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**Education**

Ph.D., The John Hopkins University, 1999; M.A. 1996, Economics

B.S., Tulane University, *magna cum laude*, 1994, Economics. Dean’s Honor Scholar (full academic scholarship). Senior Scholar Prize in Economics.

**Current Position**

ECONOMISTS INCORPORATED, Washington, D.C.: Principal 2014-present.

GEORGETOWN UNIVERSITY, MCDONOUGH SCHOOL OF BUSINESS, Washington, D.C.: Adjunct Professor 2010, 2014, 2016.

GEORGE WASHINGTON UNIVERSITY, SCHOOL OF PUBLIC POLICY, GEORGE WASHINGTON INSTITUTE FOR PUBLIC POLICY, Washington, D.C.: Senior Fellow 2016-present.

**Employment History**

NAVIGANT ECONOMICS, Washington, D.C.: Managing Director, 2010-2013.

EMPIRIS, L.L.C., Washington, D.C.: Managing Partner and President, 2008-2010.

CRITERION ECONOMICS, L.L.C., Washington, D.C.: President, 2004-2008. Senior Vice President, 1999-2004.

LECG, INC., Washington, D.C.: Senior Economist, 1998-99.

U.S. SECURITIES AND EXCHANGE COMMISSION, OFFICE OF ECONOMIC ANALYSIS, Washington, D.C.: Staff Economist, 1997-98.

THE JOHNS HOPKINS UNIVERSITY, ECONOMICS DEPARTMENT, Baltimore: Teaching Assistant, 1996-98.

**Authored Books and Book Chapters**

THE NEED FOR SPEED: A NEW FRAMEWORK FOR TELECOMMUNICATIONS POLICY FOR THE 21ST CENTURY, co-authored with Robert Litan (Brookings Press 2013).

*Net Neutrality Is Bad Broadband Regulation*, co-authored with Robert Litan, in THE ECONOMISTS’ VOICE 2.0: THE FINANCIAL CRISIS, HEALTH CARE REFORM AND MORE (Aaron Edlin and Joseph Stiglitz, eds., Columbia University Press 2012).

*Valuing Life Settlements as a Real Option*, co-authored with Joseph R. Mason, in LONGEVITY TRADING AND LIFE

SETTLEMENTS (Vishaal Bhuyan ed., John Wiley & Sons 2009).

*An Antitrust Analysis of the World Trade Organization’s Decision in the U.S.-Mexico Arbitration on Telecommunications Services*, co- authored with J. Gregory Sidak, in HANDBOOK OF TRANS-ATLANTIC ANTITRUST (Philip Marsden, ed. Edward Elgar

2006).

BROADBAND IN EUROPE: HOW BRUSSELS CAN WIRE THE INFORMATION SOCIETY, co-authored with Dan Maldoom, Richard Marsden and J. Gregory Sidak (Kluwer/Springer Press 2005).

*Are Vertically Integrated DSL Providers Squeezing Unaffiliated ISPs (and Should We Care)?*, co-authored with Robert W. Crandall, in ACCESS PRICING: THEORY, PRACTICE AND EMPIRICAL EVIDENCE (Justus Haucap and Ralf Dewenter eds., Elsevier Press 2005).

**Journal Articles**

*On the Utility of Surrogates for Rule of Reason Cases,* COMPETITION POLICY INTERNATIONAL (2015), co-authored with Kevin Caves.

*Analyzing High-Tech Employee: The Dos and Don’ts of Proving (and Disproving) Classwide Antitrust Impact in Wage Suppression Cases,”* Antitrust Source (2015), co-authored with Kevin Caves.

*Econometric Tests for Analyzing Common Impact,* 26 Research in Law and Economics(2014), co-authored with Kevin Caves.

*Life After Comcast: The Economist’s Obligation to Decompose Damages Across Theories of Harm,* ANTITRUST (Spring 2014), co-authored with Kevin Caves.

*Is the U.S. Government’s Internet Policy Broken?*, 5 POLICY AND INTERNET (2013), co-authored with Robert Hahn.

*Avoiding Rent-Seeking in Secondary Market Spectrum Transactions*, 65 FEDERAL COMMUNICATIONS LAW JOURNAL (2013), co-authored with Jeffrey Eisenach.

*Vertical Integration in Multichannel Television Markets: A Study of Regional Sports Networks*, 12(1) REVIEW OF NETWORK

ECONOMICS (2013), co-authored with Kevin Caves and Chris Holt.

*Assessing Bundled and Share-Based Loyalty Rebates: Application to the Pharmaceutical Industry*, 8(4) JOURNAL OF COMPETITION LAW AND ECONOMICS (2012), co-authored with Kevin Caves.

*Lessons from Kahneman’s Thinking Fast and Slow: Does Behavioral Economics Have a Role in Antitrust Analysis?*, The

ANTITRUST SOURCE (2012), co-authored with Andrew Card.

*Assessing Competition in U.S. Wireless Markets: Review of the FCC’s Competition Reports*, 64 FEDERAL COMMUNICATIONS LAW JOURNAL (2012), co-authored with Gerald Faulhaber and Robert Hahn.

*An Empirical Analysis of Aftermarket Transactions by Hospitals*, 28 JOURNAL OF CONTEMPORARY HEALTH LAW AND

POLICY (2011), co-authored with Robert Litan and Anna Birkenbach.

*Economic Evidence of Common Impact for Class Certification in Antitrust Cases: A Two-Step Analysis*, ANTITRUST (Summer

2011).

*Addressing the Next Wave of Internet Regulation: Toward a Workable Principle for Nondiscrimination*, 4 REGULATION & GOVERNANCE (2010), co-authored with Robert Hahn and Robert Litan.

*Class Certification in Antitrust Cases: An Economic Framework*, 17 GEORGE MASON LAW REVIEW (2010), co-authored with Robert Kulick.

*The Economic Impact of Eliminating Preemption of State Consumer Protection Laws*, 12 UNIVERSITY OF PENNSYLVANIA JOURNAL OF BUSINESS LAW 781 (2010), co-authored with Joseph R. Mason and Robert B. Kulick.

*Net Neutrality Is Bad Broadband Regulation*, THE ECONOMISTS’ VOICE, Sept. 2010, co-authored with Robert Litan.

*Why the iPhone Won’t Last Forever and What the Government Should Do to Promote its Successor*, 8 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECHNOLOGY LAW 313 (2010), co-authored with Robert W. Hahn.

*What Does an Economist Have to Say About the Calculation of Reasonable Royalties?*, 14 INTELLECTUAL PROPERTY LAW

BULLETIN 7 (2010), co-authored with Kyle Smith.

*Is Greater Price Transparency Needed in the Medical Device Industry?*, HEALTH AFFAIRS (2008), co-authored with Robert W. Hahn and Keith Klovers.

*Evaluating Market Power with Two-Sided Demand and Preemptive Offers to Dissipate Monopoly Rent*, 4 JOURNAL OF COMPETITION LAW & ECONOMICS (2008), co-authored with J. Gregory Sidak.

*Assessing Bias in Patent Infringement Cases: A Review of International Trade Commission Decisions*, 21 HARVARD JOURNAL OF LAW AND TECHNOLOGY (2008), co-authored with Robert W. Hahn.

*The Effect of Incumbent Bidding in Set-Aside Auctions: An Analysis of Prices in the Closed and Open Segments of FCC Auction 35*, 32 TELECOMMUNICATIONS POLICY JOURNAL (2008), co-authored with Peter Cramton and Allan Ingraham.

*A Real-Option Approach to Valuing Life Settlement Transactions*, 23 JOURNAL OF FINANCIAL TRANSFORMATION (2008), co-authored with Joseph R. Mason.

*The Economics of Wireless Net Neutrality*, 3 JOURNAL OF COMPETITION LAW AND ECONOMICS 399 (2007), co-authored with Robert W. Hahn and Robert E Litan.

*Vertical Foreclosure in Video Programming Markets: Implication for Cable Operators*, 3 REVIEW OF NETWORK ECONOMICS

348 (2007), co-authored with J. Gregory Sidak.

*The Unintended Consequences of Net Neutrality*, 5 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECH LAW 533 (2007), co-authored with Robert E. Litan.

*Does Video Delivered Over a Telephone Network Require a Cable Franchise?*, 59 FEDERAL COMMUNICATIONS LAW

JOURNAL 251 (2007), co-authored with Robert W. Crandall and J. Gregory Sidak.

*The Competitive Effects of a Cable Television Operator’s Refusal to Carry DSL Advertising*, 2 JOURNAL OF COMPETITION LAW AND ECONOMICS 301 (2006).

*Uberregulation without Economics: The World Trade Organization’s Decision in the U.S.-Mexico Arbitration on Telecommunications Services*, 57 FEDERAL COMMUNICATIONS LAW JOURNAL 1 (2004), co-authored with J. Gregory Sidak.

*The Secondary Market for Life Insurance Policies: Uncovering Life Insurance’s “Hidden” Value*, 6 MARQUETTE ELDER’S

ADVISOR 95 (2004), co-authored with Neil A. Doherty and Brian A. O’Dea.

*Do Unbundling Policies Discourage CLEC Facilities-Based Investment?*, 4 TOPICS IN ECONOMIC ANALYSIS AND POLICY (2004), co-authored with Robert W. Crandall and Allan T. Ingraham.

*Foreign Investment Restrictions as Industrial Policy*, 3 CANADIAN JOURNAL OF LAW AND TECHNOLOGY 19 (2004), co- authored with Robert W. Crandall.

*Regulating the Secondary Market for Life Insurance Policies*, 21 JOURNAL OF INSURANCE REGULATION 63 (2003), co- authored with Neil A. Doherty.

*Interim Pricing of Local Loop Unbundling in Ireland: Epilogue*, 4 JOURNAL OF NETWORK INDUSTRIES 119 (2003), co- authored with J. Gregory Sidak.

*The Benefits of a Secondary Market for Life Insurance*, 38 REAL PROPERTY, PROBATE AND TRUST JOURNAL 449 (2003), co- authored with Neil A. Doherty.

*The Empirical Case Against Asymmetric Regulation of Broadband Internet Access*, 17 BERKELEY TECHNOLOGY LAW JOURNAL 954 (2002), co-authored with Robert W. Crandall and J. Gregory Sidak.

*How Can Regulators Set Nonarbitrary Interim Rates? The Case of Local Loop Unbundling in Ireland*, 3 JOURNAL OF NETWORK

INDUSTRIES 273 (2002), co-authored with J. Gregory Sidak.

*Vertical Foreclosure in Broadband Access*, 49 JOURNAL OF INDUSTRIAL ECONOMICS (2001) 299, co-authored with Daniel L. Rubinfeld.

*Open Access to Broadband Networks: A Case Study of the AOL/Time Warner Merger*, 16 BERKELEY TECHNOLOGY LAW JOURNAL 640 (2001), co-authored with Daniel L. Rubinfeld.

*Cable Modems and DSL: Broadband Internet Access for Residential Customers*, 91 AMERICAN ECONOMICS ASSOCIATION PAPERS AND PROCEEDINGS 302 (2001), co-authored with Jerry A. Hausman and J. Gregory Sidak.

*Residential Demand for Broadband Telecommunications and Consumer Access to Unaffiliated Internet Content Providers*, 18 YALE JOURNAL ON REGULATION 1 (2001), co-authored with Jerry A. Hausman and J. Gregory Sidak.

*Determining the Source of Inter-License Synergies in Two-Way Paging Networks*, 18 JOURNAL OF REGULATORY ECONOMICS 59 (2000).

*A General Framework for Competitive Analysis in the Wireless Industry*, 50 HASTINGS LAW REVIEW 1639 (2000), co- authored with J. Gregory Sidak and David Teece.

*Capital Raising in Offshore Markets*, 23 JOURNAL OF BUSINESS AND FINANCE 1181 (1999), co-authored with Ian Gray and Reena Aggarwal.

**Expert Testimony Since 2010**

Manmohan Dhillon et al. v. Anheuser-Busch, LLC et al. Case No. 14CECG03039 MBS (Ca. Fresno).

In re Lidoderm Antitrust Litigation, MDL Dkt. No. 14-md-02521-WHO (N.D. Ca.)

Maxon Hyundai Mazda et al. v. Carfax Inc., Case No. CV 2680 (AJN) (RLE) (S.D. N.Y.).

Philip R. Loy and Sharon Loy v. Womble Carlyle Sandridge & Rice, et al., Case No. 2014-cv-254012 (Ga. Super.).

In re MyFord Touch Consumer Litigation, Case No. 13-cv-3072-EMC (N.D. Ca.).

Sun Life Assurance Company of Canada v. U.S. Bank National Association, Case No. NO. 2:14-cv-04703-SJF-GRB (E.D. N.Y.).

Sun Life Assurance Company of Canada v. U.S. Bank National Association and Larry Bryan, Case No. 14-CIV-62610-BLOOM/VALLE (S.D. Fl.).

In the Matter of Flat Wireless, LLC, for and on behalf of its Operating Subsidiaries, v. Cellco Partnership d/b/a Verizon Wireless, and its Operating Subsidiaries, File No. EB-15-MD-005 (Federal Communications Commission).

Omni Healthcare et al. v. Health First Inc. et al, Case No. 6:13-CV-01509-RBD-DAB (M.D. Fla.).

Schuylkill Health System et al. v. Cardinal Health 200, LLC & Owens & Minor Distribution, Inc., Case No. 12-cv-07065-JS (E.D. Pa.).

Meda Pharmaceuticals Inc. v. Apotex, Inc and Apotex Corp., Case No. 01-14-0001-6315 (Am. Arbitration Ass’n).

Mark S. Wallach, et al v. Eaton Corporation, et al, Case No. 10-260-SLR (D. Del.).

STB Ex Parte No. 722 Railroad Revenue Adequacy (Surface Transportation Board).

In the Matter of 2014 Quadrennial Regulatory Review – Review of the Commission’s Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996, MB Docket No. 14-50 (Federal Communications Commission).

Lindsay Kamakahi and Justine Levy, et al v. American Society for Reproductive Medicine and Society for Assisted Reproductive Technology, Case No.: 3:11-CV-1781 JCS (N.D. Ca.).

Salud Services, Inc. et al v. Caterpillar, Inc., Case No.: 1:12-cv-23927 (S.D. Fl.).

Gnanh Nora Krouch v. Wal-Mart Stores, Inc., Case No. CV-12-2217 (N.D. Ca.).

In the Matter of Petition for Rulemaking to Eliminate the Sports Blackout Rule, MB Docket No. 12-3 (Federal Communications Commission).

In the Matter of Review of Wholesale Services and Associated Policies, File No. 8663-C12-201313601 (Canadian Radio-Television and Telecommunications Commission).

Crafting a Successful Incentive Auction: Stakeholders’ Perspectives (U.S. Senate, Committee on Commerce, Science, and Transportation).

Altergy Systems v. Enersys Delaware, Inc., Case No. 74-198-Y-001772-12 JMLE (American Arbitration Association).

In re New York City Bus Tour Antitrust Litigation, Master Case File No. 13-CV-07I1 (S.D. N.Y.).

SOCAN Tariff 22.A (Online Music Services, 2011-2013), CSI Online Music Services (2011-2013), SODRAC Tariff 6 - Online Music Services, Music Videos (2010-2013) (Copyright Board Canada).

Imperial Premium Finance, LLC, v. Sun Life Assurance Company of Canada (S.D. Fl.).

Michelle Downs and Laurie Jarrett v. Insight Communications Company, L.P., Civil Action No. 3:09-Cv-93-S (W.D. Ky.).

The Satellite Television Law: Repeal, Reauthorize, or Revise? (U.S. House of Representatives, Committee on Energy and

Commerce).

Marchbanks Truck Service, et al. v. Comdata Network Inc., et al., Civil Action No. 07-1078-JKG (E.D. Pa.).

Patricia Reiter v. Mutual Credit Corporation, et al., Case No. 8:09-cv-0081 AG (RNBx) (C.D. Ca.).

In re Photochromic Lens Antitrust Litigation, MDL Docket No. 2173 (M.D. Fl.).

In the Matter of the Arbitration Between Washington Nationals Baseball Club v. TCR Sports Broadcasting Holdings, L.L.P. (Major League Baseball Revenue Sharing Definitions Committee).

Miguel V. Pro and Davis Landscape et al. v. Hertz Equipment Rental Corporation, No. 2:06-CV-3830 (DMC) (D.N.J.).

Game Show Network, LLC v. Cablevision Systems Corp., File No. CSR-8529-P (Federal Communications Commission).

In Re Florida Cement and Concrete Antitrust Litigation, Master Docket No. 09-23493-Civ-Altonaga/Brown (S.D.Fl.).

Karen Ann Ishee Parsons et al. v. Bright House Networks, Case No. CV-09-B-0267-S (N.D. Al.).

In Re Cox Enterprises, Inc. Set-Top: Cable Television Box Antitrust Litigation, Case No. 5:09-ML-02048-C (W.D.Ok.).

Review of the Regulatory Framework Relating to Vertical Integration, Broadcasting Notice of Consultation CRTC

2010-783 (Canadian Radio-television Telecommunications Commission).

Apotex, Inc., v. Cephalon, Inc., Barr Laboratories, Inc., Mylan Laboratories, Inc., Teva Pharmaceutical Industries, Ltd., Teva Pharmaceuticals USA, Inc., Ranbaxy Laboratories, Ltd., and Ranbaxy Pharmaceuticals, Inc.,. Case No. 2:06-cv-02768-MSG (E.D. Pa.).

United States, et al. v Amgen, Inc., International Nephrology Network, et al., Civ. Action No. 06-10972-WGY (D. Mass.).

Carl Blessing et al. v. SIRIUS-XM Radio, Inc., Case No. 09-cv-10035 (HB) (S.D. N.Y.).

DISH Network L.L.C., v. Comcast Corporation, Comcast SportsNet California, Inc., Case No. 16 472 E 00211 10 (American Arbitration Association).

In Re Airline Baggage Fee Antitrust Litigation, Civil Action No. 1:09-Md-2089-Tcb (N.D. Ga.).

Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc. for Consent to Assign Licenses or Transfer Control of Licensees, MB Docket No. 10-56 (Federal Communications Commission).

T-Mobile West Corporation v. Michael M. Crow, et al., Case No: 2:08-cv-1337 PHX-NVW (D. Az.).

Metlife Insurance Company of Connecticut and General American Life Insurance Company v. Thomas Petracek, Minnesota Estate Service, Inc., Michael J. Antonello, and Michael J. Antonenllo & Associates, Ltd., No. 08-CV-06095 DSD-FLN (D. Minn).

Tennis Channel, Inc. v. Comcast Cable Communications, LLC, File No. CSR-8258 (Federal Communications Commission).

MEMdata, LLC, v. Intermountain Healthcare, Inc., and IHC Health Services, Inc., Civil No. 2:08-cv-190 (C.D. Utah).

Caroline Behrend, et al. v. Comcast Corporation, Civil Action No. 03-6604 (E.D. Pa.).

In the Matter of Distribution of the 2000-03 Copyright Royalty Funds, Dkt. No. 2008-2 CRB CD 2000-03 (Copyright Royalty Judges).

Cindy Johnson et al. v. Arizona Hospital and Health Care Association et al., Case No. 07-01292 (SRB) (D. Az.).

**White Papers**

The Empirical Link Between Fibre-to-the-Premises Deployment

and Employment: A Case Study in Canada (prepared for Bell Canada), co-authored with Kevin Caves and Anna Koyfman (Dec. 10, 2015).

Good Intentions Gone Wrong: The Yet‐To‐Be‐ Recognized Costs of the Department Of Labor’s Proposed Fiduciary Rule (prepared for Capital Group), co-authored with Robert Litan (July 2015).

Bringing Sanity Back to the Spectrum Debate: A Response to CCA’s White Paper (prepared for Mobile Future), co-authored with Allan Ingraham (June 26, 2015).

Unlocking Patents: Costs of Failure, Benefits of Success (prepared for Patent Utility) (Feb. 4, 2015).

The Consumer Benefits of Efficient Mobile Number Portability Administration (prepared for Neustar) (Mar. 8, 2013).

Economic Analysis of the Implications of Implementing EPA’s Tier 3 Rules (prepared for Emissions Control Technology Association), co-authored with George Schink (June 14, 2012).

Are Google’s Search Results Unfair or Deceptive Under Section 5 of the FTC Act? (prepared for Google), co- authored with Robert Litan (May 1, 2012).

Bundles in the Pharmaceutical Industry: A Case Study of Pediatric Vaccines (prepared for Novartis), co-authored with Kevin Caves (July 13, 2011).

Are U.S. Wireless Markets Effectively Competitive? A Critique of the FCC’s 14th and 15th Annual Wireless Competition Reports (prepared for AT&T), co-authored with Gerald R. Faulhaber, Robert W. Hahn (July 11, 2011).

Do Group Purchasing Organizations Achieve the Best Prices for Member Hospitals? An Empirical Analysis of Aftermarket Transactions (prepared for Medical Device Manufacturers Association), co-authored with Robert Litan (Oct. 6, 2010).

The Economic Impact of Broadband Investment (prepared for Broadband for America), co-authored with Robert Crandall (Feb. 23, 2010).

Why the iPhone Won’t Last Forever and What the Government Should Do to Promote Its Successor (prepared for Mobile Future), co-authored with Robert Hahn (Sept. 21, 2009).

The Economic Impact of Eliminating Preemption of State Consumer Protection Laws (prepared for the American

Bankers’ Association), co-authored with Joseph R. Mason (Aug. 21, 2009).

Economic Effects of Tax Incentives for Broadband Infrastructure Deployment (prepared for the Fiber to the Home Council), co-authored with Jeffrey Eisenach and Jeffrey West (Dec. 23, 2008).

The Effect of Brokered Deposits and Asset Growth on the Likelihood of Failure (prepared for Morgan Stanley, Citigroup, and UBS), co-authored with Joseph Mason and Jeffrey West (Dec. 17, 2008).

Estimating the Benefits and Costs of M2Z’s Proposal: Reply to Wilkie’s *Spectrum Auctions Are Not a Panacea* (prepared for CTIA), co-authored with Robert W. Hahn, Allan T. Ingraham and J. Gregory Sidak (July 23, 2008).

Irrational Expectations: Can a Regulator Credibly Commit to Removing an Unbundling Obligation? AEI-Brookings Related Publication No. 07-28, co-authored with Jeffrey Eisenach (Dec. 30, 2007)

Is Greater Price Transparency Needed in The Medical Device Industry? (prepared for Advanced Medical Technology Association), co-authored with Robert W. Hahn (Nov. 30, 2007).

Should the FCC Depart from More than a Decade of Market-Oriented Spectrum Policy? Reply to Skrzypacz and Wilson (prepared for CTIA), co-authored with Gerald Faulhaber and Robert W. Hahn (Jun. 18, 2007).

Improving Public Safety Communications: An Analysis of Alternative Approaches (prepared for the Consumer Electronics Association and the High Tech DTV Coalition), co-authored with Peter Cramton, Thomas S. Dombrowsky, Jr., Jeffrey A. Eisenach, and Allan Ingraham (Feb. 6, 2007).

The Budgetary Impact of Eliminating the GPOs’ Safe Harbor Exemption from the Anti-Kickback Statute of the Social Security Act (prepared for the Medical Device Manufacturers Association) (Dec. 20, 2005).

Reply to “The Life Settlements Market: An Actuarial Perspective on Consumer Economic Value” (prepared for Coventry First), co-authored with Eric Stallard (Nov. 15, 2005).

The Competitive Effects of Telephone Entry into Video Markets (prepared for the Internet Innovation Alliance), co-authored with Robert W. Crandall and J. Gregory Sidak (Nov. 9, 2005).

How Do Consumers and the Auto Industry Respond to Changes in Exhaust Emission and Fuel Economy Standards? A Critique of Burke, Abeles, and Chen (prepared for General Motors Corp.), co-authored with Robert W. Crandall and Allan T. Ingraham (Sept. 21, 2004).

Inter-City Competition for Retail Trade in North Texas: Can a TIF Generate Incremental Tax Receipts for the City of Dallas? (prepared for Harvest Partners), co-authored with Thomas G. Thibodeau and Allan T. Ingraham (July 16, 2004).

An Accurate Scorecard of the Telecommunications Act of 1996: Rejoinder to the Phoenix Center Study No. 7 (prepared for BellSouth), co-authored with Robert Crandall (Jan. 6, 2004).

Competition in Broadband Provision and Implications for Regulatory Policy (prepared for the Alcatel, British Telecom, Deutsche Telekom, Ericsson, France Telecom, Siemens, Telefónica de España, and Telecom Italia), co- authored with Dan Maldoom, Richard Marsden, and Gregory Sidak (Oct. 15, 2003).

The Effect of Ubiquitous Broadband Adoption on Investment, Jobs, and the U.S. Economy (prepared for Verizon), co-authored with Robert W. Crandall (Sept. 17, 2003).

The Deleterious Effect of Extending the Unbundling Regime on Telecommunications Investment (prepared for BellSouth), co-authored with Robert W. Crandall (July 10, 2003).

Letter Concerning Spectrum Auction 35 to the Honorable Michael K. Powell, Chairman, Federal Communications Commission, from Peter C. Cramton, Robert W. Crandall, Robert W. Hahn, Robert G. Harris, Jerry A. Hausman, Thomas W. Hazlett, Douglas G. Lichtman, Paul W. MacAvoy, Paul R. Milgrom, Richard Schmalensee, J. Gregory Sidak, Hal J. Singer, Vernon L. Smith, William Taylor, and David J. Teece (Aug. 16, 2002).

**Speaking Engagements**

*DOL Rule Analysis and FSR’s SIMPLE PTE Explained,* FINANCIAL SERVICES ROUNDTABLE, Washington, D.C., Aug. 6, 2015.

*New Principles for a Progressive Broadband Policy,* PROGRESSIVE POLICY INSTITUTE, Washington, D.C., Mar. 13, 2014.

*The Open Internet: Where Do We Go From Here?* PROGRESSIVE POLICY INSTITUTE, Washington, D.C., Jan. 29, 2014.

*Does Platform Competition Render Common Carriage Irrelevant in an IP world?* PROGRESSIVE POLICY INSTITUTE, Washington, D.C. Nov. 20, 2013.

*The 41st Research Conference on Communication, Information and Internet Policy*, Telecommunications Policy Research Conference, George Mason University School of Law, Arlington, VA, September 27, 2013.

*The Broadband Technology Explosion: Rethinking Communications Policy for a Mobile Broadband World*, Pepperdine School of Public Policy, Menlo Park, CA. June 20, 2013.

*Net Neutrality: Government Overreach or the Key to Innovation?*, NORTHWESTERN JOURNAL OF TECHNOLOGY AND

INTELLECTUAL PROPERTY EIGHTH ANNUAL SYMPOSIUM, Chicago, IL., Mar. 8, 2013.

*Internet Everywhere: Broadband as a Catalyst for the Digital Economy*, The Brookings Institution, Washington, D.C., Nov.

27, 2012.

*Can Broadband Power an Economic Recovery?*, Advanced Communications Law & Policy Institute at New York Law

School, Washington, D.C., July 10, 2012.

*Using Regression in Antitrust Cases*, UNIVERSITY OF PENNSYLVANIA LAW SCHOOL, Philadelphia, PA., April 12, 2012.

*Mergers: The Road to Duopoly or Path to Competitive Panacea?* NATIONAL ASSOCIATION OF REGULATORY UTILITY

COMMISSIONERS, Los Angeles, CA., July 20, 2011.

*State of the Mobile Net*, CONGRESSIONAL INTERNET CAUCUS, Washington, D.C., May 27, 2011.

*Waves of Innovation: Spectrum Allocation in the Age of the Mobile Internet*, INFORMATION TECHNOLOGY & INNOVATION FOUNDATION, Washington D.C., May 17, 2011.

*With or Without Merit, Class Certification Requires Commonality*, ABA SECTION OF ANTITRUST LAW 59TH ANNUAL

SPRING MEETING, Washington, D.C., Mar. 30, 2011.

*4th Annual Future of Private Antitrust Enforcement Conference*, AMERICAN ANTITRUST INSTITUTE, Washington, D.C., Dec. 7, 2010.

*Jobs and Technology*, NEW DEMOCRATIC LEADERSHIP COUNCIL, Washington, D.C., Sept. 22, 2010.

*Regulation and Broadband*, ADVANCED COMMUNICATIONS LAW & POLICY INSTITUTE, NEW YORK LAW SCHOOL, New York, N.Y., July 14, 2010.

*13th Annual Symposium on Antitrust*, GEORGE MASON LAW REVIEW, Washington, D.C., Feb. 4, 2010.

*Broadband Infrastructure and Net Neutrality*, ADVISORY COMMITTEE TO THE CONGRESSIONAL INTERNET CAUCUS’ STATE OF THE NET, Washington, D.C., Jan. 22, 2010.

*The Consequences of Net Neutrality Regulations*, AMERICAN CONSUMER INSTITUTE CENTER FOR CITIZEN RESEARCH, Washington, D.C., Nov. 19, 2009.

*Wireless Innovation Luncheon*, MOBILE FUTURE, Washington, D.C., Nov. 3, 2009.

*Second Life Settlements & Longevity Summit*, INSURANCE-LINKED SECURITIES & LIFE SETTLEMENTS, New York, N.Y., Sept. 30, 2009.

*Perspectives on Investment and a National Broadband Plan*, AMERICAN CONSUMER INSTITUTE, Washington, D.C., Sept. 4, 2009.

*Markets and Regulation: How Do We Best Serve Customers?*, Wireless U. Communications Policy Seminar, UNIVERSITY OF FLORIDA PUBLIC UTILITY RESEARCH CENTER, Tampa, FL., Nov. 13, 2008.

*The Price Of Medical Technology: Are We Getting What We Pay For?* HEALTH AFFAIRS BRIEFING, Washington, D.C., Nov. 10, 2008.

*Standard Setting and Patent Pools*, LAW SEMINARS INTERNATIONAL, Arlington, VA., Oct. 3, 2008.

*The Changing Structure of the Telecommunications Industry and the New Role of Regulation*, INTERNATIONAL TELECOMMUNICATIONS SOCIETY BIENNIAL CONFERENCE, Montreal, Canada, June 26, 2008.

*The Debate Over Network Management: An Economic Perspective*, AMERICAN ENTERPRISE INSTITUTE CENTER FOR REGULATORY AND MARKET STUDIES, Washington, D.C., Apr. 2, 2008.

*Merger Policy in High-Tech Industries*, GEORGE MASON UNIVERSITY SCHOOL OF LAW, Washington, D.C., Feb. 1, 2008.

*Telecommunications Symposium*, U.S. DEPARTMENT OF JUSTICE ANTITRUST DIVISION, Washington, D.C., Nov. 29,

2007.

*Wireless Practice Luncheon*, FEDERAL COMMUNICATIONS BAR ASSOCIATION, Washington, D.C., Nov. 29, 2007.

*Association for Computing Machinery’s Net Neutrality Symposium*, GEORGE WASHINGTON UNIVERSITY, Washington, D.C., Nov. 12, 2007.

*Regulators’ AdvanceComm Summit*, NEW YORK LAW SCHOOL, New York, N.Y., Oct. 14, 2007.

*Annual Conference*, CAPACITY USA 2007, New York, N.Y., Jun. 26, 2007.

*William Pitt Debating Union*, UNIVERSITY OF PITTSBURGH, SCHOOL OF ARTS & SCIENCES, Pittsburgh, PA., Feb. 23,

2007.

*Annual Conference*, WIRELESS COMMUNICATIONS ASSOCIATION INTERNATIONAL, Washington, D.C., June 27, 2006.

*Annual Conference*, MEDICAL DEVICE MANUFACTURERS ASSOCIATION, Washington, D.C., June 14, 2006.

*Annual Conference*, ASSOCIATION FOR ADVANCED LIFE UNDERWRITING, Washington, D.C., May 1, 2006.

*Entrepreneur Lecture Series*, LAFAYETTE COLLEGE, Easton, PA., Nov. 14, 2005.

**Editorials and Magazine Articles**

*The Future of Net Neutrality: What Will the Court Decide,* FOREIGN AFFAIRS, Mar. 16, 2016, co-authored with Robert Litan.

*Obama’s Big Ideas for Small Saves: ‘Robo’ Financial Advice,* WALL STREET JOURNAL, July 21, 2015, co-authored with Robert Litan.

*How the FCC Will Wreck the Internet,* WALL STREET JOURNAL,May 28, 2015

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Managerial and Decision Economics

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