

# Takuro Uehara, PhD

## Associate Professor

College of Policy Science  
Ritsumeikan University  
2-150 Iwakura-cho  
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URL: [https://researchdb.ritsumei.ac.jp/tmp/10420/prof\\_e.html](https://researchdb.ritsumei.ac.jp/tmp/10420/prof_e.html)

## EDUCATION

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**Ph.D., Systems Science: Economics**, Portland State University, 2012

Dissertation: A Systems Approach to Ecological Economic Models Developed Progressively in Three Interwoven Articles

**M.S., Economics**, Portland State University, 2011

**Graduate Certificate in Environmental and Resource Economics**, Portland State University, 2011

**M.A., Policy Studies**, Chuo University, Japan, 2000

**B.A., Policy Studies**, Chuo University, Japan, 1997

## MAJOR FIELDS OF CONCENTRATION

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Environmental, Resource & Ecological Economics, Microeconomics, Input-output table, Modeling & Simulation (Systems Dynamics and Agent-Based Modeling)

## PUBLICATIONS

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### Peer-Reviewed Journal Articles

Uehara, T., Niu, J., Chen, X., Ota, T., & Nakagami, K. I. (2016). A sustainability assessment framework for regional-scale Integrated Coastal Zone Management (ICZM) incorporating Inclusive Wealth, Satoumi, and ecosystem services science. *Sustainability Science*, 1-12.

Sakurai, R., Ota, T., Uehara, T., & Nakagami, K. I. (2016). Factors affecting residents' behavioral intentions for coastal conservation: Case study at Shizugawa Bay, Miyagi, Japan. *Marine Policy*, 67, 1-9.

Uehara, T., Nagase, Y., & Wakeland, W. (2015). Integrating Economics and System Dynamics Approaches for Modelling an Ecological–Economic System. *Systems Research and Behavioral Science*, 33(4), 515-531.

Bluffstone, R., Yesuf, M., Uehara, T., Bushie, B., & Damite, D. (2015). Livestock and Private Tree Holdings in Rural Ethiopia: The Effects of Collective Action Institutions, Tenure Security and Market Access. *The Journal of Development Studies*, 51(9), 1193-1209.

上原 拓郎. (2015). 「レジリエンスを考慮した持続可能な社会生態系の構築に果たす環境経済学の役割」, 環境経済・政策研究 Vol. 8(2015) No. 2, p.47-51.

太田 貴大, 上原 拓郎. (2014). 「効果的な生態系サービスへの支払い (PES) 設計のための 3 つの政策研究課題と注意点」, 環境経済・政策研究 Vol. 7(2014) No. 1, p.63-66.

Uehara, Takuro. (2013). “Ecological threshold and ecological economic threshold: Implications from an ecological economic model with adaptation,” *Ecological Economics*, 93, 374-384.

Uehara, Takuro and Yoko Nagase. (2011). “Evolution of population-resource dynamics models,” *Ecological Economics*, 72, 7-17.

### **Peer-Reviewed Conference Proceedings**

Cordier, Mateo., Uehara, Takuro., Hamaide, Bertrand., and Weih, Jeff. (2015). “An Input-Output economic model integrated within a system dynamics ecological model: a methodology for feedback loop applied to fish nursery restoration,” *Proceedings of the 11<sup>th</sup> Biennial Conference of the European Society for Ecological Economics*, Leeds, UK.

Uehara, Takuro, Yoko Nagase, and Wayne Wakeland. (2013). “Integrating economics and system dynamics approaches for modeling an ecological-economic system”, *Proceedings of the 31th International Conference of the System Dynamics Society*, Boston, USA.

Uehara, Takuro. (2012). “Resilience and Sustainability of an Ecological Economic System”, *Proceedings of the 12th Biennial Conference of the International Society for Ecological Economics*, Rio de Janeiro, Brazil.

Uehara, Takuro, Yoko Nagase, and Wayne Wakeland. (2012). “System dynamics implementation of a model of population and resource dynamics with adaptation”, *Proceedings of the 12th Biennial Conference of the International Society for Ecological Economics*, Rio de Janeiro, Brazil.

Bluffstone, Randall, Mahmud Yesuf, Takuro Uehara, Bilisuma Bushie, Demessie Damite. (2012). “Household rural livelihoods and natural capital investments. Does forest social coordination play a role? Evidence from Ethiopia”, *Proceedings of the 19<sup>th</sup> Annual Conference of European Association of Environmental and Resource Economists*, Prague, Czech Republic.

Bluffstone, Randall, Mahmud Yesuf, Takuro Uehara, Bilisuma Bushie, Demessie Damite. (2012). “Household rural livelihoods and natural capital investments. Does forest social coordination play a role? Evidence from Ethiopia”, *Proceedings of Nordic Conference in Development Economics*, Gothenburg, Sweden.

Uehara, Takuro, Yoko Nagase, and Wayne Wakeland. (2012). “Using system dynamics to contribute to ecological economics”, *Proceedings of the 30th International Conference of the System Dynamics Society*, St. Gallen, Switzerland.

Uehara, Takuro, Yoko Nagase, and Wayne Wakeland. (2010). “System Dynamics Implementation of an Extended Brander and Taylor-like Easter Island Model”, *Proceedings of the 28th International Conference of the System Dynamics Society*, Seoul, Korea.

Nagase, Yoko and Takuro Uehara. (2010). “Evolution of population-resource dynamics models: a synthesis,” *Proceedings of the 11th Biennial Conference of the International Society for Ecological Economics*, Oldenburg and Bremen, Germany.

## **WORK IN PROGRESS**

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- Economic valuation of resilience.
- Regional sustainability assessment framework for socio-ecological production landscapes.
- An Input-Output/System Dynamics approach to ecological-economic modeling: A case of the Seine Estuary
- A policy perspective of a successful payment system for forest ecosystem services

## **TEACHING EXPERIENCE**

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April, 2014 to present, *Associate Professor* in the College of Policy Science at Ritsumeikan University, Osaka, Japan

April, 2013 – March, 2014, *Assistant Professor* in the College of Policy Science at Ritsumeikan University, Kyoto, Japan

September, 2012 – March, 2013, *Adjunct Assistant Professor* in the Department of Economics at Portland State University, OR, USA

September, 2009 – August, 2012, *Graduate Teaching Fellow* in the Department of Economics at Portland State University, OR, USA

September, 2010 – December, 2010, *Graduate Teaching Assistant* in the Department of Economics at Portland State University, OR, USA

*Teaching Assistant* to EC570: Econometrics (Fall 2010) in the Department of Economics at Portland State University, OR, USA

### **Courses Taught (as a solo instructor)**

Economics for Policy Studies  
Foundation Course to Policy Studies (introductory level micro and macroeconomics)  
Introduction to Social Research Methods  
Modeling & Simulation  
Statistics  
Policy Information Processing I  
EC480/580: Mathematical Economics  
EC380: Introduction to Mathematical Economics  
EC332U: Economics of Environmental Issues  
EC202: Principles of Macroeconomics  
EC201: Principles of Microeconomics

### **Courses Taught (as a teaching assistant)**

EC570: Econometrics

## **PRESENTATIONS (Invited)**

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Uehara, Takuro. (2014). "A frontier of ecological-economic modeling". at *ECGE1313-Environmental Economics at Sant-Louis University, Brussels, Belgium on 20<sup>th</sup> of February, 2014*.

Uehara, Takuro. (2013). "Ecological threshold and ecological economic threshold: Implications from an ecological economic model with adaptation," at *4 November Workshop on the Possibilities of Computer Simulations in Social Sciences: Bottom-up and Top-down Approaches*, School of Automation, Beijing Institute of Technology, Beijing, China.

## **PRESENTATIONS (Oral)**

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Cordier, Mateo., Uehara, Takuro., Hamaide, Bertrand., and Weih, Jeff. (2016). "An Input-Output Economic Model integrated within a System Dynamics Ecological Model: a methodology for feedback loop applied to fish nursery restoration," *The 14<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Washington DC, USA.

Cordier, Mateo., Uehara, Takuro., Hamaide, Bertrand., and Weih, Jeff. (2015). "An Input-Output economic model integrated within a system dynamics ecological model: a methodology for feedback loop applied to fish nursery restoration," *The 11<sup>th</sup> Biennial Conference of the European Society for Ecological Economics*, Leeds, UK.

Cordier, Mateo., Uehara, Takuro., Hamaide, Bertrand., and Weih, Jeff. (2014). "An Input-Output/System Dynamics Approach to Regional Ecological-Economic Modeling: An Application to the Restoration of the Seine Estuary (France)," *The 13<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Reykjavik, Iceland.

太田貴大, 上原拓郎, 仲上健一, 高尾克樹, 小幡範雄, 吉岡泰亮, 陳曉晨. (2014). 「沿岸海域の生態系サービスの経済価値の決定要因：ヘドニック手法の抱える課題について」, 環境科学学会 2014 年会, つくば国際会議場

Uehara, Takuro., Cordier, Mateo., Hamaide, Bertrand., and Weih, Jeff. (2013). "An input-output/ system dynamics approach to ecological economic modeling: An application to the Seine Estuary in France," *6<sup>th</sup> Annual International Ecosystem Services Partnership (ESP) Conference 2013*, Bali, Indonesia.

Cordier, Mateo., Uehara, Takuro., Hamaide, Bertrand., and Weih, Jeff. (2013). "An Input-Output/System Dynamics approach to ecological-economic modeling: interrelations between natural capital stock and economic growth," *7<sup>th</sup> Biennial Conference of the United States Society for Ecological Economics*, Burlington, VT, USA.

Uehara, Takuro., and Wayne Wakeland. (2012). "Using system dynamics to contribute to ecological economics", *Cascade Systems Society*, Portland State University.

Uehara, Takuro. (2012). "Resilience and Sustainability of an Ecological Economic System," *The 12<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Rio de Janeiro, Brazil.

Uehara, Takuro, Yoko Nagase, and Wayne Wakeland. (2012). "System dynamics implementation of a model of population and resource dynamics with adaptation," *The 12<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Rio de Janeiro, Brazil.

Uehara, Takuro (2011). Panel data analysis of tree planting in Ethiopia, *Student Research Week 2011*, Portland State University, Portland, OR, USA.

Nagase, Yoko and Takuro Uehara (2010). Evolution of population-resource dynamic models: a synthesis, *2010 International Society of Ecological Economics Conference*, Oldenberg, Germany.

Uehara, Takuro. “Improving Causal Mapping Practice Using the System Dynamics 'Front-End' Tool.” *Seminar presentation to the Japanese Chapter of System Dynamics Society*. Tokyo (Chuo University), November 2002.

Kobayashi, Hidenori., and Takuro Uehara. “Theoretical Investigation of Citizen Participation.” *The 24<sup>th</sup> of Japan Association for Planning Administration*, Hokkaido Prefecture (Sapporo University), October 2001.

### **PRESENTATIONS (Presented by Co-author(s))**

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Uehara, Takuro., Niu, Jia., Chen, Xiaochen., Mineo, Keito., and Ota, Takahiro. (2016). “An operational and theoretically sound sustainability assessment framework for integrated coastal zone management: Satoumi, ecosystem services approach, and inclusive wealth,” *The 14<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Washington DC, USA.

Bagstad, Ken., Ota, Takahiro., Hashimoto, Hiroshi., and Uehara, Takuro. (2016). “Understanding forest ecosystem services flows and public preferences for forest management in Japan,” *The 14<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Washington DC, USA.

Takahiro Ota, Takuro Uehara, and Ken'ichi Nakagami. (2014). “A coastal zone assessment method for the realization of sustainable ICZM using the "Sato-umi", a novel research framework led by the Japanese Ministry of Environment”. *7th Annual International Ecosystem Services Partnership (ESP) Conference 2013*, Costa-Rica.

Takahiro Ota, Takuro Uehara, and Ken'ichi Nakagami. (2014). “Exploring potential factors affecting the long-term change in the monetary value of coastal ecosystem services: A case in Japanese coastal areas”. *7th Annual International Ecosystem Services Partnership (ESP) Conference 2013*, Costa-Rica.

Takahiro Ota, Takuro Uehara, and Ken'ichi Nakagami. (2014). “Why fishermen cannot get income from both the catch and ES management: A Japanese case of PES in the coastal area”. *7th Annual International Ecosystem Services Partnership (ESP) Conference 2013*, Costa-Rica.

Takahiro Ota, Takuro Uehara, and Ken'ichi Nakagami. (2014). “A framework for formulating a long-term coastal management plan for a sustainable coastal area: An application of “Sato-umi” in Japan”. *The 13<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Reykjavik, Iceland.

Uehara, Takuro., Cordier, Mateo., Hamaide, Bertrand., and Weih, Jeff. (2013). “An I/O Systems Dynamic Approach to Ecological Economic Modelling”. *Canadian Society for Ecological Economics (CANSEE) 2013 Biennial Conference, Toronto, Ontario, Canada*.

仲上健一，高尾克樹，小幡範雄，太田貴大，上原拓郎，吉岡泰亮，陳曉晨. (2014). 「「里海」を基本概念とした統合的沿岸海域管理(その 1)」，環境経済・政策学会 2014 年大会，法政大学.

### **PRESENTATIONS (Poster)**

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Ota, Takahiro., and Uehara, Takuro. (2014). “Three Research Topics for Policy-Oriented PES Design: A Case of Forest Management of Toyota City in Japan,” *The 13<sup>th</sup> Biennial Conference of the International Society for Ecological Economics*, Reykjavik, Iceland.

Ota, Takahiro., and Uehara, Takuro. (2013). “How effective are the current payment schemes for timber forest management in Japan? : A PES view,” *6th Annual International Ecosystem Services Partnership (ESP) Conference 2013*, Bali, Indonesia.

## **RESEARCH GRANTS**

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**Research Grant** from Yamada Academic Research Foundation (2014-2015, ¥250,000JPY, (approx. \$2,500USD))

**Research Grant for Environmental Research Projects** from The Sumitomo Foundation (2013-2014, ¥1,000,000JPY, (approx. \$10,000USD))

**Overseas Travel Support Program for Researchers** from Ritsumeikan University for the 7th Biennial Conference of the United States Society for Ecological Economics, Burlington, VT, USA, June 9-12, 2013 (approx. \$1,000 USD).

## **AWARDS & SCHOLARSHIPS**

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**2011-2012 Sustainability Travel Award** from the Institute for Sustainable Solutions at Portland State University for the International Society for Ecological Economics Conference in Rio de Janeiro, Brazil, June 16-19, 2012 (\$1,500 USD).

**Student Travel Award** from Systems Science Program at Portland State University for the International Society for Ecological Economics Conference in Rio de Janeiro, Brazil, June 16-19, 2012 (\$500 USD).

**Student Travel Award** from the Department of Economics at Portland State University for the International Society for Ecological Economics Conference in Rio de Janeiro, Brazil, June 16-19, 2012 (\$500 USD).

**Student Travel Award** from Systems Science Program at Portland State University for the International Society for Ecological Economics Conference in Bremen, Germany, August 22-25, 2010(\$500 USD).

**Student Travel Award** from the Department of Economics at Portland State University for the International Society for Ecological Economics Conference in Bremen, Germany, August 22-25, 2010 (\$500 USD).

**Rotary Foundation Academic-Year Ambassadorial Scholar**, 2007-2008 (\$26,000 USD).

## **RESEARCH EXPERIENCE**

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**Graduate Research Assistant** in Department of Economics at Portland State University, February 1, Spring 2010, Fall 2010, Winter 2011, Spring 2011.

Research Assistant to Dr Randall A. Bluffstone

**Graduate Research Assistant** in Systems Science at Portland State University, Spring 2009

Research Assistant to Dr Wayne Wakeland

**Scholar**, Research and Development Initiative at Chuo University, 2004 to 2007

**Research Fellow**, Research and Development Initiative at Chuo University, 2000 – 2004

As a research fellow and scholar at Chuo University, I have been involved in policy analyses, mainly for

the Japanese Ministry of Agriculture, Forestry, and Fishery and its subordinate institutes. All of the works were done jointly with Mr. Hiromitsu Watanabe and Mr. Hiromitsu Moriguchi at Mitsubishi UFJ Research and Consulting. I conducted the planning, analyzing, and reporting for these projects. Main approaches I employed include econometrics, cost-benefit analysis, and input-output analysis.

The following are projects in which I played a major role. These reports are all written in Japanese. The Japanese Institute of Irrigation and Drainage and the Japanese Institute of Technology on Fishing Ports, Grounds and Communities are subordinate institutions of the Japanese Ministry of Agriculture, Forestry and Fisheries.

Year	Theme	Client
2006	Evaluation of the Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2006	Research on the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2006	Research on the Impact of the Kuzuryu River Project and Its Public Importance	The Japanese Institute of Irrigation and Drainage
2006	Research on Estimating the Nationwide Economic Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2005	Evaluation of the Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2005	Research on the Measures for Reviving Rural Areas under the Decline of the Rural Population	The Japanese Institute of Irrigation and Drainage
2005	Research on the Impact of the Kuzuryu River Project and Its Public Importance	The Japanese Institute of Irrigation and Drainage
2005	Research on the State of Concentration of Agricultural Land to Active Farmers	The Japanese Institute of Irrigation and Drainage
2004	The Research Design of the Development Project in the Makinohara Area	Shizuoka Prefecture
2004	The Cost-Benefit Analysis for the Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2004	Research on the Impact of Fishing Port Development in View of Consumers	The Japanese Institute of Technology on Fishing Ports, Grounds and Communities
2004	Research on Public Policy for Rural Resource Conservation	The Japanese Institute of Irrigation and Drainage
2004	Evaluation of the Kuzuryu Project	The Japanese Institute of Irrigation and Drainage
2004	Developing Guidelines for the Ex-post Evaluation Method for Subsidized Projects	Ministry of Agriculture, Forestry and Fisheries
2004	The Development of Outcome Indices for Fishing Port Development	The Japanese Institute of Technology on Fishing Ports, Grounds and Communities
2004	Research on the Measures to Adopt and Train New Farmers	The Japanese Institute of Irrigation and Drainage
2004	Research on Developing a Research Method to Gather Nationals' Views on the Measure for Resource Conservation	The Japanese Institute of Irrigation and Drainage

2004	Research on the Impact of the Kuzuryu River Project and Its Public Importance	The Japanese Institute of Irrigation and Drainage
2004	Research on Estimating the Nationwide Economic Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2003	Research on the Interaction between Urban and Rural Areas	The Japanese Institute of Irrigation and Drainage
2003	Evaluation of the Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2003	Research on the Economic Impact of the Makinohara Project	Shizuoka Prefecture
2003	Project on the Promotion of Larger Paddy Fields	Ministry of Agriculture, Forestry and Fisheries
2003	The Development of Outcome Indices for the Development of Fishing Ports	The Japanese Institute of Technology on Fishing Ports, Grounds and Communities
2003	The Quantification of Outcome Indices and the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2003	Research on the Estimating the Nationwide Economic Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2003	Research on the Interaction between Urban and Rural Areas	The Japanese Institute of Irrigation and Drainage
2003	Research on the Synthesized Evaluation of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2002	Research on Estimating the Nationwide Economic Impact of the Agriculture and Rural Development Project	The Japanese Institute of Irrigation and Drainage
2002	Economic Spillover Effects of the Agriculture and Rural Development Project	Shizuoka Prefecture
2002	Project on Estimating the Livability of a Rural Area	The Japanese Institute of Irrigation and Drainage
2002	Research on Normalization of the Evaluation of the Economic Impact of Agricultural Road Construction	Ministry of Agriculture, Forestry and Fisheries
2002	Research on Another Effect of the Agriculture and Rural Development Project	Ministry of Agriculture, Forestry and Fisheries
2002	Project on the Development of New Measures to Develop Rural Areas	The Japanese Institute of Irrigation and Drainage
2001	Research on the Evaluation of the Agriculture and Rural Development Project	Shimane Prefecture
2001	Research on the Indicators for Rural Development	Ministry of Agriculture, Forestry and Fisheries
2001	Estimating the Long-term Macroeconomic Impact of a Land Improvement Project	Ministry of Agriculture, Forestry and Fisheries
2001	Project on Estimating the Livability of a Rural Area	The Japanese Institute of Irrigation and Drainage
2001	Project on the Development of New Rural Development Measures	The Japanese Institute of Irrigation and Drainage
2000	Research on the Cost-Benefit Analysis for the Improvement of Management Style	Agriculture, Forestry and Fisheries Policy Research Institute



2000	The Development of Evaluation Methods for Hilly and Mountainous Areas	Ministry of Agriculture, Forestry and Fisheries
2000	Research on the Management of Improved Land	The Japanese Institute of Irrigation and Drainage
2000	Research on the Impact of an Agriculture and Rural Development Project	Ministry of Agriculture, Forestry and Fisheries
2000	Estimating the Long-term Macroeconomic Impact of a Land Improvement Project	Ministry of Agriculture, Forestry and Fisheries
2000	Project on the Ex-Post Evaluation	Ministry of Agriculture, Forestry and Fisheries
2000	Research on the Management Method for Improved Land	The Japanese Institute of Irrigation and Drainage
2000	Project on the Estimation of the Fourth Long-term Macroeconomic Impact of a Land Improvement Project	Ministry of Agriculture, Forestry and Fisheries
2000	Research on the Indicators for Rural Areas	The Japanese Institute of Irrigation and Drainage

**Mitsubishi UFJ Research and Consulting Co.,Ltd.**, Tokyo, Japan, 1995-2000

**Research Assistant**

Conducted basic research including data analysis, documental research, and drafting reports.

**MEMBERSHIP AND OFFICES HELD IN ORGANIZATIONS**

Member of Ecosystem Services Partnership, 2013-Present

Honorary Member of the Pearl Rotary Club, 2009-Present

Volunteer for *Meals-on-Wheels*: Delivering Lunch Boxes to low income people, 2008-2013

Volunteer for *Transition House Project*: Fixing and serving supper for homeless people, 2008-2013

Volunteer for teaching Japanese: 2009-2012

Member of the International Society for Ecological Economics, 2010-Present

Member of the System Dynamics Society, 2006-Present

Secretary of the Japanese Chapter of the System Dynamics Society, 2003-2006

Child sponsor for World Vision Japan, 1999-2007

**Service**

Speaker, Rotary Rotaract Peace through Education Symposium, Portland, OR, USA, February 4, 2012

**References**

Wayne Wakeland, Ph.D.

Associate Professor, Acting Director

Systems Science Graduate Program, Portland State University

SYSC, P.O. Box 751, Portland, OR 97207, USA

Tel: 503-725-4975

Email: wakeland@pdx.edu

Yoko Nagase, Ph.D.

Senior Lecturer, Programme Lead

Department of Accounting, Finance and Economics, Oxford Brookes University  
Wheatley Campus, Wheatley, Oxford, OX33 1HX, United Kingdom  
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Bertrand Hamaide, Ph.D.  
Professor of Economics  
Facultés Universitaires Saint-Louis - CEREC  
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