

CURRICULUM VITAE

Updated July 9, 2010

Timo Kuosmanen

BORN: 8 May 1974, Joensuu, Finland

ACADEMIC DEGREES:

Ph.D. (Quantitative Methods), Helsinki School of Economics, 2001

M.Sc. (Economics), University of Joensuu, 1996

CURRENT POSITION:

Aalto University, School of Economics (formerly Helsinki School of Economics)

Professor of Applied Mathematics and Statistics (tenured), 1/2009 -

OTHER CURRENT AFFILIATIONS:

MTT Agrifood Research Finland, Economic Research Unit.

Advisor, 2009-2010.

University of Joensuu, Department of Economics,

Docent, 2005 –

Helsinki Center of Economic Research (HECER),

Affiliated Faculty Member.

EARLIER PROFESSIONAL EXPERIENCE:

MTT Agrifood Research Finland, Economic Research Unit.

Professor, 3/2006-7/2009.

Wageningen University, Environmental Economics and Natural Resources Group, The Netherlands.

Assistant Professor, 2/2002 – 2/2006

University of Copenhagen, Institute of Mathematics, Denmark.

Assistant Professor, 8/2001 – 1/2002

Helsinki School of Economics, Quantitative Methods of Economics and Management Sciences.

Graduate School Researcher, 7/1998 – 7/2001

Helsinki School of Economics, Quantitative Methods of Economics and Management Sciences.

Project Researcher. 7/1997 – 6/1998

University of Joensuu, Department of Economics, Finland.

Assistant, 1/1997 – 6/1997

European Forest Institute, Finland.

Research Assistant, 5/1996 – 12/1996

EDITORIAL WORK:

Associate editor: *Journal of Productivity Analysis*, 2005-

Referee (in alphabetical order): *Agricultural and Food Science*; *Agricultural Economics*; *Agronomy Research*; *American Journal of Agricultural Economics*; *Annals of Finance*; *Annals of Operations Research*; *Canadian Journal of Agricultural Economics*; *Central European Journal of Operations Research*; *Computers and Mathematics with Applications*; *Computers & Operations Research*; *Ecological*

Economics; Empirical Economics; Energy Economics; Energy Journal; Environmental Modelling and Software; European Journal of Operational Research; European Review of Agricultural Economics; Food Economics; Information Sciences; International Journal of Environment and Pollution; International Journal of Global Energy Issues; International Journal of Production Economics; International Journal of Sustainable Transportation; International Journal of Systems Science; International Review of Economics and Finance; IPSI Transactions on Internet Research; Iran Agricultural Journal; Journal of Agricultural Economics; Journal of Applied Mathematics and Decision Sciences; Journal of Banking and Finance; Journal of Economics; Journal of Econometrics; Journal of Environmental Management; Journal of Forest Economics; Journal of Human Development; Journal of Industrial Ecology; Journal of Productivity Analysis; Management Science; Managerial Finance; Multi-Criteria Decision Analysis; Natural Resource Modeling; Omega - International Journal of Management Science; Operations Research; Scandinavian Journal of Economics; Science of the Total Environment.

THESIS EXAMINATION AND SUPERVISION:

Opponent / external examiner of doctoral dissertations: Mykhaylo Salnykov, Simon Fraser Univ. (2008); Terhi Latvala, Univ. Helsinki (2009).

Pre-examiner of doctoral dissertations: Stefan Bäckman, Univ. Helsinki (2008); Janne Tukiainen, Univ. Helsinki (2008).

Examiner of licentiate theses: Niko Suhonen, Univ. Joensuu (2008)

Supervisor of doctoral dissertations: Pablo Benitez Ponce, Wageningen Univ. (2005); Vincent Otto, Wageningen Univ. (2006); Timo Sipiläinen, Univ. Helsinki (2008), Mika Kortelainen, Univ. Joensuu (2008).

RECRUITMENT, PROMOTION AND TENURE REVIEWS:

Pablo Benitez, *Senior Economist*, World Bank (2010).

John Ruggiero, *Professor*, Univ. of Dayton (2009).

Mika Kortelainen, *Lecturer*, Univ. of Manchester (2009).

Ozren Despic, *Lecturer*, Aston Univ. (2008).

Mika Kortelainen, *Research Associate*, Aston Univ. (2008).

AWARDS AND PRIZES

Management Science Strategic Innovation Prize 2004, of value €12,000, awarded by the Association for European Operational Research Societies (EURO) for the paper T. Kuosmanen, L. Cherchye, and T. Sipiläinen: “The Law of One Price in Data Envelopment Analysis: Restricting Weight Flexibility Across Firms”.

Most Original Paper of the Conference -prize, the Xth European Workshop on Efficiency and Productivity Analysis, Lille, France, June 27-30, 2007 for the paper T. Kuosmanen and M. Kortelainen “Stochastic Nonparametric Envelopment of Data: Cross-Sectional Frontier Estimation Subject to Shape Constraints”.

Award for Quality Publication, of value €4,000, awarded by the HSE Foundation in December 3 2009 for the paper T. Kuosmanen and A.L. Johnson: “Data Envelopment Analysis as Nonparametric Least Squares Regression”.

Award for Quality Publication, of value €2,000, awarded by the HSE Foundation in December 3 2009 for the paper T. Kuosmanen and N. Kuosmanen: "How Not to Measure Sustainable Value (and How One Might)".

Award for Quality Publication, of value €2,000, awarded by the HSE Foundation in December 3 2009 for the paper T. Kuosmanen, M. Kortelainen, T. Sipiläinen, and L. Cherchye: "Firm and Industry Level Profit Efficiency Analysis Using Absolute and Uniform Shadow Prices"

INVITED PLENARY LECTURES AND KEYNOTE ADDRESSES

North American Productivity Workshop (NAPW), 2-5 June 2010, Houston, USA.

7th International DEA Symposium, 13-15 January 2009, Osaka, Japan.

XX EURO Conference on Operational Research, 4-7 July, 2004, Rhodes, Greece.

MAJOR RESEARCH GRANTS:

Finnish Ministry of Agriculture and Forestry. €107,000 for the project "Impacts of Agricultural Subsidies and Productivity on the Price Formation and Margins in the Food Chain". 2007-2009

Elintarvikkeiden Tutkimussäätiö. €10,000 for the project "Impacts of Agricultural Subsidies and Productivity on the Price Formation and Margins in the Food Chain". 2007-2008.

Central Union of Agricultural Producers and Forest Owners in Finland (MTK). €10,000 for the project "Impacts of Agricultural Subsidies and Productivity on the Price Formation and Margins in the Food Chain". 2007.

EU Commission (FP6): €1,900 for the project "Sustainable Value Analysis of Policy and Performance in the Agricultural Sector". 2007-2010.

Yrjö Jahnnsson Foundation. €4,000 (personal scholarship) for the study "Concave Nonparametric Regression and its Microeconomic Applications". 2007

Finnish Ministry of the Environment. €65,000 for the research project "Measurement of Eco-efficiency Using DEA". 2003-2005.

Emil Aaltonen Foundation. €167,000 for the project "Nonparametric Methods in Economics of Production, Natural Resources, and the Environment (NOMEPRE)". 2003-2005.

COURSES LECTURED:

Econometrics, B.Sc. level, Business technology program of HSE, Spring 2010 – (in English).

Quantitative Business Analysis, B.Sc. level, Business technology program of HSE, Fall 2009 – (in English).

Principles of Econometrics, Ph.D. level, one of the three core-courses of the Finnish Doctoral Program in Economics (FDPE), see <http://www.hecer.fi/FDPE/>. Fall 2007- Spring 2010 (in English).

Productivity Analysis, Ph.D./ advanced M.Sc. level summer course, organized by the University of Joensuu at the Mekrijärvi research station, Ilomantsi, June 2005 (in Finnish).

Environmental Economics for Environmental Sciences, M.Sc. level, Wageningen University, Netherlands. Lectured 6 times in years 2002-2006 (in English).

Productivity Analysis, Advanced M.Sc. level, Math-Econ program of the University of Copenhagen, Fall 2001 (in English).

Introductory Statistics, B.Sc. level, Helsinki School of Economics, Spring 2001 (in Finnish).

Business Math, MBA program, Helsinki School of Economics, Fall 2000 (in English).

PROJECTS AND CONSULTING:

Application of StoNED method to efficiency estimation of electricity distribution networks in Finland. Project commissioned by the Finnish Energy Market Authority (Energiamarkkinavirasto EMV), implemented by Sigma Hat Economics Oy, lead by Professors Klaus Kultti, Timo Kuosmanen and Heikki Pursiainen. June-August 2010.

Application of DEA to measure the efficiency of retail investment products. Project commissioned by the Financial Services Authority (FSA), implemented by Oxford Economic Research Associates (OXERA), lead by Alan Horncastle. 2010

Markkinaintegraatio ja hintojen välittyminen Suomen elintarvikemarkkinoilla. Project commissioned by the Ministry of Agriculture and Forestry, implemented by MTT Agrifood Research Finland and PTT, lead by Professor Jyrki Niemi. 2010-2012.

Maataloustuen ja tuottavuuden vaikutukset elintarvikeketjun hinnanmuodostukseen ja hintamarginaaleihin. Project commissioned by the Ministry of Agriculture and Forestry, implemented by MTT Agrifood Research Finland, lead by Professor Timo Kuosmanen. Project was co-funded by MTK and Elintarvikkeiden tutkimussätiö. 2008-2010. Website:

https://portal.mtt.fi/portal/page/portal/mtt/elintarvikeketjut/vastuullinenelintarviketalous/Hankkeentiedot01?p_kielikoodi=FI&p_hanke_seqno=104056&p_kysely_seqno=

Measurement of Eco-efficiency by DEA. Project commissioned by the Ministry of the Environment, implemented by Wageningen University, lead by Professor Timo Kuosmanen. 2004-2006. Website: <http://www.ymparistokeskus.fi/default.asp?contentid=165406&lan=en&clan=fi>

OTHER ACTIVITIES:

Supervisor of HSE's common scientific doctoral studies in quantitative methods, 2009-

Supervisor of HSE's doctoral program in quantitative methods of economics and management science, 2009-

Statement on the effects of increasing food prices for the Parliament of Finland, the Agriculture and Forestry Committee, 30 November 2008.

Scientific committee of the European Workshop of Efficiency and Productivity Analysis (EWEP), temporary member since 14 October 2008 -.

Publications

1) Articles in international peer-reviewed journals:

1. Kuosmanen, T., and A.L. Johnson (2010): "Data Envelopment Analysis as Nonparametric Least Squares Regression", Operations Research 58(1): 149-160.
2. Cherchye, L., T. Kuosmanen, and H. Leleu (2010): "Technical and Economic Efficiency Measures under Short Run Profit Maximizing Behavior", Louvain Economic Review 76(2), 163-173. DOI: 10.3917/rel.762.0163.
3. Kuosmanen, T., M. Kortelainen, T. Sipiläinen, and L. Cherchye (2010): "Firm and Industry Level Profit Efficiency Analysis Using Absolute and Uniform Shadow Prices", European Journal of Operational Research 202, 584–594.
4. Kuosmanen, T., and N. Kuosmanen (2009): "Role of Benchmark Technology in Sustainable Value Analysis: An Application to Finnish Dairy Farms", Agricultural and Food Science 18, 3-4: 302-316.
5. Kuosmanen, T., and J. Niemi (2009): "What Explains the Widening Gap Between the Retail and Producer Prices of Food?", Agricultural and Food Science 18, 3-4: 317-331.
6. Kuosmanen, T., and N. Kuosmanen (2009): "How Not to Measure Sustainable Value (and How One Might)?", Ecological Economics 69, 235–243.
7. Kuosmanen, T. (2009): "Data Envelopment Analysis with Missing Data", Journal of the Operational Research Society 60, 1767–1774.
8. Kuosmanen, T., and T. Sipiläinen (2009): "Exact Decomposition of the Fisher Ideal Total Factor Productivity Index", Journal of Productivity Analysis 31(3), 137-150.
9. Kuosmanen, T., and V. Podinovski (2009): "Weak Disposability in Nonparametric Production Analysis: Reply to Färe and Grosskopf", American Journal of Agricultural Economics 91(2), 539–545.
10. Kuosmanen, T., Bijsterbosch, N., and Dellink, R. (2009): "Environmental Cost–Benefit Analysis of Alternative Timing Strategies in Greenhouse Gas Abatement: A Data Envelopment Analysis Approach", Ecological Economics 68, 1633–1642.
11. Kuosmanen, T., and M. Fosgerau (2009): "Neoclassical versus Frontier Production Models? Testing for the Presence of Inefficiencies in the Regression Residuals", Scandinavian Journal of Economics 111(2), 317-333.
12. Kazemi Matin, R., and T. Kuosmanen (2009): "Theory of Integer-Valued Data Envelopment Analysis under Alternative Returns to Scale Axioms", Omega, The International Journal of Management Science 37, 988-995.

13. Kuosmanen, T., and R. Kazemi Matin (2009): "Theory of Integer-Valued Data Envelopment Analysis", European Journal of Operational Research 192, 658–667.
14. Kuosmanen, T. (2008): "Representation Theorem for Convex Nonparametric Least Squares", Econometrics Journal 11, 308-325.
15. Kuosmanen, T. (2007): "Performance Measurement and Best-Practice Benchmarking of Mutual Funds: Combining Stochastic Dominance Criteria with Data Envelopment Analysis", Journal of Productivity Analysis 28(1-2), 71-86.
16. Kortelainen, M., and T. Kuosmanen (2007): "Eco-Efficiency Analysis of Consumer Durables Using Absolute Shadow Prices", Journal of Productivity Analysis 28(1-2), 57-69.
17. Kuosmanen, T., and M. Kortelainen (2007): "Valuing Environmental Factors in Cost-Benefit Analysis Using Data Envelopment Analysis", Ecological Economics 62(1), 56-65.
18. Kuosmanen, T., G.T. Post, and S. Scholtes (2007): "Testing for Productive Efficiency in Case of Errors-in-Variables", Journal of Econometrics 136, 131-162.
19. Kuosmanen, T., D. Pemsil, and J. Wesseler (2006): "Specification and Estimation of Production Functions Involving Damage Control Inputs: A Two-Stage, Semi-Parametric Approach", American Journal of Agricultural Economics 88(2), 499-511.
20. Benitez, P., T. Kuosmanen, R. Olschewski, and G.C. van Kooten (2006): "Conservation Payments under Risk: A Stochastic Dominance Approach", American Journal of Agricultural Economics 88(1), 1-15.
21. Kuosmanen, T., L. Cherchye, and T. Sipiläinen (2006): "The Law of One Price in Data Envelopment Analysis: Restricting Weight Flexibility Across Firms", European Journal of Operational Research 170(3), 735-757.
22. Vöhringer, F., T. Kuosmanen, and R. Dellink (2006): "How to Attribute Market Leakage to CDM Projects", Climate Policy 5(5), 503-516.
23. Kuosmanen, T. (2005): "Weak Disposability in Nonparametric Production Analysis with Undesirable Outputs", American Journal of Agricultural Economics 87(4), 1077-1082.
24. Kuosmanen, T. (2005): "Measurement and Analysis of Eco-Efficiency: An Economist's Perspective", Journal of Industrial Ecology 9(4), 15-18.
25. Kuosmanen, T., and M. Kortelainen (2005): "Measuring Eco-efficiency of Production with Data Envelopment Analysis", Journal of Industrial Ecology 9(4), 59-72.
26. Kuosmanen, T. (2004): "Efficient Diversification According to Stochastic Dominance Criteria", Management Science 50(10), 1390-1406.

27. Kuosmanen, T., E. Nillesen and J. Wesseler (2004): "Does Ignoring Multi-Destination Trips in TCM Cause a Systematic Bias?", Australian Journal of Agricultural and Resource Economics 48(4), 629-651.
28. Kuosmanen, T., G.T. Post and T. Sipiläinen (2004): "Shadow Price Approach to Total Factor Productivity Measurement: With an Application to Finnish Grass-Silage Production", Journal of Productivity Analysis 22(1), 95-121.
29. Kuosmanen, T. (2003): "Duality Theory of Non-convex Technologies", Journal of Productivity Analysis 20, 273-304.
30. Kuosmanen, T., and G.T. Post (2003): "Note: Measuring Economic Efficiency With Incomplete Price Information", European Journal of Operational Research 144(2), 454-457.
31. Kuosmanen, T., and G.T. Post (2002): "Quadratic Data Envelopment Analysis", Journal of the Operational Research Society 53(11), 1204-1214.
32. Kuosmanen, T., and G.T. Post (2002): "Nonparametric Efficiency Analysis under Price Uncertainty: A First-Order Stochastic Dominance Approach", Journal of Productivity Analysis 17(3), 183-200.
33. Post, G.T., L. Cherchye, and T. Kuosmanen (2002): "Nonparametric Efficiency Estimation in Stochastic Environments", Operations Research 50(4), 645-655.
34. Cherchye, L., T. Kuosmanen, and G.T. Post (2002): "Non-parametric Production Analysis in Non-Competitive Environments", International Journal of Production Economics 80(3), 279-294.
35. Kuosmanen, T. (2001): "DEA with Efficiency Classification Preserving Conditional Convexity", European Journal of Operational Research 132(2), 326-342.
36. Cherchye, L., T. Kuosmanen, and G.T. Post (2001): "Alternative Treatments of Congestion in DEA", European Journal of Operational Research 132(1), 75-80.
37. Cherchye, L., T. Kuosmanen, and G.T. Post (2001): "FDH Directional Distance Functions: With an Application to European Commercial Banks", Journal of Productivity Analysis 15, 201-215.
38. Kuosmanen, T., and G.T. Post (2001): "Measuring Economic Efficiency With Incomplete Price Information: With an Application to European Commercial Banks", European Journal of Operational Research 134(1), 43-58.
39. Cherchye, L., T. Kuosmanen, and G.T. Post (2000): "What is the Economic Meaning of FDH?", Journal of Productivity Analysis 13(3), 259-263.

2) Articles in international peer-reviewed books and proceedings:

40. Kortelainen, M., and T. Kuosmanen (2006): "Umwelteffiziente Langlebige Konsumgüter", Ch. 12 (pp. 233-246) in H.H. Bauer, M. Staat, and M. Hammerschmidt (Eds): *Marketingeffizienz: Messung und Steuerung mit der DEA – Konzept und Einsatz in der Praxis*, Vahlen Verlag, München. (In German)
41. Cherchye, L., and T. Kuosmanen (2006): "Benchmarking Sustainable Development: A Synthetic Meta-Index Approach", Ch. 7 in M. McGillivray and M. Clarke (Eds.): *Understanding Human Well-being*, United Nations University Press, Tokyo.
42. Heikkinen, V.-P., and T. Kuosmanen (2003): "Stochastic Dominance Portfolio Analysis of Forestry Assets", in J. Wesseler, H.-P. Weikard, and R. Weaver (Eds.): *Risk and Uncertainty in Environmental and Resource Economics*, Edward Elgar, Cheltenham.
43. Kuosmanen, T., and J. Viitanen (1998): "Advertising as a Signal of Quality in the Popular Music Industry: A Game Theoretical Approach" in M. Heikkinen and T. Koskinen (Eds.) *Economics of Artists and Arts Policy: Selection of Papers*, Research Reports of the Arts Council of Finland, Vol. 22, pp. 217 - 232.

3) Scientific monographies:

44. Kuosmanen, T. (2001): "The Role of Production Assumptions in Data Envelopment Analysis", Helsinki School of Economics and Business Administration, Series A - Doctoral Dissertations, 188.
45. Kuosmanen, T. (1996): "Productive Efficiency in the Forest Industry: An International Industry-level Study", University of Joensuu, Master's Thesis.

4) Other publications:

46. Johnson, A.L., and T. Kuosmanen (2009): "How Operational Conditions and Practices Affect Productive Performance? Efficient Semi-Parametric One-Stage Estimators," SSRN working paper. <http://ssrn.com/abstract=1485733>.
47. Kuosmanen, T. (2008): "Elintarvikkeiden hintojen nousun vaikutuksista," statement for the Parliament of Finland, the Agriculture and Forestry Committee, 30 October 2008; lausunto Eduskunnan maa- ja metsätalousvaliokunnalle 30.9.2008.
48. Kuosmanen, T., and J. Niemi (2008): "Tuottajaosuuden laskuun monta syytä", *Sika* 1/08, 41-43.
49. Kuosmanen, T., and M. Kortelainen (2007): "Stochastic Nonparametric Envelopment of Data: Cross-Sectional Frontier Estimation Subject to Shape Constraints", University of Joensuu, Economics Discussion Paper No. 46.

50. Kuosmanen, T. (2006): "Stochastic Nonparametric Envelopment of Data: Combining Virtues of SFA and DEA in a Unified Framework", MTT Discussion Paper No. 3/2006.
51. Kuosmanen, T., and T. Sipiläinen (2004): "On the Anatomy of Productivity Growth: A Decomposition of the Fisher Ideal TFP Index", Discussion Paper 2004/117, MTT Economic Research.
52. Kuosmanen, T., and M. Kortelainen (2004): "Data Envelopment Analysis in Environmental Valuation: Environmental Performance, Eco-efficiency and Cost-Benefit Analysis", University of Joensuu, Discussion papers in Economics no. 21; EconWPA working paper at WUSTL, no. 0409004.
53. Kuosmanen, T. (2002): "Modeling Blank Entries in Data Envelopment Analysis", EconWPA working paper at WUSTL, no. 0210001.
54. Kuosmanen, T., and G.T. Post (2001): "Non-parametric Tests for Firm Efficiency in Case of Errors-in-Variables: Efficiency Depth", Erasmus Research Institute of Management (ERIM) Working Paper ERS-2001-06-F&A.
55. Kuosmanen, T. (2001): "Stochastic Dominance Efficiency Tests under Diversification", Helsinki School of Economics and Business Administration, Working Paper W-283.
56. Cherchye, L., T. Kuosmanen, and G.T. Post (2000): "New Tools for Dealing with Errors-In-Variables in DEA", Katholieke Universiteit Leuven, Center for Economic Studies, Discussion Paper Series DPS 00.06.
57. Cherchye, L., T. Kuosmanen, and G.T. Post (2000): "Why Convexify? An Assessment of Convexity Axioms in DEA", Helsinki School of Economics and Business Administration, Working Paper W-270.
58. Kuosmanen, T., and G.T. Post (1999): "Robust Efficiency Measurement: Dealing with Outliers in Data Envelopment Analysis", Rotterdam Institute for Business Economic Studies Report 9911.
59. Kuosmanen, T. (1999): "Data Envelopment Analysis of Non-convex technologies: With an Application to Finnish Super League Pesis Players", Helsinki School of Economics, Working paper W-224.
60. Kuosmanen, T. (1998): "Palautetta ekonomikoulutuksesta", Suomen Ekonomiliitto - Finlands Ekonomförbund - SEFE ry., Helsinki, 1998. (*In Finnish*)