CURRICULUM VITAE

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PROFESSIONAL EXPERIENCE HIGHLIGHTS

- Former Deputy Director of the Bureau of Economics at the Federal Trade Commission and Chief of the Economic Regulatory Section at the Department of Justice's Antitrust Division.
- Economic expert on several antitrust and litigation matters:
 - Breach of contract and exclusive dealing involving a healthcare product (arbitration report on behalf of a private client);
 - Class action lawsuit involving automobile suppliers (expert report and testimony on behalf of a private client);
 - CoStar-RentPath merger (expert report on behalf of the FTC in preparation for June 2021 trial; parties abandoned the transaction);
 - Dupont-Dow merger (expert report on behalf of Dupont regarding common ownership issues, submitted to the European Commission);
 - Hertz-Dollar Thrifty merger (expert report on behalf of the FTC);
 - Nestle-Dreyers merger (expert report on behalf of the FTC);
 - o International arbitration involving joint venture dispute in a heavy equipment industry (expert report on behalf of a Fortune 500 client);
 - Vertical merger in healthcare (expert report on behalf of Fortune 500 health insurance company).
- Taught economics at Northwestern University, the University of Michigan, Georgetown Law School, the University of Verona, Kelley School of Business, UC Berkeley, and the CRESSE Summer School.
- Published academic articles in leading journals, including the *American Economic Review*, *Antitrust Law Journal*, *Journal of Economic Theory*, *The Rand Journal of Economics*, *American Economic Journal: Microeconomics*, among others. Articles on vertical restraints, critical loss, and common ownership have had substantial influence.
- Invited speaker at hearings before the FTC on vertical merger guidelines and common ownership and before the OECD on common ownership.

EDUCATION:

June 1989, *Ph.D. in Economics*, Northwestern University

June 1986, M.A. in Economics, Northwestern University

June 1984, B.A. in Economics, magna cum laude, Carleton College

AREAS OF EXPERTISE:

Microeconomic Theory (strengths in Bargaining Theory, Game Theory), Industrial Organization, Applied Econometrics, Antitrust & Regulation, Managerial Economics & Business Strategy

PROFESSIONAL EXPERIENCE:

- 2025 Present, Senior Consultant, Econic Partners
- 2020 Adjunct Professor, UC Berkeley
- 2019 2024, Senior Consultant, Compass Lexecon
- 2017 2019, Executive Vice President, Compass Lexecon
- 2016 2017, Partner, Bates White Economic Consulting
- 2007 2016, Economist and Senior Economic Policy Advisor, U.S. Federal Trade Commission
- 2014 2015, *Visiting Professor of Business Economics*, Business Economics & Public Policy Department, Kelley School of Business, Indiana University
- 2005 2007, Chief, Economic Regulatory Section, U.S. Department of Justice, Antitrust Division
- 2005, Assistant Director for Consumer Protection, U.S. Federal Trade Commission
- 2002 2005, Economist, Bureau of Economics, U.S. Federal Trade Commission
- 2000 2002, *Deputy Director for Antitrust*, Bureau of Economics, U.S. Federal Trade Commission
- 1998 2000, Assistant Director for Antitrust II, Bureau of Economics, U.S. Federal Trade Commission
- 1997 1997, Adjunct Professor of Law, Georgetown University
- 1995 1998, *Principal*, Charles River Associates
- 1995, Vice President, Econsult Corporation
- 1992 1995, Economist, U.S. Department of Justice, Antitrust Division
- 1989 1992, Assistant Professor of Economics, The University of Michigan
- 1985 1989, Lecturer in Economics, Northwestern University
- 1986, Consultant, Rand Corporation
- 1985, Research Assistant, U.S. Federal Trade Commission

PUBLICATIONS AND PAPERS (Many available at www.microfoudations.com):

- "Commitment to Expand: A New Procompetitive Effect of Airline Alliances," with Mark Israel, Mimeo, June, 2024.
- "Lessons from Foreclosure Parables: The Need to Tether Vertical Merger Analysis," with Mark Israel, March 2024 Available at SSRN: https://ssrn.com/abstract=4726861.
- "Cheap Exclusion in Markets with Multiple Complements," with Mark Israel and Erica Benton, *Journal of Industrial Economics*, 89, July 2023, p. 102982.
- "The DOJ and FTC's RVI on Merger Enforcement Brief Commentary on Labor Market

- Effects, Non-Price Effects, and the Relevance of the Impact of Mergers on Rivals, Antitrust Report 1-22, (LexisNexis Inc., May 2022).
- "Tethering Vertical Merger Analysis," CPI Antitrust Chronical, April 2022.
- "Vertical Mergers with Bilateral Contracts and Upstream and Downstream Investment," with Mark Israel, September 2021, Available at SSRN: https://ssrn.com/abstract=3886048.
- "The Economics of Vertical Restraints in Digital Markets," in *The Global Antitrust Institute Report on the Digital Economy*, The Global Antitrust Institute, Fairfax, VA, 2020.
- "The Competitive Effects of Common Ownership: Theory, Applications, and Mis-Applications, *Antitrust Chronicle*, Competition Policy International, May 21, 2019.
- "Privacy Economics: Survey of the Literature and Implications for Public Policy," with Rodrigo Montez, FTC Hearings, Federal Trade Commission, Docket ID FTC-2019-0032, June 30, 2019.
- "Agency Pricing and Bargaining: Evidence from the E-Book Market," with Babur De los Santos and Matthijs Wildenbeest, Matthijs (October 1, 2018). NET Institute Working Paper No. 18-14; Kelley School of Business Research Paper No. 18-90. Available at SSRN: https://ssrn.com/abstract=3267073.
- "Tying, Bundling, and Double Marginalization," with Greg Shaffer (April 18, 2018). Available at SSRN: https://ssrn.com/abstract=3165280.
- "All-units Discounts and Double Moral Hazard," *Journal of Economic Theory*, 170, July 2017, 1-28.
- The Competitive Effects of Common Ownership: Ten Points on the Current State of Play, Hearing on Common Ownership by Institutional Investors and its Impact on Competition, OECD, December 13, 2017.
- "Conditional Pricing Practices: A Short Primer," with Patrick DeGraba and Patrick Greenlee, FTC Working Paper, September 2017, available at https://papers.ssrn.com/sol3/papers.cfm?abstract id=3039548.
- "The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence," working paper, July 2017, available at papers.ssrn.com/sol3/papers.cfm?abstract id=3008331.
- "Price-Concentration Analysis: Ending the Myth and Moving Forward," working paper, July 2017, available at https://papers.ssrn.com/sol3/papers.cfm?abstract id=3008326.
- "The Competitive Effects of Common Ownership: We Know Less Than We Think," *Antitrust Law Journal*, 81, No 3, 2017, 729-776.
- "How Group Purchasing Organizations Reduce Healthcare Procurement Costs in a Highly Competitive Market (with Jon Liebowitz and Russell Anello), *The Antitrust Source*, June 2017.
- "Anticompetitive Effects of Common Ownership: Overview of the Theory, and Review of the Empirical Findings of Azar et al.," Transportation, Energy & Antitrust, American Bar Association, Fall 2015, 3-17.

- "The Economics of Gaming and Gaming Regulation: Foundations and Research Questions," mimeo, March 2015.
- "Disclosure as Product Design: When Conveying Information Affects the User Experience," with Joshua D. Wright, mimeo, October 2014.
- "Privacy in Online Markets: A Welfare Analysis of Demand Rotations," with Doug Smith, FTC Bureau of Economics Working Paper, July 2014
- "The Welfare Effects of Third-Degree Price Discrimination In Intermediate Good Markets: The Case of Bargaining," RAND Journal of Economics, 45(1), Spring 2014, 92-115.
- "The Welfare Effects of Use-or-Lose Provisions in Markets with Dominant Firms," with Ian Gale, American Economic Journal: Microeconomics, 5, February 2013, 175-193.
- "Competing for Shelf Space with Share-Based Discounts," mimeo, FTC Bureau of Economics, December 2011.
- "The Antitrust Treatment of Vertical Restraints: Beyond the Possibility Theorems," in *The Pros and Cons of Vertical Restraints*, Konkurrensverket, Swedish Competition Authority, Stockholm 2008.
- "Reply to Winter's 'Vertical Restraints and Antitrust Policy: A Reaction to Cooper, Froeb, O'Brien, and Vita'," with James Cooper, Luke Froeb, and Michael Vita, *Competition Policy International*, 2, Spring 2006, 189-193.
- "Bargaining, Bundling, and Clout: The Portfolio Effects of Horizontal Mergers," with Greg Shaffer, *RAND Journal of Economics*, 36, Autumn 2005, 573-595.
- "Vertical Antitrust Policy as a Problem of Inference," with James Cooper, Luke Froeb, and Michael Vita, *International Journal of Industrial Organization*, 23, 2005, 639-664.
- "Vertical Restrictions and Antitrust Policy: What About the Evidence?" with James Cooper, Luke Froeb, Michael Vita, *Competition Policy International*, 1:2, 2005.
- "A Comparative Study of United States and European Union Approaches to Vertical Policy," with James Cooper, Luke Froeb, and Michael Vita, *George Mason Law Review*, 13, Winter 2005, 289-308.
- "Issues in Scanner Data," with Daniel Hosken, Michael Vita, and David Scheffman, in *ABA Section of Antitrust Law: Econometrics (2005)*, previously titled "Demand Estimation and its Application to Horizontal Merger Analysis," FTC Bureau of Economics Working Paper No. 245.
- "Does Price Discrimination Intensify Competition? Implications for Antitrust," with James Cooper, Luke Froeb, and Steven Tschantz, *Antitrust Law Journal*, 72:2, 2004.
- "The State of Critical Loss Analysis: Reply to Scheffman and Simons," with Abraham Wickelgren, *The Antitrust Source*, March 2004.
- "A Critical Analysis of Critical Loss Analysis," with Abraham Wickelgren, *Antitrust Law Journal*, 71, 2003.
- "The Antitrust Implications of Capacity Reallocation By A Dominant Firm," with Ian Gale, *Journal of Industrial Economics*, 49:2, June 2001, 137-160.

- "Comments on The Microsoft Antitrust Case," *Journal of Industry Competition & Trade*, 1:1, March 2001, 53-61.
- "The Competitive Effects of Passive Minority Equity Interests: Comment on Dubrow," with Steven C. Salop, *Antitrust Law Journal*, 69:2, 2001, 611-625.
- "Competitive Effects of Partial Ownership: Financial Interest and Corporate Control," with Steven C. Salop, *Antitrust Law Journal*, 67:3, 2000, 559-613.
- "Introduction to the Economic Foundations of Antitrust," in *Antitrust Fundamentals*: DC 98, Section of Antitrust Law, American Bar Association, 1998.
- "Analyzing Vertical and Horizontal Cross Ownership in Cable Television: The Time Warner-Turner Merger (1996)," with Stanley M. Besen, E. Jane Murdoch, Steven C. Salop, and John R. Woodbury, in Kwoka, J. and L. White eds., *The Antitrust Revolution: The Role of Economics*, Oxford University Press, 1998.
- "Non-linear Contracts, Foreclosure, and Exclusive Dealing," with Greg Shaffer, *Journal of Economics & Management Strategy*, 6:4, Winter 1997, 755-785.
- "The Welfare Effects of Forbidding Discriminatory Discounts: A Secondary Line Analysis of Robinson-Patman," with Greg Shaffer, *Journal of Law, Economics and Organization*, 10:2, 1994.
- "The Existence of Pareto Superior Price Limits," with Laura E. Kodres, *American Economic Review*, 84, September 1994, 919-932.
- "On the Dampening-of-Competition Effect of Exclusive Dealing," with Greg Shaffer, *Journal of Industrial Economics*, 41, June 1993, 215-221.
- "Vertical Control With Bilateral Contracts," with Greg Shaffer, *RAND Journal of Economics*, 23, Autumn 1992, 299-308.
- "Comment on 'Quid-Pro-Quo Restraint and Spurious Injury: Subsidies and the Prospects of CVDs' by Michael P. Leidy," in Deardorff, A. and R. Stern, *Analytical and Negotiating Issues in the Global Trading System*, The University of Michigan Press, Ann Arbor, 1994.
- "Vertical Integration," in *The Magill Survey of Social Science*, Salem Press, 1991.
- "Regulating By Manipulating Bargaining Power: Price Discrimination Policy In International Telecommunications," mimeo, June 1990.

SELECTED WORK IN PROGRESS:

Tying and Bundling in Intermediate Good Markets

Vertical Mergers

Bargaining over Price and Discrete Non-Price Terms (e.g., Vertical Restraints)

TEACHING EXPERIENCE:

Industrial Organization and Public Policy, University of California, Berkeley Advanced Short Course on Vertical Mergers, CRESSE Summer School, Locations in Greece Managerial Economics, MBA Students, Kelley School of Business, Indiana Univ.

Business Enterprise and Public Policy, Undergraduates, Kelley School of Business, Indiana Univ. The Economics of Vertical Restraints, Ph.D. Students, University of Verona

Economics for Lawyers, FTC Attorneys

Quantitative Methods for Lawyers, Second-Year Law Students, Georgetown Univ.

Industrial Organization and Public Policy I and II, Graduate Level, Univ. of Michigan Government Regulation of Industry, Graduate and Undergraduate Level, Univ. of Michigan Microeconomic Theory, Graduate Level Teaching Assistant, Northwestern University Intermediate Microeconomics, Undergraduate Level, Northwestern University

CONFERENCE AND SEMINAR PRESENTATIONS:

Selected Presentations

"Commitment to Expand: A New Procompetitive Effect of Airline Alliances"

- Presentation at 7th UNIBG Industrial Organization Winter Symposium, December 2024.
- Presentation at CRESSE Conference, Chania, Greece, July 2024.

"The Modern General Counsel: Navigating the Evolving M&A and Regulatory Landscape," Wall Street Journal/FTI panel, New York, NY, June 2024

"Misguided Foreclosure Parables: Tethering Vertical Merger Analysis to Get Back on Track"

- Presentation at 2024 IIOC Meetings, Boston, MA, May 2024.
- Presentation at 6th UNIBG Industrial Organization Winter Symposium, December 2023.

"Vertical Merger Analysis: Weaknesses of Simplified Approaches, and Solutions."

- Keynote speech at the Shandong U-CRESSE International Conference on Competition Policy Jinan City, China, September 11-12, 2023.
- Presentation at CRESSE-Lingnan International Conference on Competition Policy, September 7-8, 2023, Centre for Competition Policy and Regulation (CCPR), Lingnan University, Hong Kong.

"Vertical Mergers: New Enforcement Perspectives and the US Guidelines," Presentation at CRESSE Conference, Rhodes, Greece, July 2023.

"Competition Policy and Labour Markets," Session Chair and Presentation at CRESSE Conference, Rhodes, Greece, July 2023.

"Cheap Exclusion in Markets with Multiple Complements," April, 2022

- Presentation at 2023 IIOC Meetings, Washington, DC, May 2023.
- Presentation at CRESSE Conference, Heraklion, Crete, July, 2022.

"Nascent Competition, Nascent Acquisitions," Presentation at USC Webinar on Nascent Competition, November, 2022.

"Vertical Mergers in Markets with Bilateral Contracting and Upstream and Downstream Investment," Presentation at 2022 IIOC Meetings, Boston, MA, May, 2022.

"Tethering Vertical Merger Analysis," Brown Bag Presentation, Axinn, Veltrop & Harkrider, February 2022.

IBRAC 25th International Seminar on Competition Policy, Campinas, Brazil, November 7, 2019.

- "Roundtable with Foreign Speakers"
- "New Perspectives for Vertical Merger Analysis: Challenges in the Application of Remedies and Use of Quantitative Methods".

- "Loyalty Pricing and Exclusivity FTC vs Surescript, American Bar Association Panel Discussion, Washington, D.C. August 19, 2019.
- "Price Discrimination Policy in Intermediate Markets," Keynote Speech, Bergen Competition Policy Conference 2019, Bergen Center for Competition Law and Economics, Bergen, Norway, April 25, 2019.
- "Common Ownership: The Evidence," Presentation at U.S. Federal Trade Commission Hearings on Competition and Consumer Protection in the 21st Century, U.S. Washington, D.C., December 6, 2018.
- "Common Ownership: Theory, Applications, and Mis-Applications," Presentation at U.S. Federal Trade Commission Hearings on Competition and Consumer Protection in the 21st Century, U.S. Washington, D.C., December 6, 2018.
- "Cross Holdings in the Crosshairs; the Potential Anticompetitive Impact of Industry Focused Minority Shareholdings," American Bar Association Panel Discussion, Washington, D.C., October 3, 2018.
- "Is it Time for New Vertical Merger Guidelines," Presentation at U.S. Federal Trade Commission Hearings on Competition and Consumer Protection in the 21st Century, U.S. Washington, D.C., September 13, 2018.
- "Tying, Bundling, and Double Marginalization," Presentation, CRESSE Conference, Heraklion, Crete, July 1, 2018.
- "Is There a Problem with Increased Concentration," Panel Discussion, CRESSE Conference, Heraklion, Crete, July 1, 2018.
- "The Competitive Effects of Common Ownership: Ten Points on the Current State of Play," OECD Hearing on Common Ownership by institutional investors and its impact on competition, December 6, 2017, Paris, France.
- "The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence", July 2017.
 - Presentation at 2017 Academic and Practitioner Symposium on Mutual Funds and ETS, Darden School of Business, Washington, D.C., September 29, 2017.
 - Presentation to the Bureau of Economics, US Federal Trade Commission, September 28, 2017.
 - Presentation at Harvard Economics Seminar, September 11, 2017.
- "The Competitive Effects of Common Ownership: We Know Less Than We Think," Presentation, CRESSE Conference, Heraklion, Crete, June 30, 2017.
- "User Data and Platform Competition," Discussant, CRESSE Conference, Heraklion, Crete, June 30, 2017.
- "Remedies: When Are They a Possible Solution to Merger Harm?" Moderator, panel discussion, 2017 Hal White Antitrust Conference, Bates White, Washington, DC, June 12, 2017.
- "Pricing Conduct Counseling Part 2: Conditional Pricing/Loyalty Discounts." Presentation and panel discussion, Pricing Conduct Counseling teleconference series, American Bar Association, May 22, 2017.

- "The Best Use of Evidence: The Economist Perspective." Presentation and panel discussion, 4th Annual New York Conference, GCR Live, New York, NY, November 7, 2016.
- "Common Ownership by Institutional Investors," Presentation at New York State Bar Association, Executive Committee Meeting, June 15, 2016.
- "Antitrust Lessons for Privacy Regulators," Moderator, Roundtable Discussion, George Mason Law Review's 19th Annual Antitrust Symposium: Antitrust in an Interconnected World, February 18, 2016
- "Privacy in Online Markets: A Welfare Analysis of Demand Rotations," Presentation at the International IO Conference, April 16, 2016.
 - Presentation at the Sixth Annual Searle Center Conference on Internet Search and Innovation, June 4-5, 2015.
 - Presentation at the Royal Economic Society Conference, Manchester, UK, March 31, 2015.
 - Presentation at Simon School of Business, University Rochester, scheduled for January 6, 2015.
 - Presentation at Northwestern University Center for the Study of Industrial Organization, Northwestern University, December 2014.
 - Presentation at Purdue University Economics Seminar, Purdue University, November 2014.
 - Presentation at Business Economics and Public Policy Brownbag, Kelley School of Business, September 2014.
- "Multichannel Distribution: Experimentation, Innovation, and Enforcement," Presentation and Panel Discussion at the CRA Annual Brussels Conference, December 9, 2015.
- "Tying, Bundling, and Bundled Discounts," Presentation at University of British Columbia Summer Conference on Industrial Organization, July 11-12, 2015.
- "All-Units Discounts and Double Moral Hazard."
 - Presentation at the 2015 Bergen Competition Policy Conference, Bergen, Norway, April 23, 2015.
 - Presentation at the Antitrust Division's Economic Analysis Group Seminar, U.S. Department of Justice, December 2013.
 - Presentation at 6th Annual Searle Center Conference on Antitrust and Competition Policy, Northwestern University, September 2013.
 - Presentation at the International IO Conference, April 2011.
- "Disclosure as Design: When Conveying Information Affects the User Experience," Presentation at University of Virginia Law School Conference Does Disclosure Have a Future?, October 2014.
- "Roundtable Discussion on the Economics of Conditional Pricing Practices," Moderator, FTC-DOJ Workshop on Conditional Pricing Practices, Federal Trade Commission, Washington, DC, June 2014.
- "Privacy Economics," Presentation at the University of Nevada, Reno, Economics Seminar, January 2014.
- "An Experimental Approach to Merger Evaluation," by Christopher Conlon and Julie Mortimer, Discussant at the 6th Annual FTC Microeconomics Conference, U.S. Federal Trade Commission, November 2013.
- "Public Policy Toward Minority Shareholdings and Joint Ventures," Presentation at New York State Bar Association Antitrust Section Summer Program, July 2013.

- "Public Policy Toward Vertical Practices," Presentation at the Bates White 10th Annual Antitrust Conference, June 2013.
- "Loyalty Discounts," Presentation to Authorities from the Competition Commission of India, Washington DC, 2012.
- "Merger Policy with Merger Choice," by Volker Nolke and Michael Whinston, Discussant, Northwestern/Duke/Texas Conference on IO Theory, October 2010.
- "The Antitrust Treatment of Vertical Restraints: Beyond the Possibility Theorems."
 - Presentation to the Bureau of Economics at the U.S. Federal Trade Commission, Spring 2009.
 - Presentation to the Swedish Competition Authority on the Pros and Cons of Vertical Restraints, November 2008.
- "Single Firm Conduct: RPM/ET and ED/Market Share Discounts," Presentation to the DOJ Antitrust Conference for Foreign Visitors, May 2007.
- "Why Buyer Power is Different Than Seller Power," Presentation to the Competition Law Forum, Brussels, March 2007.
- "Bargaining, Bundling, and Clout: The Portfolio Effects of Horizontal Mergers."
 - Presentation to Antitrust Division, EAG Discussion Group on Buyer Power, December 2006.
 - Presentation at Drexel University Applied Micro Seminar, December 2004.
 - Presentation at the International IO Conference, April 2004.
 - Presentation to the Southern Economic Association Meetings, November 2002.
- "Group Purchasing, Nonlinear Tariffs, and Oligopoly," by Huanxing Yang and Howard Marvel, Discussant, Northwestern/Duke/Texas Conference on IO Theory, October 2006.
- "Inferring the Effects of Vertical Integration and Restraints," Presentation to European Commission Economic Advisory Group on Competition Policy, Brussels, October 2004.
- "The Vertical Merger Guidelines: Is it Time to Revise?," Presentation to the George Mason Conference on Antitrust and Consumer Protection, March 2004.
- "Vertical Integration, Exclusive Dealing, and Ex Post Cartelization," by Youngmin Chen and Michael Riordan, Discussant at the Northwestern/Duke/Texas Conference on IO Theory for, November 2003.
- "The Role of Econometrics in Antitrust," Presentation to Charles River Associates Conference on Current Topics in Merger and Antitrust Enforcement, October 2001.
- "A Framework for Examining the Competitive Effects of Partial Ownership," Presentation to Department of Justice Workshop on Corporate Governance, September 2000.
- "The Barnes & Noble/Ingram Proposed Merger: An Economic Analysis of Vertical Integration," Presentation to the Charles River Associates Conference on Antitrust, October 1999.
- "Network Externalities: Blurring the Lines of Antitrust and Regulation?," Presentation to the Society of Government Economists, July 15, 1998.
- "Introduction to the Economic Foundations of Antitrust," Teacher, Antitrust Fundamentals Course, ABA Meetings, Washington, D.C., April 1, 1998.
- "Differentiated Products Merger Analysis: Integrating Structural and Simulation Approaches," Presentation to the Charles River Associates Conference on Mergers, Washington, D.C., Fall, 1996.

"The New Economics of Vertical Restraints: Coordinated, Strategic, and Unilateral Vertical Effects," Presentation to the American Bar Association, ABA Meetings, Washington, D.C. Spring 1996.

Other Presentations

Florida Public Service Commission, Tallahassee, Florida

U.S. Department of Justice, Washington, D.C.

Florida Public Service Commission, Tallahassee, Florida

U.S. Department of Justice, Washington, D.C.

U.S. General Accounting Office, Washington, D.C.

American Finance Association Winter Meetings, New Orleans

Telecommunications Policy Research Conference, Washington, D.C.

Securities and Exchange Commission, Washington, D.C.

Finance Workshop, University of Michigan

TIMS Marketing Science Conference, Wilmington, Delaware

Industrial Organization/Microeconomic Theory Workshop, University of Michigan

Policy Workshop, University of British Columbia

Microeconomics Workshop, University of Rochester

Microeconomics Workshop, University of British Columbia

Business Economics Workshop, Duke University

Microeconomics Workshop, Boston College

Microeconomics Workshop, Ohio State University

Business Economics Workshop, Indiana School of Business

Microeconomics Workshop, Pennsylvania State University

Microeconomics Workshop, Purdue University

Public Policy Workshop, Wharton School of Public Policy

Applied Microeconomics Workshop, Northwestern University

International Telecommunications Society Conference, Boston, MA

SELECTED CONSULTING AND RELATED EXPERIENCE

2024

- On behalf of NCTA Provided White paper on the FCC's Notice of Proposed Rulemaking proposing to classify broadband as a telecommunications service under Title II of the Communications Act of 1934.
- On behalf of a Group of Healthcare Providers Provided economic analysis and consulting services regarding allege collusive pricing.
- On behalf of Healthcare Product Intermediary Prepared arbitration report for a dispute regarding an exclusive dealing contract.
- On behalf of virtual Multi-Channel Video Programming Distributor Provided economic analysis and consulting services regarding the competitive effects of a proposed merger and vertical restraint.

- On behalf of a Fortune 500 Supermarket -- Provided economic analysis and consulting services regarding the competitive effects of a proposed merger.
- On behalf of a Fortune 500 semiconductor producer -- Provided economic analysis and consulting services regarding the competitive effects of a proposed merger.
- On behalf of (another) Fortune 500 semiconductor producer -- Provided economic analysis and consulting services regarding the competitive effects of a proposed merger.
- On behalf of the Computer Technology Association Provided report presenting an economic analysis and criticism of the 2023 U.S. Merger Guidelines.

2021-2023

- On behalf of Fortune 500 social media supplier Provided expert report to the DOJ.
- On behalf of a Fortune 500 hardware/software platform Provided economic analysis and consulting services regarding the competitive effects of a proposed merger.
- On behalf of a pharmaceutical manufacturer Provided economic analysis and consulting services regarding the competitive effects of a proposed merger.
- On behalf of the Healthcare Supply Chain Corp Provided economic analysis and consulting services for a submission to the FTC on the role of GPOs and PBMs in controlling healthcare costs.
- On behalf of social media platform Provided economic consulting services for advocacy before the DOJ.
- On behalf of internet search platform Provided economic consulting services for litigation by the DOJ and states.
- On behalf of onsemi Provided economic consulting services, analysis, and presentation to the FTC regarding onsemi's acquisition of GT Advanced Technologies;
- On behalf of Fortune 500 pharmaceutical company Provided economic consulting services, analysis, and presentation to FTC regarding the effects of vertical restraints on competition from biosimilars.
- On behalf of Fortune 500 semiconductor producer Provided economic consulting services, analysis, and presentation to FTC regarding effects vertical merger and contracting with a supplier of CPU intellectual property.
- On behalf of a supplier of genome sequencing Provided economic consulting services and prepared as expert regarding the effects of a proposed vertical acquisition.
- On behalf of Fortune 500 cable TV company Provided economic consulting services and analysis of the competitive effects of vertical contracting practices.
- On behalf of Fortune 500 airline Provided economic consulting services and analysis
 of the effects of domestic and international code-sharing and revenue-sharing
 agreements.

2020

- On behalf of the U.S. Federal Trade Commission Provided economic expert services and expert report regarding the proposed CoStar-RentPath merger.
- On behalf of suppliers to the automotive industry Provided economic expert services and deposition testimony on the statistical precision of damages estimate in a class action lawsuit involving several antitrust claims.
- On behalf of a Fortune 500 client in an industrial manufacturing industry Provided economic consulting services and analysis regarding the antitrust issues in a potential merger.
- On behalf of a Fortune 500 manufacturer of retail products Provided economic consulting services and analysis relating to a proposed acquisition before the FTC.

2019

- On behalf of a Fortune 500 manufacturer in a heavy equipment industry Provided economic expert services and expert report in an international arbitration involving joint venture dispute.
- On behalf of suppliers in the automotive industry Provided economic expert services and submitted an expert report on the statistical precision of damage estimates in class action lawsuit.
- On behalf of a Fortune 500 health insurance company Provided economic expert services, made several presentations to the FTC Staff and FTC Commissioners, and prepared an expert report on the effects of a potential merger involving both horizontal and vertical issues.
- On behalf of the Computer and Communications Industry Association Wrote report (with Rodrigo Montez) "Privacy Economics: Survey of the Literature and Implications for Public Policy" and submitted to the FTC as part of their Hearings on Competition and Consumer Protection in the 21st Century.
- On behalf of a suppliers to the automotive industry Provided economic consulting services and drafted and assisted expert in several presentations to the Federal Trade Commission Staff on a matter involving vertical and horizontal price and non-price restraints.
- On behalf of a supplier in the printing industry Provided economic consulting services and developed an analytical framework (a merger simulation with horizontal and vertical aspects) for analyzing the effects of proposed merger.
- On behalf of a hospital system Provided economic consulting services and expert support on a class action lawsuit involve alleged anticompetitive vertical restraints.
- *Invited participant* in two FTC Hearings on Competition and Consumer Protection in the 21st Century: the hearing on vertical merger guidelines, and the hearing on common ownership.

2016-2018

• On behalf of Dupont – Provided expert services and submitted expert report to the European Commission on common ownership issues in the Dupont-Dow merger.

- On behalf of a semiconductor manufacturer Provided expert services in a matter before the European Commission involving all-units and share-based discounts and rebates.
- On behalf of an internet domain name provider Provided expert services, wrote a white paper, and submitted and presented the white paper to the DOJ on a matter involving antitrust and regulatory issues in the allocation of internet domain names.
- On behalf of the Healthcare Supply Chain Corporation Wrote a report (with Jon Liebowitz and Russell Anello) on competition in the Group Purchasing Organizations in the healthcare industry.
- On behalf of Songkick Provided expert services and drafted sections of expert report for lead testifying expert.
- On behalf of a private equity group Provided economic consulting services and advice about the antitrust implications of potential mergers.

Pre-2016

- On behalf of the U.S. Federal Trade Commission Provided expert consulting services and expert report for the Nestle-Dreyers proposed merger (case ultimately settled);
- On behalf of the U.S. Federal Trade Commission Provided expert consulting services and expert report for the Hertz-Dollar Thrifty proposed merger (case ultimately settled);
- On behalf of a broadcast television station Provided expert report to the Federal Communications Commission: "An Economic Analysis of The Efficiency Benefits of Newspaper-Broadcast Station Cross-Ownership."
- On behalf of an academic publisher Provided economic consulting services regarding antitrust issues raised in a proposed merger with another academic publisher. Drafted and assisted presentation before the Antitrust Division of the Department of Justice.
- On behalf of TCI Developed a simulation model predicting the price effects of a change in partial ownership among cable and satellite television companies.
- On behalf of TCI Wrote expert report and presented to the Federal Communications Commission: "An Economic Analysis of the Competitive Effects of TCI's Proposed Expanded Ownership Interest In HSNi."
- On behalf of Proctor & Gamble Provided expert services, econometric analysis of demand, and presentation to the Antitrust Division of the Department of Justice for a proposed merger between producers of health and beauty aids.
- On behalf of Exide Provided expert analysis for investigation of potential acquisition of competing provider of lead acid batteries.
- On behalf of the Antitrust Division of the U.S. Department of Justice Provided expert analysis for investigation of collusion among members of the National Automobile Dealers Association.
- On behalf of the Antitrust Division of the U.S. Department of Justice Provided expert consulting services for the exclusive dealing case involving Dentsply.
- On behalf of the Antitrust Division of the U.S. Department of Justice Consultant to the Ministry of Finance in the Czech Republic on optimal price-cap regulation following the privatization of state-owned SPT Telecom.

SELECTED POLICY WORKSHOPS AND CONFERENCES ORGANIZED:

"Developing and Administering a Merger Policy for Peruvian Competition," Peruvian Competition Authority, Lima, Peru, December 2011.

Panelist, Fordham Competition Law Institute's 38th Annual Conference on International Antitrust Law and Policy, September 2011.

"Economics of Competition Policy," Egyptian Competition Authority and American University in Cairo, Cairo, Egypt, November 2010.

"Economics of Mergers," Jeju Island, South Korea, Summer 2008.

1st Annual FTC Microeconomics Conference, November 2008.

Meetings with Brazilian antitrust authorities, Brasilia, Brazil, May 2005.

Meetings of the European Commission Economic Advisory Group on Competition Policy, Brussels, Belgium, October 2004.

"Vertical Restraints," Week Long Workshop for the Competition Authorities of the Andean Community, Lima, Peru, April 2004.

SELECTED PROFESSIONAL ACTIVITIES:

CRESSE Associate (Competition and Regulation European Summer School)

Policy Board, Journal of Industry, Competition and Trade

American Economic Association

American Bar Association

International Telecommunications Society

SELECTED HONORS AND FELLOWSHIPS:

Antitrust Writing Award, Economics, Concurrences, 2018

Winner of the *Francis Walker Award*, given to an FTC economist demonstrating sustained excellent performance, 2004

Outstanding Performance Review, U.S. Federal Trade Commission, 1999 – 2004; 2007 – 2016

Outstanding Performance Review, U.S. Department of Justice, 1993 – 1995; 2005 – 2006

Outstanding Paper Award, Telecommunications Policy Research Conference, Airlie, VA, October 1988

Alfred P. Sloan Foundation Doctoral Dissertation Fellowship, 1987 – 1988

General Electric Dissertation Year Transportation Fellowship, Northwestern University Transportation Center, 1987 – 1988

Phi Beta Kappa

Departmental Distinction, Preliminary Exam, Department of Economics, Northwestern University

Departmental Distinction, Department of Economics, Carleton College

REFEREE SERVICES:

Quarterly Journal of Economics

American Economic Review

Review of Economic Studies

Journal of Economic Theory

Rand Journal of Economics

American Economic Journal: Microeconomics

European Economic Review

International Journal of Industrial Organization

Journal of Industrial Economics

Journal of Law and Economics

Journal of Law, Economics and Organization

Journal of Economics and Management Strategy

Journal of Industry, Competition, & Trade

Antitrust Law Journal

Law and Economics Review

Review of Industrial Organization

Economics Letters