DANIEL F. SPULBER Biographical Sketch

Daniel F. Spulber is the Elinor Hobbs Distinguished Professor of International Business and Professor of Strategy at the Kellogg School of Management, Northwestern University, where he has taught since 1990. He is also Professor of Law at the Northwestern University Law School (Courtesy). Spulber is the Research Director for the Searle Center on Law, Regulation and Economic Growth. He served as the founding director of Kellogg's International Business & Markets Program. He received his Ph.D. in economics in 1979 and his M.A. in economics in 1976 from Northwestern University and his B.A. in economics in 1974 from the University of Michigan. Spulber has taught at Brown University, the University of Southern California, and Cal Tech.

Spulber has received eight National Science Foundation grants, three Searle Fund Grants, and three Ewing Marion Kauffman Foundation Grants for economic research. Spulber is the founding editor of the Journal of Economics & Management Strategy published by Wiley-Blackwell Publishing.

Spulber is the author of thirteen books including <u>The Innovative Entrepreneur</u>, 2014, Cambridge University Press. His research is in the areas of Innovation Economics, Entrepreneurship, International Economics, Industrial Organization, Microeconomic Theory, Management Strategy, and Law.

Spulber has published numerous articles in leading economics journals and law reviews. Spulber was ranked 6th among economists in the United States in "Trends in Rankings of Economics Departments in the U.S.: An Update," L. C. Scott and P. M. Mitias, <u>Economic Inquiry</u>, 34, April, 1996, pp. 378-400. He was highly ranked for 1979-2003 adjusted appearances in "The Most Frequent Contributors to the Elite Economics Journals: Half Century of Contributions to the 'Blue Ribbon Eight'," J. L. Heck and P. A. Zaleski, <u>Journal of Economics and Finance</u>, 9 Spring, 2006, pp. 1-37. Spulber's research has been cited by the Supreme Court of the United States.

REVISED MARCH 17, 2014

CURRICULUM VITAE

DANIEL F. SPULBER

Address:

Department of Strategy Kellogg School of Management Northwestern University 606 Jacobs, 2001 Sheridan Road Evanston, IL 60208-2013 **Phone**: (847) 491-8675 **FAX**: (847) 467-1777 **E-mail**: jems@kellogg.northwestern.edu

EDUCATION

Ph.D., Economics, Northwestern University, 1979

Dissertation: <u>Studies in Adaptive Investment Planning: Research and</u> <u>Development, Rolling Plans and Renewable Resources</u>.

Ph.D. Advisor: Dale Mortensen (Nobel Prize in Economics, 2010)

M.A., Economics, Northwestern University, 1976

B.A., Economics, University of Michigan, 1974

CURRENT PROFESSIONAL APPOINTMENTS

Elinor Hobbs Distinguished Professor of International Business, Kellogg School of Management, September, 2000 to present.

Professor, Strategy Department, Kellogg School of Management, Northwestern University, June 1, 1990 to present.

Research Director, Searle Center on Law, Regulation, and Economic Growth, Fall 2010 to present.

Professor of Law, Northwestern University Law School, Courtesy, October 2000 to present.

Professor of Managerial Economics and Decision Sciences, Kellogg School of Management, Northwestern University, Courtesy, June 1, 1993 to present.

PREVIOUS PROFESSIONAL APPOINTMENTS

Research Director: Program on Innovation, Entrepreneurship, and Economic Growth, Searle Center on Law, Regulation, and Economic Growth, Fall, 2007 to Fall, 2010.

Founding Director of International Business & Markets Program and Research Center, Kellogg School of Management, Northwestern University, July 2001 to July 2006.

Chair in Energy Resource Management, Kellogg School of Management, Northwestern University, June 1, 1990 to September, 2000.

Visiting Professor of Economics, California Institute of Technology, September, 1989 to December, 1989.

Professor of Economics and Law, University of Southern California Law School, September, 1988 to May, 1990.

Professor of Economics, University of Southern California, September, 1988 to May, 1990.

Visiting Associate Professor of Economics, California Institute of Technology, January, 1988 to June, 1988.

Associate Professor of Economics, with tenure, University of Southern California, September, 1984 to August, 1988.

Research Associate, Institute for Marine and Coastal Studies, University of Southern California, July, 1982 to June, 1984.

Assistant Professor of Economics, University of Southern California, July, 1982 to August, 1984.

Assistant Professor of Economics, Brown University, September, 1978 to June, 1982.

TEACHING

Sidney J. Levy Teaching Award for excellence in teaching for the 1995-1996 academic year.

COURSES

Current teaching:

International Business Strategy MGMT 460 (MBA)

Innovation Economics MECS 449 (PhD)

Other management courses taught:

Strategy and Organization (MBA)

Public Policy and Management Strategy (MBA and Executive Management Program)

Economics courses taught:

Microeconomic Theory (Undergraduate and PhD); Law and Economics (Undergraduate and PhD); Industrial Organization (Undergraduate and PhD); Regulation (PhD); Energy and Resource Economics (Undergraduate and PhD); Environmental Economics (Undergraduate)

Law courses taught: Regulated Industries

JOURNAL EDITING

Founding editor, <u>Journal of Economics & Management Strategy</u>, Wiley-Blackwell Publishers, 1991 to present.

Editor, Special issue, Technology Standards, <u>Journal of Competition Law and</u> <u>Economics</u>, 2013, Oxford University Press, forthcoming.

Advisory Board, <u>Peking University Law Journal</u>, 2012 to present, <u>http://hartjournals.com/pulj/eds.html</u>

Editorial board, <u>Journal of Strategic Management Education</u>, Senate Hall Academic Publishing, 2004 to present, <u>http://www.senatehall.com/strategic-management</u>

Coeditor, <u>Papers and Proceedings of the American Economic Association</u>, <u>American Economic Review</u>, May 1980.

PUBLICATIONS

BOOKS

- 13. <u>The Innovative Entrepreneur</u>, 2014, Cambridge: Cambridge University Press, ISBN 978-1-107-66811-9 (paperback), ISBN 978-1-107-04725-9 (hardback).
- 12. <u>The Theory of the Firm: Microeconomics with Endogenous Entrepreneurs, Firms,</u> <u>Markets, and Organizations</u>, 2009, Cambridge: Cambridge University Press. ISBN-13: 9780521736602 (paperback), ISBN-13: 9780521517386 (hardback).

Chinese edition, 2012, Truth & Wisdom Press, Shanghai.

- 11. <u>Networks in Telecommunications: Economics and Law</u>, with Christopher S. Yoo, 2009, Cambridge: Cambridge University Press, ISBN-13: 9780521673860 (paperback), ISBN-13: 9780521857109 (hardback).
- 10. <u>Economics and Management of Competitive Strategy</u>, 2009, New Jersey: World Scientific Press, ISBN 978-981-283-846-9.
- 9. <u>Global Competitive Strategy</u>, 2007, Cambridge: Cambridge University Press, pp. 290 + xiv, ISBN-13: 978-052-188-081-7. (hardback) ISBN-10: 052-136-798-0, ISBN-13: 978-052-136-798-1 (paperback).
- 8. <u>Management Strategy</u>, 2004, New York: McGraw Hill, pp. 431 + xv, ISBN 0072873485.
- Famous Fables of Economics: Myths of Market Failures, Edited, 2002, Malden, MA: Basil Blackwell, pp. 312 +viii., ISBN 0-631-22674-5 (hardback) and ISBN 0-631-22675-3 (paperback).

Chinese edition (simplified characters) 2004, Century Publishing Group of Shanghai.

6. <u>Market Microstructure: Intermediaries and the Theory of the Firm</u>, 1999, New York: Cambridge University Press, xxx + 368p., ISBN 0-521-65025-9 (hardback) and 0-521-65978-7 (paperback).

Chinese edition, 2003.

5. <u>The Market Makers: How Leading Companies Create and Win Markets</u>, 1998, New York: McGraw Hill/ Business Week Books, x + 314p., ISBN 0-07-060584.

Portuguese edition, 2000, Negotio Editora Press, Brazil.

Chinese edition, 2004.

4. <u>Deregulatory Takings and the Regulatory Contract: The Competitive</u> <u>Transformation of Network Industries in the United States</u>, 1997, with J. Gregory Sidak, Cambridge University Press, xi + 631p., ISBN 0-521-591597 (hardback and paperback).

Chinese edition (simplified characters), Century Publishing Group, Shanghai, 2013.

- 3. <u>Protecting Competition from the Postal Monopoly</u>, with J. Gregory Sidak, 1996, Washington, D.C.: American Enterprise Institute, ix + 195p., ISBN 0-8447-3950-2.
- 2. <u>Regulation and Markets</u>, 1989, Cambridge, Mass., M.I.T. Press, xviii + 690 p., ISBN 0-262-19275-6.

Chinese edition (simplified characters), 2007

Chinese edition published in 2000.

 <u>Essays in the Economics of Renewable Resources</u>, Edited with Leonard J. Mirman, 1982, Amsterdam: Elsevier-North Holland Publishing Co., xii + 286 p., ISBN 0-444-86340-0.

WORKING PAPERS

Managing Innovation: Optimal Agency Contracts for Delegated R&D, with Joaquin Poblete, Kellogg School of Management Working Paper, Evanston, IL, 2014.

ARTICLES

- 104. Antitrust, the Internet, and the Economics of Networks, 2014, with Christopher Yoo, Chapter 17 in Roger Blair and Daniel D. Sokol, eds., <u>Oxford Handbook of</u> <u>International Antitrust Economics</u>, Oxford: Oxford University Press, forthcoming.
- 103. How Do Competitive Pressures Affect Incentives to Innovate when there is a Market for Inventions?, 2013, Journal of Political Economy, 121, 6, December, pp. 1007-1054 (lead article).

- 102. Innovation Economics: Technology Standards, Competitive Conduct and Economic Performance, 2013, <u>Journal of Competition Law and Economics</u>, 9 (4), pp. 777-825, doi:10.1093/joclec/nht041.
- 101. On Turning Twenty: The Journal of Economics & Management Strategy Comes of Age, 2013, in Michael Szenberg and Lall Ramrattan, eds., <u>Secrets of Economic</u> <u>Editors: Experience of Journal Editors</u>, Cambridge, MA: MIT Press, Chapter 8, pp. 135-148.
- First-Party Content and Coordination in Two-Sided Markets, with Andrei Hagiu, 2013, <u>Management Science</u>, Volume 59 (4), April, pp. 933-949, advance access 2012, doi:10.1287/mnsc.1120.1577.
- 99. Competing Inventors and the Incentive to Invent, 2013, <u>Industrial and Corporate</u> <u>Change</u>, Volume 22 (1), February, pp. 33-72, doi:10.1093/icc/dts013.
- 98. Tacit Knowledge with Innovative Entrepreneurship, 2012, <u>International Journal</u> of Industrial Organization, Volume 30, Issue 6, November, pp. 641-653, doi:10.1016/j.ijindorg.2012.07.004.
- 97. The Form of Incentive Contracts: Agency with Moral Hazard, Risk Neutrality, and Limited Liability, with Joaquin Poblete, 2012, <u>Rand Journal of Economics</u>, Volume 43, No. 2, Summer, pp. 215–234.
- 96. The FTC, IP, and SSOs: Government Hold-Up Replacing Private Coordination, with Richard Epstein and F. Scott Kieff, 2012, Journal of Competition Law and Economics, March, Volume 8, Issue 1, pp. 1-46. doi:10.1093/joclec/nhs002.
- 95. How Entrepreneurs Affect the Rate and Direction of Inventive Activity, 2012, in Josh Lerner and Scott Stern, eds., <u>The Rate and Direction of Inventive Activity</u> <u>Revisited</u>, National Bureau of Economic Research, Chicago: University of Chicago Press, pp. 277-315.
- 94. Intellectual Property and the Theory of the Firm, 2011, Chapter 1 in F. Scott Kieff and Troy Paredes, eds., <u>Perspectives on Commercializing Innovation</u>, Cambridge: Cambridge University Press, pp. 9-46.
- 93. Competition and Antitrust in Two-Sided Markets, with Alexei Alexandrov and George Deltas, 2011, Journal of Competition Law and Economics, December, Volume 7, Issue 4, pp. 775-812, doi:10.1093/joclec/nhr012.
- 92. Should Business Method Inventions be Patentable?, 2011, Journal of Legal Analysis, volume 3, number 1, Spring, pp. 265-340.

- 91. The Role of the Entrepreneur in Economic Growth, 2011, in Robert Litan, ed., <u>Handbook of Law, Innovation, and Growth</u>, Northampton, MA: Edward Elgar, pp. 11-44.
- 90. The Innovator's Decision: Entrepreneurship versus Technology Transfer, in David Audretsch, O. Falck, Stephan Heblich, and Adam Lederer, eds., <u>Handbook</u> of Research on Innovation and Entrepreneurship, Northampton, MA: Edward Elgar, 2011, pp. 315-336.
- 89. The Quality of Innovation and the Extent of the Market, <u>Journal of International</u> <u>Economics</u>, 2010, <u>http://dx.doi.org/10.1016/j.jinteco.2009.11.008f</u>, Advance access 2009, 80, pp. 260-270.
- Solving the Circular Conundrum: Communication and Coordination in Two-Sided Networks, 2010, <u>Northwestern University Law Review</u>, Volume 104, Issue 2, Spring, pp. 537-591.
- 87. Competition among Entrepreneurs, <u>Industrial and Corporate Change</u>, 2010, Volume 19, Number 1, February, pp. 25-50, doi:10.1093/icc/dtp038, Advance Access published on July 17, 2009.
- 86. The Map of Commerce: Internet Search, Competition, and the Circular Flow of Information, Journal of Competition Law and Economics, Volume 5, Issue 4, December, 2009, pp. 633-682, doi: 10.1093/joclec/nhp011, Advance Access published on August 24, 2009.
- 85. Discovering the Role of the Firm: The Separation Criterion and Corporate Law, <u>Berkeley Business Law Journal</u>, 6 (2), Spring, 2009, pp. 298-347.
- 84. Toward a Unified Theory of Access to Local Telephone Networks, with Christopher S. Yoo, <u>Federal Communications Law Journal</u>, 61 (1), December, 2008, pp. 1-79.
- 83. Innovation and International Trade in Technology, <u>Journal of Economic Theory</u>, 138, January, 2008, pp. 1-20. <u>doi:10.1016/j.jet.2007.06.002</u>
- 82. Rethinking Broadband Internet Access, with Christopher S. Yoo, <u>Harvard Journal</u> of Law and Technology, 22, Fall, 2008, pp. 1-74.
- Competition Policy and the Incentive to Innovate: The Dynamic Effects of Microsoft v. Commission, <u>Yale Journal on Regulation</u>, Volume 25, Number 2, Summer, 2008, pp. 247-301.

Reprinted in Eli M. Salzberger, ed., Law and Economics of Innovation,

Edward Elgar Publishing, 2012.

 Unlocking Technology: Antitrust and Innovation, <u>Journal of Competition Law</u> and Economics, Volume 4, Number 4, December, 2008, pp. 915-966, doi:10.1093/joclec/nhn016

Selected as number 4 among the 12 Best Papers on Antitrust & the Digital Economy, The Technology Liberation Front blog, Adam Thierer, September 6, 2012, <u>http://techliberation.com/</u>

Reprinted in Geoffrey A. Manne and Joshua D. Wright, eds., <u>Competition</u> <u>Policy and Patent Law under Uncertainty: Regulating Innovation</u>, Cambridge: Cambridge University Press, 2011, pp. 120-165.

- 79. Consumer Coordination in the Small and in the Large: Implications for Antitrust in Markets with Network Effects, Journal of Competition Law and Economics, 4, June, 2008, pp. 207-262, doi: 10.1093/joclec/nhm031.
- 78. Mandating Access to Telecom and the Internet: The Hidden Side of *Trinko*, with Christopher S. Yoo, <u>Columbia Law Review</u>, 107, December, No. 8, 2007, pp. 1822-1907.
- Firms and Networks in Two-Sided Markets, in Terry Hendershott ed., <u>Handbook</u> of Economics and Information Systems, 1, Amsterdam: Elsevier, 2006, pp. 137-200.
- 76. CEMEX: International Market Maker in Cement, with Alberto Salvo, <u>Journal of</u> <u>Strategic Management Education</u>, 2006, 3, pp. 1-24.
- 75. Network Regulation: The Many Faces of Access, with Christopher S. Yoo, Journal of Competition Law and Economics, 1 (4), December, 2005, pp. 635-678.
- 74. Trust and Incentives in Agency, with Ramon Casadesus-Masanell, <u>University of</u> <u>Southern California Interdisciplinary Law Journal</u>, 15, Fall, 2005, pp. 45-104.
- 73. Lenovo: The Leading Chinese Computer Company Enters Global Competition, Journal of Strategic Management Education, v. 2, Number 1, 2005, pp. 55-81.
- 72. On the Regulation of Networks as Complex Systems: A Graph Theory Approach, with Christopher S. Yoo, <u>Northwestern University Law Review</u>, 2005, 99, Fall, pp. 1687-1722.
- 71. Management Strategy: Five Steps to Successful Strategic Analysis, in Peter Navarro, ed., <u>What the Best MBAs Know: How to Apply the Greatest Ideas</u>

Taught in the Best Business Schools, New York: McGraw Hill, 2005, pp. 19-56.

70. Entry Barriers and Entry Strategies, Journal of Strategic Management Education, 1, 2003, March, pp. 55-80.

Reprinted in Andrew E. Burke, <u>Modern Perspectives on Entrepreneurship</u>, 2006, Dublin: Senate Hall Academic Publishing, pp. 69-90.

- 69. Access to Networks: Economic and Constitutional Connections, with Christopher S. Yoo, <u>Cornell Law Review</u>, 2003, 88, pp. 885-1024.
- The Intermediation Theory of the Firm: Integrating Economic and Management Approaches to Strategy, <u>Managerial and Decision Economics</u>, 24, 2003, pp. 253-266.
- 67. Transaction Innovation and the Role of the Firm, in <u>The Economics of the</u> <u>Internet and E-commerce</u>, edited by Michael R. Baye, Advances in Applied Micro-Economics, v. 11, JAI Press/Elsevier Science, 2002, pp. 159-190.
- 66. Market Microstructure and Incentives to Invest, <u>Journal of Political Economy</u>, 110, April, 2002, pp. 352-381.
- 65. Competition Policy in Telecommunications, in <u>Handbook of Telecommunications</u> <u>Economics</u>, v. 1, edited by Martin E. Cave, Sumit K. Majumdar, and Ingo Vogelsang, Amsterdam: Elsevier-North Holland Publishing, 2002, pp. 478-508.
- 64. Business-to-Business Electronic Commerce, with David Lucking-Reiley, <u>Journal</u> of Economic Perspectives, 15, Winter, 2001, pp. 55-68.
- 63. The Fable of Fisher Body, with Ramon Casadesus-Masanell, <u>Journal of Law and</u> <u>Economics</u>, 43, April, 2000, pp. 67-104.

Reprinted in Martin Ricketts ed., <u>The Economics of Modern Business</u> <u>Enterprise</u>, 2007, Cheltenham, UK: Edward Elgar.

- 62. Cyberjam: Internet Congestion of the Telephone Network, with J. Gregory Sidak, <u>Harvard Journal of Law and Public Policy</u>, 21 (2), Spring, 1998, pp. 327-394.
- 61. Deregulation and Managed Competition in Network Industries, with J. Gregory Sidak, <u>Yale Journal on Regulation</u>, 15, Winter, 1998, pp. 117-147.
- 60. Network Access Pricing and Deregulation, with J. Gregory Sidak, <u>Industrial and</u> <u>Corporate Change</u>, 6: 4,1997, pp. 757-782.

- 59. Municipalization: Opportunism and Bypass in Electric Power, with Michael Doane, <u>Energy Law Journal</u>, 18: 2, 1997, pp. 333-361.
- 58. Givings, Takings, and the Fallacy of Forward-Looking Costs, with J. Gregory Sidak, <u>New York University Law Review</u>, 72, October, 1997, pp. 1068-1164.
- 57. The Tragedy of the Telecommons: Government Pricing of Unbundled Network Elements Under the Telecommunications Act of 1996, with J. Gregory Sidak, <u>Columbia Law Review</u>, 97, 1997, pp. 1081-1161.
- 56. Monopoly and the Mandate of Canada Post, with J. Gregory Sidak, <u>Yale Journal</u> on Regulation, 14, Winter, 1997, 1 - 84.
- 55. Dynamic Retail Price and Investment Competition, with Kyle Bagwell and Gary Ramey, <u>RAND Journal of Economics</u>, 28, Summer, 1997, 207-227.
- 54. Capital Structure with Countervailing Incentives, with Yossef Spiegel, <u>Rand</u> Journal of Economics, 28, Spring, 1997, pp. 1-24.
- 53. Market Making by Price-Setting Firms, <u>Review of Economic Studies</u>, 1996, 63, pp. 559-580.
- 52. Deregulatory Takings and Breach of the Regulatory Contract, with J. Gregory Sidak, <u>New York University Law Review</u>, 71, October 1996, pp. 851-999.
- 51. Market Microstructure and Intermediation, <u>Journal of Economic Perspectives</u>, 10, Summer, 1996, pp. 135-152.
- 50. Deregulating Telecommunications, <u>Yale Journal on Regulation</u>, 12, Winter, 1995, pp. 25- 67.
- 49. Bertrand Competition when Rivals' Costs are Unknown, Journal of Industrial Economics, 43, 1995, pp. 1- 11.
- 48. Pricing and the Incentive to Invest in Pipelines after Great Lakes, <u>Energy Law</u> Journal, 15, 1994, pp. 377-404.
- 47. Open Access and the Evolution of the U.S. Spot Market for Natural Gas, with Michael Doane, Journal of Law and Economics, 37, October, 1994, pp. 477-517.
- 46. The Capital Structure of a Regulated Firm, With Yossef Spiegel, <u>Rand Journal of</u> <u>Economics</u>, 25, Autumn, 1994, pp.424-440.
- 45. Economic Analysis and Management Strategy: A Survey Continued, Journal of

Economics & Management Strategy, 3, Summer, 1994, 355-406.

Reprinted in Bernard Sinclair-Desgagné, ed. <u>Corporate Strategies for</u> <u>Managing Environmental Risk</u>, Ashgate Publishing, 2004.

- 44. Contested Mergers and Equilibrium Antitrust Policy, with David Besanko, Journal of Law, Economics & Organization, 9, Spring, 1993, pp. 1 - 29.
- 43. Monopoly Pricing of Capacity Usage under Asymmetric Information, <u>Journal of</u> <u>Industrial Economics</u>, 41, June, 1993, pp. 241-257.
- 42. Monopoly Pricing, Journal of Economic Theory, 59, February, 1993, pp.222-234.
- 41. Economic Analysis and Management Strategy: A Survey, <u>Journal of Economics</u> <u>& Management Strategy</u>, 1, Fall, 1992, pp. 535-574.
- 40. Sequential Equilibrium Investment by Regulated Firms, with David Besanko, Rand Journal of Economics, Summer, 1992, 23, pp. 153-170.
- 39. Optimal Nonlinear Pricing and Contingent Contracts, <u>International Economic</u> <u>Review</u>, November 1992, 33, pp. 747-772.
- 38. Capacity-Contingent Nonlinear Pricing by Regulated Firms, <u>Journal of</u> <u>Regulatory Economics</u>, 4, 1992, pp. 299-319.
- 37. Delegation, Commitment, and the Regulatory Mandate, with David Besanko, Journal of Law, Economics, and Organization, 1992, 8, pp. 126-154.
- 36. Auctions and Contract Enforcement, <u>Journal of Law, Economics, and</u> <u>Organization</u>, 6 Fall 1990, pp. 325-344.
- 35. Are Treble Damages Neutral? Sequential Equilibrium and Private Antitrust Enforcement, with David Besanko, <u>American Economic Review</u>, 1990, 80 September, pp. 870-887.
- 34. Managing Procurement Auctions, with Sudipto Dasgupta, <u>Information Economics</u> <u>and Policy</u>, 4, 1989/90, pp. 5-29.
- Is Competitive Entry Free?: Bypass and Partial Deregulation in Natural Gas Markets, with Paul W. MacAvoy and Bruce E. Stangle, <u>Yale Journal on</u> <u>Regulation</u>, 6 Summer, 1989, pp. 209-247.

Reprinted in the Public Utilities Law Anthology, 12, 1989.

- 32. Delegated Law Enforcement and Noncooperative Behavior, with David Besanko, Journal of Law, Economics and Organization, 5, Spring 1989, pp. 25-52.
- 31. Antitrust Enforcement under Asymmetric Information, with David Besanko, <u>Economic Journal</u>, 99, June 1989, pp. 408-425.
- 30. Product Variety and Competitive Discounts, <u>Journal of Economic Theory</u>, 48, August 1989, pp. 510-525.
- 29. The Second Best Core, <u>International Economic Review</u>, 30, August, 1989, pp. 623-631.
- 28. Optimal Environmental Regulation under Asymmetric Information, <u>Journal of</u> <u>Public Economics</u>, 35, 1988, pp. 163-181.
- 27. Products Liability and Monopoly in a Contestable Market, <u>Economica</u>, 55, 1988, pp. 333-341.
- 26. Bargaining and Regulation with Asymmetric Information about Demand and Supply, Journal of Economic Theory, 44, April, 1988, pp. 251-268.
- 25. Menu Costs and the Neutrality of Money, with Andrew Caplin, <u>Quarterly Journal</u> of Economics, 102, November, 1987, pp. 703-725.

Reprinted in N. Gregory Mankiw and David Romer, eds., <u>The New</u> <u>Keynesian Economics</u>, volume 1, Cambridge, MA: M.I.T. Press, pp. 87-110.

Reprinted in Eytan Sheshinski and Yoram Weiss, eds., <u>Optimal Pricing</u>, <u>Inflation</u>, and the Costs of Price Adjustment, MIT Press, 1993, pp. 217-240.

Reprinted in Edmund S. Phelps, ed., <u>Recent Developments in</u> <u>Macroeconomics</u>, volume 2, International Library of Critical Writings in Economics, No. 13, Aldershot, U.K. and Brookfield, Vt., Edward Elgar Publishing, 1991, pp. 260-282.

- 24. Value Allocation with Economies of Scale, <u>Economic Letters</u>, 21, 1986, pp. 107-111.
- 23. Second-Best Pricing and Cooperation, <u>Rand Journal of Economics</u>, 17, Summer, 1986, pp. 239-250.
- 22. Economic Planning with Rolling Horizons, International Journal of Development

Planning, 1, October-December, 1986, pp. 433-441.

- 21. Fishery Regulation With Harvest Uncertainty, with Leonard J. Mirman, International Economic Review, 26, October 1985, pp. 731-746.
- 20. Capacity, Output and Sequential Entry: Reply, <u>American Economic Review</u>, 75 (4), 1985, pp. 897-898.
- 19. Risk Sharing and Inventories, <u>Journal of Economic Behavior and Organization</u>, 6, 1985, pp. 55-68.
- 18. Effluent Regulation and Long Run Optimality, <u>Journal of Environmental</u> <u>Economics and Management</u>, 12, 1985, pp. 103-116.

Reprinted in <u>The Economics of the Environment</u>, Wallace E. Oates, ed., Edward Elgar Publishing, Ltd.

- 17. The Multi-Cohort Fishery under Uncertainty, <u>Journal of Marine Resource</u> <u>Economics</u>, 1, 1985, pp. 265-282.
- 16. Fisheries and Uncertainty, in A.D. Scott (ed.), <u>Progress in Natural Resource</u> <u>Economics</u>, Oxford University Press, 1985.
- 15. The Cost Function with Imperfectly Flexible Capital, with Robert A. Becker, <u>Economic Letters</u>, 16, 1984, pp. 197-204.
- 14. Uncertainty and Markets for Renewable Resources, with Leonard J. Mirman, Journal of Economic Dynamics and Control, 8(3), 1984, pp. 239-264.
- 13. Multiproduct Two Part Tariffs, with Paul Calem, <u>International Journal of</u> <u>Industrial Organization</u>, 2, 1984, pp. 105-115.
- 12. Scale Economies and Existence of Sustainable Monopoly Prices, <u>Journal of</u> <u>Economic Theory</u>, 34, October 1984, pp. 149-163.
- 11. Nonlinear Pricing, Advertising and Welfare, <u>Southern Economic Journal</u>, April, 1984, pp. 1025-1035.
- 10. Competition and Multiplant Monopoly with Spatial Nonlinear Pricing, International Economic Review, 25, June 1984, pp. 425-439.
- 9. Regulatory Lag and Deregulation with Imperfectly Adjustable Capital, with Robert A. Becker, Journal of Economic Dynamics and Control, 6, June, 1983, pp. 137-151.

- 8. Pulse Fishing and Stochastic Equilibrium in the Multicohort Fishery, <u>Journal of</u> <u>Economic Dynamics and Control</u>, 6, 1983, pp. 309-332.
- 7. Adaptive Harvesting of a Renewable Resource and Stable Equilibrium, in L.J. Mirman and D.F. Spulber, eds., <u>Essays in the Economics of Renewable</u> <u>Resources</u>, North-Holland, 1982, pp. 117-139.
- Renewable Resources: A Selective Survey, in L.J. Mirman and D.F. Spulber eds., <u>Essays in the Economics of Renewable Resources</u>, North-Holland, 1982, pp. 3-26.
- 5. Spatial Nonlinear Pricing, <u>American Economic Review</u>, Vol. 71, No. 5, December 1981, pp. 923-933.
- 4. Capacity, Output and Sequential Entry, <u>American Economic Review</u>, Vol. 71, No. 3, June 1981, pp. 503-514.
- 3. Stochastic Equilibrium and Optimality with Rolling Plans, with David Easley, <u>International Economic Review</u>, Vol. 22, February 1981, pp. 79-103.
- 2. Research and Development of a Backstop Energy Technology in a Growing Economy, <u>Energy Economics</u>, Vol. 2, No. 4, October 1980, pp. 199-207.
- 1. Noncooperative Equilibrium with Price Discriminating Firms, <u>Economic Letters</u>, 4, 1979, pp. 221-227.

GRANTS AND AWARDS

Qualcomm Research Project, <u>Innovation Economics: Technology Standards and the</u> <u>Market for Inventions</u>, Northwestern University, April 1, 2014 to March 31, 2016, in process.

Qualcomm Research Project, <u>Innovation Economics</u>, Grant to the Searle Center, with Matthew Spitzer, Northwestern University, May 1, 2013 to August 31, 2015, \$2.1 million.

Qualcomm Research Project, <u>Innovation Economics: Technology Standards, Market</u> <u>Power, and Public Policy</u>, Northwestern University, April 1, 2013 to March 31, 2014. Ewing Marion Kauffman Foundation, <u>Conference and Research on Intellectual Property</u> <u>and Entrepreneurship</u>, Grant to Searle Center for Law, Regulation and Economic Growth, Northwestern University, December 1, 2012 through September 13, 2013.

United States Patent and Trademark Office, <u>Conference on Intellectual Property and</u> <u>Entrepreneurship</u>, Grant to Searle Center for Law, Regulation and Economic Growth, Northwestern University, December 1, 2012 through September 30, 2013.

Qualcomm Research Project, <u>Searle Center Research Initiative in Innovation:</u> <u>Technology Standards and Market Coordination</u>, with Max M. Schanzenbach, Director Searle Center, Northwestern University, Research Roundtable February 2013 and Research Conference, June, 2014.

Ewing Marion Kauffman Foundation, <u>Conference and Research on Intellectual Property</u> <u>and Entrepreneurship</u>, Grant to Searle Center for Law, Regulation and Economic Growth, Northwestern University, June 2012 through December 1, 2012.

United States Patent and Trademark Office, <u>Conference and Research on Intellectual</u> <u>Property and Entrepreneurship</u>, Grant to Searle Center for Law, Northwestern University, Regulation and Economic Growth, June 1, 2012 through December 1, 2012.

Ewing Marion Kauffman Foundation, <u>Conference and Research on Intellectual Property</u> <u>and Entrepreneurship</u>, Grant to Searle Center for Law, Regulation and Economic Growth, Northwestern University, July 1, 2011 to December 1, 2012.

United States Patent and Trademark Office, <u>Conference and Research on Intellectual</u> <u>Property and Entrepreneurship</u>, Grant to Searle Center for Law, Regulation and Economic Growth, Northwestern University, July 1, 2011 to December 1, 2012.

Ewing Marion Kauffman Foundation, <u>Entrepreneurship</u>, <u>Investment and Financial</u> <u>Capital: Establishment of Firms, Incentives, and Contracts</u>, Northwestern University, May 1, 2011 through December 1, 2012.

Microsoft Research Project, <u>Antitrust and Competition in Two-Sided Markets</u>, Northwestern University, January 1, 2011 to December 13, 2011.

Ewing Marion Kauffman Foundation, <u>Microeconomic Foundations of Entrepreneurship</u>: <u>Establishment of Firms: Competition, Innovation, and Economic Growth</u>, Northwestern University, March 1, 2008 through February 28, 2011.

Ewing Marion Kauffman Foundation, <u>The Central Role of the Entrepreneur in the</u> <u>Establishment of Firms: A Fundamental Analysis of the Theory of the Firm</u>, Northwestern University, February 14, 2006 through July 15, 2008. The Searle Fund, <u>Access to Networks in the United States: Economic and Constitutional</u> <u>Connections</u>, Northwestern University, June 2004 to May 2005.

The Searle Fund, <u>The Economic Functions of the Firm in the Contemporary Economy</u> and in Economic Development, Northwestern University, June 2002 to May 2004.

The Searle Fund, <u>The Role of Trust in Private Contracts</u>, Northwestern University, June 2000 to May 2002.

Ameritech Foundation, <u>Competitive Strategy and Shakeouts in Telecommunications</u>, Northwestern University, June-August, 1995.

National Science Foundation, Grant No. SES-90-96205, <u>Sequential Models of Regulation</u> with Limited Commitment, Northwestern University, January 1990-June 1992.

National Science Foundation, Grant No. SES-86-08115 Project Renewal, <u>Government</u> <u>Regulation and Procurement Under Incomplete Information</u>, USC, July 1987-June 1988.

National Science Foundation, Grant No. SES-86-08115, <u>Government Regulation and</u> <u>Procurement Under Incomplete Information</u>, USC, July 1986 to June 1987.

Sea Grant, <u>Economic Analysis for Resource Regulation</u>, USC, October, 1983 to October, 1985.

National Science Foundation, Grant No. SES-82-19121, USC, <u>Risk Sharing and Retail</u> <u>Inventories</u>, September 1983 to June 1985.

National Science Foundation, Grant No. SES-82-09219, <u>Competition and Welfare with</u> <u>Nonlinear Pricing</u>, Project Renewal, USC, August 1982 to January 1984.

National Science Foundation, Grant No. SES-81-05852, <u>Competition and Welfare with</u> <u>Nonlinear Pricing</u>, Brown University and USC, August 1981 to January 1983.

National Science Foundation, Grant No. SES-79-14386, <u>The Economics of Renewable</u> <u>Resource Management</u>, Conference Grant, Brown University, October 1979 to March 1981.

National Science Foundation, Grant No. SES-79-07201, <u>Stochastic Optimization and</u> <u>Economic Dynamics</u>, Brown University, July 1979 to July 1980.

HONORS

The 12 Best Papers on Antitrust & the Digital Economy, The Technology Liberation Front, [#4 Daniel F. Spulber, "Unlocking Technology: Antitrust and Innovation," 4 (4) Journal of Competition Law & Economics, (2008): 915.], 2012, http://techliberation.com/2012/09/06/the-12-best-papers-on-antitrust-the-digitaleconomy/

Ranked 6th in the United States in the listing of top 50 economists by pages published in leading journals, 1984-1993, "Trends in Rankings of Economics Departments in the U.S.: An Update, Loren C. Scott and Peter M. Mitias, <u>Economic Inquiry</u>, v. XXXIV, April, 1996, pp. 378-400.

152nd in the world in the listing of top economists by publications in Tom Coupé, "Revealed Performances: Worldwide Rankings of Economists and Economics Departments, 1990-2000," Journal of the European Economic Association, 2004.

Highly ranked for 1979-2003 adjusted appearances in "The Most Frequent Contributors to the Elite Economics Journals: Half Century of Contributions to the 'Blue Ribbon Eight'," J. L. Heck and P. A. Zaleski, <u>Journal of Economics and Finance</u>, 9 Spring, 2006, pp. 1-37.

Listed in Marquis' <u>Who's Who in American Education</u>, 4th Edition, and Marquis' <u>Who's</u> <u>Who In Finance and Industry</u>, 27th Edition.

The Bonser Distinguished Lecture at the Kelley School of Business, Indiana University, "Famous Fables of Economics: Myths of Market Failures," March 27, 2003.

Daniel F. Spulber, 1999, "Clock Wise: Customer Convenience is the Key to e-Commerce; Rule 3: Time," <u>Business 2.0</u>, Special Supplement, February, pp.15-18, <u>Business 2.0</u> received *Maggie Award* for series "10 Driving Principles of the New Economy."

CONFERENCES ORGANIZED

Daniel F. Spulber, Seventh Annual Conference on Innovation Economics, Searle Center on Law, Regulation and Economic Growth, June, 2014, in process.

Daniel F. Spulber, Fifth Annual Conference on Internet Search and Innovation, Searle Center on Law, Regulation and Economic Growth, June, 2014, in process.

Daniel F. Spulber, Research Roundtable on Software and Business Method Patents,

Searle Center on Law, Regulation and Economic Growth, with Emerson Tiller, April, 2014, in process.

Daniel F. Spulber, Research Roundtable on Innovation Economics, Searle Center on Law, Regulation and Economic Growth, October, 2013, <u>http://www.law.northwestern.edu/faculty/programs/searlecenter/events/roundtable/index.</u> <u>html#innovationroundtable</u>

Daniel F. Spulber, Sixth Annual Conference on Innovation and Entrepreneurship, Searle Center on Law, Regulation and Economic Growth, June 6-7, 2013, http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html

Daniel F. Spulber, Fourth Annual Conference on Internet Search and Innovation, Searle Center on Law, Regulation and Economic Growth, June 20-21, 2013, <u>http://www.law.northwestern.edu/searlecenter/conference/internet/index.html</u>

Research Roundtable on Technology Standards, Innovation, and Market Coordination, Searle Center on Law, Regulation and Economic Growth, February 7-8, 2013, http://www.law.northwestern.edu/searlecenter/conference/roundtable/#standards

Daniel F. Spulber, Fifth Annual Conference on Innovation and Entrepreneurship, Searle Center on Law, Regulation and Economic Growth, June, 2012, http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html

Daniel F. Spulber, Third Annual Conference on Internet Search and Innovation, Searle Center on Law, Regulation and Economic Growth, June, 2012, http://www.law.northwestern.edu/searlecenter/conference/internet/index.html

Daniel F. Spulber, Book Preview Roundtable, Daniel F. Spulber's <u>The Innovative</u> <u>Entrepreneur</u>, Searle Center on Law, Regulation and Economic Growth, April 26-27, 2012,

http://www.law.northwestern.edu/searlecenter/conference/roundtable/#entrepreneurship

Daniel F. Spulber, Fourth Annual Conference on Entrepreneurship and Innovation, Searle Center on Law, Regulation and Economic Growth, June, 2011, http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html

Daniel F. Spulber, Second Annual Conference on Internet Search and Innovation, Searle Center on Law, Regulation and Economic Growth, June, 2011, http://www.law.northwestern.edu/searlecenter/conference/internet/index.html

Daniel F. Spulber, Research Roundtable on Innovation Policy, Intellectual Property, and Entrepreneurship, Searle Center on Law, Regulation and Economic Growth, 2011, http://www.law.northwestern.edu/searlecenter/conference/roundtable/#innovation Daniel F. Spulber, Third Annual Conference on The Economics and Law of the Entrepreneur, Searle Center on Law, Regulation and Economic Growth, June, 2010, <u>http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html</u>

Daniel F. Spulber, First Annual Conference on The Economics and Law of Internet Search, 2010,

http://www.law.northwestern.edu/searlecenter/conference/internet/index.html

Daniel F. Spulber, Second Annual Conference on The Economics and Law of the Entrepreneur, Searle Center on Law, Regulation and Economic Growth, June, 2009, <u>http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html</u>

Daniel F. Spulber, Book Preview Roundtable, Daniel F. Spulber and Christopher Yoo, <u>Networks in Telecommunications</u>, 2008,

http://www.law.northwestern.edu/academics/searle/conference/roundtable/Networks_agenda.pdf

Daniel F. Spulber, First Annual Conference on The Economics and Law of the Entrepreneur, Searle Center on Law, Regulation and Economic Growth, June, 2008, http://www.law.northwestern.edu/searlecenter/conference/entrepreneur/index.html

Daniel F. Spulber, Book Preview Roundtable, Daniel F. Spulber's <u>The Theory of the</u> Firm, 2008,

http://www.law.northwestern.edu/academics/searle/conference/roundtable/theory_agenda .pdf

OUTSIDE ACTIVITIES

Daniel F. Spulber, Brief of Amicus Curiae, The Intellectual Property High Court of Japan, Apple v. Samsung, March 2014.

Brief of Amici Curiae Trading Technologies International, Inc., Cantor Fitzgerald, L.P., Cummins Inc., Scientific Games Corporation, Align Technology, Inc., et al., in Support of Petitioner, Alice Corporation Pty. Ltd., Petitioner, v. CLS Bank International and CLS Services Ltd., Respondents, Supreme Court of the United States, January, 2014.

Gregory Sidak and Daniel F. Spulber, Declaration on Behalf of América Móvil, S.A.B. de C.V. before the Comisión Federal de Telecomunicaciones, Mexico, January, 2013.

Daniel F. Spulber, Economic Analysis for ChriMar Systems, Inc., In the matter of Certain Communication Equipment, Components Thereof, and Products Containing the Same, Including Power Over Ethernet Telephones, Switches, Wireless Access Points, Routers and Other Devices Used in LANS, and Cameras, United States International Trade Commission, Washington, D.C., 2012.

Richard A. Epstein, F. Scott Kieff, and Daniel F. Spulber, "The FTC's Proposal for Regulating IP through SSOs Would Replace Private Coordination with Government Hold-Up," White paper submitted at the Request of Qualcomm for the Federal Trade Commission's (FTC) Patent Standards Workshop, Washington, D.C., Summer, 2011.

Court of Appeals for the Federal Circuit, Amicus Brief of Distinguished Economists on Rehearing *en banc* in Support of the Appellee TiVo Inc, in favor of Affirmance, TiVo v. EchoStar, 2010.

Supreme Court of the United States, Amicus Brief of Professors and Scholars in Law and Economics in Support of Certiorari, Pacific Bell Telephone Co. v. LinkLine Communications, Inc., No. 07-512 (filed Nov. 16, 2007), William J. Baumol, Robert H. Bork, Robert W. Crandall, George Daly, Harold Demsetz, Jeffrey A. Eisenach, Kenneth G. Elzinga, Gerald Faulhaber, Franklin M. Fisher, Charles J. Goetz, Robert Hahn, Jerry A. Hausman, Thomas M. Jorde, Robert E. Litan, Paul W. MacAvoy, J. Gregory Sidak, Pablo T. Spiller, and Daniel F. Spulber.