

## CURRICULUM VITAE

name: Otto Toivanen  
nationality: Finnish  
born: 3rd Oct. 1965 in Turku, Finland.  
marital status: married with three children  
working address: HECER  
University of Helsinki  
PO Box 17  
FIN 00014 University of Helsinki  
FINLAND  
Email: [otto.toivanen@helsinki.fi](mailto:otto.toivanen@helsinki.fi)

### EDUCATION

1995 Ph.D. (economics), University of Warwick.  
1993 Lic. Sc. (economics), Turku School of Economics and Business Administration.  
1990 M.Sc. (economics), Turku School of Economics and Business Administration.

### PROFESSIONAL EXPERIENCE

2004- Director, Helsinki Center of Economic Research (HECER), University of Helsinki, and Finnish Doctoral Programme in Economics (FDPE).  
2003-04 Visiting Scholar, Department of Economics, University of Berkeley, California.  
2003-04 Professor of Technology Management and Policy, Helsinki School of Economics (HSE).  
1999-03 Acting Professor of Technology Management and Policy, HSE.  
1999 Visiting Fellow, National Bureau of Economic Research.  
1998-99 Visiting Scholar, Massachusetts Institute of Technology, Department of Economics.  
1998-03 Assistant professor of economics, HSE .  
1997-99 Senior research fellow, Academy of Finland and HSE.  
1994-97 Research fellow, Warwick Business School.

### OTHER ACADEMIC POSITIONS

CEPR Research Fellow 2009 - .  
Associate Research Fellow, Research Institute of the Finnish Economy (ETLA), 2002-.  
Docent, Turku School of Economics and Business Administration, 2001-.  
Research Fellow, Warwick Business School, University of Warwick, 1997-.

### TEACHING

Ph.D.: Empirical Industrial Organization, Applied Microeconometrics.  
M.Sc.: Economics of Technological Innovation, Microeconomics of Banking.  
B.A.: Economics of Strategy, Management of Technology.

### PUBLICATIONS AND RESEARCH

- A. Articles in refereed journals
15. Tuomas Takalo and O. Toivanen, Entrepreneurship, financiership, and selection, *Scandinavian Journal of Economics*, forthcoming.
  14. Ari Hyytinen and O. Toivanen, Income inequality and technology diffusion: Evidence from developing countries, *Scandinavian Journal of Economics*, forthcoming.
  13. Ari Hyytinen and O. Toivanen, Do financial constraints hold back innovation and growth? Evidence on the role of public policy, *Research Policy*, 2005, 34, 9, 1385-1403.

12. O. Toivanen and Michael Waterson, Market structure and entry: Where's the beef? *RAND Journal of Economics*, 2005, 36, 3, 680-699.
  11. Jukka Liikanen, Paul Stoneman, and O. Toivanen, Intergenerational effects in the diffusion of new technology: The case of mobile phones, *International Journal of Industrial Organization*, 2004, 22, 8-9, 1137-1154.
  10. Ari Hyytinen and O. Toivanen, Monitoring and market power in credit markets, *International Journal of Industrial Organization*, 2004, 22, 2, 269-288.
  9. Ari Hyytinen and O. Toivanen, Vertical differentiation, asymmetric information and endogenous bank screening, *Topics in Theoretical Economics*, 2004, 4, 1, Article 5. <http://www.bepress.com/bejte/topics/vol4/iss1/art5>
  8. Ari Hyytinen and O. Toivanen, Asymmetric information and the market structure in the venture capital industry, *Journal of Financial Services Research*, 2003, 23, 3, 241-249.
  7. O. Toivanen, Paul Stoneman, and Derek Bosworth, Innovation and the market value of UK firms, 1989-1995, *Oxford Bulletin of Economics and Statistics*, 2002, 64, 1, 39-62.
  6. Robert Cressy and O. Toivanen, Is there adverse selection in the credit market?, *Venture Capital: An International Journal of Entrepreneurial Finance*, 2001, 3, 3, 215-238.
  5. Paul Stoneman and O. Toivanen, The impact of revised recommended accounting practices on R&D reporting by UK firms, *International Journal of the Economics of Business*, 2001, 8, 1, 123-136.
  4. O. Toivanen and Michael Waterson, Empirical research on discrete choice game-theoretic models of entry: an illustration, *European Economic Review, Papers and Proceedings*, 2000, 44, 4-6, 985-992. Reprinted in Joskow, P. and Waterson, M. (eds.) Empirical industrial organization. Volume 1, 2004, 107-14, Elgar Reference Collection. International Library of Critical Writings in Economics, vol. 172. Cheltenham, U.K. and Northampton, Mass. Edgar Elgar.
  3. O. Toivanen and Paul Stoneman, Dynamics of R & D and investment: UK evidence, *Economics Letters*, 1998, 58, 119-126.
  2. O. Toivanen, Economies of scale and scope in the Finnish non-life insurance industry, *Journal of Banking and Finance*, 1997, 21, 759-779.
  1. Paul Stoneman and O. Toivanen, Diffusion of multiple technologies: an empirical study, *Economics of Innovation and New Technology*, 1997, 5, 1-17.
- B. Books
1. Paul Diederer, Paul Stoneman, O. Toivanen and Arjan Wolters, *Innovation and Research Policies: An International Comparative Analysis*, 1999, Edward Elgar Publishing Ltd.
- C. Chapters in books
2. P. Stoneman and O. Toivanen, "Technological diffusion under Uncertainty: A Real Options Model Applied to the International Diffusion of Robot Technology" in C. Antonelli, D. Foray, E. Steinmuller, P. Swann (eds.), *New Frontiers in the Economics of Innovation: Essays in Honour of Paul David*, Edward Elgar, 2007.
  1. O. Toivanen, Paul Stoneman and Paul Diederer, Uncertainty, macroeconomic volatility and investment in new technology C. Driver and P. Temple (eds.), *Investment, Growth and Employment: Perspectives for Policy*, Routledge, 1999.
- D. Selected other publications
14. Education, Research and the Economy, in *Evaluation of the Finnish National Innovation System – Full Report*. Taloustieto 2009/ Ministry of Education and Ministry of Employment and Industry. Co-authored with Reinhilde Veugelers, Tanja Tanayma.

13. National innovation policy in an international world – perspectives from Finland, in *Going Global: The challenges for knowledge-based economies*, Squiccarini, M., and T. Loikkanen (eds.), Publications of the Ministry of Employment and the Economy, Innovation 20/2008.
8. Georghiou, Luke, Smith, Keith, Toivanen, O., and Ylä-Anttila, Pekka, 2003, *Evaluation of the Finnish innovation support system*, Ministry of Trade and Industry publications 5/2003.
7. Does financial development matter for innovation and economic growth? Implications for public policy, in Hyytinen, A., and Pajarinen, M., (eds.), 2003, *Financial systems and firm performance. Theoretical and empirical perspectives*. Taloustieto Ltd., Helsinki. Co-authored with Hyytinen, A., Rouvinen, P., and Ylä-Anttila, P.

#### RECENT AND ON-GOING RESEARCH

Demand for mobile internet: Evidence from a real-world pricing experiment (with Maija Gao, and Ari Hyytinen).

Expected benefits of innovation policy (with Tanja Tanayama, Tuomas Takalo).

Return to inventors (with Lotta Väänänen).

Politics and procurement: Evidence from Swedish municipalities (with Sofia Lundberg and Ari Hyytinen).

Innovation policy reform (with Tuomas Takalo and Tanja Tanayama).

Cartels uncovered (with Ari Hyytinen and Frode Steen).

Education and inventions (with Lotta Väänänen).

Returns to entrepreneurship (with Ari Hyytinen and Pekka Ilmakunnas).

Service firm expansion (with Michael Waterson).

#### OTHER ACADEMIC ACTIVITIES

Positions of Trust:

Chair, Scientific Committee, EARIE 2010.

Member, Scientific Council of the Government Institute for Economic Research, 2010-

Member of Electoral Board for professorial posts in economics, University of Warwick 2008.

Member, Scientific Council of Statistics Finland 2007-.

Member, Economic Council of the Finnish Ministry of Finance, 2005-2010.

Member, Scientific Council of the Research Institute of the Finnish Economy (Etla), 2005-2010.

Member of the Organization Committee, CEPR Conference on Industrial Economics, 2005-.

Member of Evaluation committee for associate professorship in economics, NHH Bergen, 2004.

Member of the Scientific Committee of EARIE 2004-, ESEM 2008, 2009, EEA 2001.

Member of the Executive Committee of EARIE 2003-2009.

Member of the Local Organization Committee, EARIE 2003, Helsinki.

Editorial service:

Editor, *Kansantaloudellinen Aikakauskirja* (Finnish Economic Journal), 2005-.

Associate editor, *Journal of Industrial Economics*, 2004-.

Editor, *Finnish Economic Papers*, 2005-2006.

Associate editor, *Finnish Economic Papers*, 2002-2005.

Other professional service:

Examiner and/or pre-examiner on 9 Ph.D. theses (Helsinki U. Tech., Uppsala, NHH Bergen, HSE Åbo Akademi U., U. of Helsinki, KU Leuven).

Referee for *Applied Economics*, *BE Journal of Economic Analysis and Policy*, *Economic Journal*, *Economics of Innovation and New Technology*, *Economics Letters*, EU Framework programme 7, *Finnish Economic Papers*, *Information Economics and Policy*, *Industrial and Corporate Change*, *International Journal of Industrial Organization*, *International Review of Economics and Finance*,

Journal of Applied Econometrics, Journal of Banking and Finance, Journal of Business and Economics, Journal of Economic Behavior and Organization, Journal of European Economic Association, Journal of Industrial Economics, Journal of Economics and Management Strategy, Journal of Media Economics, Journal of Regulatory Economics, European Economic Review, Management Science, Metroeconomica, National Science Foundation, Oxford Bulletin of Economics and Statistics, RAND Journal of Economics, Research Policy, Review of Economics and Statistics, Review of Economic Studies, Review of Industrial Organization.

Conference and seminar presentations:

Invited seminar presentations at Warwick, Bergen, Boston University, Stockholm, WZB Berlin, Barcelona, Princeton, Michigan, Yale, MIT, Stanford, Stanford SITE; UC Berkeley, UC Davis, LSE, Leuven, Umeå, NBER IO and Productivity programs, Bern, Toulouse, Tel Aviv, Hebrew University, U. of Cyprus, Oxford, CEPR IO Meetings in Toulouse, Bergen, München and Mannheim.

Congress presentations at EARIE 1993, 1994, 2002, 2004 - 2009, EEA 1994, 1996, 1999, 2002, ESEM, 1996, 1997, Econometric Society Summer Meetings 1997, Royal Economic Society 1994-97, Econometric Society World Meeting 1995, 2000, International Industrial Organization Conference, 2004, 2005, and others.

#### NON-ACADEMIC ACTIVITIES

Public sector consulting: Finnish Technology Agency (Tekes), Ministry of Trade and Industry/Ministry of Employment and Industry (Evaluation of the Implementation Infrastructure for Finnish Innovation Policy 2003, Evaluation of the Finnish Innovation Strategy 2009), European Commission, DG Industry and Enterprise, European Investment Bank.

Private sector consulting on competition cases, pricing.

#### MAJOR RESEARCH GRANTS SINCE 2005

2008	400 000€ “Economic studies using twin data” (joint with Ari Hyytinen and Pekka Ilmakunnas) Academy of Finland.
	200 000€ “Economics of public procurement” (joint with Ari Hyytinen and Janne Tukiainen) Eemil Aaltonen Foundation.
2007	300 000€ “Structural modeling of the R&D subsidy process II” (joint with Tuomas Takalo and Tanja Tanayama) National Technology Agency of Finland (Tekes).
2005	280 000€ “Structural modeling of the R&D subsidy process” (joint with Tuomas Takalo and Tanja Tanayama), Tekes.
2005	256 020€ “Cartel organization” (joint with Ari Hyytinen and Susanna Fellman) Academy of Finland.

Total value of major research grants prior to 2005 circa 1 000 000€.

#### PhD. STUDENTS

Anni-Maria Pulkki-Brannström, WBS 2009 (1<sup>st</sup> placement UCL Centre for International Health and Development)

Lotta Väänänen HSE 2009 (submitted Oct. 2009. U. of Mannheim)

Khondker Aktaruzzaman, U. of Helsinki 2009 (U. of Helsinki and HECER)

Charlotta Grönqvist, Hanken School of Economics 2009 (Bank of Finland)

Janne Tukiainen, U. of Helsinki 2008 (VATT and HECER)

Tanja Tanayama, HSE 2007 (HECER)

Mikko Mäkinen, HSE 2007 (ETLA)

Xavier Carpentier, HSE 2006 (Nokia)

Ari Hyytinen, HSE 2000 (winner of HSE best doctoral dissertation award, ETLA)