Alireza Tahbaz-Salehi

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Academic Appointments

Kellogg School of Management, Northwestern University

William L. Ford Professor of Managerial Economics & Decision Sciences, 2023–present Professor of Managerial Economics & Decision Sciences, 2019–2023

Associate Professor of Managerial Economics & Decision Sciences, 2017–2019

Northwestern Pritzker School of Law Associate Professor (courtesy), 2017–2019

Columbia Business School, Columbia University
Daniel W. Stanton Associate Professor of Business, 2015–2017
Associate Professor, 2015–2015
Assistant Professor, 2011–2015

Other Appointments/Affiliations

Center for Economic Policy Research Research Fellow, 2020–present

Massachusetts Institute of Technology Post-Doctoral Associate, 2009–2011

Education

University of Pennsylvania
PhD, Electrical and Systems Engineering, 2009
MA, Economics, 2008
MSE, Electrical Engineering, 2006

Sharif University of Technology BSc, Electrical Engineering, 2004

Editorial Positions

Associate Editor, American Economic Review, 2019–present Associate Editor, Journal of Economic Theory, 2021–present Associate Editor, IEEE Transactions on Control of Network Systems, 2021.

Publications

"The Macroeconomics of Supply Chain Disruptions," with Daron Acemoglu *Review of Economic Studies*, 92 (2): 656–695, 2025.

"Model Complexity, Expectations, and Asset Prices," with Pooya Molavi and Andrea Vedolin *Review of Economic Studies*, 91(4): 2462–2507, 2024.

- "Rigid Production Networks," with Thomas Pellet Journal of Monetary Economics, 137: 86–102, 2023.
- "Optimal Monetary Policy in Production Networks," with Jennifer La'O *Econometrica*, 90(3): 1295–1336, 2022.
- "Supply Chain Disruptions: Evidence from the Great East Japan Earthquake," with Vasco Carvalho, Makoto Nirei, and Yukiko Saito, *Quarterly Journal of Economics*, 136(2): 1255–1321, 2021.
- "Systemic Credit Freezes in Financial Lending Networks," with Daron Acemoglu, Asuman Ozdaglar & James Siderius *Mathematics and Financial Economics*, 15(1): 185–232, 2021.
- "Production Networks: A Primer," with Vasco Carvalho *Annual Review of Economics*, 11(1): 635–663, 2019.
- "Information Sale and Competition," with Kostas Bimpikis and Davide Crapis *Management Science*, 65(6): 2646–2664, 2019.
- "A Theory of non-Bayesian Social Learning," with Pooya Molavi and Ali Jadbabaie *Econometrica*, 86(2): 445–490, 2018.
- "Multi-Sourcing and Miscoordination in Supply Chain Networks," with Kostas Bimpikis and Douglas Fearing *Operations Research*, 66(4): 1023–1039, 2018.
- "Microeconomic Origins of Macroeconomic Tail Risks," with Daron Acemoglu and Asuman Ozdaglar *American Economic Review*, 107(1): 54–108, 2017.
- "Exchange Rates and Monetary Policy Uncertainty," with Philippe Mueller and Andrea Vedolin *Journal of Finance*, 72(3): 1213–1252, 2017.
- "Networks, Shocks, and Systemic Risk," with Daron Acemoglu and Asuman Ozdaglar *The Oxford Handbook of the Economics of Networks*, Chapter 21, 569–607, 2016.
- "Coordination with Local Information," with Munther Dahleh, John Tsitsiklis, and Spyros Zoumpoulis *Operations Research*, 64(3): 622–637, 2016.
- "Systemic Risk and Stability in Financial Networks," with Daron Acemoglu and Asuman Ozdaglar *American Economic Review*, 105(2): 564–608, 2015.
- "The Network Origins of Aggregate Fluctuations," with Daron Acemoglu, Vasco Carvalho, and Asuman Ozdaglar *Econometrica*, 80(5): 1977–2016, 2012.
- "Non-Bayesian Social Learning," with Ali Jadbabaie, Pooya Molavi, and Alvaro Sandroni *Games and Economic Behavior*, 76(1): 210–225, 2012.
- "Distributed Coverage Verification in Sensor Networks without Location Information," with Ali Jadbabaie *IEEE Transactions on Automatic Control*, 55(8): 1837–1849, 2010.
- "Consensus over Ergodic Stationary Graph Processes," with Ali Jadbabaie *IEEE Transactions on Automatic Control*, 55(1): 225–230, 2010.
- "A Necessary and Sufficient Condition for Consensus over Random Networks," with Ali Jadbabaie *IEEE Transactions on Automatic Control*, 53(3): 791–795, 2008.

Published Discussions

Discussion of "Centrality-Based Capital Allocations," by Adrian Alter, Ben Craig, and Peter Raupach *International Journal of Central Banking*, 11(3): 379–384, 2015.

Working Papers

"SDF Bounds," with Piotr Orłowski, Fabio Trojani, and Andrea Vedolin

"Missing Tax Instruments: Attaining Production Efficiency in Disaggregated, Production Network Economies with Nominal Rigidities," with Jennifer La'O

"Seeing the Forest for the Trees? An Investigation of Network Knowledge," with Emily Breza and Arun Chandrasekhar

"Collateral Shortage and Intermediation Networks," with Marco Di Maggio Revise & Resubmit, *Review of Financial Studies*

"Systemic Risk in Endogenous Financial Networks," with Daron Acemoglu and Asuman Ozdaglar

"Inefficient Diversification and Systemic Bank Runs," with Kostas Bimpikis

Honors and Awards

Excellence in Refereeing Award, Review of Economic Studies, 2021

Excellence in Refereeing Award, Review of Economic Studies, 2020

Excellence in Refereeing Award, American Economic Review, 2018

Outstanding Referee Award, Journal of Economic Dynamics & Control, 2014

Joseph, D'16, and Rosaline Wolf Award for Best Dissertation, University of Pennsylvania, 2010

Judith Rodin Fellowship, School of Arts and Sciences, University of Pennsylvania, 2008–2009

International Economic Review Fellowship, Department of Economics, University of Pennsylvania, 2007.

Pew Presidential Prize, Department of Economics, University of Pennsylvania, 2008

Keynote Lectures

Barcelona School of Economics Summer Forum, Barcelona, 2024

Hong Kong Economic Association Biennial Conference, Hong Kong, 2023

Unbalanced Sectoral Inflation Dynamics Conference, Banque de France, 2023

Workshop in Macroeconomics and Finance, Sargent Institute of Quantitative Economics & Finance, 2023

Teaching

Kellogg School of Management, Northwestern University

Business Analytics I (MBA)

Business Analytics II (MBA)

Analytical Approach to Uncertainty (EMBA)

Economic Theory II: Production Networks (Ph.D.)

 $Northwestern\ Pritzker\ School\ of\ Law,\ Northwestern\ University$

Business Analytics for Law (JD/LLM)

Department of Economics, Yale University

Macroeconomics of Networks (Ph.D.)

Columbia Business School, Columbia University

Managerial Statistics (MBA)

Social and Economic Networks (Ph.D.)

Global Immersion: Exploring the Business Environment in Cuba (MBA)

Visiting Positions

University of Zürich, Spring 2023
Becker-Friedman Institute, University of Chicago, April 2017
Cowles Foundation, Yale University, Fall 2016
London School of Economics, December 2015
Cowles Foundation, Yale University, November 2015
Princeton University, Fall 2014

Invited Seminars and Conference Presentations

2024: NBER Economics of Supply Chains Conference; Duke; University of Texas-Austin; Office of Financial Research (U.S. Department of the Treasury); Northeastern University; Chinese University of Hong Kong; Hong Kong University of Science and Technology.

2023: Yale; NBER Summer Institute; Wharton Finance; Deutsche Bundesbank; Swiss National Bank; University of Zürich; Bocconi; 8th European Network Conference (Central European University); CEPR European Summer Symposium in Financial Markets (Gerzensee).

2022: Conference in Memory of the Work of Emmanuel Farhi (Collège de France); Carnegie-Rochester-NYU Conference on Public Policy (Carnegie Mellon University); Columbia; Cowles Trade Day (Yale); Virginia Tech; Georgetown; Amazon (Supply Chain Optimization Technologies Seminar); Institute for Mathematical and Statistical Innovation (IMSI); BFI Conference on Network Science and Economics; Networks in Macro and Trade International Economics Mini-Conference (Notre Dame); WU Vienna; Cancun Derivatives Workshop.

2021: Princeton; University of Wisconsin-Madison; NBER Monetary Economics Program Meeting; Macroeconomics and Monetary Policy Conference (Federal Reserve Bank of San Francisco); Bank of Finland-CEPR Joint Conference on New Avenues for Monetary Policy; University of Zürich; ETH Zürich.

2020: University of Rochester; Imperial College Business School; ERC/LBS/CEPR Conference on Granularity and Applications; Virtual Finance Theory Seminar; NBER Behavioral Finance Fall Meeting; Cambridge-INET Networks Webinar Series; Office of Financial Research (U.S. Department of the Treasury).

2019: NBER Summer Institute; Penn Economics; UT-Austin Macro/International Conference; Workshop on Networks in the Macroeconomy (Harvard); Deutsche Bundesbank – European Central Bank Joint Spring Conference on Systemic Risk and the Macroeconomy; Federal Deposit Insurance Corporation; IFAC Workshop on Distributed Estimation and Control in Networked Systems.

2018: Cornell Economics; CEPR European Summer Symposium in Economic Theory (Gerzensee); Federal Reserve Bank of Dallas; National Bank of Belgium; University of Tokyo; Université catholique de Louvain; Kyoto University; CEMFI Summer School; McGill Finance; BI Norwegian Business School; Workshop in Economic Theory (Queen Mary, University of London); University of Wisconsin–Milwaukee.

2017: Northwestern Macroeconomics Seminar; Chicago Booth Macro Workshop; Stanford GSB Economic Theory Seminar; Kellogg MEDS; Wharton Applied Economics; Federal Reserve Bank of Minneapolis; Tepper Economics; Boston University Macro Seminar; USC Economics; Workshop on International Production Networks (Erasmus

University); Penn Workshop on Network Resilience.

2016: UCLA Economics; UCLA Anderson Finance; Bocconi Decision Sciences; Chicago Booth; Dartmouth Tuck; Yale SOM; UCL Economics; Duke Fuqua; Yale Institute for Network Science; NBER Summer Institute; Workshop on Information and Social Economics (Caltech); Granularity of Macroeconomic Fluctuations Workshop (Banque de France); Society for Economic Dynamics Annual Meeting (Toulouse); CEPR European Summer Symposium in International Macroeconomics (Bank of Finland); IESE Business School; Universitat Pompeu Fabra; Workshop on Networks in Trade and Macroeconomics (University of Cambridge); European Meeting on Networks (Aix-Marseille School of Economics); Impact of Uncertainty Shocks on the Global Economy Workshop (UCL); Second Annual Conference on Network Science in Economics (Stanford); Federal Reserve Bank of Cleveland; Copenhagen Business School; The Econometric Society North American Winter Meeting (San Francisco); Risk Management & Insurance Department, Georgia State University.

2015: Yale Economics; Edinburgh Economics; NYU Stern; Paul Woolley Center Seminar, LSE; Cornell ORIE Colloquium; Wharton Conference on Liquidity and Financial Crises; Wharton Workshop on Empirical Research in Operations Management; Data, Algorithms, and Problems on Graphs Workshop (Columbia Institute of Data Sciences); Society for Economic Dynamics Annual Meeting (Warsaw); Workshop on Networks and Systemic Risk (University of Pennsylvania); CEMFI Summer School; Adam Smith Workshops in Asset Pricing and Corporate Finance (LSE); Federal Reserve Bank of Philadelphia; Institute for New Economic Thinking; Systemic Risk and Financial Networks Workshop (UCLA); Rotman School of Management, University of Toronto; The Center for Financial and Risk Analytics Seminar, Stanford; Tepper Finance Seminar.

2014: Columbia Economic Theory Seminar; University of Wisconsin–Madison Economic Theory Seminar; Systemic Risk: Models and Mechanisms Workshop (University of Cambridge); Learning in Social Networks Workshop (IESE Business School); Workshop on the Economics and Mathematics of Systemic Risk (University of British Columbia); Oxford-Man Institute of Quantitative Finance, University of Oxford; Federal Deposit Insurance Corporation; Enhancing Prudential Standards in Financial Regulations Conference (Federal Reserve Bank of Philadelphia); PPSRC-CEPR Conference on Financial Stability and Regulation (IESE Business School); Center for Latin American Monetary Studies (CEMLA).

2013: Networks in Macroeconomics and Finance Conference (Becker-Friedman Institute, U. Chicago); Center for Financial Innovation and Stability (Federal Reserve Bank of Atlanta); Economic Networks and Banking Conference (LSE); Federal Reserve Board of Governors; London Business School; Penn State Economics; European Meeting on Economics (Central European University).

2012: Chicago Booth; Stanford GSB; Systemic Risk Conference (House of Finance, Goethe University); Penn Networked & Social Systems Engineering Seminar.

2011: Columbia Business School; NYU Stern; Wharton; University of California–San Diego; Draper Laboratory, Cambridge, MA.

2010: Duke Fuqua; Rensselaer Polytechnic Institute.

2009: University of California – Santa Barbara.

Professional Service

Referee: AEJ: Macro, AEJ: Micro, American Economic Review, AER: Insights, Econometrica, International Economic Review, Economic Letters, IMF Economic Review, International Journal of Central Banking, Journal of Economic Theory, Journal of Political Economy, Journal of Political Economy Macroeconomics, Journal of Econometrics, Journal

of the European Economic Association, Journal of Economic Dynamics and Control, Journal of Finance, Journal of Finance, Journal of Economics Behavior & Organization, Journal of Law, Economics & Organization, Journal of International Trade & Economic Development, Management Science, Operations Research, Operations Research Letters, Proceedings of the National Academy of Sciences, Quarterly Journal of Economics, Review of Economic Studies, Review of Finance, Review of Financial Studies, Theoretical Economics.

Co-Organizer: Transatlantic Theory Workshop (2018, 2022); LSE Workshop on Networks in Macro & Finance (2017); Economic Networks and Finance Conference, London School of Economics (2016).

Program Committee Member: Federal Reserve Board Conference on The Interconnectedness of Financial Systems (2024, 2021, 2019); Society for Economic Dynamics Annual Meeting (2019, 2020, 2021); FRB Cleveland/OFR/FSOC Conference on Financial Stability: Markets and Spillovers (2018); ACM Conference on Economics and Computation EC'16 (2016); Workshop on Social and Information Networks (2015); NSF/NBER/CEME Mathematical Economics and General Equilibrium Conference (2013).

Grant Reviewer: National Science Foundation; Swiss National Science Foundation.

Discussions

- Liu, Liu, Smirnyagin, and Tsyvinski, "Supply Chain Disruptions and Supplier Capital in U.S. Firms," NBER Conference on Resilience in Supply Chains, Cambridge, MA, December 2024.
- 2. Lemmers et al., "Which Products Are Traded in Your Supply Chain And How Do They Score on Risk Indicators?," NBER Conference on Resilience in Supply Chains, Cambridge, MA, December 2024.
- 3. Castro-Vincenzi, Khanna, Morales, and Pandalai-Nayar, "Weathering the Storm: Supply Chains and Climate Risk," Firm Dynamics and the Macroeconomy, Federal Reserve Bank of Atlanta, November 2024.
- 4. Balloch and Vokata, "Investment Skill of the Rich," Derivatives and Asset Pricing Conference, March 2024.
- 5. Liu and Ma, "Innovation Networks and R&D Allocation," NBER Summer Institute, July 2023.
- 6. Dávila and Schaab, "Welfare Accounting," Cowles Foundation Macroeconomics Conference, June 2023.
- 7. Nozawa and Tsoy, "Over-the-Counter Markets for Non-Standardized Assets," Luiss Finance Workshop, Rome, May 2023.
- 8. Pellegrino, "Product Differentiation and Oligopoly: A Network Approach," NBER Economic Fluctuations and Growth Program Meeting, Federal Reserve Bank of San Francisco, February 2023.
- 9. Granziera and Sihvonen, "Bonds, Currencies, and Expectational Errors," Vienna Symposium on Foreign Exchange Markets, WU Vienna Research Institute for Capital Markets, August 2022
- 10. Ghassibe, "Endogenous Production Networks and Non-Linear Monetary Transmission," 12th International Research Forum on Monetary Policy, European Central Bank, May 2022.
- II. Baqaee and Farhi, "Entry vs. Rents: Aggregation with Economies of Scale," Banco de España 4th Annual Research Conference, Market Power in the Digital Age: Measurement, Causes, Consequences and Policies, September 2021.
- 12. Chang, "Collateralized Debt Networks with Lender Default," Midwest Finance Association, University of Minnesota, August 2020.
- 13. Ramirez, "Regulating Financial Networks Under Uncertainty," American Economic Association Annual Meeting, San Diego, January 2020.
- 14. Anderson, Erol, and Ordoñez, "Interbank Networks in the Shadows of the Federal Reserve Act," Advances in Macro-Finance Tepper-LAEF Conference, September 2019.
- 15. Buraschi and Tebaldi, "Asset Pricing Implications of Systemic Risk in Network Economies," Western Finance Association Conference, Huntington Beach, CA, June 2019.

- 16. Dewachter, Tielens, and Van Hove, "The Network Origins of Bank Influence: Evidence from Bank-to-Firm and Firm-to-Firm Linkages," Banco de España CEMFI Conference on Financial Stability, June 2019.
- 17. Elliott, Georg, and Hazell, "Systemic Risk-Shifting in Financial Networks," Federal Reserve Board Conference on the Interconnectedness of Financial Systems, March 2019.
- 18. Bernard, Capponi, and Stiglitz, "Bail-ins and Bail-outs: Incentives, Connectivity, and Systemic Stability," American Finance Association Annual Meeting, Atlanta, January 2019.
- 19. Baqaee and Farhi, "Misallocation and Productivity in General Equilibrium," NBER Monetary Economics Program Meeting, Federal Reserve Bank of New York, March 2018.
- 20. Farboodi, Jarosch, and Shimer, "The Emergence of Market Structure," INET Financial Networks Conference, Columbia University, February 2018.
- 21. Erol, "Network Hazard and Bailouts," INET Financial Networks Conference, Columbia University, February 2018.
- 22. Peivandi and Vohra, "Instability of Centralized Markets," Econometric Society Winter Meeting, Philadelphia, January 2018.
- 23. Acemoglu and Azar, "Endogenous Production Networks," Workshop on Social and Economic Networks, Becker-Friedman Institute, University of Chicago, September 2017.
- 24. Baqaee and Farhi, "The Macroeconomic Impact of Microeconomic Shocks: Beyond Hulten's Theorem," LSE Workshop on Networks in Macro & Finance, London School of Economics, June 2017.
- 25. Ozdagli and Weber, "Monetary Policy Through Production Networks: Evidence from the Stock Market," NBER Monetary Economics Program Meeting, Federal Reserve Bank of New York, March 2016.
- 26. Leister, "Information Acquisition and Response in Peer-Effect Networks," Third Economic Networks and Finance Conference, London School of Economics, December 2015.
- 27. Golub and Morris, "Consensus Expectations and Conventions," Workshop on Information Frictions and Learning, Barcelona Graduate School of Economics Summer School, June 2015.
- 28. Colliard, "Optimal Supervisory Architecture and Financial Integration in a Banking Union," Conference on Bank Performance, Financial Stability and the Real Economy, Center for Studies in Economics and Finance, Capri, Italy, June 2015.
- 29. Birge and Wu, "Supply Chain Network Structure and Firm Returns," Manufacturing & Service Operations Management SIG Conference, Toronto, ON, June 2015.
- 30. Bigio and La'O, "Financial Frictions in Production Networks," Institute for New Economic Thinking, New York, NY, April 2015.
- 31. Carvalho and Voigtländer, "Input Diffusion and the Evolution of Production Networks," NBER EFJK Growth Group Meeting, Federal Reserve Bank of San Francisco, February 2015.
- 32. Alter, Craig, and Raupach, "Centrality-Based Capital Allocations and Bailout Funds," Policies for Macroeconomic and Financial Stability, Annual *International Journal of Central Banking* Research Conference, Federal Reserve Bank of Philadelphia, September 2014.
- 33. Bouchard St-Amant, "Network Rigidities and the Business Cycle," Institute for New Economic Thinking, New York, NY, April 2014.
- 34. Elliott, Golub, and Jackson, "Financial Networks and Contagion," Becker-Friedman Institute Macro Financial Modeling and Macroeconomic Fragility Conference, Cambridge, MA, October 2013.

Student Supervision

Advisor/Co-advisor: Thomas Pellet (Bloomberg, 2023), Gowtham Tangirala (2021), Yaarit Even (Amazon, 2020), Davide Crapis (LyFt, 2016).

Doctoral Dissertation Committee Member: Shaowen Luo (Virgina Tech, 2016), Kai Yuan (Two Sigma, 2017), Chen Chen (2014), Pooya Molavi (MIT Economics PhD, 2013), Bar Ifrach (AirBnB, 2012).

Outside Activities

Instructor, CEMFI Summer School (2015, 2018, 2021).