

# MARIUS SCHWARTZ

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## EDUCATION

University of California, Los Angeles: Ph.D. in Economics, September 1982  
University of California, Los Angeles: M.A. in Economics, March 1978  
London School of Economics: B.Sc. in Economics (1st Class Honors), August 1976

## PROFESSIONAL EXPERIENCE

### Georgetown University, Department of Economics

Professor, June 1993–present  
Associate Professor, August 1987–May 1993  
Assistant Professor, January 1983–July 1987 (part time in fall 1982)

Excellence in Undergraduate Teaching Award, Economics Department, 2001 and 2010  
Director of Graduate Studies: spring 1993–spring 1995

Courses Taught: *Graduate*—Industrial Organization, Microeconomics for executives and policy makers, Macroeconomic Theory I and II, Monetary Policy. *Undergraduate*—Antitrust, Industrial Organization, Mergers & Corporate Control, Microeconomics (Principles, and Intermediate), Topics in Competition and Regulation, International Economics, Macroeconomic Theory

### U.S. Federal Communications Commission

**Chief Economist**, June 2011–December 2012

Work included: Level 3/Global Crossing merger, Universal Service reform, Verizon/SpectrumCo transaction

### President's Council of Economic Advisers

**Senior Staff Economist**, June 1995–May 1996 (part-time consultant April & May 1995, June 1996)

Served as the senior economist responsible for antitrust, regulated industries, and other industrial organization matters. Work included: Telecommunications Act of 1996, competition in international satellite services, competition in the electric utility industry, reforming the patent and trademark office, intellectual property rights, international trade disputes, health care.

### U.S. Department of Justice, Antitrust Division

**Acting Deputy Assistant Attorney General for Economics**, January 1999–June 1999

**Economics Director of Enforcement**, September 1998–April 2000

In these positions, I was responsible for overseeing economic analysis at the Antitrust Division of numerous mergers and non-merger matters in various industries, including:

*Mergers & Joint Ventures*—Ameritech/SBC, Bell Atlantic/GTE, AT&T/BT, Cargill/Continental, Aetna/Prudential, CBS/Viacom

*Monopolization*—suit against American Airlines for predatory pricing

*Regulatory*—Bell entry into long-distance telecommunications services

**Outside Expert for DOJ — publicly disclosed cases** (consulting for other parties available on request)

*UPM-Raflatac/Bemis-MACtac* merger, 2003—testified at trial

*News Corp-DirectTV* partial acquisition, 2003

*General Electric/Honeywell* merger, 2000-2001

*WorldCom/Sprint* merger, 2000 (economic expert on the Internet backbone issues)

*Bell entry, 1996–1997*—DOJ’s outside economic expert on Bell entry into long-distance services under section 271 of the Telecommunications Act, and submitted two affidavits to the FCC

**Economist**, January 1983–May 1995 (part-time), October 1980–December 1982 (full-time).

*Expert Testimony*: Presented written and oral court testimony in successful challenges of merger and of consent decree

*Mergers*: Investigated mergers in several industries and helped to design appropriate relief

*Business Practices*: investigated vertical-restraints (tying, exclusive dealing, resale price maintenance, exclusive territories) and horizontal conduct (collusion and predation)

*Legislation, Congressional Matters, Division Reports*: Provided input to Antitrust Division’s Horizontal Merger Guidelines (1992) and Vertical Restraints Guidelines (1984). Helped draft Division comments on various Congressional legislation and drafted responses to inquiries in several areas, including price discrimination and dealer termination.

*Cooperation with Foreign Competition Authorities*: Subjects included predatory pricing, price discrimination, distribution systems, sole import distributorships, joint R&D, and the interaction between trade and competition policies

## **Other Professional Experience**

Antitrust Academic Writing Awards, Concurrences Review and George Washington University Law School, Academic Steering Committee member (since 2016)

Compass Lexecon, Senior Consultant (since April 2015)

*Review of Network Economics*, Editorial Board Member (2009-present)

International Competition Network, Merger Working Group, Academic Co-Chair (2009-2011)

U.S. Federal Trade Commission: Consultant (2010)

Bates White LLC, Senior Academic Affiliate (2007-2015)

New Zealand Commerce Commission: Consultant (2005-6)

Consultant in private antitrust and regulatory matters—details and references available on request

OECD: Lecturer in Seminar on Vertical Restraints for competition officials from Czech Republic, Hungary, Poland, and Slovakia in Cracow, Poland, November 20-22, 1995

ILADES: Participated in designing and teaching a short course in industrial organization to policy makers and executives in Santiago, Chile, June 1994

Pew Freedom Fellows Program: Taught short course in microeconomics to twenty Fellows from transition economies, annually, January 1993–1999. (Fellows hold middle-level or upper-level positions in government and private business.)

Center for Economic Development, Slovakia: Academic Advisory Board

World Bank: Consultant

Abt Associates/USAID: Advised Government of Zimbabwe in Harare on formulating antitrust law, summer 1993 (consultant to Abt, work funded by USAID's Implementing Policy Change Project)

## LANGUAGES

French, Hebrew, Romanian (speak and read Hebrew fluently; proficient in French and Romanian)

## HONORS

International Journal of Industrial Organization, Certificate of Reviewing Excellence, 2014  
Georgetown University, Department of Economics: Excellence in Undergraduate Teaching Award, 2001 and 2010

U.S. Department of Justice, Antitrust Division: Special Achievement Awards

Brookings Institution: Research Fellow, 1979-1980

University of California, Los Angeles: Earhart Fellowship, 1977-1978

University of California, Los Angeles: Regents Fellowship, 1976-1977

London School of Economics: Premchand Prize in Monetary Economics, 1976

## PUBLICATIONS

### Refereed Journals

“Strategic Incentives When Supplying to Rivals with an Application to Vertical Firm Structure,” (with Serge Moresi), *International Journal of Industrial Organization*, 51, issue C, (March 2017): 137-161. Pre-publication version available at: <<https://ssrn.com/abstract=2890503>>

“Churn vs. Diversion in Antitrust: An Illustrative Model,” (with Yongmin Chen), *Economica*, 83, issue 332 (2016): 564-583. <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2837131##](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2837131##)>

“Differential Pricing When Costs Differ: A Welfare Analysis,” (with Yongmin Chen), *RAND Journal of Economics*, 46, issue 2 (2015): 442-460.

“Product Innovation Incentives: Monopoly vs. Competition,” (with Yongmin Chen), *Journal of Economics & Management Strategy*, 22, issue 3 (2013): 513-528.

- “Economics at the FCC 2011-2012: Spectrum Incentive Auctions, Universal Service and Inter-carrier Compensation Reform, and Mergers,” (with Evan Kwerel and Paul Lafontaine) *Review of Industrial Organization*, 41, issue 4 (2012): 271-302. Also available at: <[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2195386](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2195386)>
- “Reforming Telecom Regulation: An Essay Review of Nuechterlein and Weiser’s *Digital Crossroads*,” *Review of Network Economics*, 7 (2008): 415-447.
- “Compatibility Incentives of a Large Network Facing Multiple Rivals,” (with David Malueg), *Journal of Industrial Economics*, 54 (2006): 527-567. <<http://ssrn.com/abstract=876084>>
- “The No Surcharge Rule and Card User Rebates: Vertical Control by a Payment Network,” (with Daniel Vincent), *Review of Network Economics*, 5 (2006): 72-102.
- “Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity: Reply,” (with R. Preston McAfee), *American Economic Review*, 94 (2004): 802–803.
- “International Telecom Settlements: Gaming Incentives, Carrier Alliances, and Pareto-Superior Reform,” (with David Malueg), *Journal of Industrial Economics*, 49 (2001): 335-377.
- “The Economic Logic for Conditioning Bell Entry into Long Distance on the Prior Opening of Local Markets,” *Journal of Regulatory Economics (Practitioners’ Section)*, 18, no. 3 (2000): 247-288.
- “A Quality-Signaling Rationale for Aftermarket Tying,” (with Gregory J. Werden), *Antitrust Law Journal*, 64 (1996): 387-404.
- “The Non-Existence of Pairwise-Proof Equilibrium,” (with R. Preston McAfee), *Economics Letters*, 49 (1995): 251-259
- “Equity as a Call Option on Assets: Some Tests for Failed Banks,” (with Behzad Diba, Chia-Hsiang Guo), *Economics Letters*, 48 (1995): 389-397.
- “Parallel Imports, Demand Dispersion, and International Price Discrimination,” (with David Malueg), *Journal of International Economics*, 37 (1994): 167-195.
- “Opportunism in Multilateral Vertical Contracting: Nondiscrimination, Exclusivity, and Uniformity,” (with R. Preston McAfee), *American Economic Review*, 84 (1994): 210–230.
- “Preemptive Investment, Toehold Entry, and the Mimicking Principle,” (with David Malueg), *RAND Journal of Economics*, 22 (1991): 1–13.
- “Patent Protection through Discriminatory Exclusion of Imports,” *Review of Industrial Organization*, 6, no. 3 (1991): 231–246.
- “Third-Degree Price Discrimination and Output: Generalizing a Welfare Result,” *American Economic Review*, 80 (1990): 1259-1262.  
Reprinted in *The Economics of Price Discrimination*, George Norman Ed., Elgar Press, 1999.  
Reprinted in *Readings in Microeconomic Theory*, Manfredi La Manna Ed., Dryden Press, 1997.
- “Investments in Oligopoly: Welfare Effects and Tests for Predation,” *Oxford Economic Papers*, 41 (1989): 698-719.
- “Entry Deterrence Externalities and Relative Firm Size,” (with Michael Baumann), *International Journal of Industrial Organization*, 6 (1988): 181-197.
- “The Competitive Effects of Vertical Agreements: Comment,” *American Economic Review*, 77 (1987): 1063-1068.

- “The Nature and Scope of Contestability Theory,” *Oxford Economic Papers*, 38 Supplement (1986): 37-57.  
This issue of the journal was published in parallel as *Strategic Behavior and Industrial Competition*, Morris et al. Eds., Oxford University Press, 1986.
- “The Perverse Effects of the Robinson-Patman Act,” *Antitrust Bulletin*, 31 (1986): 733-757.
- “Divisionalization and Entry Deterrence,” (with Earl Thompson), *Quarterly Journal of Economics*, 101 (1986): 307-321.
- “*Illinois Brick* and the Deterrence of Antitrust Violations,” (with Gregory J. Werden) *Hastings Law Journal*, 35 (1984): 629-668.
- “Contestable Markets: An Uprising in the Theory of Industry Structure: Comment,” (with Robert Reynolds), *American Economic Review*, 73 (1983): 488-490.

### **Book Chapters, Monographs, and Other Publications**

- “Licensing Restrictions on Fields of Use vs. Adjacent Markets: A Potential Economic Basis for Differential Legal Treatment,” *New York University Annual Survey of American Law*, 66:3 (2011): 435-444.
- “Introduction to a Special Issue on Network Neutrality,” (with Philip Weiser), *Review of Network Economics*, 8, issue 1 (2009): 1-12.
- “Quantity ‘Forcing’ and Exclusion: Bundled Discounts and Nonlinear Pricing,” (with Daniel Vincent), in W.D. Collins, Ed., *Issues in Competition Law and Policy*, American Bar Association Antitrust Section, 2008. <<http://www.wam.umd.edu/~dvincent/abstracts.htm#qfbundle.pdf>>
- “Monopsony Concerns in Merger Review,” (with Susan M. Davies), American Bar Association Antitrust Section, Clayton Act Committee Newsletter, vol. II, no. 1, Winter 2002.
- “Conditioning the Bells’ Entry Into Long Distance: Anticompetitive Regulation or Promoting Competition?” in Giuliano Amato and Laraine L. Laudati, Eds., *The Anticompetitive Impact of Regulation*, Edward Elgar, 2001.
- “Competitor Cooperation and Exclusion in Communications Industries,” in H. Davis and R. Dick, Eds., *E-Commerce Antitrust & Trade Practices: Practical Strategies for Doing Business on the Web*, Practising Law Institute, New York, 2001.
- Discussant Comments on papers by Andrew Joskow, by Daniel Rubinfeld, and by Janusz Ordover and Margaret Guerin-Calvert, *Review of Industrial Organization*, Vol. 16 (March 2000): 219-223.
- Discussant Comments on papers by Patrick Rey and Ralph Winter and by Robert Anderson et al., in Robert D. Anderson and Nancy T. Gallini, Eds., *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*, Calgary: University of Calgary Press, 1998.
- “Telecommunications Reform in the United States: Promises and Pitfalls,” in Paul J.J. Welfens and George Yarrow, Eds., *Telecommunications and Energy in Systemic Transformation*, Heidelberg and New York: Springer, 1997.
- “Protecting Intellectual Property by Excluding Infringing Imports: An Economist's View of Section 337 of the U.S. Tariff Act,” *Patent World*, Issue 25 (September 1990): 29-35.
- Review Essay of: Jean Tirole, *The Theory of Industrial Organization*, MIT Press, 1988. *Managerial and Decision Economics*, Vol. 11 (May 1990): 131-139.

Book Review of: J. Stiglitz and F. Mathewson eds., *New Developments in the Analysis of Market Structure*, MIT Press, 1988. *Journal of Economic Literature*, Vol. 36 (March 1988): 133-135.

“Vertical Restraints,” published in German by *Forschungsinstitut für Wirtschaftsverfassung und Wettbewerb* by E.V. Köln, Heft 5, 1984.

## **DISCUSSION PAPERS AND WORK IN PROGRESS**

“Churn vs. Diversion: An Illustrative Model,” (with Yongmin Chen), Georgetown University, Department of Economics, Working Paper 15-15-07, August 2015. Latest version at: <<http://mariuschwartz.com/Home/Research.html>>

“Strategic Incentives When Supplying to Rivals,” (with Serge Moresi), Georgetown University, Department of Economics, Working Paper 15-15-05, June 2015. Latest version at: <<http://mariuschwartz.com/Home/Research.html>> also available at: <<http://ssrn.com/abstract=2890503>>

“Differential Pricing When Costs Differ: A Welfare Analysis,” (with Yongmin Chen), Georgetown University, Department of Economics, Working Paper 1301, April 2013. Revised December 2013. Latest version at: <<http://mariuschwartz.com/Home/Research.html>>

“Product Innovation Incentives: Monopoly vs. Competition,” (with Yongmin Chen), Georgetown University, Department of Economics Working Paper 09-02, April 2009, revised January 2010. <<http://econ.georgetown.edu/research/33243.html>>

“Interconnection Incentives of a Large Network Facing Multiple Rivals,” (with David Malueg), Georgetown University, Department of Economics Working Paper 03-01, January 2003. <<http://econ.georgetown.edu/research/33243.html>>

“Same Price, Cash or Card: Vertical Control in Payment Networks” (with Daniel Vincent), Georgetown University, Department of Economics Working Paper 02-01, February 2002. <<http://econ.georgetown.edu/research/33243.html>>

“Interconnection Incentives of a Large Network,” (with David Malueg), Georgetown University, Department of Economics Working Paper 01-05, revised January 2002. <<http://econ.georgetown.edu/research/33243.html>>

“Exclusive Dealing, Product Differentiation, and Rent Extraction,” in progress (with Serge Moresi and Francis O’Toole).

“Option Values of Deposit Insurance and Market Values of Net Worth: Some Evidence for U.S. Banks,” mimeo, December, 1992 (with Behzad Diba and Chia-Hsiang Guo).

“Do Sunk Costs Discourage or Encourage Collusion?” U.S. Department of Justice, Antitrust Division, EPO Discussion Paper 85-10 (September 1985).

“Signaling Equilibria Based on Sensible Beliefs: Limit Pricing Under Incomplete Information,” (with Maxim Engers), U.S. Department of Justice, Antitrust Division, EPO Discussion Paper 84-4 (May 1984).

## **ANTITRUST AND REGULATORY FILINGS & PRESENTATIONS**

“Economic Basis for Not Regulating Competitive Providers of Business Data Services,” (with Federico Mini), White Paper filed by the American Cable Association, FCC, WC 05-25, June 2016.

<[https://ecfsapi.fcc.gov/file/1062803000186/ACA\\_BDS\\_Comments\\_06282016.pdf](https://ecfsapi.fcc.gov/file/1062803000186/ACA_BDS_Comments_06282016.pdf)>

Declaration of Marius Schwartz for AT&T, In the Matter of Preserving the Open Internet, Broadband Industry Practices, FCC, GN Docket 09-191, WC Docket 07-52, January 2010.

<<http://fjallfoss.fcc.gov/ecfs/document/view?id=7020377221>>

“Comments on Potential Revisions to the Horizontal Merger Guidelines,” (with George Rozanski), submitted to FTC/DOJ, November 9, 2009.

<<http://www.ftc.gov/os/comments/horizontalmergerguides/index.shtml>>

US Magnesium, LLC v. Union Pacific Railroad Company, STB Docket No. 42114, 2009: filed on behalf of Union Pacific an Opening Statement (August 24, 2009), Reply (September 22, 2009), and Rebuttal (October 22, 2009).

“Hanging Up on *Carterfone*: The Economic Case Against Access Regulation in Mobile Wireless,” (with Federico Mini), filed by AT&T in Response to Skype Petition, FCC, RM-11261, May 2007.

<<http://ssrn.com/abstract=984240>>

Declaration of Marius Schwartz for AT&T/BellSouth in FCC, WC Docket 06-74, June 2006.

<<http://fjallfoss.fcc.gov/ecfs/document/view?id=6518360197>>

Reply Declaration of Marius Schwartz for SBC/AT&T in FCC, WC Docket 05-65, May 2005.

<<http://fjallfoss.fcc.gov/ecfs/document/view?id=6517601199>>

Declaration of Marius Schwartz for SBC/AT&T in FCC, WC Docket 05-65, February 2005.

<<http://fjallfoss.fcc.gov/ecfs/document/view?id=6517309104>>

“Should Antitrust Assess Buyer Market Power Differently than Seller Market Power?” presented at DOJ/FTC Workshop on Merger Enforcement, Washington DC, February 2004.

<<http://www.ftc.gov/bc/mergerenforce/presentations/040217schwartz.pdf>>

“The National Television Ownership Cap and Localism,” paper submitted with Comments of NAB and NASA to FCC in *2002 Biennial Regulatory Review - Review of the Commission’s Broadcast Ownership Rules and Other Rules*, FCC 02-249, Notice of Proposed Rulemaking (rel. Sep. 23, 2002), January 2, 2003 (with Daniel R. Vincent).

“Are Spectrum Limits Needed to Preserve Competition?” paper submitted on behalf of CTIA to FCC in *2000 Biennial Regulatory Review Spectrum Aggregation Limits for Commercial Mobile Radio Services*, WT Docket No. 01-14, Notice of Proposed Rulemaking (rel. Jan. 23, 2001), April 13, 2001 (with John Gale).

“The Appropriateness of Nondiscriminatory Access Regulation for Interactive Television,” paper submitted on behalf of NCTA to FCC in *Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, CS Docket No. 01-7, Notice of Inquiry (rel. Jan. 18, 2001), March 19, 2001 (with John Gale).

“Buyer Power Concerns and the *Aetna-Prudential* Merger,” Address presented at 5<sup>th</sup> Annual Health Care Antitrust Forum, Northwestern University School of Law, October 20, 1999, posted on web site of Antitrust Division, U.S. Department of Justice. <<http://www.usdoj.gov/atr/public/speeches/3924.htm>>

“Intelsat Restructuring and Comsat’s Non-Dominance: Reply to Dr. Owen and Professor Waverman,” paper filed on behalf of Comsat Corporation with the FCC, *In the Matter of Comsat Corporation Petition for Forbearance from Dominant Carrier Regulation and for Reclassification As a Non-Dominant Carrier*, (“Comsat’s Forbearance Petition”) File No. 60-SAT-ISP-97, March 1998.

“Competition in International Satellite Services: Wither INTELSAT Restructuring?” paper filed on behalf of Comsat with the FCC in Comsat’s Forbearance Petition, November 1997.

“Competitive Concerns with Gaming of the International Settlements Process under Asymmetric Liberalization of International Telecommunications and Above-Cost Settlement Rates,” Affidavit submitted on behalf of AT&T to FCC, in proceedings on *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market*, IB 97-142, November 18, 1997.

“The ‘Open Local Market Standard’ for Authorizing BOC InterLATA Entry: Reply to BOC Criticisms,” Supplemental Affidavit submitted on behalf of U.S. DOJ to FCC, with DOJ’s evaluation of following BOC applications for 271 approval: BellSouth in South Carolina, November 4, 1997 and in Louisiana, December 10, 1997.  
<[www.justice.gov/atr/public/comments/sec271/bellsouth/1281.pdf](http://www.justice.gov/atr/public/comments/sec271/bellsouth/1281.pdf)>.

“Competitive Implications of Bell Operating Company Entry into Long-Distance Telecommunications Services,” Affidavit submitted on behalf of U.S. Department of Justice (DOJ) to FCC, with DOJ’s evaluation of following BOC applications for 271 approval: SBC in Oklahoma, May 16, 1997; Ameritech in Michigan, June 25, 1997; and BellSouth in South Carolina, November 4, 1997 and in Louisiana, December 10, 1997.  
<[www.justice.gov/atr/public/comments/sec271/sbc/affiwp60.htm](http://www.justice.gov/atr/public/comments/sec271/sbc/affiwp60.htm)>

“Towards Competition in International Satellite Services: Rethinking the Role of INTELSAT,” paper distributed at OECD Ad Hoc Meeting of Experts on Competition in Satellite Services, Paris, June 1995 (with Joseph E. Stiglitz and Eric Wolff).

“Competitive Markets in Generation: Economic Theory and Public Policy,” presented at conference on “Electric Utility Restructuring: Whither Competition?” organized by International Association for Energy Economics Los Angeles Chapter, and Micronomics Inc., Los Angeles, May 1995.

## **OTHER SCHOLARLY ACTIVITIES**

### ***Seminars Presented***

Auburn University  
Bellcore  
Bureau of Competition Policy, Industry Canada  
California State University, Hayward  
Center for Strategic and International Studies  
Columbia University  
Dusseldorf Institute for Competition Economics (DICE)  
ENSAE, Paris  
Federal Reserve Bank of Philadelphia  
Georgetown University  
George Washington University  
U.S. International Trade Commission  
Israel Antitrust Authority  
Johns Hopkins University  
New York University – Economics Department  
New York University – Stern School of Business  
Northeastern University  
Pennsylvania State University  
Simon Fraser University  
Tel Aviv University – Graduate School of Business Administration  
Tel Aviv University – Law School  
Tulane University  
Toulouse School of Economics  
University of Alberta  
University of British Columbia



University of Calgary  
University of California, Davis  
University of California, Los Angeles  
University of Colorado, Boulder  
University of Illinois  
University of Maryland  
University of Missouri  
University of Montreal  
University of Pennsylvania  
University of Toronto  
University of Virginia  
U.S. Department of Justice  
U.S. Federal Communications Commission  
U.S. Federal Trade Commission

***Conferences: Speaker, Discussant, or Panelist***

- University of International Business and Economics, Workshop on Industrial Organization and Competition Policy, Beijing, China, March 2017
- Georgetown Center for Business and Public Policy, An Economic Summit: America's Digital Infrastructure 2017 and Beyond, Washington DC, September 2016
- Institute of Industrial Economics, Jinan University, International Conference on Industrial Transformation and Upgrading, Guangzhou, China, July 2016
- International Industrial Organization Conference, Philadelphia, April 2016
- Northwestern University School of Law, Eight Annual Searle Center Conference on Antitrust Economics and Competition Policy, Chicago, September 2015
- Bates White, Twelfth Annual Antitrust Conference, Washington, DC, June 2015
- Silicon Flatirons Center (University of Colorado) and Searle Center (Northwestern Law School), Cable Academic Workshop, Chicago, May 2015
- University of International Business and Economics, Workshop on Industrial Organization and Competition Policy, Beijing, China, March 2015
- DC Industrial Organization Conference, Washington, DC, March 2015
- Federal Communications Bar Association, Vertical Mergers, Washington, DC, November 2014
- Silicon Flatirons and USC Cable Workshop, Los Angeles, CA, April 2014
- DC Industrial Organization Conference, Washington, DC, March 2014
- Telecommunications Policy Research Conference, Washington, DC, September 2013
- US Army War College, 2013 Commandant's National Security Program, Carlisle, PA, July 2013
- Zhejiang University School of Economics, 2013 Conference on Industrial Economics, Hangzhou, China, June 2013
- Bates White, Tenth Annual Antitrust Conference, Washington, DC, June 2013
- International Industrial Organization Conference, Boston, May 2013
- The Interdisciplinary Centre for Competition Law and Policy (Queen Mary College, London) and Crowell & Moring LLP Annual Conference, "Trends and Developments in Global Competition Law," Brussels, May 2013
- George Mason University School of Law, "From Monopoly to Competition or Competition to Monopoly? U.S. Broadband Markets in 2013," Arlington, VA, April 2013
- Federal Communications Bar Association, Verizon/SpectrumCo: Anatomy of a Transaction, Washington, DC, January 2013
- Northwestern University School of Law, Fifth Annual Searle Center Conference on Antitrust Economics and Competition Policy, Chicago, September 2012
- Shanghai University of Finance and Economics, Workshop on IO and Competition Policy, Shanghai, China, June 2012
- Zhejiang University School of Economics, 2012 Conference on Industrial Economics, Hangzhou, China, June 2012
- International Industrial Organization Conference, Arlington, VA, March 2012
- Free State Foundation Telecommunications Symposium, Washington, DC, March 2012

- Phoenix Center for Advanced Legal & Economic Public Policy Studies, Annual U.S. Telecoms Symposium, Washington, DC, December 2011
- Bates White, Eighth Annual Antitrust Conference, Washington, DC, June 2011
- American Antitrust Institute, 11<sup>th</sup> Annual Conference, “Public and Private: Are the Boundaries in Transition,” Washington, DC, June 2010
- Bates White, Seventh Annual Antitrust Conference, Washington, DC, June 2010
- U.S. House of Representatives, Judiciary Committee, “Understanding Antitrust Debates: A Primer,” joint presentation with Professor Andy Gavil, Washington DC, March 2010
- New York University Law School, Annual Survey of American Law – 2010 Symposium: Critical Directions in Antitrust, New York, February 2010
- FTC/DOJ, Horizontal Merger Guidelines Review Project, First Workshop, Washington, DC, December 2009
- Phoenix Center for Advanced Legal & Economic Public Policy Studies, Ninth Annual U.S. Telecoms Symposium, Washington, DC, December 2009
- FCC, Broadband Competition Workshop, Washington, DC, October 2009
- Telecommunications Policy Research Conference, Washington, DC, September 2009
- Bates White, Sixth Annual Antitrust Conference, Washington, DC, June 2009
- American Bar Association, Panel Discussion on “The Google/Yahoo! Agreement and Its Implications for Future Antitrust Enforcement in Online Advertising,” Washington, DC, January 2009
- The Interdisciplinary Centre for Competition Law and Policy and Crowell & Moring LLP Annual Conference 2008, “Trends and Developments in Global Competition Law,” Brussels, May 2008
- Georgetown University Center for Business and Public Policy, “Spectrum Policy: From its Foundations to its Future,” Washington, DC, April 2008
- Bates White, Fourth Annual Antitrust Conference, Washington, DC, June 2007
- International Industrial Organization Conference, Savannah, GA, April 2007
- Georgetown University Center for Business and Public Policy, “What Economics Does and Does Not Tell Us about Net Neutrality,” Washington, DC, March 2007
- FTC, Broadband Connectivity Competition Policy Workshop, Washington, DC, February 2007
- George Mason University School of Law, “Stepping Stones or Stumbling Blocks: Lessons from the Telecom Wars,” Arlington, VA, September 2006
- Institut d’Economie Industrielle, “Competition Policy in Two-Sided Markets,” Toulouse, France, June/July 2006
- Bates White, Third Annual Antitrust Conference, Washington, DC, June 2006
- Federal Reserve Bank of New York, “Antitrust Activity in Card-Based Payment Systems: Causes and Consequences,” New York, NY, September 2005
- Institut d’Economie Industrielle, “The Economics of Electronic Communication Markets,” Toulouse, France, October 2004
- DOJ/FTC, Merger Enforcement Workshop, Washington, DC, February 2004
- Cosmos’ Club, 125<sup>th</sup> Anniversary Symposium, “The Changing Nature of Business 1878-2003,” Washington, DC, December 2004
- DOJ/FTC, Hearings on Health Care and Competition Law and Policy, Washington, DC, April 2003
- International Industrial Organization Conference, Boston, MA, April 2003
- Georgetown University McDonough School of Business, “Integration, Investment and Innovation: Future Directions for the Telecommunications Industry,” Washington, DC, February 2003
- University of Colorado School of Law, “The Regulation of Information Platforms,” Boulder, CO, January 2002
- Phoenix Center for Advanced Legal & Economic Public Policy Studies, U.S. Telecoms Symposium, Washington, DC, July 2001
- Practising Law Institute, “Antitrust and Trade Practices Issues in Cyberspace,” New York, NY, March 2001
- Telecommunications Policy Research Conference, Washington, DC, September 2000
- Schwab Capital Markets LP, Washington Research Group, “Telecom, Internet and Ecommerce Conference,” Washington, DC, September 2000
- AEI-Brookings Joint Center for Regulatory Studies and Centre for European Policy Studies, semi-annual meetings, “Experiences with Telecommunications Deregulation,” Washington, DC, April 2000
- University of Colorado School of Law, “Telecommunications After Bell Entry,” Boulder, CO, April 2000

- American Bar Association Section of Antitrust Law, 48<sup>th</sup> Annual Antitrust Spring Meeting, Washington, DC, April 2000
- Institute of the Americas, "Telecom-IT Americas '99 Conference," La Jolla, CA, November 1999
- Northwestern University School of Law, 5<sup>th</sup> Annual Health Care Antitrust Forum, Chicago, IL, October 1999
- OECD, "Regulatory Reform in Japan, Mexico, the Netherlands and the United States," Paris, France, March 1999
- Federal Communications Bar Association Competition Committee, Symposium, Washington DC, January 1999
- Conference on Current Topics in Merger and Antitrust Enforcement, Charles River Associates, Washington DC, December 1998
- Robert Schuman Centre of the European University Institute, Conference on Anticompetitive Regulation, Florence, Italy, September 1999
- American Bar Association Section of Antitrust Law, 47<sup>th</sup> Annual Antitrust Spring Meeting, Washington, DC, April 1999
- Telecommunications Policy Research Conference, Washington, DC, September 1997
- Canadian Bureau of Competition, Telecommunications seminar series, Ottawa, Canada, September 1997
- The World Bank, Competition Policy Workshop, Washington, DC, June 1997
- Federal Communications Commission, Economics of Interconnection Forum, Washington DC, May 1996
- Canadian Bureau of Competition, Authors' Symposium on Competition Policy and Intellectual Property Rights, Aylmer, Quebec, Canada, May 1996
- Electric Generation Association, Annual Meetings, West Palm Beach, FL, April 1996
- Illinois State University and the Institute of Government and Public Affairs, University of Illinois-Urbana, "Wheeling & Dealing: Opportunities and Challenges in the New Electric Industry," Chicago, April 1996
- OECD, "New Social and Economic Approaches to a Multimedia World," Symposium, Tokyo, Japan, March 1996
- Center for Economic Development, "Telecommunications and Energy Regulation in Transition Economies," Bratislava, Slovakia, October 1995
- International Association for Energy Economics Los Angeles Chapter, and Micronomics Inc., "Electric Utility Restructuring: Whither Competition?" Los Angeles, CA, May 1995
- Canadian Bureau of Competition, "New Learning on Barriers to Entry in Competition Policy," Ottawa, Canada, March 1995
- Southeastern Economic Theory Meetings, Charlottesville, VA, October 1994
- EARIE Conference, Tel Aviv, Israel, September 1993
- Midwest International Economics Meetings, Pittsburgh, PA, October 1992
- Latin American Econometric Society, Mexico City, Mexico, September 1992
- Carleton University, Conference on Industrial Organization, Ottawa, Canada, July 1991
- SUNY at Stony Brook, Workshop on Strategic and Dynamic Aspects of International Trade, Stony Brook, NY, July 1991
- AEI Conference on "Innovation, Intellectual Property and World Competition," Washington, DC, September 1990
- EARIE Conference, Lisbon, Portugal, September 1990
- Conference on International Trade and Technology, Brussels and London, November 1989
- EARIE Conference, Budapest, Hungary, August 1989
- Dundee University, Conference on Strategy and Market Structure, Dundee, Scotland, August 1988
- Stanford University Graduate School of Business, Conference on Firm Ownership and Competition, Palo Alto, CA, Business, June 1987
- EARIE Conference, Berlin, Germany, August 1986
- AEA Annual Meetings, Dallas, TX, December 1984

## ***Referee for Professional Journals***

*American Economic Review*  
*Canadian Journal of Economics*  
*Economica*  
*Economic Journal*  
*Economics Letters*  
*European Economic Review*  
*European Journal of Political Economy*  
*International Economic Review*  
*International Journal of Industrial Organization*  
*Journal of Business*  
*Journal of Business Economics*  
*Journal of Economic Behavior and Organization*  
*Journal of Economic Dynamics and Control*  
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*Journal of Industrial Economics*  
*Journal of International Economics*  
*Journal of Law & Economics*  
*Journal of Political Economy*  
*Managerial and Decision Economics*  
*Quarterly Journal of Economics*  
*Quarterly Review of Economics and Business*  
*RAND Journal of Economics*  
*Review of Industrial Organization*  
*Review of International Economics*  
*Scandinavian Journal of Economics*  
*Southern Economic Journal*

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