

Curriculum Vitae

NAME: Reiko Aoki

ADDRESS Institute of Economic Research
Hitotsubashi University
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EDUCATION 1987 Stanford University, PhD, Economics
1986 Stanford University, MS, Statistics
1983 University of Tsukuba, MA, Economics
1981 University of Tokyo, BS, Mathematics

PREVIOUS AND CONCURRENT APPOINTMENTS:

July 2006 – Present, Institute of Economic Research, Hitotsubashi University, Professor

December 2005 – July 2006, Department of Economics, University of Auckland, Associate Professor

September 1997 – November 2005, Department of Economics, University of Auckland, Senior Lecturer

October 2002 – July 2006 Japanese Studies Centre, New Zealand Asia Institute, University of Auckland, Director.

January 2003 - December 2004, Institute of Economic Research, Hitotsubashi University, Associate Professor

June - July 2002, Center for International Research on the Japanese Economy, Faculty of Economics, University of Tokyo, Visiting Scholar

January - February 2000, Institute of Intellectual Property, Tokyo, Visiting Scholar

January 1990 - July 1997, Department of Economics, State University of New York, Assistant Professor

October 1995 - June 1996, Department of Economics, Ben-Gurion University, Visiting Lecturer

October 1995 - June 1996, Faculty of Management, Tel-Aviv University, Visiting Lecturer

September 1992 - January 1993, Institute for Social and Economic Research, Osaka University, Visiting Scholar

September 1987 - January 1990, Department of Economics, The Ohio State University, Assistant Professor

RESEARCH SPECIALTIES / CAREER:

Summary Statement:

Field of specialization is theoretical industrial organization. Research topics include innovation, law and economics of intellectual property, comparison of US and Japanese intellectual property systems, switching cost (number portability) in networks and e-commerce.

Research Publications:

Refereed Journal Articles:

- AOKI, R. and SPIEGEL, Y., "Pre-Grant Patent Publication and Cumulative Innovation" *International Journal of Industrial Organization*, forthcoming
- SCHIFF, A. AOKI, R., 'Differentiated Standards and Patent Pools', *Journal of Industrial Economics WebNotes*, forthcoming.
- AOKI, R., SCHIFF, A., 'Promoting access to intellectual property: patent pools, copyright collectives and clearinghouses', *R&D Management* 38(2) 189-204, 2008.
- AOKI, R., YASAKI, Y. 'Law and Economics of Patents and Intellectual Property', *The Economic Review*, 58(3):263-283, 2007 (in Japanese).
- KUBO, K., AOKI, R. YAMANE, H. 'Patent Policy and Public Health in Developing Countries: Lessons from Japan', *Bulletin of the World Health Organization*, 84(5):417-419, 2006.
- AOKI, R. 'Intellectual Property and Consortium Standard Patent Pools', *Journal of Intellectual Property Rights*, 10(3), 206-213, 2005.
- AOKI, R., NAGAOKA, S., "The Consortium Standard and Patent Pools", *The Economic Review*, 55(4):346-356, 2004.
- AOKI, R., SMALL, J. 'Compulsory Licensing of Technology and the Essential Facilities Doctrine', *Information Economics and Policy*, 16:13-29, 2004.
- AOKI, R., HU, J-L. 'Time Factors of Patent Litigation and Settlement', *Journal of Institutional and Theoretical Economics*, 159(2):280-301, 2003.
- AOKI, R., 'Effect of Credible Quality Investment with Bertrand and Cournot Competition', *Economic Theory*, 21:653-672, 2003.
- AOKI, R., FINCHAM, A., 'An Overview of New Zealand Dairy Industry', *The Otemon Journal of Australian Studies*, 28(December), 41-60, 2002.
- AOKI, R., TAUMAN, Y., 'Patent Licensing with Spillovers', *Economics Letters* 73:125-130, 2001.
- AOKI, R., HU, J-L. 'Licensing vs. Litigation: Effect of the Legal System on Incentives to Innovate'. *Journal of Economics and Management Strategy* 8(1), 133-160, 1999.
- AOKI, R. 'Strategic Complements with First Mover Advantage'. *Metroeconomica* 49(3), 284-299, 1999.
- AOKI, R. 'Recent Trends in the Japanese Intellectual Property System'. *IP Asia* 10(9), 23-24, 1997.
- AOKI, R., PRUSA, T.P. 'Sequential vs. Simultaneous Quality Choices with Endogenous Quality'. *International Journal of Industrial Organization* 15(1), 103-121, 1997.
- AOKI, R., 'Sequential vs. Simultaneous Quality Choices with Bertrand and Cournot Competition', *Economic Research Network Industrial Organization and Regulation Abstracts Working Paper Series* 2(22), 1997. (Electronic Journal)

- AOKI, R., PRUSA, T.P. 'Product Development and the Timing of Information Disclosure and Japanese and U.S. Patent Systems'. *Journal of Japanese and International Economies* 10(3), 233-249, 1996.
- AOKI, R., PRUSA, T.P. 'International Standards for Intellectual Property Protection and R&D Incentives'. *Journal of International Economics* 35(3/4), 251-274, 1993.
- AOKI, R., REITMAN, D. 'Simultaneous Signaling Through Investment in an R&D Game with Private Information'. *Games and Economic Behavior* 4, 327-346, 1992.
- AOKI R. 'R&D Competition for Product Innovation: An Endless Race'. *American Economic Review*, 81(2), 2252-256, 1991.

Papers in Refereed Conference Proceedings:

- AOKI, R. 'Recent Trends in the Japanese Intellectual Property System'. *Intellectual Property: Japan and the New Asia Conference Proceedings*, Japan Information Access Project, Washington, D.C. December 1997.

Reviews and comments:

- AOKI, R. Zoltan. J. Acs and David B. Audretsch, *Innovation and Small Firms*. Review in *Small Business Economics* 4, 49-51, 1992.

Chapter in Books:

- AOKI, R. 'Access to genetic patents and clearing models - An economic perspective'. In Van Overwalle, G. (ed), *Gene Patents and Clearinghouse Models*, Cambridge University Press, 350-364, forthcoming.
- AOKI, R., 'Licensing of Intermediate Technologies', In K.Asako et al. (eds), 'Currents in Modern Economics 2008', Japanese Economic Association, Toyokeizai, 2008 (in Japanese).
- AOKI, R. 'Economic Implication of Declining Birthrate'. In Noriyuki Takayama and Osamu Saito (eds), *Economics of Declining Birthrate*, Tokyo, Toyokeizai, 2007 (in Japanese).
- AOKI, R. 'Spillover and Innovation Race'. In Akira Okada and Haruo Imai (eds), *Applications of Game Theory*, Tokyo, Sokei Shobo Publishing, 2005. (in Japanese).
- AOKI, R. 'Effect of Credible Quality Investment with Bertrand and Cournot Competition'. In Charalmbos D. Aliparantis, Kenneth J. Arrow, Peter Hammond, Felix Kubler, Ho-Mou Wu, Nicholas C. Yannelis (eds), *Assets, Beliefs, and Equilibria in Economic Dynamics, Essays in Honour of Mordecai Kurz*, New York, Springer, New York, 579-598, 2004.
- AOKI, R., FINCHAM, A., 'An Overview of New Zealand Dairy Industry'. In Reiko Aoki and Yoshihiro Tooyama (eds), *Japan and New Zealand Economic Relationship*, Ibaraki, Otemon Gakuin University Center for Australian Studies, 56-64, 2004.

Books edited:

- AOKI, R., TOYAMA, Y., *Japan and New Zealand Economic Relationship*, Ibaraki, Otemon Gakuin University Center for Australian Studies, 124 pages, 2004.

Technical reports:

- AOKI, R., SCHIFF, A. 'Intellectual Property Access Systems', PIE/CIS Discussion Paper 362, Institute of Economic Research, Hitotsubashi University, 25 pages., March 2008.
- AOKI, R. and SCHIFF, A. 'Intellectual Property Clearinghouses and Investment in R&D', Institute of Economic Research, PIE/CIS Discussion Paper 361, Institute of Economic Research, Hitotsubashi University, March 2008.
- SCHIFF, A. and AOKI, R., "Differentiated Standards and Patent Pools", PIE/CIS Discussion Paper 360, Institute of Economic Research, Hitotsubashi University, March 2008.
- AOKI, R. and SCHIFF, A., "Intellectual Property Clearinghouse: The Effects of Reduced Transaction Costs in Licensing", PIE/CIS Discussion Paper 359, Institute of Economic Research, Hitotsubashi University, March 2008.
- AOKI, R., 'On the Persistence of Low Birthrate in Japan', PIE/CIS Discussion Paper 347, Institute of Economic Research, Hitotsubashi University, February 2008.
- AOKI, R. 'Innovation and Incentives in Japan – Focus on pre-Meiji', Institute of Economic Research Discussion Paper Series A No. 492, Hitotsubashi University, 24 pages, March 2007.
- AOKI, R., SCHIFF, A. 'Intellectual Property Access Systems', Institute of Economic Research Discussion Paper Series A No.491, Hitotsubashi University, 25 pages., March 2007.
- NAGAOKA, S., AOKI, R. 'Economics of Research Exemption', Institute of Innovation Research, March 2005.
- AOKI, R. 'Approaches of U.S. Antitrust Authorities' in *Technology Standard and Competition Policy*, Competition Policy Research Center, Japan Fair Trade Commission, 38-55, 2005. (in Japanese)
- AOKI, R. , SAIKI, T., 'Implication of Product Patents – Lessons from Japan', Commission on Intellectual Property, Innovation and Public Health, World Health Organization, 37 pages, 2005.
- AOKI,R., NAGAOKA, S. 'The Consortium Standard and Patent Pools' in *The Establishment Process of Standard Technologies and Essential Patents*", Japanese Patent Office, 241-264, 2005. (in Japanese).
- AOKI, R., NAGAOKA, S. 'Coalition Formation for a Consortium Standard through a Standard Body and a Patent Pool: Theory and Evidence from MPEG2, DVD, and 3G', Institute of Innovation Research Working Paper WP#05-01, 27 pages, 2005.
- YOMOGIDA, N., AOKI,R. 'It Takes a Village – Network Effect of Child-rearing', PIE Discussion Paper No.275, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University, 14 pages, 2005.
- BRANSTETTER, L., AOKI, R., 'Is Academic Science Raising Innovative Productivity? Theory and Evidence from Firm-Level Data', Hi-Stat Discussion Paper No. 86, Institute of Economic Research, Hitotsubashi University, 30 pages, 2005.
- AOKI, R., NAGAOKA,S., 'The Utility Standard and the Patentability of Intermediate Technology', Hi-Stat Discussion Paper No.75, Institute of Economic Research, Hitotsubashi University, 35 pages, 2005. – Under revision for *Journal of Institution and Theoretical Economics*.
- AOKI, R. 'Microeconomics of Declining Birthrate – Review of Existing Literature', PIE Discussion paper No. 228, Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University, 21 pages, 2004.
- AOKI,R., NAGAOKA, S. 'The Consortium Standard and Patent Pools', Hi-Stat Discussion Paper No. 32, Institute of Economic Research, Hitotsubashi University, 31 pages, 2004.

- AOKI,R.,SMALL,J.,'Compulsory Licensing of Technology and the Essential Facility Doctrine', PIE Discussion Paper No.167, , Project on Intergenerational Equity, Institute of Economic Research, Hitotsubashi University, 33 pages, 2003..
- AOKI,R., NAGAOKA,S.,'The Utility Standard and the Patentability of Basic Research'. CIRJE Discussion Paper Series F-160, Faculty of Economics, University of Tokyo, 2002.
- AOKI, R.,'Oligopolistic Business-to-Business E-Market and Welfare', Department of Economics Working Paper Series No.216, University of Auckland, 2001.
- AOKI, R., 'Equilibrium Quality Choices with Generalize Smooth Cost Function', Department of Economics Working Paper Series No. 221, University of Auckland, 2001.
- AOKI, R., 'Cournot and Bertrand Competition with Vertical Quality Differentiation', Department of Economics Working Paper Series No. 222, University of Auckland, 2001.
- AOKI, R. `Tokkio Shutsugan Kokai ni Kansuru Keizai Bunseki' (Economic Analysis of Public Disclosure of Patent Application). *Report of the 1999FY Industrial Property Research Promotion Project* Institute of Intellectual Property, Tokyo, 16 pages, 2000.
- AOKI, R., SMALL, J.' The Economics of Number Portability: Switching Costs and Two Part Tariffs '. CRNEC Working Paper, University of Auckland, 30 pages, 1999.
- AOKI,R., HU, J-L., 'A Cooperative Game Approach to Patent Litigation, Settlement, and Allocation of Legal Costs', Department of Economics Working Paper Series 186, University of Auckland, 29 pages, 1999.
- AOKI, R., SPIEGEL, Y., "Public Disclosure of Patent Applications, R&D, and Welfare", Department of Economics Working Paper Series 185, University of Auckland 39 pages, 1998. - Later version invited to resubmit to *International Journal of Industrial Organization*, currently under revision.
- AOKI, R., TAUMAN, Y., 'Patent Licensing with Spillovers'. Department of Economics Working Paper Series 181, University of Auckland, 33 pages, 1998.
- AOKI, R., 'Sequential vs. Simultaneous Quality Choices with Bertrand and Cournot Competition'. Department of Economics Working Papers 95-01. State University of New York Stony Brook, 45 pages, 1994.
- AOKI, R., `Strategic R&D Investment and Spillovers'. Department of Economics Working Papers 91-02, State University of New York Stony Brook, 38 pages, 1991.

Research Grants / Funding:

- Ministry of Education, Culture, Sports, Science and Technology Global COE Program, Research Unit for Statistical and Empirical Analysis in Social Sciences, member, June 2008-March 2012
- Japan Society for Promotion of Science, Grant-in Aid Specially Promoted Research, "Economic Analysis of Intergenerational Issues", researcher, April 2007-March 2011
- Japan Society for Promotion of Science, Basic Research Fund, "Two-sided market analysis of access to intellectual property bundles", 2,300,000 yen, principal investigator, April 2008-March 2011
- Ministry of Health, Labor and Welfare, Scientific Research Fund, "Relationship between social security and the economy", 13,331,000 yen, principal investigator, April 2007-March, 2010.
- Nikkei Economic Research Center, 'Technical Standards and Intellectual Property', 300,000 yen, principal investigator, 2004.
- The University of Auckland Research Fund, International Strategic Opportunities, 'Economic Relationship of Japan and New Zealand', \$3670, principal investigator, 2001.

The Royal Society of New Zealand 'Innovation and Intellectual Property', \$2500, principal investigator, 2001.

University of Auckland Research Committee 'Innovation and Intellectual Property', \$3,500, principal investigator, 2001

Auckland Business School Faculty Research Committee 'The "Usefulness" Requirement, Patentability of Basic Technology and Their Implications to Innovation', \$4600, principal investigator, 2001 .

Auckland Business School Faculty Research Committee Team Development Fund 'E-Commerce Workshop', \$1000, coordinator, co-team leader, 2001.

Auckland Business School Team Development Fund 'E-commerce Workshop', \$1840, coordinator, co-team leader, 2000.

Auckland Business School Faculty Research Grant 'Economic Analysis of Strategies for Protecting Innovation', \$3000, principal investigator, 2000.

2000 Auckland University Research Committee Staff Research Fund 'Economic Analysis of Strategies for Protecting Innovation', \$3,400, principal investigator.

Auckland University Research Committee Staff Research Fund 'Recent Trends in Japanese Patent System', \$5,800, principal investigator, 1998.

The Japan Foundation 'International Standards for Intellectual Property Protection' US\$108,000, co-principal investigator, 1992 .

Invited Lectures:

'Innovation by Monopsony' Research Symposium on Property Rights Economics and Innovation, Searle Center on Law, Regulation and Economic Growth, Northwestern School of Law, 13-14 November 2008

'Collective Rights Organizations and Upstream Innovation' Globalization, Innovation and Competition Policy Research Group; Research Institute of Economics, Trade and Industry; Ministry of Economics, Trade and Industry, 24 October 2008.

Intellectual Property Clearinghouses and Investment in R&D', Japan Applied Economics Association, 2008 Spring Meeting, Kumamoto Gakuen University, 7-8 June 2008

'Intermediate Technology and Licensing', Japan Economic Association 2007 Autumn Meeting, Nihon University, 23-24 September 2007

'Lessons from Standard Consortiums', 'Organization for Economic Cooperation and Development Workshop on Collaborative Mechanisms: Ensuring Access', Woodrow Wilson Centre for Scholars, Washington D.C., 8-9 December 2005.

'Coalition Formation for a Consortium Standard through a Standard Body and a Patent Pool: Theory and some evidence from MPEG, DVD and 3G Standard', 'Conference on IT Innovation, Institute of Innovation Research, Hitotsubashi University, 13-14 December 2004.

'Compulsory Licensing of Technology and the Essential Facilities Doctrine', 'Competition in Property Rights and Information Market' Workshop, Centre for Competition and Consumer Policy, Research School of Social Sciences, Australian National University, 15-16 August 2002.

'The Utility Requirement and the Patentability of Basic Research', Conference on Theoretical and Applied Economics in Honor of Mordecai Kurz, Stanford University, 2-3 August 2002.

'Time Factors of Litigation and Licensing', *Innovation Forum*, Institute of Innovation Research, Hitotsubashi University, Japan, July 2002.

- 'Applications of Game Theory', Graduate School of Business Science, Tsukuba University, Japan, June 2002.
- 'Oligopolistic B2B Market and Welfare', European Association for Research in Industrial Economics, Trinity College, Ireland, 2-5 September 2001.
- 'Oligopolistic B2B Market and Welfare', Econometric Society Australasian Meetings, University of Auckland 7-9 July 2001.
- 'Oligopolistic B2B Market and Welfare', International Symposium of Economics of E-Commerce and Networking Decisions, Monash University, July 2001.
- 'Public Disclosure of Patent Applications, R&D, and Welfare', Econometric Society World Congress, University of Washington, Seattle, August 2000.
- 'Patent Licensing and Spillovers', *Danish Research Unit for Industrial Dynamics Conference Summer 2000*, Denmark, 15-17 June 2000.
- 'Switching Costs and Two-part Tariffs: Economics of Number Portability', Department of Economics, Shih Hsiu University, Taiwan, June 2000.
- 'Switching Costs and Two-part Tariffs: Economics of Number Portability', *Marching into the New Millennium – Economic Globalization Conference*, College of Business, Tamkang University and National Science Council, Ministry of Education, Taiwan, 3-4 June 2000.
- 'Switching Costs and Two-part Tariffs: Economics of Number Portability', Department of Economics, University of Tokyo, Japan, February 2000.
- 'Public Disclosure of Patent Applications, R&D, and Welfare', *Innovation Froum*, Institute of Innovation Research, Hitotsubashi University, Japan, February 2000.
- 'Tokkio Shutsugan Kokai ni Kansuru Keizai Bunseki' (Economic Analysis of Public Disclosure of Patent Application). *1999FY Industrial Property Research Promotion Project Seminar*, Tokyo, Japan, 28 January 2000.
- September 1999 'Economics of Number Portability', *CRNEC Policy Conference: Current Policy Issues in Electricity and Telecommunications*, Auckland, 1-2 September.
- 'Switching Costs and Two-part Tariffs: Economics of Number Portability', Institute of Economics and Social Research, Osaka University, March 1999.
- 'Public Disclosure of Patent Applications', Institute of Economics, Academia Sinica, Taiwan, March 1999.
- 'Sequential vs. Simultaneous Quality Choices with Bertrand and Cournot Competition', *Fourth Industrial Economics Conference*, Tamkang University, Taiwan, 20 March 1999.
- 'Recent Trends in the Japanese Intellectual Property System', *Intellectual Property: Japan and the New Asia*, Japan Information Access Project, Washington D.C., 21-22 October 1997,.
- 'Recent Trends in the Japanese Intellectual Property System', *International Aspects of Intellectual Property Rights: Japan as an Example*, Yale University, New Heaven, 9 May 1997.
- Department of Applied Economics, University of Valencia, February 1996,

PROFESSIONAL SOCIETIES / SERVICE / OTHER ACTIVITIES:

Professional Service

World Health Organization, Commission on Intellectual Property, Innovation and Health Consultation, Geneva, 30-31 May, 2005. Invited Contributor, "Implication of Product Patents – Lessons from Japan".

World Health Organization, Commission on Intellectual Property, Innovation and Health Open Forum, Geneva, 1 June 2005, Invited Participant.

Japan Patent Office, Research Project, "Intellectual Property in Universities: Protection of Research Tools and other Upstream Technologies", March 2005- present.

Scientific Committee "Innovation and Intellectual Property Values Conference", Applied Econometrics Association, Paris, 2005.

Ministry of Education, Science and Technology, 21st Century Center of Excellence "Research Unit for Statistical Analysis in Social Sciences", Hitotsubashi University. 2004-present

Scientific Committee "Innovation and Intellectual Property Values Conference", Applied Econometrics Association, Singapore, 2004.

Ministry of Education, Science and Technology Scientific Research of Priority Areas, "Project for Intergenerational Equity", Hitotsubashi University.2003-2005.

Co-organizer, Research Project , "Economies of New Zealand and Japan", Seminars at University of Auckland and Otemon Gakuin University, Osaka, Japan. 2003.

Referee: *American Economic Review*, *European Economic Review*, *Economics Letters*, *Games and Economic Behavior*, *International Economic Review*, *International Journal of Industrial Organization*, *Japanese Economic Review*, *Journal of Economics and Management Strategy*, *Journal of Evolutionary Economics*, *Journal of International Economics*, *Journal of Japanese and International Economies*, *Journal of Labor Economics*, *Keio Economic Studies*, *Metroeconomica*, *Oxford Economic Papers*, *RAND Journal of Economics*, *Review of Economic Studies*, *Journal of Money, Credit and Banking*,

National Science Foundation (U.S.A), Social Sciences and Humanities Research Council of Canada, Japanese Government (Mombukagakusho: MEXT) Scholarship, US-Japan Education Committee (Fulbright Program)

Government and Public Service:

National University Evaluation Specialists Committee, of Specialists, National Institution for Academic Degrees and University Evaluation, February 2008 - present

Ministry of Economics, Trade and Industry, "Committee on Issues on Standards", April 2004-March 2005.

Japan Patent Office, Research Project "Intellectual Property in Universities: Standards and Patents", April 2004- March 2005.

Japan Fair Trade Commission, Competition Policy Research Center, Research Project "Competition Issues in Standards and Intellectual Property", April 2004-March 2005. Included exchange with U.S. Department of Justice, Anti-trust Division and Federal Trade Commission.

New Zealand Japan Exchange Programme Committee, Association of Colleges of Education of New Zealand, 2002-present.

University, School and Departmental Service

Executive Committee, Hitotsubashi University, April 2007-present