CURRICULUM VITAE

Guofu Tan

(Last update: March 26, 2017)

CONTACT INFORMATION

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CURRENT POSITION

Professor of Economics, University of Southern California, Los Angeles

EDUCATION

1985-90: California Institute of Technology, USA M.Sc. and Ph.D. in Economics

1978-1985: B.Sc. and M.Sc. in Mathematics, China

WORKING EXPERIENCE

Professor of Economics, University of Southern California, 2003-present

Visiting Professor of Economics, Shanghai University of Finance & Economics, 2014-

Professor and Dean, School of International Business Administration, Shanghai University of Finance & Economics, 2006-2013

Short-term Visiting Professor of Economics, the Centre for Asian Pacific Studies and the Centre for Public Policy Studies at Lingnan University, Hong Kong, 12/2004 Short-term Visiting Professor of Economics, Cheung Kong Graduate School of Business, Beijing, 06-07/2004

Special-term Professor of Economics, Tsinghua University, Beijing, 2003-06

T.D. MacDonald Chair in Industrial Economics, Competition Bureau, Canada, 2000-01

Associate Professor of Economics, University of British Columbia, Vancouver, Canada, 1996-2003

Associate Professor of Economics, Hong Kong University of Science & Technology, Hong Kong, 1996-99

Assistant Professor of Economics, University of British Columbia, Vancouver, Canada, 1990-96

Senior Consultant, Delta Economics Group, Vancouver, 2002-2014

Academic Affiliate, Competition Economics LLC, California, 2010 - present

Senior Consultant, ERS Group, 2008-09

Consultant for Competition Bureau (Canada), Bell Canada, Microsoft, Johnson & Johnson (China), World Bank, Anti-Monopoly Bureau (China), and State Administration of Industry & Commerce (China)

ANTITRUST CONSULTING EXPERIENCE in China

Areas: Mergers, Abuse of Dominance, Monopolistic Agreements, and Regulatory Policies

Major clients: The Anti-monopoly Bureau (the Ministry of Commerce), the Antimonopoly and Anti-unfair Competition Enforcement Bureau (the State Agency of Industry & Commerce), Johnson & Johnson (China), the Ministry of Information Industries

Worked for the Anti-monopoly and Anti-unfair Competition Enforcement Bureau (SAIC) on the Tetra Pak case, 2013-2016

Worked for Johnson & Johnson (China) on a civil antitrust litigation (a RPM case), 2012-2013

Worked for the Anti-monopoly Bureau (MofCom) on the Oracle & Sun Microsystems merger, 2009-2010

Provided a report/study on "Economic Methodologies in Merger Review" commissioned by the Anti-monopoly Bureau (MofCom), 2009

Gave special lectures in antitrust judicial training program in Beijing, 2012

Provided several special lectures in the Anti-monopoly Bureau (MofCom) and in the Anti-monopoly and Anti-unfair Competition Enforcement Bureau (SAIC)

Organized annual workshop on Industrial Organization & Management Strategy in China since 2004, the first Asian Competition Policy Workshop in Shanghai in 2007, and annual workshop on Anti-monopoly Law and Enforcement in Shanghai University of Finance & Economics since 2007

ANTITRUST CONSULTING EXPERIENCE in Canada/US

Areas: Mergers and Abuse of Dominance

Major clients: Competition Bureau (Canada), Cadbury, and EarthLink

Worked on a number of merger cases including the Loblaw & Shoppers Drug Mart merger, Superior Plus & Canexus merger, Canexus & Camtrade merger

EDITORIAL POSITIONS

Associate editor, International Journal of Industrial Organization, 2004-2010

Co-editor, Annals of Economics and Finance, 2001-

Editorial Board, China Economic Quarterly, 2001-

Editorial Board, Review of Industrial Economics, 2002-

Associate editor, International Economic Review, 1999-2001

RESEARCH INTERESTS

Industrial Organization (Theory and Applications), Auction Theory, Competition Policy and Regulation, Microeconomics, Anti-monopoly Law, Chinese Economy

CURRENT RESEARCH TOPICS

- 1. Nonlinear pricing (all-units discounts, quantity-forcing) with asymmetric competition
- 2. Price matching and margin protection program
- 3. Competition in two-part tariffs between asymmetric firms

- 4. Platform competition in multiple sided markets
- 5. Asymmetric auctions and resale markets
- 6. Auctions with participation costs
- 7. Nash bargaining with non-convexity
- 8. Economic analysis and antitrust litigation in China (several case studies)

ACADEMIC PUBLICATIONS

- 1. "All-Units Discounts: Leverage and Partial Foreclosure in Single-product Markets," *Canadian Competition Law Review* 30 (Spring 2017): 92-110 (with Y. Chao).
- **2.** "Equilibria in Second-Price Auctions with Private Participation Costs and Values," *Economic Theory* (January 2017) (with X. Cao, G. Tian and O. Yilankaya).
- 3. "Hidden Reserve Prices with Risk Averse Buyers," *Frontier Economics in China* (forthcoming 2017) (with H. Li).
- "Bilateral Market Structures and Regulatory Policies in International Telephone Markets," *International Economic Review* 57(2) (May 2016), 393-423 (with H. Ju).
- 5. "Nash Bargaining with Log-convexity," *Economic Theory* 58 (2015), 413-440 (with C. Qin and S. Shi).
- 6. "Economics and Private Antitrust Litigation in China," *Competition Policy International* 9 (Spring 2013), 123-152 (with D. Lu).
- "Resale Price Maintenance and the Anti-Monopoly Law," in a book volume *China's Anti-Monopoly Law, The First Five Years*, edited by A. Emch & D. Stallibrass, Wolters Kluwer, 2013, 119-135 (with D. Lu).
- 8. "China's Anti-Monopoly Law: What Is the Welfare Standard?" *Review of Industrial Organization 41* (2012), 31-52 (with P. Shan, S. Wilkie and M. Williams).
- 9. "Coalition Formation in the Presence of Continuing Conflict," *International Journal of Game Theory* 39 (March 2010), 273-299 (with R. Wang).
- 10. "Asymmetric Common-Value Auctions with Applications to Private-Value Auctions with Resale," *Economic Theory* 45 (October 2010), 253-290 (with H. Cheng).
- 11. "Recent Developments in Industrial Economics: A Selective Survey." In a book volume *Industrial Organization in Canada, Empirical Evidence and Policy*

Challenges, edited by Z. Chen and M. Duhamel, McGill-Queen's University Press, 2010, 64-107.

- 12. "Bidding Rings and the Winner's Curse," *RAND Journal of Economics* 39 (Winter 2008), 1018-1041 (with K. Hendricks and R. Porter).
- "Recent Developments in Industrial Organization Theory," in *Economics*, edited by S. Song and Z. Pan, page 268-292, Series on Western Research in the Humanities and Social Sciences, China Renmin University Press, 2008 (with Z. Chen).
- "Ratifiability of Efficient Collusive Mechanisms in Second-Price Auctions with Participation Costs," *Games and Economic Behavior* 59 (May 2007), 383-396 (with O. Yilankaya).
- 15. "Equilibria in Second-price Auctions with Participation Costs," *Journal of Economic Theory* 130 (September 2006), 205-219 (with O. Yilankaya).
- "Research Methodology and Recent Development in Industrial Organization," in Distinguished Lecture Series, edited by G. Tian, Shanghai University of Finance & Economics Press, 2006.
- 17. "The Market for Sweepstakes," *Review of Economic Studies* 72 (2005), 1009-1027 (with S.H. Chew).
- 18. "External Threat and Collective Action," *Economic Inquiry* 43 (July 2005), 519-530 (with E. Niou).
- 19. "Foreign Direct Investment and International Trade in a Continuum Ricardian Model," *Journal of Development Economics* 77 (2) (August 2005), 477-501 (with L. Cheng and L. Qiu).
- 20. "The Affiliation Effect in First-Price Auctions," *Econometrica* 73(1) (January 2005), 263-277 (with J. Pinkse).
- 21. "The Affiliation Effect in First-Price Auctions: Supplementary Material." *Econometrica Supplementary Material* 73(1) (2005), 1-10 (with J. Pinkse).
- 22. "The Economic Theory of Vertical Restraints," *Review of Industrial Economics* 3(2) (2004), 1-23.
- 23. "Strategic Incentives of Divestitures of Competing Conglomerates," *International Journal of Industrial Organization* 21(5) (May 2003), 673-697 (with L. Yuan).
- 24. "Auction Theory," in *Research Frontier in Economics and Finance*, edited by G. Tian, 267-330, Commercial Affair Press, Beijing, 2002.

- 25. "Foreign Direct Investment and International Fragmentation of Production." In *Fragmentation: New Production Patterns in the World Economy*, edited by Sven Arndt and Henryk Kierzkowski, Oxford University Press, 2000 (with L. Cheng and L. Qiu).
- 26. "Equilibria in Networks," *Econometrica* 67(6) (November 1999), 1407-1434 (with K. Hendricks and M. Piccione).
- 27. "Accountability, Viability, and Soft Budget Constraint," *American Economic Review, Papers and Proceedings* 89(2) (May 1999), 426-431 (with J. Lin).
- 28. "Entry and Exit in Hub-Spoke Networks," *RAND Journal of Economics* 28(2) (Summer 1997), 291-303 (with K. Hendricks and M. Piccione).
- 29. "Cost-Reducing Investment, Optimal Procurement and Implementation by Auctions," *International Economic Review* 37(3) (August 1996), 663-685 (with M. Piccione).
- 30. "A Simple Model of Expert and Non-Expert Bidding in First-Price Auctions," *Journal of Economic Theory* 70 (1996), 501-515 (with M. Piccione).
- "Optimal Procurement Mechanisms for an Informed Buyer," *Canadian Journal of Economics* XXIX (3) (August 1996), 699-716.
- 32. "An Arbitration Game and the Egalitarian Solution," *Social Choice and Welfare* 12(1) (1995), 29-41 (with W. Bossert).
- 33. "The Economics of Hubs: The Case of Monopoly," *Review of Economic Studies* 62 (January 1995), 83-99 (with K. Hendricks and M. Piccione). This article has been independently translated and published in a Japanese journal *Expressways* and Automobiles 38 (1995), No. 10 (page 59-64) and No. 11 (page 62-70).
- 34. "An Analysis of Dr. Sun Yat-Sen's Self-Assessment Scheme for Land Taxation," *Public Choice* 78 (1994), 103-114 (with E. Niou).
- 35. "Optimal Selling Strategies for Oil and Gas Leases with an Informed Buyer," *American Economic Review, Papers and Proceedings* 83(2) (May 1993), 234-239 (with K. Hendricks and R. Porter).
- "Entry and R&D Costs in Procurement Contracting," *Journal of Economic Theory* 68 (October 1992), 41-60.
- 37. "Taiwanese Investment in Mainland China as a Policy Tool," *Issues & Studies* 28 (August 1992), 14-31 (with E. Niou and P. Ordeshook).

- 38. "Infanticide and Family Planning in Late Imperial China: The Price and Population History of Rural Liaoning, 1774-1873," in *Chinese History in Economic Perspective*, Eds, L. M. Li and T. G. Rawski, Berkeley: University of California Press, 1992, 145-176 (with C. Campbell and J. Lee).
- 39. "Price and Population History in Rural Fengtien, 1772-1873," in *the Second Conference on Modern Chinese Economic History*, 511-542, January 5-7, 1989 (with C. Campbell and J. Lee).
- 40. "The Changes of Grain Prices and Population in Daoyi Village in Mid-Qing China," Volume 16, Number 3 (1988), 30-6 (with C. Campbell, A. Chu, and J. Lee).
- 41. "A Criterion for the Stability of a Class of Difference Equations," *Journal of Numerical Mathematics* (September 1984): 206-11.
- 42. "On the Sraffa System," *Journal of Quantitative and Technical Economics* (May 1984): 43-8 (with M. Song).

WORKING PAPERS

- 43. "All-Units Discounts as a Partial Foreclosure Device," with Y. Chao and A. Wong, 2017 (Third Round R&R in *RAND Journal of Economics*).
- 44. "Platform Competition with Complementary Products," with J. Carrillo, 2011 and revised 2015 (R&R in *International Journal of Industrial Organization*).
- 45. "An Equilibrium Analysis of International Airline Cooperative Agreements," (with X. Fu), 2016.
- 46. "Ex Ante Merger Control vs. Ex Post Control of Abuse: Some Observations from Hong Kong and Mainland China," with P. Lin, 2015.
- 47. "All-Units Discounts, Partial Foreclosure and Inefficiency," with Y. Chao, 2016 (ready for submission).
- 48. "First-price Auctions with Speculative Resale, Part I: Equilibrium and Optimal Revenue." with H. Cheng, 2016 (ready for submission).
- 49. "Nonlinear Pricing under Asymmetric Competition with Complete Information," with Y. Chao and A. Wong, 2017.
- 50. "Two-part Tariffs with Asymmetric Competition," with J. Tamayo, 2017.
- 51. "Platform Competition in Multi-sided Markets," with J. Zhou, 2016.

- "Complete Characterization and Implementation of Single-valued Nash Bargaining Solutions with Non-convex Problems," with C. Qin and A. Wong, 2016.
- 53. "Price-matching and Margin Protection Programs," with X. Fu, M. Williams and W. Zhao, 2015.
- 54. "Cross-path-through Rate in Mixed Bundling", with B. Pinto, F. Wang and S. Wilkie, 2013.
- 55. "First-price Auctions with Speculative Resale, Part II: Efficiency." with H. Cheng, 2014.
- 56. "Duopoly Bargaining with Asymmetric Costs, Variable Threats and no Sidepayments," with C. Qin, 2012
- 57. "Competition and Regulation in Communications Industry." With D. Lu, 2001.
- "Corporate Focus, Divestitures and Divisional Cross-subsidization," with S. Dasgupta and V. Goyal. Presented at the Hong Kong University of Science and Technology, 1999.
- 59. "Risky Investments and Optimal Credit Contracts," with W. Schworm. August 2000. Presented at the 25th Canadian Economic Theory Meeting in Vancouver, June 2-4, 2000.
- 60. "Human Capital Investment and Growth in the Presence of Moral Hazard," with W. Schworm, UBC Discussion Paper No. 94-05.
- 61. "Dynamic Properties of Overlapping Generations Economies with Optimal Wage Contracts," with W. Schworm, October 1996.
- 62. "A Theory of Alliance Formation," with E. Niou, UBC Discussion Paper No. 95-22.
- 63. "An Optimal Social Security System for China," with H. Li and Z. Tao. Presented at the International Conference on Social Security in China, Beijing, June 23-24, 1998.
- 64. "The Economic Theory of Auctions and Competitive Bidding: A Survey," Presented at the Research Center for Competition and Regulation, the Academy of Social Sciences, Beijing, December 15-19, 1999.

RESEARCH GRANTS

- 1. 2011, Microsoft Corporation, a research project on the economic analysis of piracy
- 2. 2009, Microsoft Corporation, a research project on product bundling
- 3. 2008, USC College Development Grant
- 4. 2008, Microsoft Corporation, two conferences on Asian Competition Policy and Enforcement and on Industrial Organization and Management Strategy
- 5. 2007, Microsoft Corporation, two conferences on Asian Competition Policy and Enforcement and on Industrial Organization and Management Strategy
- 6. 2005-06, Microsoft Corporation, a book project on "Economic Analysis of Competition Policy and its Implications for China" and a research project on "Software Piracy and Technology Standards" (with Juan Carrillo)
- 7. 2003-05, Social Sciences and Humanities Research Council of Canada, the program on the Initiative on New Economy, Project on "Competition and Regulation in the Communications Industry"
- 8. 2000-03, Social Sciences and Humanities Research Council of Canada, Project on "Theoretical and Empirical Studies of the Market for Lotteries"
- 9. 1996-99, Direct Allocation Grant of Hong Kong Research Grants Council, Projects on "A Theory of Collective Competition, ""Pricing Strategies of New Residential Properties in Hong Kong," and "Bidding Rings and the Winner's Curse in First-Price Sealed-bid Auctions"
- 10. 1996-99, National Science Foundation in the United States of America, Project on "A Theory of Alliance Formation." Co-Investigator: E. Niou
- 11. 1996-99, Hampton Research Grant in Canada, Project on "A Theory of Alliance Formation." Co-Investigator: E. Niou
- 12. 1995-98, Social Sciences and Humanities Research Council of Canada, Project on "Oligopoly Theory in Hub-Spoke Networks and Reserve Price Policies in Auction Markets," Co-Investigators: K. Hendricks and M. Piccione
- 13. 1994-99, Social Sciences and Humanities Research Council of Canada, Project on, "The Entrepreneurship Research Alliance: Why Do Some Ventures Succeed While Other Fail?" UBC ERA project team
- 14. 1993-1996, Social Sciences and Humanities Research Council of Canada, Project on "Theoretical and Empirical Studies of Strategic Behavior in the Airline Industry and in the Oil and Gas Industry," Principal Investigator: K. Hendricks

15. 1992-95, Social Sciences and Humanities Research Council of Canada, Project on "Theoretical and Empirical Studies of the Airline Industry," Co-Investigators: K. Hendricks and M. Piccione

TEACHING EXPERIENCE AND INTERESTS

At the undergraduate level, microeconomics, industrial organization, game theory, regulation and competition policy, managerial economics, topics on information and incentives, economics of transition and development: China

At the graduate level, microeconomic theory, industrial organization, regulation and antitrust economics, game theory, contract theory, and topics on information and incentives

At the MBA level, managerial economics, economics of strategy

1. Courses taught at USC:

Industrial Organization: PhD Regulation and Competition Policy: PhD Government Regulation of Business: MA Antitrust Economics and Competition Policy: MA Economics of Development and Transition: The Case of China: Undergraduate Industrial Organization: Undergraduate

2. Courses taught at UBC (Vancouver, Canada):

Industrial Organization: PhD Information and Incentives: PhD and MA Microeconomic Theory II: PhD Economics of Government Regulation of Business: Undergraduate Intermediate Micro I and II: Undergraduate Microeconomic Analysis: Undergraduate (honors program) Introduction to Mathematical Economics: Undergraduate The Principle of Economics (Micro): Undergraduate

3. Courses taught at the School of Business and Management (Hong Kong University of Science and Technology):

Microeconomic Analysis: MA Information and Incentives: Undergraduate Managerial Economics: MBA Managerial Microeconomics: GDM Program

4. Course taught at Tsinghua University (Beijing):

Theory of Industrial Organization: PhD

PROFESSIONAL AWARD

Fellow of the Chinese Economists Society, since 1995

T.D. MacDonald Chair in Industrial Economics, Competition Bureau, Canada, 2000-01

Sloan Foundation Dissertation Fellowship, 1988-89

OTHER ROFESSIONAL ACTIVITIES

Referee for Journal of Economic Theory, Review of Economic Studies, Econometrica, American Economic Review, RAND Journal of Economics, Journal of Political Economy, International Economic Review, Economic Theory, Journal of Economics and Strategic Management, International Journal of Industrial Organization, Journal of Industrial Economics, European Economic Review, Canadian Journal of Economics, Journal of Law, Economics, and Organization, Economic Inquiry, Journal of Comparative Economics, Southern Economic Journal, Review of Economic Design, Scandianavian Journal of Economics, SSHRCC, NSF.

Member of the Advisory/Executive Committee of the USC Institute for Economic Policy Research, 2004-

Member of the East Asia Study Center at USC

External Examiner for the Master of Economics Program, University of Hong Kong, 2010-2012

Member of the Steering Committee of the USC's US-China Institute 2004-09

Member of Director Search Committee of the USC's US-China Institute 2004-09

Organizer, the 18th *Canadian Economic Theory Conference*, Vancouver, May 28-31, 1993, sponsored by Social Sciences and Humanities Research Council of Canada, and the 25th *Canadian Economic Theory Conference*, Vancouver, June 2-4, 2000.

Organizer of the Beijing Summer Workshop on *Industrial Organization and Management Strategy*, Guanghua School of Management, Beijing University, June 14-15, 2004, School of Economics and Management, Tsinghua University, June 8-9, 2005, and Guanghua School of Management, Beijing University, July 8-9, 2006. Organizer of the Summer Workshops on *Asian Competition Policy* and on *Industrial Organization and Management Strategy*, held at the School of International Business Administration, Shanghai University of Finance and Economics, Shanghai, May 30 to June 2, 2007.

Last update: January 21, 2017