

Eric Budish

University of Chicago Booth School of Business
5807 S Woodlawn Avenue, Chicago IL 60637
<http://faculty.chicagobooth.edu/eric.budish>
eric.budish@chicagobooth.edu

CURRENT POSITIONS

University of Chicago Booth School of Business

January 2022 – Present Paul G. McDermott Professor of Economics and Entrepreneurship (inaugural holder)
July 2019 – Dec 2021 Steven G. Rothmeier Professor of Economics
July 2015 – June 2019 Professor of Economics
July 2013 – June 2015 Associate Professor of Economics
July 2009 – June 2013 Assistant Professor of Economics

University of Chicago Law School

2019 – Present Krane Distinguished Visiting Professor

National Bureau of Economic Research

2016 – Present Research Associate
2015 – 2016 Faculty Research Fellow

EDUCATION

Harvard University

Ph.D., 2009, Business Economics
Dissertation: “Essays on Market Design”
Committee: Alvin Roth (chair), Susan Athey, Ariel Pakes, David Parkes

University of Oxford, Nuffield College

MPhil, 2004, Economics, with Distinction

Amherst College

Bachelor of Arts, 2000
Majors in Economics and Philosophy
Summa cum Laude

HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

- Centel Foundation/Robert P. Reuss Faculty Scholar, 2018-present
- Western Finance Association Two Sigma Award for Best Paper on Investment Management, 2020
- AEA-AFA Joint Luncheon Speaker, 2017
- David G. Booth Faculty Fellow, 2016-2017
- Leo Melamed Prize for Outstanding Research in Finance, 2015

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- Richard N. Rosett and David G. Booth Faculty Fellow, 2015-2016
- Alfred P. Sloan Foundation Research Fellowship, 2015
- Neubauer Family Faculty Fellow, Chicago Booth, 2012-2013, 2014-2015
- Richard J. Herrnstein Dissertation Prize, Harvard University, 2009
- Fellow, Project on Justice, Welfare and Economics at Harvard University, 2008-2009
- National Science Foundation Graduate Research Fellowship, 2004-2007
- George Webb Medley Economics Thesis Prize (*proxime accessit*), Oxford, 2004
- Marshall Scholarship, 2002-2004
- James R. Nelson Economics Thesis Prize, Amherst, 2000
- Bernstein Prize in Economics, Amherst, 2000
- Phi Beta Kappa, Amherst, 2000

PUBLICATIONS

Refereed Journal Articles

1. “An Economic Framework for Vaccine Prioritization,” (with Mohammad Akbarpour, Piotr Dworzak, and Scott Duke Kominers), *Quarterly Journal of Economics* 139(1): 359-417, 2024.
2. “Primary-Market Auctions for Event Tickets: Eliminating the Rents of ‘Bob the Broker?’” (with Aditya Bhawe), *American Economic Journal: Microeconomics* 15(1): 142-170, 2023.
3. “Distributing a Billion Vaccines: COVAX Successes, Challenges, and Opportunities” (with Hannah Kettler, Scott Duke Kominers, Erik Osland, Canice Prendergast, and Andrew A Torkelson), *Oxford Review of Economic Policy* 38(4): 942-974, 2022.
4. “Can Market Participants Report Their Preferences Accurately (Enough)?” (with Judd Kessler), *Management Science* 68(2): 1107-1130, 2022.
5. “Quantifying the High-Frequency Trading ‘Arms Race’: A Simple New Methodology and Estimates,” (with Matteo Aquilina and Peter O’Neill), *Quarterly Journal of Economics* 137(1): 493-564, 2022. (Winner of the WFA 2020 Two Sigma Best Paper Award for Investment Management.)
6. “Market Design to Accelerate COVID-19 Vaccination,” (with Amrita Ahuja, Susan Athey, Arthur Baker, Juan Camilo Castillo, Rachel Glennerster, Scott Duke Kominers, Michael Kremer, Jean Lee, Canice Prendergast, Christopher M. Snyder, Alex Tabarrok, Brandon Joel Tan, and Witold Wiecek), *Science* 371(6534): 1107-1109, 2021.
7. “An Improved Bound for the Shapley-Folkman Theorem,” (with Philip J. Reny), *Journal of Mathematical Economics* 89: 48-52, 2020.
8. “Strategy-proofness in the Large,” (with Eduardo Azevedo), *Review of Economic Studies* 86(1): 81-116, 2019.

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9. “Course Match: A Large-Scale Implementation of Approximate Competitive Equilibrium from Equal Incomes for Combinatorial Allocation,” (with Gerard Cachon, Judd Kessler and Abe Othman), *Operations Research* 65(2): 314-336, 2017.
10. “The High Frequency Trading Arms Race: Frequent Batch Auctions as a Market Design Response,” (with Peter Cramton and John Shim), *Quarterly Journal of Economics* 130(4): 1547-1621, 2015. (Lead article, winner of 2014 AQR Insight Award and 2015 Utah Winter Finance Conference Best Paper Award.)
11. “Do Firms Underinvest in Long-Term Research? Evidence from Cancer Clinical Trials,” (with Benjamin Roin and Heidi Williams), *American Economic Review* 105(7): 2044-2085, 2015. (Winner of the inaugural Kauffman/iHEA Award for Health Care Entrepreneurship and Innovation Research, 2013, and winner of the Arrow Award for “Best Paper Published in Health Economics,” 2015.)
12. “Designing Random Allocation Mechanisms: Theory and Applications,” (with Yeon-Koo Che, Fuhito Kojima, and Paul Milgrom), *American Economic Review* 103(2): 585-623, 2013.
13. “The Multi-Unit Assignment Problem: Theory and Evidence from Course Allocation at Harvard,” (with Estelle Cantillon), *American Economic Review* 102(5): 2237-2271, 2012.
14. “The Combinatorial Assignment Problem: Approximate Competitive Equilibrium from Equal Incomes,” *Journal of Political Economy* 119(6): 1061-1103, 2011.
15. “Finding Approximate Competitive Equilibria: Efficient and Fair Course Allocation,” (with Abe Othman and Tuomas Sandholm), *Proc. Of 9th Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS 2010)*.
16. “Buy Prices in Online Auctions: Irrationality on the Internet?” (with Lisa N. Takeyama), *Economics Letters* 72(3): 325-33, 2001.

Working Papers

1. “A Theory of Stock Exchange Competition and Innovation: Will the Market Fix the Market?” (with Robin Lee and John Shim), *NBER Working Paper* 25855, Revise and Resubmit at *Journal of Political Economy*, Draft: October 2022.
2. “Flow Trading,” (with Peter Cramton, Albert Kyle, Mina Lee, and David Malec), Draft: June 2022.
3. “The Economic Limits of Bitcoin and Anonymous, Decentralized Trust on the Blockchain,” Draft: June 2022. Previously circulated as “The Economic Limits of Bitcoin and the Blockchain,” *NBER Working Paper* 24717, June 2018.
4. “Maximize Utility subject to $R \leq 1$: A Simple Price-Theory Approach to Covid-19 Lockdown and Reopening Policy,” *NBER Working Paper* 28093, November 2020.

Non-Refereed Journal Articles

1. “Preparing for a Pandemic: Accelerating Vaccine Availability,” (with Amrita Ahuja, Susan Athey, Arthur Baker, Juan Camilo Castillo, Rachel Glennerster, Scott Duke Kominers, Michael Kremer, Jean Lee, Canice Prendergast, Christopher M. Snyder, Alex Tabarrok,

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Brandon Joel Tan, and Witold Wiecek), *American Economic Association Papers and Proceedings* 111: 331-335, 2021.

2. “Patents and Research Investments: Assessing the Empirical Evidence,” (with Benjamin Roin and Heidi Williams), *American Economic Review Papers and Proceedings*, 2016.
3. “Implementation Details for Frequent Batch Auctions: Slowing Down Markets to the Blink of an Eye,” (with Peter Cramton and John Shim), *American Economic Review Papers and Proceedings*, 2014.

Book Chapters and Surveys

1. “Market Design,” (with Nikhil Agarwal), *Handbook of Industrial Organization*, Volume 5, Issue 1, pages 1-79, 2021.
2. “Matching ‘versus’ Mechanism Design,” *ACM SIGecom Exchanges*, 11(2): 4-15, 2012.

Financial Markets Policy Comment Letters

1. European Securities and Markets Authority Comment Letter re “Call for Evidence: Periodic Auctions for Equity Instruments,” 2019.
2. Securities and Exchange Commission Comment Letter re Chicago Stock Exchange Liquidity Taking Access Delay, 2016.
3. Department of the Treasury Comment Letter re RFI on U.S. Treasury Market Structure, 2016.
4. Securities and Exchange Commission Comment Letter re Proposed Commission Interpretation Regarding Automated Quotations under Regulation NMS, 2016.
5. Securities and Exchange Commission Comment Letter re Investors’ Exchange LLC Form 1 Application, 2016.

Op-Ed Articles

1. “Bigger is Better When it Comes to Vaccine Production,” (with Christopher Snyder), *Wall Street Journal*, 2021.
2. “Google should beware the ‘Winner’s Curse,’” (with Paul Klemperer) *Financial Times*, 2004.

Patents

1. “System and Method for Conducting Electronic Commerce,” US Patent 7,398,229, 2004.

TEACHING

PhD Market Design (2011, 2012, 2014, 2016, 2018, 2020, 2023)
 Microeconomics Reading and Research Seminar (2020-Present)

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MBA Competitive Strategy (MBA 2010-Present)
JD Competitive Strategy (2019-Present)

EXTERNAL GRANTS

- Alfred P. Sloan Research Fellowship, February 2015.
- NSF Interface between Computer Science and Economics Collaborative Research Grant on “Understanding the Role of Intermediaries in Matching Markets,” July 2012 (with Ali Hortacsu, Nicole Immorlica, Scott Kominers).
- NBER Innovation Policy and the Economy Grant for “Do fixed patent terms distort innovation? Evidence from cancer R&D,” February 2011 (Ben Roin and Heidi Williams).

KEYNOTE ADDRESSES AND SELECTED PANEL DISCUSSIONS

- Harvard Harris Lecture: The Economics of Cryptocurrencies, Nov 2022
- Columbia University Fintech Innovation Seminar Series, Oct 2022
- DARPA ECoSystemic PI meeting, Oct 2022
- Frequent Batch Auctions - Friend or Foe? BofA Webinar, Sept 2020
- IGM Covid-19 Policy Conference, April 2020
- Keynote, Federal Trade Commission Conference on the Event Tickets Market, June 2019
- Atlanta Fed Financial Markets Conference, May 2019
- CME/MSRI Conference in Honor of Pete Kyle, April 2019
- AEA Panel on Blockchain: Myth and Reality, Jan 2019
- ACM EC Keynote, June 2018
- AEA-AFA Joint Luncheon Address, Jan 2017
- Fed/Treasury/SEC Conference on the Evolving Structure of the US Treasury Market, Oct 2015
- Keynote, AMMA Conference on Auctions, Market Mechanisms and Their Applications, Aug 2015
- SIFMA Equity Market Structure Conference, May 2015
- Keynote, European Capital Markets Institute, Oct 2014
- Keynote, COMSOC-2014, Fifth International Workshop on Computational Social Choice, June 2014
- CFTC Technology Advisory Committee Meeting, Feb 2014
- CME Group – MSRI Panel Discussion, Oct 2013
- Baruch College Conference on Market Integrity, Oct 2013
- Keynote, Universite Libre de Brussels / ECARES Matching in Practice workshop, May 2013

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ALL RESEARCH PRESENTATIONS

- 2022 Harvard Harris Lecture: The Economics of Cryptocurrencies, Columbia University Fintech Innovation Seminar Series, DARPA ECoSystemic PI meeting, Stanford Economics Seminar, Berkeley Microeconomic Theory Seminar, Iowa State University Market Design Workshop, AEA Session on Market Design for Medical Resources; AFA Session on Market Microstructure; Bocconi Theory Seminar; Oxford Econ 101 Celebration; University of Illinois Chicago Finance Seminar; University of Tokyo Market Design Seminar; Northwestern Joint CET – Math Center Conference
- 2021 BIS Seminar; Bocconi Finance Seminar; NBER Market Design; University of Michigan Theory Seminar; TMX Group Seminar; NBER SI Big Data; Plato Market Innovators Conference; Swiss Finance Institute; Paris Virtual Market Design; UZH Economics; UPenn Economics; Berkeley Finance Seminar; Econometric Society Meetings; AFAs
- 2020 IEX Academic Research Conference; Stanford GSB Finance Seminar; Virtual Finance Theory Seminar; European Finance Association; Microstructure Online Seminars Asia Pacific; Microstructure Exchange; WFA Annual Meeting; Chicago Booth Finance Lunch; Chicago Booth Micro Lunch; SFS Cavalcade Conference; University of Pennsylvania Theory Seminar; Stigler Center Covid-19 Policy Seminar; IGM Covid-19 Policy Conference; Columbia Law and Economics of Capital Markets; Econometric Society Meetings
- 2019 U.S. Securities and Exchange Commission; NBER IO Summer Institute; 30th Annual Stony Brook Game Theory Conference, Semi-Plenary; Federal Trade Commission Conference on the Event Tickets Market, Keynote; Atlanta Fed Financial Markets Conference; Northwestern University Conference in Honor of Mark Satterthwaite; Carnegie Mellon Joint Theory/CS Seminar; CME/MSRI Conference in Honor of Pete Kyle; University of Pennsylvania New Directions in Market Design Conference; Wharton Finance Seminar; AEA Panel on Blockchain: Myth and Reality
- 2019 Harvard Business School Entrepreneurial Management Seminar; BFI Conference on Cryptocurrencies and Blockchains; NBER Monetary Economics Summer Institute; Music Industry Research Association Economics Conference; ACM EC Keynote; MIT Media Lab Digital Currency Initiative
- 2017 NBER Market Design; NYU Stern Joint IO/Finance Seminar; Yale Theory Seminar; Harvard/MIT IO Seminar; Northwestern IO Seminar; Berkeley IO Seminar; FCA Microstructure Conference; Harvard Symposium on the Computational Economy; AEA-AFA Joint Luncheon Address
- 2016 Yale IO Seminar; Chicago Booth All-Faculty Seminar; Princeton Applied Economics Seminar; Boston College Theory Seminar; UIUC Finance Seminar; FCA/LSE Conference on Financial Market Regulation; American Economic Association Winter Meetings
- 2015 Simons Institute Conference on Algorithmic Game Theory and Practice, Berkeley; MSR Conference on Designing the Digital Economy; Fed/Treasury/SEC

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- Conference on the Evolving Structure of the US Treasury Market; Princeton Finance Seminar; Wisconsin Theory Seminar; AMMA Conference on Auctions, Market Mechanisms and Their Applications, Keynote; INFORMS Marketplace Innovation Workshop, Columbia; SIFMA Equity Market Structure Conference; Federal Reserve Board, Banking and Finance Seminar; University of Chicago Health Economics Workshop; Utah Winter Business Finance Conference; American Economic Association Winter Meetings
- 2014 Market Microstructure: Confronting Many Viewpoints; FIA Expo Conference; Columbia/Duke/MIT/Northwestern IO Theory Conference; Netherlands Authority for the Financial Markets; European Capital Markets Institute (keynote); Stanford Theory Seminar; Kellogg Management and Strategy; UK Financial Conduct Authority; NBER Industrial Organization Summer Institute; COMSOC-2014, Fifth International Workshop on Computational Social Choice (keynote); NBER Market Design; Market Microstructure Conference, Stevanovich Center for Financial Mathematics; SEC First Annual Conference on the Regulation of Financial Markets; FINRA; AQR Insight Award Conference; Goldman Sachs Securities Division; CFTC Technology Advisory Committee Meeting; American Economic Association Winter Meetings
- 2013 University of Chicago Theory Seminar; Columbia IO Seminar; Columbia Law and Economics of Capital Markets Seminar; Harvard / MIT Applied Theory Seminar; Harvard Finance Seminar; NYU IO Seminar; NBER Market Design Working Group Meeting; Berkeley Haas Finance Seminar; University of Chicago Conference on BCA of Financial Regulation; CME Group – MSRI Panel Discussion; Baruch College Conference on Market Integrity; IEX; NASDAQ Brownbag Lunch; Wharton Applied Economics Workshop; ACM EC 2013; University of Oxford; Universite Libre de Brussels / ECARES Theory Seminar; Universite Libre de Brussels / ECARES Matching in Practice workshop (keynote); Chicago Booth Finance Lunch; Chicago Federal Reserve Financial Markets Group
- 2012 University of Pennsylvania Theory Seminar; University of Maryland Theory Seminar; University of Michigan Auctions and Matching Workshop; NBER Market Design Conference; University of Chicago Theory Seminar; Stanford Applied Micro Seminar; Princeton Theory Seminar; NYU Stern IO Day; Duke Applied Economics Seminar; ACM Conference on Electronic Commerce; Frontiers of Market Design Conference; Northwestern Economic Theory; Chicago Booth Applied Theory; University of Rochester; Northwestern Computer Science Theory
- 2011 eBay Research; UC Berkeley Theory Seminar; University of Montreal Theory Seminar; Carnegie Mellon / University of Pittsburgh Theory Seminar; University of Michigan Theory Seminar; Duke / University of North Carolina Theory Seminar; NBER Conference on Market Design; Boston College Theory Seminar; AMMA Conference on Auctions, Market Mechanisms, and their Applications; UCLA Micro Theory Seminar; MFI Matching and Price Theory Conference, University of Chicago; Ohio State University Micro Theory Seminar; Matching: Findings, Flaws, and Future. Northwestern
- 2010 World Congress of the Econometric Society, Shanghai; WCU-Economics Conference, Yonsei University, Seoul; University of California San Diego Micro

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Lunch; University of Chicago Economics Department Theory Seminar; Behavioral & Quantitative Game Theory: Conference on Future Directions; Roth and Sotomayor: Twenty Years After; Texas A&M; Rice University

- 2009 Columbia Economics / GSB; NBER Conference on Market Design; AMMA Conference on Auctions, Market Mechanisms, and their Applications; Microsoft Research; Yale Economics / SOM; LSE Economics; Yahoo! Research; Stanford Economics / GSB; Chicago Booth; NYU Stern
- 2008 Econometric Society Winter Meetings

PROFESSIONAL ACTIVITIES

Initiative on Global Markets at Chicago Booth

Co-Director, July 2019 – Present

Executive Board, July 2015 – June 2019

Chicago Booth Microeconomics Group Ph.D. Program

Faculty Director, July 2017 – Present

NBER Market Design

Co-organizer, annual meeting, Nov 2022

American Economic Review: Insights

Board of Editors, January 2018 – Present

American Economic Journal: Microeconomics

Board of Editors, July 2016 – Present

Econometrica

Associate Editor, 2016-2022

COVAX

Pro-bono adviser on Covid-19 vaccine allocation and exchange mechanisms, 2020-2021

University of Chicago Becker Friedman Institute

Co-organizer, Conference on Blockchains and Cryptocurrencies, November 2018, November 2019

Brookings Center on Regulation and Markets

Advisory Council Member, 2018 – 2021

ACM Conference on Electronic Commerce

Senior Program Committee, 2014, 2015, 2017, 2018, 2020

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Program Committee, 2010, 2011, 2012

NBER IO Group

Co-organizer, winter meetings, Feb 2019

Simons Institute

Co-organizer, Conference on Algorithmic Game Theory and Practice, November 2015

University of Chicago Becker Friedman Institute

Co-organizer, Midway Market Design Workshop, July 2014

Jerusalem Summer School in Economic Theory

Lecturer, Matching and Market Design, 2014

University of Chicago Milton Friedman Institute

Executive Committee, Matching and Price Theory Conference, May 2011

AMMA

Program Committee, the Second Conference on Auctions, Market Mechanisms, and Their Applications, 2011

OUTSIDE ACTIVITIES

Cognomos LLC

Course Allocation Software (based on Budish, 2011 JPE)

Board Member, 2017 – Present

CowSwap

Batch Auctions for Decentralized Finance (based on Budish, Cramton and Shim, 2015 QJE)

Technical Advisor, 2022 – Present

PREVIOUS EMPLOYMENT

2000 – 2002 **Goldman Sachs**

Financial Analyst, Investment Banking Division: M&A Group.

Experience: Sale of Borden Foods Corporation in four pieces (combinatorial!); sale of OTG Software to Legato Systems; Anti-Raid Team (hostile takeover preparation / defense)

Last Updated: February 2023