

Dennis A. Yao

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EXPERIENCE

2004-

Harvard University, Boston, MA
Lawrence E. Fouraker Professor of Business Administration (2005-)
Harvard Business School (Strategy Unit)
Unit Head (2015-19); Unit Co-head (2019-20)

Professor of Business Administration (2004-05)
Thomas Henry Carroll Ford Found. Visiting Assoc. Prof. (2002-03)

2013-14
1998-99

University of California, Berkeley, CA
Visiting Scholar

Haas School of Business (Business and Public Policy 2013-14; Econ.
Analysis and Policy 1998-99); College of Engineering (Fung Institute
2013-14)

1983-2004

University of Pennsylvania, Philadelphia, PA
Professor of Business and Public Policy, Wharton School (2003-04)

Joel and Anne Ehrenkranz Family Term Associate Professor (1999-03)
Assoc. Prof. of Public Policy and Management (1990-99);
Lecturer/Assistant Prof. of Public Policy and Management (1983-90)
Secondary Appt.: Management Dept. – Strategy Group (1985-04)

1991-94

U.S. Federal Trade Commission, Washington, DC
Commissioner

Shared with four other Commissioners decision responsibility for
policy, law enforcement, and judicial actions of the agency including
merger review, nonmerger antitrust actions, policing deceptive
advertising and fraudulent marketing, and issuing and enforcing
industry rules

1977-79

Ford Motor Company, Dearborn, MI
Chief Analyst (1979); Analyst (1977-9), Car Product Planning Group

EDUCATION

Stanford University, Stanford, CA
Ph.D., 1984, Business Administration (Economics, Business, and Policy)
Emphasis: Industrial Organization; Minor: Organizational Behavior

University of California, Berkeley, CA
MBA, 1977, Political, Social, and Legal Environment of Business

Princeton University, Princeton, NJ
BSE, 1975, Civil Engineering (Industrial Engineering)

PUBLICATIONS

Intellectual Property, Contracting, and Innovation

“Government-Funded Research Increasingly Fuels Innovation,” with L. Fleming, H. Greene, G.C. Li, and M. Marx, *Science* 364:6446. (21 June 2019), pp. 1139-41.

“Attracting Skeptical Buyers: Negotiating for Intellectual Property Rights,” with J. Anton, *International Economic Review* 49:1, (February 2008), 319-348.

“Finding Lost Profits: An Equilibrium Analysis of Patent Infringement Damages,” with J. Anton, *Journal of Law, Economics & Organization* 23:1, (Spring 2007), pp. 186-207.

“Policy Implications of Weak Property Rights,” with J. Anton and H. Greene, in A. Jaffe, J. Lerner, and S. Stern (eds.) *Innovation Policy and the Economy* Vol. 6, NBER and MIT Press, 2006, pp. 1-26.

“Markets for Partially-Contractible Knowledge: Bootstrapping vs. Bundling,” with J. Anton, *Journal of the European Economic Association* 3:2-3 (April-May 2005), pp. 745-754.

“Little Patents and Big Secrets: Managing Intellectual Property,” with J. Anton, *RAND Journal of Economics* 35:1 (Spring 2004), pp. 1-22.

“Patents, Invalidity, and the Strategic Transmission of Enabling Information,” with J. Anton, *Journal of Economics & Management Strategy* 12:2 (Summer 2003), pp.151-178.

“The Sale of Ideas: Strategic Disclosure, Property Rights, and Contracting,” with J. Anton, *Review of Economic Studies* 69:3 (July 2002), pp. 513-531.

“Start-ups, Spin-offs, and Internal Projects,” with J. Anton, *Journal of Law, Economics & Organization* 11:2 (October 1995), pp. 362-378.

“Expropriation and Inventions: Appropriable Rents in the Absence of Property Rights,” with J. Anton, *American Economic Review* 84:1 (March 1994), pp. 190-209 (reprinted in Z. Acs, ed., *The Knowledge Spillover Theory of Entrepreneurship*, Elgar, 2010).

Procurement and Regulation

“Coordination in Split-Award Auctions,” with J. Anton, *Quarterly Journal of Economics* 107:2 (May 1992), pp. 681-707 (reprinted in P. Klemperer, ed., *The Economic Theory of Auctions*, Elgar, 2000).

“Measuring the Effectiveness of Competition in Defense Procurement: A Survey of the Empirical Literature,” with J. Anton, *Journal of Policy Analysis and Management* 9 (Winter 1990), pp. 60-79.

“Split-Awards Procurement and Innovation,” with J. Anton, *RAND Journal of Economics* 20:4 (Winter 1989), pp. 538-552.

“Strategic Responses to Automobile Emissions Control: A Game-Theoretic Analysis,” *Journal of Environmental Economics and Management* 15 (December 1988), pp. 419-438.

“Second-Sourcing and the Experience Curve: Price Competition in Defense Procurement,” with J. Anton, *RAND Journal of Economics* 18:1 (Spring 1987), pp. 57-76.

“The Nonpecuniary Costs of Automobile Emissions Standards,” with T. Bresnahan, *RAND Journal of Economics* 16:4 (Winter 1985), pp. 437-455 (reprinted in W. Harrington and V. McConnell, eds., *Controlling Automobile Air Pollution*, Ashgate, 2007).

Strategy and Non-Market Strategy

“Integrated Strategy: Residual Market and Exchange Imperfections as the Foundation of Sustainable Competitive Advantage,” with F. Oberholzer, *Strategy Science* 3:2, (June 2018), pp. 463-480.

“Strategy and the Institutional Envelope,” with G. Ahuja, L. Capron, and M. Lenox, *Strategy Science* 3:2, (June 2018), pp. iii-xi.

“Elevating Repositioning Costs: Strategy Dynamics and Competitive Interactions,” with A. Menon, *Strategic Management Journal*, 38:10 (October 2017), pp. 1953-1963.

“Navigating Natural Monopolies: Market Strategy and Non-Market Challenges in Radio and Television Audience Measurement Markets,” with H. Greene, *Advances in Strategic Management*, 34 (2016), pp. 367-411.

“Market Imperfections and Sustainable Competitive Advantage,” with F. Oberholzer-Gee, in C. Thomas and W. Shughart II (eds.), *Oxford Handbook of Managerial Economics*, Oxford U. Press, 2013, 262-277.

“Non-market Strategies and Regulation in the U.S.,” in B. Kogut (ed.), *The Global Internet Economy* (MIT Press), 2003, pp. 407-435.

“Antitrust Constraints to Competitive Strategy,” *Wharton on Dynamic Competitive Strategies*, G. Day and D. Reibstein (eds.), John Wiley and Sons, 1997, pp. 313-337.

“Beyond the Reach of the Invisible Hand: Impediments to Economic Activity, Market Failures, and Profitability,” *Strategic Management Journal* 9 (Summer 1988), pp. 59-70.

Law and Public Policy

“Informing Dissent,” with H. Greene, *Law, Culture, and the Humanities* 16:2, (June 2020), pp. 200-212.

“Antitrust as Speech Control,” with H. Greene, *William & Mary Law Review* 60:4. (March 2019), pp. 1215-1267.

“The Influences of Strategic Management on Antitrust Discourse,” with H. Greene, *Antitrust Bulletin*, 59:4 (Winter 2014), pp. 789-825.

“Antitrust—What Role for Strategic Management Expertise?” with F. Oberholzer-Gee, *Boston University Law Review*, 90:4 (August 2010), pp. 1457-1477.

“Standard Setting Consortia, Antitrust, and High-Technology Industries,” with J. Anton, *Antitrust Law Journal* 64:1 (Fall 1995), pp. 247-265.

“Some Reflections on the Antitrust Treatment of Intellectual Property,” with T. Lewis, *Antitrust Law Journal* 63:2 (Winter 1995), pp. 603-619. (abridged version in *The Financial Times, The Complete MBA Companion*, 1997, pp. 577-582)

“Antitrust Analysis of Joint Ventures: An Overview,” *International Joint Ventures: Economic and Organizational Perspectives*, Chatterjee and Gray (eds.), Kluwer, 1995, pp.145-151.

“The Analysis of Hospital Mergers and Joint Ventures: What May Change?” *Utah Law Review* 1995:2, pp. 381-402.

“Prospects for Harmonization of United States and European Union Antitrust Laws Concerning International Strategic Alliances,” with J. Krauss, *Proceedings of the Symposium on International Harmonization of Competition Laws*, Cheng and Liu (eds.), ROC, 1994.

“Antitrust and Managed Competition for Health Care,” with M. Riordan and T. Dahdoh, *Antitrust Bulletin* 39:2 (Summer 1994), pp. 301-331.

“Antitrust Analysis of Defense Industry Mergers,” with S. DeSanti, *Public Contract Law Journal* 23:3 (Spring 1994), pp. 379-395.

“Information Problems in Merger Decisionmaking and Their Impact on Development of an Efficiencies Defense,” with T. Dahdoh, *Antitrust Law Journal* 62:1 (Summer 1993), pp. 23-45.

“Game Theory and the Legal Analysis of Tacit Collusion,” with S. DeSanti, *Antitrust Bulletin* 38:1 (Spring 1993), pp. 113-141.

“Innovation Issues Under the 1992 Merger Guidelines,” with S. DeSanti, *Antitrust Law Journal* 61:2 (Winter 1993), pp. 505-521.

“Information and Decisionmaking at the Federal Trade Commission,” with C. Vecchi, *Journal of Public Policy & Marketing* 11:2 (Fall 1992), pp. 1-11.

Political Economy

“Presidential Commitment and the Veto,” with D. Ingberman, *American Journal of Political Science* 35:2 (May 1991), pp. 357-389.

“Circumventing Formal Structure Through Commitment: Presidential Influence and Agenda Control,” with D. Ingberman, *Public Choice* 70:2 (May 1991), pp. 151-179.

Organizations and Decision Making

“Practices for Managing Information Flows Within Organizations,” with J. Demski, T. Lewis, and H. Yildirim, *Journal of Law, Economics & Organization* 15:1 (March 1999), pp. 107-131.

“Competition Policy During the Transition of Central and Eastern Europe to a Market Economy: An Organizational Perspective,” with J. Langenfeld, *Government and Markets: Establishing a Democratic Order and a Market Economy in Former Socialist Countries*, Blommestein and Steunenberg (eds.), Kluwer, 1994, pp. 195-218 (abridged version in *Strategic Renaissance and Business Transformation*, Thomas and O’Neal (eds.), John Wiley and Sons, 1995).

Other

“Fly-by-Night Firms and the Market for Product Reviews,” with G. Faulhaber, *Journal of Industrial Economics* 38 (September 1989), pp. 65-77.

WORKING PAPERS

Pushed into a Crowd: Repositioning Costs, Resources, and Competition in the RTE Cereal Industry, with Y. Hou, May 2020. (Previous version: The Impact of Regulation on Strategic Positioning: Self-Regulation in the RTE Cereal Industry, HBS working paper 20-014, August 2019).

Rationalizing Outcomes: Mental-Model Guided Learning in Competitive Markets, with A. Menon, HBS working paper 17-095, May 2017 (revised March 2018).

Delay as Agenda Setting, with J. Anton, February 2011 (revised May 2017).

Innovation, Knowledge Flow, and Worker Mobility, with T. Lewis, July 2001 (rev. 2006).

Strategy in a World with Uncertain Rules, with R. Shell, February 2000.

CURRENT PROJECTS

Designing Self-Regulation (with Y. Hou)

Competition Among Non-profit Organizations (with A. Menon and S. Wolfolds)

The Reach of the Visible Hand: Government Acknowledgements in U.S. Patents and Technological Change, (with L. Fleming and H. Greene)

JUDICIAL OPINIONS AND FORMAL STATEMENTS

Yao, D. (for the majority), In re Coca-Cola Bottling Co. of the Southwest, 118 F.T.C. 452 (1994).

Yao, D. (for the majority), In re Trans Union Corp., 118 F.T.C. 821 (1994).

Owen, D. and Yao, D. (concurring opinion), In re Adventist Health System/West, et. al., 117 F.T.C. 224, 297 (1994).

Various formal statements regarding votes on Federal Trade Commission actions

CASES AND TEACHING NOTES

“Short Note on Game Theory,” with Eric Van den Steen, Harvard Business School Background Note 718-509, 2018 (revised 2020).

“Short Note on Relative Cost Analysis,” with Eric Van den Steen, Harvard Business School Background Note 718-485, 2018, (revised 2020).

“A Brief Note on Global Antitrust,” with David Yoffie, Harvard Business School Background Note 716-432, 2016 (revised 2020).

“Rebooting the U.S. Patent and Trademark Office,” with Hillary Greene, Harvard Business School Case 715-458, 2015 (revised 2017).

"Sweet Deal—Industry Self-Regulation of Breakfast Cereal Advertising to Children." with Felix Oberholzer-Gee, Britta Kelley, and Lizzie Gomez, Harvard Business School Case 712-463, 2011 (revised 2014, with teaching note).

"Jaipur Literature Festival—Beyond the Festival Template," with Tarun Khanna, Hillary Greene, and Amrita Chowdhury, Harvard Business School Case 712-401, 2012 (revised 2014).

"Hyperion Power Module: Downsizing the Nuclear Renaissance?" with Britta Kelley, Harvard Business School Case 712-457. 2012.

“Hollywood Game” interactive course software, HBS 2011.

"Supersonic Business Jets," with Julia Rozovsky, Harvard Business School Case 709-425, 2008.

"Responding to Imitation: Intel vs. AMD in 1991." Harvard Business School Case 709-450, 2008.

"CBS and Online Video," with Francisco Queiro, and Julia Rozovsky, Harvard Business School Case 709-447, 2008.

"Kroger Union Negotiations 2005," with Mary L. Shelman, Harvard Business School Case 708-433, 2007.

"Sirius/XM Proposed Merger," with Chris Chan, and Andrew Quigg, Harvard Business School Case 707-580, 2007.

"Free the Grapes--Direct-to-Consumer Shipping in the Wine Industry," with Felix Oberholzer-Gee, Patricia Wu, and Libby Cantrill, Harvard Business School Case 707-472.

"Introduction to Competitive Dynamics: Strategy and Tactics," Harvard Business School Note N9-707-475, 2006.

"Technical Game Theory Note (#1 through #6)" Harvard Business School Notes N9-707-476, 477, 478, 480, 481, 488, 2006.

"Introducing Frequent Flyer Programs," Harvard Business School Case N9-707-479, 2006.

"Competitive Headaches (A): The Analgesic Wars," Harvard Business School Case N9-707-489, 2006.

"Competitive Headaches (B): OTC Entry in Ibuprofen," Harvard Business School Case N9-707-490, 2006.

"CNN and the Cable News Wars," with Bharat Anand and Rafael Di Tella, Harvard Business School Case N9-707-491, 2006.

"Kroger Union Negotiations," Harvard Business School Case N9-707-503, 2006.

"Toyota Motor Corporation: Launching Prius," with Forest Reinhardt and Masako Egawa, Harvard Business School Case 706-458, 2006 (with teaching note).

"Strategies Beyond the Market." with Felix Oberholzer-Gee, Harvard Business School Note 707-469, 2006, revised 2011 (with teaching note).

"Lobbying for Love? Southwest Airlines and the Wright Amendment." With Felix Oberholzer-Gee, Libby Cantrill, and Patricia Wu, Harvard Business School Case 707-470, 2006.

"Goodyear and the Threat of Government Tire Grading," with Felix Oberholzer-Gee and Elizabeth Raabe, Harvard Business School Case 706-456, 2006 (with teaching note).

"Amgen Inc.'s Epogen--Commercializing the First Biotech Blockbuster Drug," with Felix Oberholzer-Gee, Harvard Business School Case 706-454, 2006 (with teaching note).

"Brighter Smiles for the Masses--Colgate vs. P&G," with Felix Oberholzer-Gee and Filipa Jorge, Harvard Business School Case 706-435, 2006 (with teaching note).

"Game Theory and Business Strategy," with Felix Oberholzer-Gee, Harvard Business School Note 705-471, 2005.

"Midway's Entry into Milwaukee: An Interactive Game." Harvard Business School Note 705-470, 2005.

"A Note on Antitrust and Competitive Tactics," Harvard Bus. School, 9-703-493, 2003.

"Toys "R" Us (A) and Toys "R" Us (B)," with C. Reavis and M. Rukstad, Harvard Business School, 9-703-445/6, 2003 (with teaching note).

COMMENTS AND SHORT ARTICLES

"Product Market Strategy," with Anoop Menon in D. Teece and M. Augier (eds.) *Palgrave Encyclopedia of Strategic Management*, 2013.

"Strategy Frameworks and Teaching Antitrust to Business Students," with Felix Oberholzer-Gee, *Antitrust*, (Fall 2006), pp. 13-15.

Comment in *Competition Policy and Intellectual Property Rights in the Knowledge-Based Economy*, R. Anderson and N. Gallini (eds.), Industry Canada Research Series, University of Calgary Press, 1998, pp. 339-342.

Comment in "The Economic Implications of Liberalizing APEC Tariff and Nontariff Barriers to Trade," U.S. International Trade Commission, Publication 3101, April 1998, pp. 5/57-9.

"Business Strategy from Alternative Perspectives," *Antitrust*, (Spring 1998), pp.16,18.

"M&A's: Insight into the Boom," *Wharton Impact*, (Winter 1995), p. 4.

Discussion, R. Marshall, M. Meurer and J. Richard, "Incentive-Based Procurement Oversight by Protest," *Incentives in Procurement Contracting*, J. Leitzel and J. Tirole (eds.), Boulder, CO: Westview Press, 1993, pp. 57-59.

"Applying the 1992 Horizontal Merger Guidelines," with K. Arquit, *Antitrust* 6:3 (Summer 1992), pp. 17-19.

Comment, "Public-Sector Delegation Versus Privatization," *Journal of Policy Analysis and Management* 6:4 (Summer 1987), pp. 582-584.

Discussion of Chapter 6, “Information Technology and Organization Theory,” *Services in Transition: The Impact of Information Technology*, Noam and Faulhaber (eds.), Lexington, MA, Ballinger, 1986, pp. 132-137.

BOOK REVIEWS

A. Arora, A. Forfuri, and A. Gambardella, “Markets for Technology: The Economics of Innovation and Corporate Strategy,” reviewed in *Journal of Economics/Zeitschrift für Nationalökonomie* 79:2 (2003), pp. 205-207; J. Gansler, “Defense Conversion,” reviewed in *Journal of Economic Literature* 35 (March 1997), pp. 165-66; E. Tufté, “Envisioning Information,” reviewed with J. Morley, in *Journal of Policy Analysis and Management* 11:2 (Spring 1992); F. Margiotta and R. Sanders (eds.), “Technology, Strategy, and National Security,” reviewed in *Technology and Culture* 29:2 (April 1988), pp. 330-331; D. Yates, Jr., “The Politics of Management,” and H. Kaufman, “Time, Chance, and Organizations,” reviewed in *Journal of Policy Analysis and Management* 6:3 (Spring 1987), pp. 487-490; J. Eastman, “Styling vs. Safety: The American Automobile Industry and the Development of Automotive Safety, 1900-1966,” reviewed in *Business History Review* (Autumn 1985), pp. 501-503.

RESEARCH INTERESTS

mental models and strategic interactions, nonmarket and competitive strategies, applied microeconomics and industrial organization (decision making, contracting, intellectual property and antitrust)

PROFESSIONAL ACTIVITIES

Editorial Responsibilities: Senior Editor (2014-), *Strategy Science*; Editorial Board (1992-2013), *Strategic Management Journal*; Associate Editor (2003-10), *Management Science* (Business Strategy Department); Associate Editor (2001-10), Contributing Editor (1996-2001), *Antitrust*; Coeditor (1996-2006), *Journal of Economics & Management Strategy*; Editorial Board (1997-2002), Associate Editor (1995-97), *Journal of Industrial Economics*; Coeditor (1994-99), *Journal of Policy Analysis and Management*.

Committees: Organizing Committee, Strategy and the Business Environment Annual Conference 2000-present; Economics, ABA Antitrust Section, 2010-12; Policy Council, Assoc. for Public Policy and Management, 1996-99; Program Committee, APPAM Research Conference, 1997; Chair/Co-chair, Legal Education Committee, American Bar Association Section of Antitrust Law, 1994-6; Cross-Sector Group, Going-to-Scale Study (non-profit management), The Philanthropic Initiative, Inc., 1994-5; Board of Advisors, *The Antitrust Counselor*, 1995-2000; Advisory Panel, Antitrust Policy and Health Care Reform study (R.W. Johnson Foundation sponsored study), 1995-97; Advisory Committee, U.S. Office of Technology Assessment, Green Products By Design: Choices for a Cleaner Environment (OTA-E-541), 1990-92.

Referee: *Academy of Mgmt J.*, *Acad. of Mgmt Rev.*, *Admin. Science Quarterly*, *American Economic Rev.*, *American Econ. J.-Micro.*, *American Political Science Rev.*, *Antitrust Law J.*, *Ca. Mgmt. Rev.*, *Econometrica*, *Economic Inquiry*, *Economic J.*, *Intern. J. of*

Industrial Org., J. of Bus. Admin., J. of Econ. Beh. & Org., J. of Econ. Theory, J. of Econ. & Mgmt. Strategy, J. of Environ. Econ. and Mgmt., J. of Industrial Econ., J. of Info. Econ. and Policy, J. of Law & Econ., J. of Law, Econ. & Org., J. of Policy Analysis and Mgmt., J. of Political Economy, J. of Politics, Marketing Science, Mgmt. Science, Naval Res. Logistics Quarterly, Quarterly J. of Econ., RAND J. of Econ., Research Policy, Rev. of Econ. And Stat.; Rev. of Econ. Studies, Rev. of Industrial Org., Southern Econ. J., Strategic Mgmt. J.

Invited Presentations: 2018: LBS; 2017: Cornell (econ), Georgia State (Robinson), Minnesota (Carlson); 2016: Carnegie-Mellon (Heinz), Michigan (Ross); 2015: Connecticut (econ); 2014: Stanford (GSB); 2013: Berkeley (Haas), Pennsylvania (Wharton); 2012: MIT (Sloan), Boston (economics); 2009: Harvard/MIT (organizational economics), Berkeley (Haas), Maryland (Smith); 2008: Toronto (Rotman), Michigan (Ross); 2006: NYU (Stern), Wesleyan (econ), UBC (Sauder); 2005: Washington (econ); 2004: U.S. Dept. of Justice (EAG); 2003: Carnegie-Mellon (GSIA); 2002: Northwestern (Kellogg), Berkeley (Haas), NBER (productivity), Columbia (bus/econ); 2001: Berkeley (Haas), NYU (Stern); 2000: Washington (econ); 1999: UCLA (Anderson), Florida (econ), Stanford (GSB), Berkeley (Haas, SIMS); 1998: Harvard (HBS), UCLA (econ), Berkeley (econ), MIT (Sloan); 1996: Industry Canada (Competition Bur.); 1995: Maryland (econ), Minnesota (Carlson); Florida (econ); 1994: UCLA (Anderson), Stanford (GSB), Duke (Fuqua), Iowa (econ); 1993: U.S. Dept. of Justice (EAG), Washington U. (Olin), Washington (econ); 1990: Penn State (bus), Rutgers (econ); 1989: Northwestern (Kellogg); 1988: Illinois (econ); 1987: Federal Trade Commission (BE), Stanford (Hoover), UC Davis (econ); 1985: Northwestern (econ); 1984: UBC (commerce), Boston (mgmt), NYU (bus), Michigan (bus), Penn (Wharton), Case-Western Reserve (Weatherhead).

Conference Co-organizer: 2018: Reunion and Celebration of Political Economics at Stanford GSB; 2015 and 2007: Strategy and the Business Environment, HBS; 2004 and 2000: Strategy and the Business Environment, Wharton; 1994: Post-Chicago Economics: New Theories-New Cases? (FTC, DOJ, ABA), Georgetown Law Center; 1989 and 1988: Workshop on Models of Strategic Choice, (Wharton), Long Beach Island, NJ.

Conference Presentations: 2019: Strategy and the Business Environment, Stanford; 2017: Bresfest, SIEPR, Stanford; 2016: Academy of Management; 2013: Peder Sather Conference on Industrial Organization, UC Berkeley; American Antitrust Institute Invited Symposium, Washington, DC; 2012: Sumantra Ghoshal Conference, London Business School; 2011: Economics of Organization Workshop, Queens School of Business; 2009: Antitrust Conference in Honor of Joseph Brodley, Boston U. Law School.; 2008: Strategy and the Business Environment/ISR, Duke; 2005: NBER, Washington, DC; 2004: Eur. Econ. Assoc., 2003: Intern. IO, Boston; 2002: Strategy and the Business Environment, Stanford; 2001: Assoc. of Public Policy and Mgmt; Global Internet Economy, l'Ecole Polytechnique, Paris; 2000: Strategy Research, Harvard Bus.; 1998: Positive Political Theory of Bus. Strategy, (UC Berkeley) Marshall, CA ; Europ. Summer Symp. in Econ. Theory, Gerzensee, Switz.; 1997: Financing Innovation, Columbia Law; Strategic Management, Stanford; 1996: American Econ. Assoc.; Southern Econ. Assoc.; 1994: APPAM; 1993: Western Econ. Assoc.; APPAM; 1992: Strategic Mgmt Society; Marketing and Public Policy ; AEA; APPAM; 1991: Econometric Society Summer; Industrial Organization, Strategic Mgmt and Intern. Competitiveness, UBC; 1988: Econ. of Defense Acquisitions, RAND Corp.; APPAM;

1987: Econ. of Defense Procurement, RAND Corp.; Strategy Res., Northwestern; AEA;
1986: EDP, RAND; APPAM; AEA.

Lectures: 2015: Far Eastern University, Philippines; Institute of Corporate Directors, Philippines; 1996: Management Dev. Institute, Korea; 1994: Duke (Fuqua); Iowa (Bus); Washington Campus MBA; Harvard (Kennedy Sch. Student Forum); Harvard (HBS); IMD, Switzerland; 1993: Michigan (Bus.); Wharton Executive MBA XVIII Washington Weekend; 1992: Penn (Wharton).

Speeches: numerous speeches on antitrust and consumer protection policy (1991-1994); Asian Pacific American Heritage Observance (keynote speech), US Army, Ft. Riley, KS 2008; (keynote speech), Federal Trade Commission 2012.

Roundtable and Panel Discussant: 2019: Academy of Management, Bridging the Gap Between Market and Nonmarket Strategy; AoM Research Frontiers in Nonmarket Strategy PDW, AoM STR Managing Your Dissertation Workshop; 2018: AoM STR Framing Strategy Papers PDW; AoM STR Managing Your Dissertation Workshop, Chicago; 2017: AoM BPS Junior Faculty Teaching Consortium, Atlanta; 2015: AoM BPS New Faculty Consortium, Vancouver; 2014: AoM, Philadelphia; 2013: Penn APALSA Conference, U. Pennsylvania Law School; 2010: Business Strategy and the Non-Market Environment Conference, Northwestern (Kellogg); AoM BPS New Faculty Consortium, Montreal; 2007: Strategic Management Society, Common Ground Session, San Diego; AoM BPS New Faculty Consortium, Philadelphia; Utah/BYU Winter Strategy Conference, Solitude, UT; 2005: Business and its Social Environment, Northwestern (Kellogg); 2002: International Regulation of Competition (GE/Honeywell) Symposium, Penn (Law) JIEL; 2001: Wharton Technology Miniconference, Philadelphia; 1998: Joint Venture Project Roundtable, FTC, Washington; 1997: per se Illegality and the Truncated Rule of Reason in the Context of Joint Ventures, FTC, Washington; 1996: Changing Nature of Competition, ABA Antitrust Section, Washington; 1995: Telecommunications: Competition and Regulation, CEPR & IAE, Barcelona; 1993: Wharton Impact Conf.: Charting the Future of the Airline Industry, Philadelphia; ABA Antitrust Section Midwinter Council Meeting, Puerto Rico; 1992: Intern. Conf. on Joint Ventures and Strategic Alliances, Penn State; 1991: Current Topics in Antitrust Economics, ABA Antitrust Section, Asheville, NC; 1990: Government: Friend and Foe, U. of Pennsylvania 250th Birthday Celebration.

Discussant: 2018: Strategy in a Populist, Nationalist, De-Globalizing World, Wharton; 2011: Strategy and the Business Environment Conference, Wharton; 2010: NBER Summer Institute (IP Policy and Innovation); 2008: LBS Sumantra Ghoshal Conf.; 2006: HBS Strategy Research; 2005: NBER Summer Institute (IP Policy and Innovation); 2004: ASSA; Wharton Technology Miniconf.; 2003: Duke/Northwestern/Texas IO Theory; Intern. IO, Boston; Strategy and the Bus. Environ., HBS; 2002: ASSA; 1997: APEC, U.S. Intern. Trade Comm.; 1996: Intellectual Property and Antitrust, Ottawa; ASSA; 1992: Joint Ventures and Strategic Alliances, Penn State; 1989: Incentives in Procurement, NBER, Cambridge, MA; 1986: Privatization of the Public Sector, Penn; 1985: Impact of Information Technology on the Service Sector, Penn; 1984: Econometric Society Summer; 1981: Automobile Industry Policy, Stanford.

Testimony and Other Activities: Led FTC technical assistance mission to Estonia, Latvia, and Lithuania (1994). Led joint DOJ/FTC technical assistance missions to Bulgaria (1992) and to Hungary (1992). Led FTC consumer protection technical

assistance mission to Poland (1992). Testified at the FTC Hearings: FTC at 100/Boston (2008), Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy (2002), Global and Innovation-Based Competition (1995); Appeared before the Department of Defense Science Board Antitrust Task Force (1993); Testified before various U.S. Congressional subcommittees (1991-94); Presentations at FCC on interconnection rule (1996) and DOJ Antitrust Division. Member, Wharton Faculty International Seminar in Korea (1996), in Malaysia (1998); Participant in NAS Workshop on Future Environments for NIST (2001), NAS Workshop on Information Technology and Competition (2003); Member, HBS Faculty Immersion Trip to China (2012).

HONORS

Nominated by President Bush to U.S. Federal Trade Commission, confirmed by U.S. Senate, 1991; Commencement speaker, North Hills H.S., Pittsburgh, PA, 1993; A.M. (hon.) Harvard, 2004; M.A. (hon.), U. of Pennsylvania, 1990; Interview Articles: *Wharton Alumni Magazine* (1992), *Antitrust* (Fall 1994).

TEACHING EXPERIENCE

Graduate courses in strategy, non-market strategy, competitive strategies, managing strategic alliances, business-government relations, government and legal environ. of bus., managerial econ. and game theory, organization theory, research methods, public policy, technology and public policy; various executive education sessions in strategy.

Wyss Award for Mentoring, HBS Doctoral Program, 2012, 2019; Charles M. Williams Award (for doctoral teaching), HBS, 2013, 2019; MBA Core Curriculum Award, Wharton Grad. Assoc., 1998.

MAJOR ADMINISTRATIVE EXPERIENCE

Harvard Library Board (2016-); Unit Head, HBS Strategy (2015-19); Faculty Co-chair, Midea Group Top Leaders Program, 2019; Faculty Co-chair, Senior Executive Program, China (2015-17), Faculty Chair, HBS DBA program (2011-16); London Business School Strategy & Entrepreneurship Subject Area Review, External Assessor (2016); Harvard Library Faculty Advisory Council (2012-2015); HBS Strategy Unit doctoral coordinator (2005-13); HBS Doctoral Program Review Committee (major revision 2011-12); Faculty Chair, Bank of China/HBS Custom Executive Education Program (2006-9); Haas Business and Public Policy Group Review Committee (2009); Dean's Task Force on Wharton Undergraduate Programs 2003-4; University of Pennsylvania Academic Planning and Budget Committee 2003-4; University of Pennsylvania Faculty Senate Committee on Administration (chair) 2001-2; Wharton Committee on Technology (chair) 2000-01; Wharton Committee on Academic Freedom and Responsibility (elected chair) 1999-2000; Wharton Grad. Curriculum Committee (major revision of MBA curriculum 1990-91, 94-96); doctoral program coordinator; faculty recruiting coordinator.

BOARD MEMBERSHIP

National Advertising Review Board, 2001-04, 05-07.

CONSULTING

Principal, LECG, Inc., 1994-2000; antitrust, intellectual property, business strategy, and consumer protection. Clients included Colgate-Palmolive, DOJ (NNS Shipyard acquisition), WBN/FasTV (start-up), FTC (Pharmacia-Upjohn merger), General Electric (Engine Services), Gleasman (start-up); GTE Laboratories, Intel, Monsanto (Ceregen), Nat. Acad. of Sciences, TalentKing.com, Inc. (start-up), USWest.

PERSONAL

Married; U.S. citizen.

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