

## **Richard Schmalensee**

**Howard W. Johnson Professor of Management, Emeritus  
Dean Emeritus, MIT Sloan School of Management  
Professor of Economics, Emeritus  
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### **EDUCATION:**

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
S.B., Economics, Politics and Science, 1965  
Ph.D., Economics, 1970

### **EMPLOYMENT:**

MASSACHUSETTS INSTITUTE OF TECHNOLOGY  
2012- Howard W. Johnson Professor of Management, Emeritus, and  
Professor of Economics, Emeritus  
2007-12 Howard W. Johnson Professor of Management  
2001-07 John C Head III Dean, MIT Sloan School of Management  
1998-00 Dean, MIT Sloan School of Management (Interim, July-October 1998)  
1996-98 Deputy Dean, MIT Sloan School of Management  
1991-99, Director, MIT Center for Energy and Environmental Policy Research  
2008-12  
1988-99 Gordon Y Billard Professor of Management  
1986-12 Professor, Department of Economics  
1979-12 Professor, MIT Sloan School of Management  
1977-79 Associate Professor, MIT Sloan School of Management  
1970 Assistant Professor, MIT Sloan School of Management (Spring)  
1967-69 Instructor, MIT Sloan School of Management  
PRESIDENT'S COUNCIL OF ECONOMIC ADVISERS  
1989-91 Member  
1967 Junior Staff Economist (Summer)  
UNIVERSITY OF CALIFORNIA, SAN DIEGO  
1974-77 Associate Professor, Department of Economics  
1970-74 Assistant Professor, Department of Economics

### **VISITING APPOINTMENTS:**

2008 Executive in Residence, Rady School of Management; U. of California, San Diego (Winter)  
2007 Distinguished Visiting Scholar, Tuck School of Business, Dartmouth College (Fall)  
1985-86 Visiting Professor, Harvard Business School  
1985 Visiting Professor, CORE, University of Louvain, Belgium (Spring)  
1980-81 Visiting Scholar, Department of Economics, Harvard University  
1973-74 Visiting Associate Professor and Research Fellow, Department of Economics,  
University of Louvain, Belgium

## **EDITORIAL SERVICE:**

Editor in Chief, 2005-08; Chairman, Editorial Advisory Board, 2008-: *Competition Policy International*  
Editorial Board: *Journal of Economics and Management Strategy*, 1992-98  
Associate Editor: *Journal of Economic Perspectives*, 1992-98  
Associate Editor: *International Journal of Industrial Organization*, 1982-89  
Board of Editors: *American Economic Review*, 1982-86  
Founding Editor, 1978-89; Co-Editor, 1989-: MIT Press Series, *Regulation of Economic Activity*  
Associate Editor, 1977-81; Board of Editors, 1981-89: *Journal of Industrial Economics*

## **PROFESSIONAL ASSOCIATIONS:**

American Economic Association: Committee on Government Relations, 2009-12; Executive Committee, 1993-95; Budget Committee, 1993-95; Nominating Committee, 1987; Advisory Committee on Meetings Program, 1986, 1989, 1994  
Econometric Society: Chair, Local Arrangements Committee, 1985 World Congress; Chair, Program Committee, 1980 North American Fall Meeting; Program Committee, 1980 World Congress  
Second World Congress of Environmental Economists, Program Committee, 2002

## **CONSULTATION AND GOVERNMENT SERVICE (SELECTED):**

Global Economics Group, Director, 2011-  
National Climate Assessment Development & Advisory Committee, 2011-14  
LECG, LLC: Director, 2004-2011  
National Academies/National Research Council: Panel on Transportation and a Sustainable Environment, 1994-97; Committee on National Statistics, 1998-2001; Panel on Cost-of-Living Indexes, 1999-2001; Coordinating Committee on the Transition to Sustainability, 2000-2001; Committee on America's Climate Choices, 2008-2011; Committee for a Study of Freight Rail Transportation and Regulation (Chair), 2014-15; Committee on the Social Cost of Carbon, 2015-  
U.S. Environmental Protection Agency: Environmental Economics Advisory Committee, 1992-96, 1998; Clean Air Act Compliance Analysis Council, 1992-98, Chairman 1992-96  
Antitrust Division, U.S. Department of Justice, consultant, 1991-92 (1992 Merger Guidelines)  
NERA Economic Consulting: Special Consultant 1981-89, 1991-2004  
Bureau of Economics, U.S. Federal Trade Commission: consultant, 1972-81 (Antitrust Policy)

## **AWARDS AND OTHER PROFESSIONAL ACTIVITIES (SELECTED):**

Asia School of Business, Board of Governors, 2015- (Co-Chair 2015-18)  
Associate Scholar, Harvard Environmental Economics Program, 2013-  
Director, National Bureau of Economic Research, 2013- (Executive Committee 2018-)  
Chicago Booth IGM Economic Experts Panel, 2012-  
Distinguished Fellow, Industrial Organization Society, 2012  
John Kuszczek Memorial Lecture, Bank of Canada, 2011  
Energy Board Member, Bipartisan Policy Center, 2011-13  
Stackelberg Lecture, University of Milan, Bicocca, 2010  
Keynote Speaker, World Congress of Environmental and Resource Economists, 2010  
Director, Resources for the Future, 2009-18 (Chairman, 2014-18)  
Master Class, Rafael del Pino Foundation, Madrid, 2009  
Carpenter Lecture, Babson College, 2008  
J.-J. Laffont Lecture, CRESSE Summer School, Greece, 2008  
Member, National Commission on Energy Policy, 2006-2010

Director, International Data Group, 2004-2017  
 European Investment Bank Lecture, European University Institute, Florence, 2002  
 Director, MFS Investment Management, 2002-2004  
 Advisory Council, Tsinghua School of Economics and Management, 2001-07  
 Fathauer Lecture in Political Economy, University of Arizona, 2000  
 Director, International Securities Exchange, 2000-2009  
 Member: International Academy of Management, 1998-  
 Fellow: American Academy of Arts and Sciences, 1995-  
 Edward A. Hewett Prize, American Association for the Advancement of Slavic Studies (with P.L. Joskow and N. Tsukanova), 1995  
*Revista de Análisis Económico* Lecture, Econometric Society Latin American Meeting, 1994  
 Director, MIT Press, 1994-2007  
 Research Associate: National Bureau of Economic Research, 1992-2013  
 Director: Long Island Lighting Company, 1992-98  
 Donald Gilbert Memorial Lecture, University of Rochester, 1992  
 American Council for Capital Formation Center for Policy Research: Board of Directors, 1991-2010;  
 Environmental Policy Fellow, 1997-98  
 Fellow, Econometric Society, 1982-  
 Invited Speaker, Econometric Society World Congress, 1980

#### **BOOKS WRITTEN:**

*The Economics of Advertising* (Vol. 80, Contributions to Economic Analysis), Amsterdam: North-Holland, 1972.

*Applied Microeconomics: Problems in Estimation, Forecasting and Decision-Making*, San Francisco: Holden-Day, 1973.

*An Introduction to Applied Macroeconomics* (with E. Kuh), Amsterdam: North-Holland, 1973. Japanese edition, 1975.

*The Control of Natural Monopolies*, Lexington: D.C. Heath (Lexington Books), 1979.

*Markets for Power: An Analysis of Electric Utility Deregulation* (with P. L. Joskow), Cambridge: MIT Press, 1983.

*Economics*, 2nd Ed. (with S. Fischer and R. Dornbusch), New York: McGraw-Hill, 1988. Multiple foreign language editions.

*Paying with Plastic: The Digital Revolution in Buying and Borrowing* (with D.S. Evans), Cambridge: MIT Press, 1999. Second edition, 2005; Chinese edition, 2006; Korean edition, 2011.

*Markets for Clean Air: The U.S. Acid Rain Program* (with A.D. Ellerman, P.L. Joskow, J.P. Montero, and E.M. Bailey), Cambridge: Cambridge University Press, 2000.

*Did Microsoft Harm Consumers? Two Opposing Views* (with D.S. Evans; F.M. Fisher and D.L. Rubinfeld), Washington: AEI Press, 2000.

*Invisible Engines: How Software Platforms Drive Innovation and Create Value* (with D.S. Evans and A. Hagiu), Cambridge: MIT Press, 2006. Korean edition, 2008; Chinese edition, 2010.

*Catalyst Code* (with D.S. Evans), Boston: Harvard Business School Press, 2007. Korean edition, 2008; Polish edition, 2010; Chinese edition, 2011.

*Matchmakers* (with D.S. Evans), Boston: Harvard Business School Press, 2016. French and Korean editions 2017, Chinese and Japanese editions 2018, Vietnamese edition 2019.

*Antitrust Analysis of Platform Markets: Why the Supreme Court Got It Right in American Express* (with D.S. Evans), Boston: Competition Policy International, 2019.

## **REPORTS CHAIRED**

*The Future of the Electric Grid* (with J.G. Kassakian), Cambridge: MIT Energy Initiative, 2011.

*The Future of Solar Energy*, Cambridge: MIT Energy Initiative, 2015.

*Modernizing Freight Rail Regulation*, Washington: Transportation Research Board, 2015.

## **BOOKS EDITED:**

*The Empirical Renaissance in Industrial Economics* (ed., with T. F. Bresnahan), Oxford: Basil Blackwell, 1987.

*Handbook of Industrial Organization, Vols. I & II* (ed., with R. D. Willig), Amsterdam: North-Holland, 1989.

*Management: Inventing and Delivering Its Future* (ed., with T.A. Kochan), Cambridge: MIT Press, 2003. Chinese and Korean editions, 2004.

*Harnessing Renewable Energy in Electric Power Systems* (ed., with B. Moselle and J. Padilla), Washington/London: RFF Press, 2010.

*The Causes and Effects of Deregulation. (2 Vols., ed., with P.W. MacAvoy)*, Cheltenham, UK: Edward Elgar, 2014.

## **JOURNAL ARTICLES:**

"Regulation and the Durability of Goods." *Bell Journal of Economics and Management Science*, 1 (Spring 1970): 54-64.

"Consumer's Surplus and Producer's Goods." *American Economic Review*, 61 (September 1971): 682-687.

"A Note on Monopolistic Competition and Excess Capacity." *Journal of Political Economy*, 80 (May/June 1972): 586-591.

"Option Demand and Consumer's Surplus: Valuing Price Changes Under Uncertainty." *American Economic Review*, 62 (December 1972): 813-824.

"A Note on the Theory of Vertical Integration." *Journal of Political Economy*, 81 (March/April 1973): 442-449.

"Brand Loyalty and Barriers to Entry." *Southern Economic Journal*, 40 (April 1974): 579-588.

"Market Structure, Durability, and Maintenance Effort." *Review of Economic Studies*, 41 (April 1974): 277-287.

"Estimating the Costs and Benefits of Utility Regulation." *Quarterly Review of Economics and Business*, 14 (Summer 1974): 51-64.

- "Consumer Behavior versus Economic Theory." *Recherches Economiques de Louvain*, 40 (September 1974): 261-276.
- "Alternative Models of Bandit Selection." *Journal of Economic Theory*, 10 (June 1975): 333-342.
- "An Experimental Study of Expectation Formation." *Econometrica*, 44 (January 1976): 17-41.
- "Another Look at the Social Valuation of Input Price Changes." *American Economic Review*, 66 (March 1976): 239-243.
- "Resource Exploitation Theory and the Behavior of the Oil Cartel." *European Economic Review*, 7 (April 1976): 257-279.
- "Advertising and Profitability: Further Implications of the Null Hypothesis." *Journal of Industrial Economics*, 25 (September 1976): 45-54.
- "A Model of Promotional Competition in Oligopoly." *Review of Economic Studies*, 43 (October 1976): 493-507.
- "Is More Competition Necessarily Good?" *Industrial Organization Review*, 4 (1976): 120-121.
- "Public Investment Criteria, Insurance Markets, and Income Taxes." *Journal of Public Economics*, 6 (November 1976): 425-445.
- "Valuing Changes in Regulated Firms' Input Prices." *Southern Economic Journal*, 43 (January 1977): 1346-1351.
- "Using the H Index of Concentration with Published Data." *Review of Economics and Statistics*, 59 (May 1977): 186-193.
- "Comparative Static Properties of Regulated Airline Oligopolies." *Bell Journal of Economics*, 8 (Autumn 1977): 565-576.
- "Nonconvexity and Optimal Exhaustion of Renewable Resources" (with T. R. Lewis). *International Economic Review*, 18 (October 1977): 535-552.
- "Common Stock Volatility Expectations Implied by Option Premia" (with R. R. Trippi). *Journal of Finance*, 33 (March 1978): 129-147.
- "A Note on Economies of Scale and Natural Monopoly in the Distribution of Public Utility Services." *Bell Journal of Economics*, 9 (Spring 1978): 270-276.
- "A Model of Advertising and Product Quality." *Journal of Political Economy*, 87 (June 1978): 485-504.
- "Life-Cycle Costing for Consumers of Energy-Conserving Devices" (with S. S. Penner and M. R. Brambley). *Energy*, 3 (July/August 1978): 415-419.
- "Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry." *Bell Journal of Economics*, 9 (Autumn 1978): 305-327. Reprinted in *Market Strategy and Structure* (J.M.A. Gee and G. Norman, eds.), London: Harvester Wheatsheaf, 1992, pp. 84-111.
- "Market Structure, Durability, and Quality: A Selective Survey." *Economic Inquiry*, 17 (April 1979): 177-198.
- "On the Use of Economic Models in Antitrust: The ReaLemon Case." *University of Pennsylvania Law Review*, 127 (April 1979): 994-1050. Reprinted in *Antitrust Law and Economics* (O. E. Williamson, ed.), Houston: Dame, 1980, pp. 97-153.

- "Nonconvexity and Optimal Harvesting Strategies for Renewable Resources" (with T. R. Lewis). *Canadian Journal of Economics*, 12 (November 1979): 677-691.
- "Appropriate Government Policy Toward Commercialization of New Energy Supply Technologies." *Energy Journal*, 1 (April 1980): 1-40.
- "Advertising and Aggregate Consumption: An Analysis of Causality" (with R. Ashley and C. W. J. Granger). *Econometrica*, 48 (July 1980): 1149-1168.
- "On Oligopolistic Markets for Nonrenewable Natural Resources" (with T. R. Lewis). *Quarterly Journal of Economics*, 95 (November 1980): 475-491.
- "Qualitative Asymptotic Synthesis in Simple Optimal Control Problems." *Economic Letters*, 5 (1980): 349-352.
- "Output and Welfare Implications of Monopolistic Third-Degree Price Discrimination." *American Economic Review*, 71 (March 1981): 242-247.
- "Risk and Return on Long-Lived Tangible Assets." *Journal of Financial Economics*, 9 (June 1981): 185-205.
- "Monopolistic Two-Part Pricing Arrangements." *Bell Journal of Economics*, 12 (Autumn 1981): 445-466.
- "Economies of Scale and Barriers to Entry." *Journal of Political Economy*, 89 (December 1981): 1228-1238.
- "Commodity Bundling by Single-Product Monopolies." *Journal of Law and Economics*, 25 (April 1982): 67-71.
- "Antitrust and the New Industrial Economics." *American Economic Review*, 72 (May 1982): 24-28.
- "Cartel Deception in Markets for Nonrenewable Resources" (with T. R. Lewis). *Bell Journal of Economics*, 13 (Spring 1982): 263-271.
- "Another Look at Market Power." *Harvard Law Review*, 95 (June 1982): 1789-1816.
- "Product Differentiation Advantages of Pioneering Brands." *American Economic Review*, 72 (June 1982): 349-365. ("Errata," *AER*, 73 (March 1983): 250).
- "George Stigler's Contributions to Economics." *Scandinavian Journal of Economics*, 85 (March 1983): 77-86.
- "Advertising and Entry Deterrence: An Exploratory Model." *Journal of Political Economy*, 91 (August 1983): 636-653.
- "The Impact of Scale and Media Mix on Advertising Agency Costs" (with A. J. Silk and R. Bojanek). *Journal of Business*, 56 (October 1983): 453-475.
- "Gaussian Demand and Commodity Bundling." *Journal of Business*, 57 (January 1984): S211-S230.
- "Estimating Effective Concentration in Deregulated Wholesale Electricity Markets" (with B. W. Golub). *RAND Journal of Economics*, 15 (Spring 1984): 12-26.
- "Imperfect Information and the Equitability of Competitive Prices." *Quarterly Journal of Economics*, 99 (August 1984): 441-460.
- "Adversary Hydro Relicensing Applications: Using Economic Efficiency Criteria" (with P. L. Joskow). *Public Utilities Fortnightly*, 114 (20 December 1984): 22-28.

- "Econometric Diagnosis of Competitive Localization." *International Journal of Industrial Organization*, 3 (March 1985): 57-70.
- "Do Markets Differ Much?" *American Economic Review*, 75 (June 1985): 341-351.
- "Estimated Parameters as Independent Variables: An Application to the Costs of Electric Generating Units" (with P. L. Joskow). *Journal of Econometrics*, 31 (April 1986): 275-305.
- "Incentive Regulation for Electric Utilities" (with P. L. Joskow). *Yale Journal on Regulation*, 4 (Fall 1986): 1-49.
- "The Empirical Renaissance in Industrial Economics: An Overview" (with T. F. Bresnahan). *Journal of Industrial Economics*, 35 (June 1987): 371-378.
- "Collusion versus Differential Efficiency: Testing Alternative Hypotheses." *Journal of Industrial Economics*, 35 (June 1987): 399-425.
- "Ease of Entry: Has the Concept Been Too Readily Applied?" *Antitrust Law Journal*, 56 (1987): 41-51.
- "The Performance of Coal-Burning Electric Generating Units in the United States: 1960-1980" (with P. L. Joskow). *Journal of Applied Econometrics*, 2 (April 1987): 85-109.
- "Horizontal Merger Policy: Problems and Changes." *Journal of Economic Perspectives*, 1 (Fall 1987): 41-54.
- "Competitive Advantage and Collusive Optima." *International Journal of Industrial Organization*, 5 (December 1987): 351-367.
- "Industrial Economics: An Overview." *Economic Journal*, 98 (September 1988): 643-681. Reprinted in *Surveys in Economics*, Vol. 2 (A.J. Oswald, Editor), Oxford: Basil Blackwell, 1991, pp. 51-89.
- "Perceptual Maps and the Optimal Location of New Products: An Integrative Essay" (with J.-F. Thisse). *International Journal of Research in Marketing*, 5 (1988): 225-249.
- "Intra-Industry Profitability Differences in U.S. Manufacturing: 1953-1983." *Journal of Industrial Economics*, 37 (June 1989): 337-357.
- "An Expository Note on Depreciation and Profitability under Rate-of-Return Regulation." *Journal of Regulatory Economics*, 1 (September 1989): 293-298.
- "Good Regulatory Regimes." *RAND Journal of Economics*, 20 (Autumn 1989): 417-436.
- "Continuity and Change in the Economics Industry." *Economic Journal*, 101 (January 1991): 115-121. Reprinted in *The Future of Economics* (J.D. Hey, ed.), Oxford: Basil Blackwell, 1992, pp. 115-121.
- "Sunk Cost and Market Structure: A Review Article." *Journal of Industrial Economics*, 40 (June 1992): 125-134.
- "Comparing Greenhouse Gases for Policy Purposes." *Energy Journal*, 14 (1993): 245-255.
- "Symposium on Global Climate Change." *Journal of Economic Perspectives*, 7 (Fall 1993): 3-10.
- "Competition Policy in Russia During and After Privatization" (with P.L. Joskow and N. Tsukanova). *Brookings Papers on Economic Activity, Microeconomics*, 1994: 301-374. [Awarded the 1995 Edward A. Hewett Prize by the American Association for the Advancement of Slavic Studies.]
- "Economic Aspects of Payment Card Systems and Antitrust Policy Toward Joint Ventures" (with D.S. Evans). *Antitrust Law Journal*, 63 (Spring 1995): 861-901.

- "The Benefits of Releasing the Bell Companies from the Interexchange Restrictions" (with P.S. Brandon). *Managerial and Decision Economics*, 16 (July-August 1995): 349-364.
- "Privatization in Russia: What Should Be a Firm?" (with P.L. Joskow). *International Journal of the Economics of Business*, 2 (1995): 297-327. Reprinted in *Transaction Cost Economics: Recent Developments* (C. Menard, ed.), Brookfield, VT: Edward Elgar, 1997, pp. 86-126.
- "What Have We Learned About Privatization and Regulatory Reform?" *Revista de Análisis Económico*, 10 (November 1995): 21-39. (Remarks in Roundtable Discussion, pp. 303-312.)
- "Is There a Role for Benefit-Cost Analysis in Environmental Health and Safety Regulation?" (with K.J. Arrow, M.L. Cropper, G.C Eads, R.W. Hahn, L.B. Lave, R.G. Noll, P.R. Portney, M. Russell, V.K. Smith, and R.N. Stavins). *Science*, 272 (12 April 1996): 221-222. Reprinted in *Economics of the Environment: Selected Readings*, 4<sup>th</sup> Ed. (R.N. Stavins, ed.), New York: Norton, 1999. pp. 319-324.
- "World Carbon Dioxide Emissions: 1950-2050" (with T.M. Stoker and R.A. Judson). *Review of Economics and Statistics*, 80 (February 1998): 15-27.
- "The Political Economy of Market-Based Environmental Policy: The US Acid Rain Policy" (with P.L. Joskow). *Journal of Law and Economics*, 41 (April 1998): 37-83. Reprinted in *Economics of the Environment: Selected Readings*, 4<sup>th</sup> Ed. (R.N. Stavins, ed.), New York: Norton, 1999, pp. 603-645.
- "Some Economic Principles for Guiding Antitrust Policy Towards Joint Ventures" (with H. Chang and D.S. Evans). *Columbia Business Law Review*, 1998 (1998): 223-329.
- "An Analysis of the Welfare Effects of Long-Distance Market Entry by an Integrated Access and Long-Distance Provider" (with P.J. Hinton, J.D. Zona, and W.E. Taylor). *Journal of Regulatory Economics*, 13 (March 1998): 183-196.
- "An Interim Evaluation of Sulfur Dioxide Emissions Trading" (with P.L. Joskow, A.D. Ellerman, J.-P. Montero, and E.M Bailey). *Journal of Economic Perspectives*, 12 (Summer 1998): 53-68. Reprinted in *Economics of the Environment: Selected Readings*, 4<sup>th</sup> Ed. (R.N. Stavins, ed.), New York: Norton, 1999, pp. 455-471.
- "The Market for Sulfur Dioxide Emissions" (with P.L. Joskow and E.M Bailey). *American Economic Review*, 88 (September 1998): 669-685.
- "Household Gasoline Demand in the United States" (with T.M. Stoker). *Econometrica*, 67 (May 1999): 645-662.
- "Economic Development and the Structure of the Demand for Commercial Energy" (with R.A. Judson and T.M. Stoker). *Energy Journal*, 20 (1999): 29-57.
- "Bill Baxter in the Antitrust Arena: An Economist's Appreciation." *Stanford Law Review*, 51 (May 1999): 1317-1332.
- "Antitrust Issues in Schumpeterian Industries." *American Economic Review*, 90 (May 2000): 192-196.
- "An Analysis of the Government's Economic Case in *U.S. v. Microsoft*" (with D.S. Evans and A.L. Nichols). *Antitrust Bulletin*, 46 (Summer 2001), pp. 163-251. Reprinted in *Microsoft, Antitrust and the New Economy: Selected Essays* (D.S. Evans, ed.), Boston: Kluwer: 2002.
- "Payment Systems and Interchange Fees," *Journal of Industrial Economics*, 50 (June 2002): 103-122.
- "Sunk Costs and Antitrust Barriers to Entry," *American Economic Review*, 94 (May 2004): 471-475.



- “A Survey of the Economic Role of Software Platforms in Computer-Based Industries,” *CESifo Economic Studies*, 51 (2005): 189-224. (Reprinted, with minor changes, as “Software Platforms.” In *Industrial Organization and the Digital Economy* (G. Illig and M. Peitz, eds.). Cambridge: MIT Press, 2006, pp. 31-70.)
- “United States v. Microsoft: Did Consumers Win?” (with D.S. Evans and A.L. Nichols). *Journal of Competition Law and Economics*, 1 (September 2005): 497-539
- “The Industrial Organization of Markets with Two-Sided Platforms” (with D.S. Evans), *Competition Policy International*, 3 (Spring 2007): 151-179. Also in W.D. Collins, ed., *Issues in Competition Law and Policy*, Chicago: American Bar Association, 2008, pp. 667-693.
- “Pricing Patents for Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments” (with A. Layne-Farrar and A.J. Padilla), *Antitrust Law Journal*, 74 (2007): 671-706.
- “Standard-Setting, Innovation Specialists, and Competition Policy,” *Journal of Industrial Economics*, 57 (September 2009): 526-52.
- “Failure to Launch: Critical Mass in Platform Businesses” (with D.S. Evans), *Review of Network Economics*, 9 (December 2010), Issue 4, Article 1 (26 pages).
- “Jeffrey Rohlfs’ 1974 Model of Facebook: An Introduction,” *Competition Policy International*, 7 (Spring 2011): 301-12.
- “Why is Platform Pricing Generally Highly Skewed?” *Review of Network Economics*, 10 (December 2011), Issue 4, Article 1, 11 pages.
- “Evaluating Policies to Increase the Generation of Electricity from Renewable Energy,” *Review of Environmental Economics and Policy*, 6 (Winter 2012): 45-64.
- “On a level with Dentists? Reflections on the Evolution of Industrial Organization.” *Review of Industrial Organization*, 41 (November 2012): 157-79.
- “From ‘Green Growth’ to Sound Policies: An Overview,” *Energy Economics*, 34 (Supplement 1, November 2012): S2-S6.
- “The SO<sub>2</sub> Allowance Trading System: The Ironic History of a Grand Policy Experiment,” (with R.N. Stavins), *Journal of Economic Perspectives*, 27 (Winter 2013): 103-22.
- “An Instant Classic: Rochet & Tirole, Platform Competition in Two-Sided Markets,” *CPI Journal*, 10:2 (Autumn 2014): 175-180.
- “Pricing the Razor: A Note on Two-Part Tariffs,” *International Journal of Industrial Organization*, 42 (September 2015): 19-22.
- “The Future of Solar Energy: A Personal Assessment,” *Energy Economics*, 52: Supplement 1 (December 2015): S142-S148.
- “The Performance of U.S. Wind and Solar Generators,” *Energy Journal*, 37:1 (January 2016): 123-151.
- “The Staggers Act at 35: Railroad Economics and Regulation” (with W.W. Wilson), *Review of Industrial Organization*, 49:2 (2016): 127-131.
- “Modernizing U.S. Freight Rail Regulation” (with W.W. Wilson), *Review of Industrial Organization*, 49:2 (2016): 135-159.

- "Socialism for Red States in the Electric Utility Industry," *Journal of Competition Law and Economics*, 12:3 (September 2016), 477-494.
- "Reforming the U.S. Coal Leasing Program" (with K. Gillingham et al), *Science*, 354: 3616 (December 2, 2016), 1096-1098.
- "Lessons Learned from Three Decades of Experience with Cap-and-Trade" (with R. Stavins), *Review of Environmental Economics and Policy*, 11: 1(Winter 2017): 59-79.
- "The Design of Environmental Markets: What Have We Learned from Experience with Cap and Trade?" (with R. Stavins), *Oxford Review of Economic Policy*, 33:4 (Winter 2017): 572-588.
- "Applying the Rule of Reason to Two-Sided Platform Businesses" (with D.S. Evans), *University of Miami Business Law Review*, 26: 1 (April 2018), 15 pp. Available at <https://repository.law.miami.edu/umblr/vol26/iss2/3>.
- "Puzzles and Surprises in Employment and Productivity in U.S. Manufacturing After the Great Recession," *International Productivity Monitor*, No. 35 (Fall 2018): 1-23.
- "Policy Evolution under the Clean Air Act" (with R.N. Stavins), *Journal of Economic Perspectives*, 33:4 (Fall 2019): 27-50.

#### CHAPTERS IN BOOKS:

- "Advertising and Economic Welfare." In *Advertising and the Public Interest* (S. F. Divita, ed.), Chicago: American Marketing Association, 1974, pp. 82-97.
- "Promoting Competition in Tomorrow's Markets for Solar Energy Systems." In *The Solar Market: Proceedings of the Symposium on Competition in the Solar Energy Industry*, U.S. Federal Trade Commission, Washington, D.C.: U.S. Government Printing Office, 1978, pp. 119-135.
- "Cartel and Oligopoly Pricing of Nonreplenishable Natural Resources" (with T.R. Lewis). In *Dynamic Optimization and Mathematical Economics* (P. T. Liu, ed.), New York: Plenum, 1980, pp. 133-156.
- "The New Industrial Organization and the Economic Analysis of Modern Markets." In *Advances in Economic Theory* (W. Hildenbrand, ed.), Cambridge: Cambridge University Press, 1982, pp. 253-285.
- "Optimal Use of Renewable Resources with Nonconvexities in Production" (with T.R. Lewis). In *Essays in the Economics of Renewable Resources* (J. Mirman and D.F. Spulber, eds.), Amsterdam: North-Holland, 1982, pp. 95-111.
- "Advertising and Market Structure." In *New Developments in the Analysis of Market Structure* (J. E. Stiglitz and G. F. Mathewson, eds.), Cambridge: MIT Press, 1986, pp. 373-396.
- "Standards for Dominant Firm Conduct: What Can Economics Contribute?" In *The Economics of Market Dominance* (D. Hay and J. Vickers, eds.), Oxford: Basil Blackwell, 1987, pp. 61-88.
- "Advertising." In *The New Palgrave*, Vol. 1 (J. Eatwell, M. Milgate, and P. Newman, eds.), New York: Macmillan, 1987, pp. 34-36.
- "Industrial Organization." In *The New Palgrave*, Vol. 2 (J. Eatwell, M. Milgate, and P. Newman, eds.), New York: Macmillan, 1987, pp. 803-808.

- "George Stigler's Contributions to Microeconomics and Industrial Organization." In *The New Palgrave*, Vol. 4 (J. Eatwell, M. Milgate, and P. Newman, eds.), New York: Macmillan, 1987, pp. 499-500.
- "The Potential of Incentive Regulation." In *The Market for Energy* (D. Helm, J. Kay, and D. Thompson, eds.), Oxford: Clarendon Press, 1989, pp. 178-187.
- "Inter-Industry Studies of Structure and Performance." In *Handbook of Industrial Organization*, Vol. 2 (R. Schmalensee and R. D. Willig, eds.), Amsterdam: North-Holland, 1989, pp. 951-1009.
- "Empirical Models of Rivalrous Behavior." In *Industrial Structure in the New Industrial Economics* (G. Bonanno and D. Brandolini, eds.), Oxford: Oxford University Press, 1990, pp. 138-167.
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