIS. Beginner in SQL.		
FIELDS	Environmental Economics, Public Finance, Industrial Organization		
TEACHING Experience	Microeconomic Theory and Public Policy (14.03), Teaching Assistant to Prof. Tobias Salz		2023
RELEVANT PRIOR POSITIONS	Research Associate to Profs. Simon Jäger and Benjamin Schoefer, MIT		2018-2019
	Pre-Doctoral Fellow, Education Innovation Laboratory at Harvard University		2017-2018
	Research Intern, Resources for the Future		2016
	Research Intern, OECD Nuclear Energy Agency		2015
	Research Assistant to Prof. Laura Anadon, Harvard Kennedy School and Belfer Center Arctic Initiative		2014-2016
FELLOWSHIPS, HONORS, AND AWARDS	MIT Graduate Conference Travel Grant, \$500		2023
	US NMFS-Sea Grant Fellowship, \$54,166 per year for 3 years		2022-
	George and Obie Shultz Fund, \$5,534, \$8,415, \$22,000		2020, 2021,2023
	Graduate Fellow, Minda de Gunzburg Center for European Studies at Harvard University		2020-
	National Science Foundation Graduate Research Fellowship		2019-2022

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	Enel Endowment Prize for Best Undergraduate Thesis in Environmental Economics	2017		
	Environmental Science and Public Policy Undergraduate Thesis Prize	2017		
	Phi Beta Kappa	2016		
PROFESSIONAL	Refereeing: American Economic Review: Insights			
ACTIVITIES	Presentations:			
	University of California, Davis (invited, 2024)			
	NMFS-Sea Grant Fellows Research Symposium, NOAA HQ (2023)			
	North American Association of Fisheries Economists Forum (2023) Academic Workshop for Icelandic Economists Abroad (2023)			
	<b>Other Activities:</b> Berkeley-Sloan Summer School in Environmental & Energy Economics (2020)	))		
Research in Progress	"Additionality and Asymmetric Information in Environmental Markets: Evidence from Conservation Auctions" (with Anna Russo, her job market paper)			
	Market mechanisms aim to deliver environmental services at low cost. Howey objective is undermined by participants whose conservation actions are not m to the incentive — or "additional" — as the lowest cost providers of environ services may not be the highest social value. We investigate this potential failure in the world's largest auction mechanism for ecosystem service Conservation Reserve Program, with a dataset linking bids in the program's auction to satellite-derived land use. We use a regression discontinuity design t that three of four marginal winners of the auction are not additional. Moreov find that the heterogeneity in counterfactual land use introduces adverse select the market. We then develop and estimate a joint model of multi-dimensional l and land use to quantify the implications of this market failure for the perform	er, this arginal mental market es, the scoring o show ver, we ction in pidding ance of		

environmental procurement mechanisms and competitive offset markets. We design alternative auctions with scoring rules that incorporate the expected impact of the auction on bidders' land use. These auctions increase efficiency by using bids and observed characteristics to select participants based on both costs and expected additionality.

#### "Who Gets the Fish? Designing Permit Markets in the Commons"

Environmental permit markets are meant to maximize the value of an aggregate amount of an environmental good by realizing gains from trade: more profitable producers will buy and rent permits from less profitable ones. In practice, these markets might face transaction frictions, and governments often introduce trading restrictions that limit how much of the allocation can be traded and to whom, in response to concerns about distributional impacts on heterogeneous firms and workers. I analyze the efficiency and distributional consequences of real-world tradeability in one of the longest-standing environmental permit markets: Iceland's tradable quota

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system in its fisheries, which expanded tradeability to different boat sizes at different times and limits trading to half of a boat's initial allocation at the start of the year. I first assess the differential impact on production when boats are allowed to trade permits, and then identify which workers lose out on the transition. To estimate profits and isolate the realized and potential gains from trade, I develop a dynamic model of choices to fish and rent permits each year, without assuming costless transactions and taking account of stochastic production and differences in the initial allocation. I relate the number of boats of each type to estimated profits and initial allocations to find aggregate surplus. The model allows me to estimate transfers from increased profits but also who gains and loses if the trading limits were removed. s

#### "What Drives Demand for Voluntary Green Power?"

#### "Scallops: Optimal Environmental Closures"

OTHER RESEARCH With Michael C. Droste, James H. Stock, and Christopher D. Walker. 2020. "Identification and Estimation of Undetected COVID-19 Cases Using Testing Data from Iceland." NBER Working Paper No. 2752.

With Jan-Horst Keppler. 2018. Chapters 5 and 8. In *Full Costs of Electricity Provision*. OECD: Paris, France.