XXXVII Kansantaloustieteen päivät

Finnish Economic Association XXXVII Annual Meeting

Helsinki

12.-13.2.2015

Programme

Thursday 12.2.2015

10:00-17:00	Registration
10:00-10:15	Opening words
10:30-12:30	Parallel Sessions I
	1a: Systemic Risk Analytics and Macro-prudential Policy
	1b: Empirical Macroeconomics
	1c: Energy and Natural Resources
	1d: Labour Market, Macroeconomy and Demographics
	1e: Financial Econometrics
	1f: Corporate Taxation in Finland
	1g: Finnish Economic Policy
12:30-13:30	Lunch Break
13:30-15:30	Parallel Sessions II
	2a: Empirical Banking
	2b: Macro
	2c: Labour Market Policy Evaluation
	2d: Labour Markets
	2e: Satisfaction and Well-Being
	2f: Lab Experiments
	2g: Environmental Economics
15:30-16:00	Break (Coffee & Tea)
16:00-17:30	Special Session by UNU-WIDER
	Transformation, inclusion and sustainability in Africa
18:00	Reception hosted by Bank of Finland
19:30	Conference dinner at Bryggeri

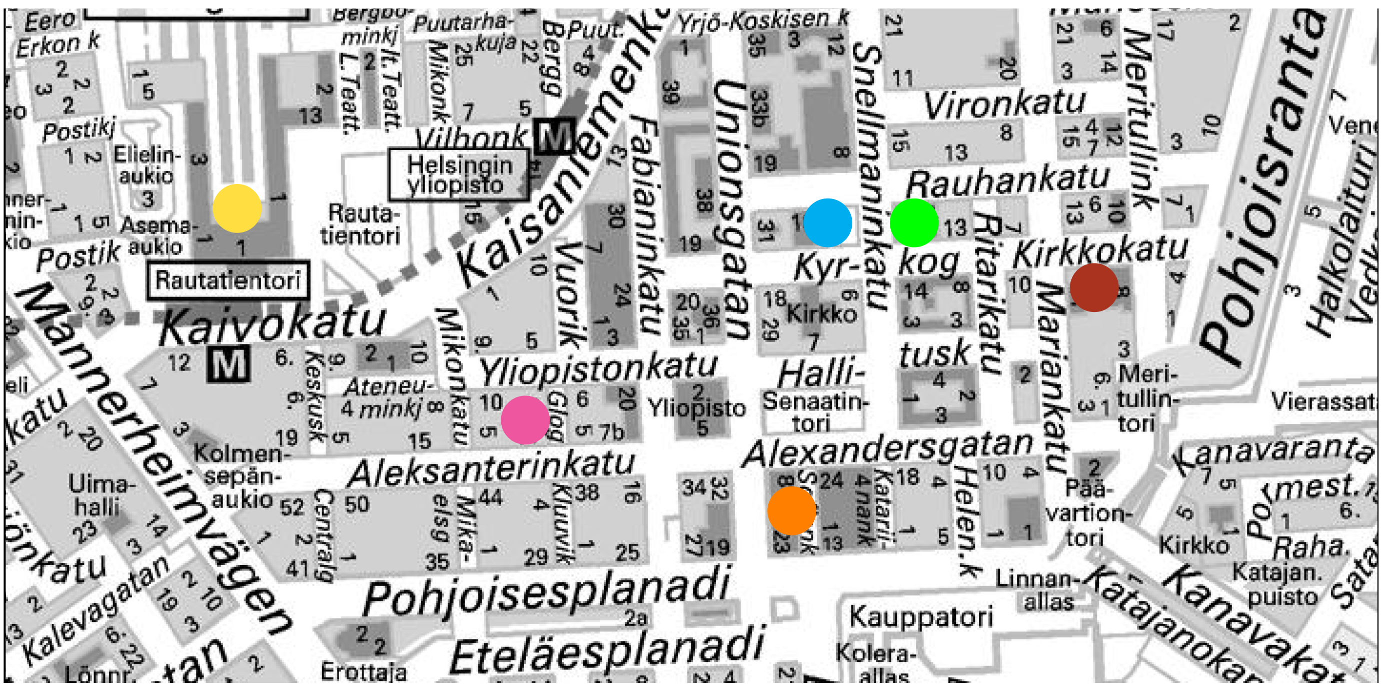
Friday 13.2.2015

09:00-09:30	Coffee
09:30-11:00	Plenary lecture by Sergey Guriev (Sciences Po, Paris)
11:15-12:45	Parallel Sessions III
	3a: Suomenkielinen sessio
	3b: Empirical Finance
	3c: Equality of Opportunity
	3d: Agriculture and Development
	3e: Theory
	3f: Patents and R&D
	3g: Macroeconomic Modelling
	3h: Networks
12:45-13:45	Lunch Break
13:45-15:45	Parallel Sessions IV
	4a: Competition, Innovation and Policy
	4b: Political Economy
	4c: Taxation
	4d: Financial Markets and the Macroeconomy
	4e: Macro-Prudential Policy
	4f: Intergenerational Mobility
	4g Dynamic Decisions

The Finnish Economic Association thanks UNU-WIDER for organizing a special session, Bank of Finland for organizing the reception and Yrjö Jahnsson Foundation, Foundation for Economic Education, Federation of Finnish Learned Societies and Bank of Finland for financial support.

Important locations

- Main Conference Venue
  House of Science and Letters
  Kirkkokatu 6
- Reception venue
  Bank of Finland
  Snellmaninaukio 6
- Conference hotel
  Original Sokos Hotel Helsinki
  Kluuvikatu 8
- Plenary lecture location
  House of the Estates
  Snellmaninkatu 9-11
- Conference dinner
  Restaurant *Bryggeri*
  Sofiankatu 2
- Train station



Nearby lunch restaurants

Café Hausen (Amica)
Rauhankatu 17 (National Archives)

Pihapaviljonki (Amica)
Snellmaninkatu 5 (inner court yard)

West Lake Tea House
Kirkkokatu 5

Rodolfo
Kirkkokatu 5

Doi Thai
Kirkkokatu 5

Korea House
Kirkkokatu 5

Qulma
Mariankatu 13

Main Conference Venue
Kirkkokatu 6

	Parallell sessions I: Thursday 12.2.2015 10:30-12:30 (2h)
Room 309	Session 1a: Systemic Risk Analytics and Macro-Prudential Policy
	Chair: Tuomas Peltonen (European Central Bank) & Peter Sarlin (Hanken School of Economics and RiskLab Finland)
	Characterizing financial cycles in Europe **Tuomas Peltonen** (European Central Bank), Yves Schüler, Paul Hiebert *Discussant: Kim Ristolainen (University of Turku)*
	Toward robust early-warning models: A horse race, its aggregation and model uncertainty **Markus Holopainen** (Risklab), Peter Sarlin *Discussant: Eero Tölö (Bank of Finland)*
	Identifying systemic risk from news: A semantic deep learning approach **Samuel Rönnqvist** (Turku Center for Computer Science) *Discussant: Joszef Mezei (Åbo Akademi)*
	Aggregation operators for the measurement of systemic risk **Joszef Mezei** (Åbo Akademi), Peter Sarlin *Discussant: Karlo Kauko (Bank of Finland)*
Room 208	Session 1b: Empirical macroeconomics
	Chair: Kari Heimonen (University of Jyväskylä)
	How predetermined is government spending? **Allan Seuri** (University of Tampere) *Discussant: Tuomas Malinen (University of Helsinki)*
	Updating the euro area Phillips curve: the slope has increased **Sami Oinonen** (Bank of Finland), Maritta Paloviita *Discussant: Allan Seuri (University of Tampere)*
	To default or not? The macroeconomics of crisis responses. **Tuomas Malinen** (University of Helsinki), Olli Ropponen *Discussant: Kari Heimonen (University of Jyväskylä)*
	Expected and Unexpected Foreign Exchange Exposure **Kari Heimonen** (University of Jyväskylä), Heikki Lehkonen *Discussant: Sami Oinonen (Bank of Finland)*

Parallell sessions I: Thursday 12.2.2015 10:30-12:30 (2h) (cont.)	
Room 312	Session 1c: Energy and Natural Resources
	Chair: Anni Huhtala (VATT)
	Intermittency of Renewable Energy - Valu to the Energy System **Hannu Huuki** (University of Oulu), Maria Kopsakangas-Savolainen, Rauli Svento *Discussant: Anna Sahari (Aalto University)*
	Households' preferences toward hybrid home heating systems and renewable energy - A choice experiment application **Enni Ruokamo** (University of Oulu) *Discussant: Anni Huhtala (VATT)*
	Electricity prices and household investment; Finnish households' choice of heating technology **Anna Sahari** (University of Aalto) *Discussant: Enni Ruokamo (University of Oulu)*
	What are the benefits of the Water Framework Directive? Lessons learnt from preference revelation for policy design **Anni Huhtala** (VATT), Janne Artell *Discussant: Hannu Huuki (University of Oulu)*
Room 313	Session 1d: Labour market, Macroeconomy and Demographics
	Chair: Petteri Juvonen (University of Jyväskylä)
	The role of demography in macroeconomic development after financial crisis in Finland **Risto Vaittinen** (Finnish Centre for Pensions), Reijo Vanne *Discussant: Annaliina Kotilainen (Aalto University))*
	The effect of labor market frictions and health on retirement **Annaliina Kotilainen** (Aalto University) *Discussant: Aino Silvo (University of Helsinki)*
	Changing Age Composition and the Labor Market **Artturi Björk** (Aalto University) *Discussant: Meri Obstbaum (Ministry of Finance)*
	Labour market institutions and business cycle dynamics **Petteri Juvonen** (University of Jyväskylä) *Discussant: Artturi Björk (Aalto University)*
Room 401	Session 1e: Financial Econometrics
	Chair: Matthijs Lof (Aalto University)
	Relevance of uncertainty on the bond market trading volume **Helinä Laakkonen** (Bank of Finland) *Discussant: Henri Nyberg (Bank of Finland)*
	Nonlinear dynamic interrelationships between real activity and stock returns **Henri Nyberg** (University of Helsinki), Markku Lanne *Discussant: Matthijs Lof (Aalto University)*
	Forecasting commodity prices with noncausal autoregressions **Matthijs Lof** (Aalto University), Henri Nyberg *Discussant: Helinä Laakkonen (Bank of Finland)*

Parallell sessions I: Thursday 12.2.2015 10:30-12:30 (2h) (cont.)	
Room 405	Session 1f: Corporate Taxation in Finland
	Chair: Olli Ropponen (VATT)
	Simulointeja yhteisöveron alennuksen dynaamisista vaikutuksista Suomessa **Tarmo Valkonen** (Etla) *Kommentaattori: Seppo Kari (VATT)*
	Corporate tax in an international environment – Problems and possible remedies **Seppo Kari** (VATT) *Kommentaattori: Olli Ropponen*
	Listaamattomien osakeyhtiöiden verotus, voitonjako ja investoinnit **Niku Määttänen** (Etla) *Kommentaattori: Tarmo Valkonen (Etla)*
Room 505	Session 1g: Finnish Economic Policy
	Chair: Elias Oikarinen (University of Turku)
	Why not Train More Physicians? The Welfare Loss of Physician Shortage in Finland **Mauri Kotamäki** (Ministry of Finance) *Discussant: Elias Oikarinen (University of Turku)*
	Back to School? Labor-Market Returns to Vocational Postsecondary Education **Mika Haapanen** (University of Jyväskylä), Petri Böckerman, Christopher Jepsen *Discussant: Ohto Kanninen (Labour Institute of Economic Research)*
	Quality of Upper Secondary Schools in Finland: Evaluating Persistent and Non-Persistent Differences in Value-Added **Mika Kortelainen** (VATT), Heikki Pursiainen *Discussant: Mauri Kotamäki (Ministry of Finance)*
	Measuring house price bubbles **Elias Oikarinen** (University of Turku), Steven Bourassa, Martin Hoesli *Discussant: Mika Kortelainen (VATT)*

Parallell sessions II: Thursday 12.2.2015 13:30-15:30 (2h)	
Room 405	Session 2a: Empirical Banking
	Chair: Helinä Laakkonen (Bank of Finland)
	Too Big to Discipline? **Patricia Boyallian** (Aalto University) *Discussant: Mikko Leppämäki (Aalto University)*
	Does state ownership of banks matter? Russian evidence from the financial crisis. **Denis Davydov** (University of Vaasa) *Discussant: Zuzana Fungacova (Bank of Finland)*
	Does the Type of Debt Matter? Stock Market Perception in Europe **Zuzana Fungacova** (Bank of Finland), Ch. Godlewski, L. Weill *Discussant: Karolin Kirschenmann (Aalto University)*
	Network linkages to predict bank distress **Peter Sarlin** (Hanken & Risklab), Tuomas Peltonen, Andreea Piloiu *Discussant: Mervi Toivanen (Bank of Finland)*
Room 309	Session 2b: Macro
	Chair: Juuso Vanhala (Bank of Finland)
	Fiscal devaluation in a monetary union **Juha Tervala** (University of Helsinki), Philipp Engler, Giovanni Ganelli, Simon Voigts *Discussant: Juuso Vanhala (Bank of Finland)*
	Government spending in a volatile economy at the zero lower bound **Harri Turunen** (University of Helsinki) *Discussant: Juha Tervala (University of Helsinki)*
	The Interaction of Monetary and Macroprudential Policies in Economic Stabilisation **Aino Silvo** (University of Helsinki) *Discussant: Harri Turunen (University of Helsinki)*
	Long-term unemployment and public finances **Meri Obstbaum** (Bank of Finland), Juuso Vanhala *Discussant: Petteri Juvonen (University of Jyväskylä)*

Parallell sessions II: Thursday 12.2.2015 13:30-15:30 (2h) (cont.)	
Room 505	Session 2c: Labour Market Policy Evaluation
	Chair: Kaisa Kotakorpi (University of Turku)
	The effects of higher unemployment insurance benefits on subsequent labor market outcomes: evidence from an RKD approach **Hanna Pesola** (VATT), Tomi Kyyrä *Discussant: Juho Jokinen (University of Jyväskylä)*
	Do higher benefits for labour market program participants enhance re-employment? **Jouko Verho** (Kelan tutkimusosasto), Tomi Kyyrä *Discussant: Petri Böckerman (Labour Institute for Economic Research)*
	Regional wage curves and the local monopsony power **Juho Jokinen** (University of Jyväskylä) *Discussant: Hanna Pesola (VATT)*
	Health, Incentives and Activation **Kaisa Kotakorpi** (University of Turku), Caroline Hall, Linus Liljeberg, Jukka Pirttilä *Discussant: Jouko Verho (Kelan tutkimusosasto)*
Room 313	Session 2d: Labour Markets
	Chair: Kristiina Huttunen (Aalto University)
	Inter-regional and inter-sectoral labour mobility - A panel data analysis of Finnish high technology sector **Jaakko Simonen** (University of Oulu), Rauli Svento, Philip McCann *Discussant: Elias Einiö (VATT)*
	The Loss of Production Work: Evidence Based on Local Soviet Trade Shocks **Elias Einiö** (VATT) *Discussant: Antti Kauhanen (Etla)*
	Internal and external hiring: the role of prior job assignments **Antti Kauhanen** (Etla), Jed DeVaro, Nelli Valmari *Discussant: Kristiina Huttunen (Aalto University)*
	Understanding the Employment Effects of Offshoring **Kristiina Huttunen** (Aalto University), Katariina Nilsson-Hakkala *Discussant: Jaakko Simonen (University of Oulu)*

Parallell sessions II: Thursday 12.2.2015 13:30-15:30 (2h) (cont.)	
Room 312	Session 2e: Satisfaction and Well-Being
	Chair: Manuel Bagues (Aalto University)
	Panel data evidence on the relationship between GDP and subjective well-being **Jani-Petri Laamanen** (University of Tampere), Matti Hovi *Discussant: Timo Kuosmanen (University of Aalto)*
	The well-being effects of the French 35-hour workweek **Matti Hovi** (University of Tampere), Kaisa Kotakorpi, Jani-Petri Laamanen *Discussant: Manuel Bagues (Aalto University)*
	Childhood physical activity and long-term labor market outcomes **Jaana Kari** (LIKES-Research Center for Sport and Health Sciences and University of Jyväskylä), Jaakko Pehkonen, Olli T. Raitakari, Tuija Tammelin et al. *Discussant: Matti Hovi (University of Tampere)*
	What you know can't hurt you (for long): A field experiment on relative performance feedback **Manuel Bagues** (Aalto University) *Discussant: Jani-Petri Laamanen (University of Tampere)*
Room 401	Session 2f: Lab Experiments
	Chair: Topi Miettinen (Hanken)
	How Do People Reason in Dynamic Games? **Nadine Chlaß** (University of Turku), Andrés Perea *Discussant: AJ Bostian (University of Tampere)*
	Competitive Behavior, Stress, and Gender **Marja-Liisa Halko** (Aalto University), Lauri Sääksvuori *Discussant: TBA*
	Subliminal priming and generosity **Topi Miettinen** (Hanken) *Discussant: Nadine Chlaß (University of Turku)*

Parallell sessions II: Thursday 12.2.2015 13:30-15:30 (2h) (cont.)	
Room 208	Session 2g: Environmental Economics
	Chair: Marko Lindroos (University of Helsinki)
	Prices vs. quantities when information is incomplete and asymmetric **Kimmo Ollikka** (VATT) *Discussant: Jussi Lintunen (Finnish Forest Research Institute (Metla))*
	Optimal Management of Markets for Bankable Emission Permits **Jussi Lintunen**, Olli-Pekka Kuusela *Discussant: Pauli Lappi (University of Helsinki)*
	Too many traders? About the welfare ranking of prices and quantities **Pauli Lappi** (University of Helsinki) *Discussant: Marko Lindroos (University of Helsinki)*
	International Fisheries Agreements: Choice of Management Instruments under Coalition Formation **Marko Lindroos** (University of Helsinki), Lone G. Kronbak, Gordon Munro *Discussant: Kimmo Ollikka (VATT)*

Special Session by UNU-WIDER: Thursday 12.2.2015 16:00-17:30	
Room 104	Transformation, inclusion and sustainability in Africa
	Chair: Tuomas Pekkarinen (VATT)
	Aid and growth in developing countries **Finn Tarp**
	Climate change and developing countries **Channing Arndt**

Parallell sessions III: Friday 13.2.2015 11:15-12:45 (1.5h)	
Room 309	Session 3a: Suomenkielinen sessio
	Chair: Mauri Kotamäki (Valtiovarainministeriö)
	Täystyöllisyyden mahdollisuus hidastuneen talouskasvun oloissa **Pekka Tiainen**, (Helsingin Yliopisto ja TEM) *Kommentaattori: Hanna Willman-Iivarinen (Tampereen yliopisto)*
	Kausaalisuuden ongelma taloustieteessä **Hanna Willman-Iivarinen**, (Tampereen Yliopisto) *Kommentaattori: Mauri Kotamäki (Valtiovarainministeriö)*
	Irtisanomisen marginaalikustannus - kuinka kannattavaa julkinen työllistäminen on tai ei ole? **Mauri Kotamäki** (Valtiovarainministeriö), Mika Idman *Kommentaattori: Pekka Tiainen (Helsingin yliopisto ja TEM)*
Room 208	Session 3b: Empirical Finance
	Chair: Hannu Kahra (Oulu Business School) **What constrains micro-entrepreneurship? Evidence from street paper vendors** **Niilo Luotonen** (University of Aalto) *Discussant: Mika Haapanen (University of Jyväskylä)*
	The role of bank ownership type in cyclicality of loan loss provisions in West Europe in 2004-2013 **Jari-Mikko Meriläinen** (University of Vaasa) *Discussant: Niilo Luotonen (University of Aalto)*
	A Nonlinear Dynamic Model of Asset Market Linkages: Specification, Testing and Applications **Hannu Kahra** (Oulu Business School) *Discussant: Juha Junttila (University of Jyväskylä)*
Room 104	Session 3c: Equality of Opportunity
	Chair: Elina Tuominen (University of Tampere)
	The Evolving Geography of Inequality **Matti Sarvimäki (Aalto University & VATT)**, Daron Acemoglu, Kjell Salvanes *Discussant: Niku Määttänen (Etla)*
	On the optimal lifetime redistribution and equality of opportunities **Terhi Ravaska (University of Tampere)**, Matti Tuomala *Discussant: Elina Tuominen (University of Tampere)*
	Veblen effect, Work Hours, and Inequality **Elina Tuominen** (University of Tampere), Matti Tuomala, Hannu Tanninen *Discussant: Matti Sarvimäki (Aalto University & VATT)*

Parallell sessions III: Friday 13.2.2015 11:15-12:45 (1.5h) (cont.)	
Room 312	Session 3d: Agriculture and Development
	Chair: Moriah Bostian (University of Turku/Lewis & Clark College)
	The Impact of Agriculture Extension on Malaria Reduction: Regression Discontinuity Evidence from Uganda **Yao Pan** (Aalto University), Saurabh Singhal *Discussant: Moriah Bostian (University of Turku/Lewis & Clark College)*
	Welfare effects of mining externalities on tourists – a contingent behavior survey **Anna-Kaisa Kosenius** (University of Helsinki), Paula Horne *Discussant: Yao Pan (Aalto University)*
	Environmental Investment, Energy Efficiency and Environmental Performance: A Network Approach **Moriah Bostian** (University of Turku/Lewis & Clark College), Rolf Färe, Shawna Grosskopf, Tommy Lundgren *Discussant: Anna-Kaisa Kosenius (University of Helsinki)*
Room 401	Session 3e: Theory
	Chair: Timo Kuosmanen (Aalto University)
	The Value of NATO Option for a New Member **Vesa Kanniainen** (University of Helsinki), Staffan Ringbom *Discussant: Topi Miettinen (Hanken)*
	Why are bank runs sometimes partial? **Ilkka Kiema** (University of Helsinki), Esa Jokivuolle *Discussant: Vesa Kanniainen (University of Helsinki)*
	Orthogonality conditions for identification of joint production technologies: Axiomatic nonparametric approach to the estimation of stochastic distance functions **Timo Kuosmanen** (Aalto University), Andrew Johnson, Christopher Parmeter *Discussant: Ilkka Kiema (University of Helsinki)*
Room 313	Session 3f: Patents and R&D
	Chair: Heli Koski (Etla)
	The relationship between first and second tier patent protection: the case of the Dutch short-term patent system abolition **Jussi Heikkilä** (University of Jyväskylä) *Discussant: Olena Izhak (University of Helsinki)*
	Returns to international R&D activities in large European firms **Jaana Rahko** (University of Vaasa) *Discussant: Heli Koski (Etla)*
	Complementarity of firm's innovation strategies: knowledge search, in-house R&D and external R&D acquisition **Heli Koski** (Etla), Rauli Svento *Discussant: Jussi Heikkilä (University of Jyväskylä)*

Parallell sessions III: Friday 13.2.2015 11:15-12:45 (1.5h) (cont.)	
Room 505	Session 3g: Macroeconomic modeling
	Chair: Kristian Vepsäläinen (University of Eastern Finland)
	National Accounts as a Stock-Flow Consistent System. Part 1: The Real Accounts **Matti Estola** (University of Eastern Finland), Alia Dannenberg *Discussant: Seppo Ruoho (University of Tampere)*
	Macroeconomic Theory, Models and World Economic System **Seppo Ruoho** (University of Tampere) *Discussant: Kristian Vepsäläinen (University of Eastern Finland)*
	Kansantalouden tilinpidon simulaatiomalli **Kristian Vepsäläinen** (University of Eastern Finland) *Discussant: Allan Seuri (University of Tampere)*
Room 405	Session 3h: Networks
	Chair: Hannu Salonen (University of Turku)
	The Finnish corporate network and its effect on financial performance **Matti Pihlava** (University of Turku) *Discussant: Natalia Zinovyeva (Aalto University)*
	The Invisible Hand of Connections: How Contacts Help to Make Better Choices in Academia **Natalia Zinovyeva** (Aalto University) *Discussant: Hannu Salonen (University of Turku)*
	Reciprocal Equilibria in Link Formation Games **Hannu Salonen** (University of Turku) *Discussant: Matti Pihlava (University of Turku)*

Parallell sessions IV: Friday 13.2.2015 13:45-15:45 (2h)	
Room 309	Session 4a: Competition, Innovation and Policy
	Chair: Emmi Martikainen (Finnish Competition and Consumer Authority)
	Does market size matter also for charities? **Janne Tukiainen** (VATT), Kimberley Scharf *Discussant: Robin Stitzing (Aalto University)*
	Hospital pharmaceutical market as an investment **Markku Siikanen** (Aalto University) *Discussant: Jaana Rahko (University of Vaasa)*
	Welfare Effects and Environmental Impact of an Emissions-Differentiated Car Sales Tax **Robin Stitzing** (Aalto University) *Discussant: Markku Siikanen (Aalto University)*
	Patent Duration, Breadth and Costly Imitation: Evidence from the U.S. Pharmaceutical Market **Olena Izhak** (University of Helsinki), Tuomas Takalo, Tanja Saxell *Discussant: Janne Tukiainen (VATT)*
Room 208	Session 4b: Political Economy
	Chair: Riikka Savolainen (Aalto University)
	Voting on nuclear power: how much do risk perceptions matter, and to whom? **Piia Remes** (VATT) *Discussant: Kaisa Alavuotunki (Aalto University & University of Tampere)*
	General budget support, health expenditures and neonatal mortality - Synthetic control approach **Kaisa Alavuotunki** (Aalto University & University of Tampere) *Discussant: Saurabh Singhal (UNU-WIDER)*
	Does Being In Office Influence The Policy Positions? **Riikka Savolainen** (Aalto University) *Discussant: Piia Remes (VATT)*

Parallell sessions IV: Friday 13.2.2015 13:45-15:45 (2h) (cont.)	
Room 312	Session 4c: Taxation
	Chair: Ohto Kanninen (Labour Institute of Economic Research)
	Optimal Taxation and Public Provision for Poverty Minimization **Tuuli Ylinen** (University of Aalto), Ravi Kanbur, Jukka Pirttilä, Matti Tuomala *Discussant: Terhi Ravaska (University of Tampere)*
	Macroeconomic Effects of Income Taxation - The Aggregation Problem Reconsidered **Yrjö Vartia** (University of Helsinki), Juhani Turkkila *Discussant: Tuomas Matikka (VATT)*
	The effect of VAT threshold on the behavior of small businesses: evidence and implications **Tuomas Matikka** (VATT), Jarkko Harju, Timo Rauhanen *Discussant: Yrjö Vartia (University of Helsinki)*
	A Kink that Makes You Sick: the Effect of Sick Pay on Absence in a Social Insurance System **Ohto Kanninen** (Labour Institute of Economic Research) *Discussant: Tuuli Ylinen (University of Aalto)*
Room 313	Session 4d: Financial Markets and the Macroeconomy
	Chair: Karolin Kirschenmann (Aalto University)
	The mortgage spread as a predictor of real-time economic activity in a data-rich environment **Jari Hännikäinen** (University of Tampere) *Discussant: Hannu Kahra (University of Oulu)*
	Is the Tide Rising? New Indicators for Financial Crises **Juhani Raatikainen** (University of Jyväskylä), Juha Junttila *Discussant: Karlo Kauko (Bank of Finland)*
	The risk of financial crises: Does it involve real or financial factors? **Karolin Kirschenmann** (Aalto University), Tuomas Malinen, Henri Nyberg *Discussant: Jari Hännikäinen (University of Tampere)*

Parallell sessions IV: Friday 13.2.2015 13:45-15:45 (2h) (cont.)	
Room 505	Session 4e: Macro-Prudential policy
	Chair: Helinä Laakkonen (Bank of Finland)
	Countercyclical capital buffer - an introduction **Jukka Vauhkonen** (Bank of Finland) *Discussant: Vesa Kanniainen (University of Helsinki)*
	Why is credit-to-GDP a good measure for setting countercyclical capital buffers? **Esa Jokivuolle** (Bank of Finland), Jarmo Pesola, Matti Virén *Discussant: Tuomas Peltonen (European Central Bank)*
	Indicators used in the decision-making for setting the countercyclical capital buffer **Eero Tölö** (Bank of Finland), Helinä Laakkonen, Simo Kalatie *Discussant: Mikael Juselius (Bank of Finland)*
	A Financial Stress Index for Finland **Jarkko Huotari** (Bank of Finland) *Discussant: Esa Jokivuolle (Bank of Finland)*
Room 405	Session 4f: Intergenerational mobility
	Chair: Tuomas Pekkarinen (VATT)
	The Sins of the Fathers in Troubled Times? The Long-term Effect of Parental Unemployment during Recession **Aleksi Karhula** (University of Turku), Hannu Lehti, Jani Erola *Discussant: Tuomas Pekkarinen (VATT)*
	Personality characteristics and labor market outcomes: evidence from twins **Terhi Maczulskij** (Labour Institute for Economic Research), Jutta Viinikainen *Discussant: Aleksi Karhula (University of Turku)*
	The evolution of social mobility: Norway over the 20th century **Tuomas Pekkarinen** (VATT), Kjell Salvanes, Matti Sarvimäki *Discussant: Terhi Maczulskij (Labour Institute for Economic Research)*
Room 401	Session 4g: Dynamic Decisions
	Chair: Christoph Heinzel (Institut National de la Recherche Agronomique)
	Sustainable Social Welfare under Uncertainty **Mitri Kitti**, (University of Turku) *Discussant: Christoph Heinzel (Institut National de la Recherche Agronomique)*
	Prudential Saving: Evidence from an Experiment **AJ Bostian**, (University of Tampere), Christoph Heinzel *Discussant: Mitri Kitti (University of Turku)*
	Consumption Smoothing and Precautionary Saving under Recursive Preferences **Christoph Heinzel** (Institut National de la Recherche Agronomique), AJ Bostian *Discussant: Kaisa Kotakorpi (University of Turku)*

Room 309 Session 1a: Systemic Risk Analytics and Macro-Prudential Policy

Characterizing Financial Cycles in Europe
Tuomas Peltonen (European Central Bank), Yves Schüler, Paul Hiebert

We extract and analyse financial cycles for 13 European Union countries using a quarterly dataset spanning over 1971-2013. For identification of financial cycles, we employ a novel spectral approach determining the most important common cyclical fluctuations across total credit, residential property prices, equity prices, and benchmark bond yields. Results suggest that the most important financial cycles are on average 12 years, but with some dispersion across countries. Compared to business cycles, financial cycles have more important fluctuations in the medium term (8-20 years); but less important fluctuations in the short run (2.5-8 years). Regarding the extracted financial cycles, credit and residential property prices best summarize contemporaneous movements across financial indicators in almost all country cases.

Toward robust early-warning models: A horse race, its aggregation and model uncertainty
Markus Holopainen (Risklab), Peter Sarlin

This paper presents first steps toward robust early-warning models. We conduct a horse race of conventional statistical methods and more recent machine learning methods. As early-warning models based upon one approach are oftentimes built in isolation of other methods, the exercise is of high relevance for assessing the relative performance of a wide variety of methods. Further, we test various approaches to aggregating the information products of the built early-warning models, providing a more robust basis for measuring country-level vulnerabilities. Finally, we provide approaches to estimating model uncertainty in early-warning exercises, particularly model performance uncertainty and model output uncertainty. The approaches put forward in this paper are shown with Europe as a playground.

Identifying systemic risk from news: A semantic deep learning approach
Samuel Rönnqvist (Turku Center for Computer Science)

Recent advances in deep learning methods for semantic analysis have provided significantly more accurate representations of text that can function as input for various modeling tasks. We look at how such methods can support systemic risk identification, as we analyze textual coverage (e.g., in financial news) of individual and system-wide distress events in the European banking sector. First, we perform unsupervised learning on massive data sets of billions of words to obtain abstract semantic representations that handle the highly varying nature of human language. Second, the representations of news or other textual data can be used as predictors of distress events. We put forward text-based coinciding (distress) and leading (vulnerability) measures for banks and banking sectors, and study how the semantic representations may allow for more descriptive analysis alongside the predictive output.

Room 309 Session 1a: Systemic Risk Analytics and Macro-Prudential Policy (cont.)

Aggregation operators for the measurement of systemic risk

Joszef Mezei (Åbo Akademi), Peter Sarlin

The policy objective of safeguarding financial stability has stimulated a wave of research on systemic risk analytics, yet it still faces challenges in measurability. This paper models systemic risk by tapping into expert knowledge of financial supervisors. The model builds on the decomposition of systemic risk into a number of interconnected segments, for which the level of vulnerability is measured. The system is represented in the form of a Fuzzy Cognitive Map (FCM) with interrelated nodes representing vulnerability in the corresponding segment. A main problem tackled in this paper is the aggregation of values in different interrelated nodes of the network to obtain an estimation of systemic risk. For this purpose, the Choquet integral is employed for aggregating expert evaluations of measures, as it allows for the integration of interrelations among factors in the aggregation process. The approach is illustrated through two applications in a European setting. First, we provide an estimation of systemic risk with a pan-European set-up. Second, we estimate country-level risks, allowing for a more granular decomposition. This sets a starting point for the use of the rich, oftentimes tacit, knowledge in policy organizations.

Room 208 Session 1b: Empirical macroeconomics

How predetermined is government spending?

Allan Seuri (University of Tampere)

This paper examines to what extent government spending is predetermined at an annual frequency. Drawing on different specifications employed in the recent fiscal multiplier literature, I test the issue for different measures of government spending while taking into account possible non-linear dynamics.

Updating the euro area Phillips curve: the slope has increased

Sami Oinonen (Bank of Finland), Maritta Paloviita

This paper examines recent changes in the cyclicality of euro area inflation. We estimate time-varying parameters for the hybrid New Keynesian Phillips curve using three alternative proxies for the output gap. Our analysis, which is based on the state-space method with Kalman filtering techniques, suggests that the slope of the euro area Phillips curve has become steeper since 2012. Thus, the current low level of inflation and persistently negative output gap increase the risk that euro area inflation will stay below the monetary policy target for an extended period.

Room 208 Session 1b: Empirical macroeconomics (cont.)

To default or not? The macroeconomics of crisis responses.

Tuomas Malinen (University of Helsinki), Olli Ropponen

Economic crises are an agonizing feature of modern economies. They cause bankruptcies, wide-spread unemployment and human misery, but how to respond to them? Would submitting herself under an IMF austerity program suit a crisis stricken economy better than defaulting on her domestic or foreign liabilities? In this study we aim to answer these questions using a large dataset on economic crises after the Second World War. We evaluate the effects of IMF run austerity programs and sovereign defaults on economic growth, consumption and investments. Results show that in terms of the real economy, defaults as well as austerity measures offer a way out of a crisis, but their effectiveness depends heavily on the nature of the crisis.

Expected and Unexpected Foreign Exchange Exposure

Kari Heimonen, (University of Jyväskylä), Heikki Lehkonen

The foreign exchange exposure and its determinants have attained a considerable amount of research since the Jorion (1990) seminal article. Our study adds some new elements to this literature while we disentangle the foreign exchange risk exposure into two parts: the expected foreign exchange exposure and unexpected foreign exchange exposure. Our empirical results bring some new results on foreign exchange exposure in the US market.

Room 312 Session 1c: Energy and natural resources

Intermittency of Renewable Energy - Valu to the Energy System

Hannu Huuki (University of Oulu), Maria Kopsakangas-Savolainen, Rauli Svento

An increasing share of electricity is produced from renewable sources. Significant parts of these sources are producing electricity intermittently. Intermittency creates new challenges and potential problems to the whole energy system. The key problem related to intermittent production is the fact that e.g. wind generators only produce when the wind is blowing. This increases system level costs as well as social costs. It means also that the economic value of intermittently produced renewable energy varies hour by hourly. It depends e.g. on the availability of balancing capacity and on the level and elasticity of demand. In this analysis we develop a method to quantify the economic value of large-scale intermittent renewable energy to the energy system where also hydro power plays an important role. We estimate the model for Finland where electricity is produced from heterogeneous technology sources with 10-20 % hydro power share.

Room 312 Session 1c: Energy and natural resources (cont.)

Households' preferences toward hybrid home heating systems and renewable energy - A choice experiment application

Enni Ruokamo (University of Oulu)

Residential heating sector has a considerable energy savings potential as there are many technical heating solutions available in the market reducing electricity consumption and increasing energy efficiency. This paper investigates innovative hybrid home heating systems (HHHS) with choice experiment (CE). In our hypothetical CE, the heating system scenarios are designed to represent the most relevant main and supplementary heating alternatives of today in Finland. The labeled choice sets have six main heating system alternatives (district heat, solid wood, wood pellet, electric storage heating, ground heat and the exhaust air heat pump) described by five attributes (supplementary heating systems, investment costs, operating costs, comfort of use and environmental friendliness). We study what kind of heating system choices the households make under the given heating scenarios. We also investigate the determinants of the heating system adoption. Moreover, we explain preference heterogeneity among respondents. The results indicate that the most popular main heating system chosen for a new detached house is the ground heat pump. In addition, the results suggest respondents having positive attitudes towards supplementary heating systems, especially towards solar panels and solar water heaters. The role of other attributes is also significant in the decision making. We also find systematic preference heterogeneity among respondents that we are able to explain by several socio-demographic characteristics such as age, living environment, forest ownership, income and education.

Electricity prices and household investment; Finnish households' choice of heating technology

Anna Sahari (University of Aalto)

This paper studies how energy prices impact households' capital investment decisions. The empirical analysis is based on an extensive and unique dataset of Finnish home builders and their choice of heating technology. The data covers 90 % of all new houses built between 2000-2011 and is taken from Statistics Finland registries. The choice of heating is an important choice financially, as the heating system investment could constitute up to 10 % of the total costs of building a house and the usage cost of heating forms a large share of annual living costs. At the aggregate level, heating buildings accounts for around 20 % of total energy use in Finland. Given that the heating technology investments are long term, the choices of individual households are an important factor in determining the development of energy use. In the analysis, regional price variation is used to identify the impact of electricity price on the household's investment decision. The household-level analysis is complemented by examining heating technology shares and electricity prices at the regional level. According to the results, electricity prices have a strongly significant impact on heating technology choice (further results forthcoming).

Room 312 Session 1c: Energy and natural resources (cont.)

What are the benefits of the Water Framework Directive? Lessons learnt from preference revelation for policy design

Anni Huhtala (VATT), Janne Artell

Water Framework Directive (WFD) sets a Europe-wide target of a good ecological status for surface waters by 2015. Economics enters the WFD guidelines by recognition of the costs of meeting the target. If the costs are considered high, the member countries may resort to valuation of benefits to show that the costs are disproportionate compared to the benefits. This paper uses the market of waterfront recreational properties to estimate the welfare consequences of reaching the good ecological status determined by WFD. The empirical challenge is that the ecological status proposed by the WFD is a specific kind of water quality, and valuation of water quality is not independent of use of waters when the benefits accrue to human beings. Therefore, the valuation of changes in water quality is affected by the measurement of water quality. We apply the hedonic pricing approach on the Finnish waterfront recreational property market to estimate the economic benefits of water quality. We match data on property sales registry to information on three alternative measures of water quality that rate quality to five categories, from poor to excellent, according to: 1) usability index, 2) the recreational property owner's perception of water quality and 3) ecological status determined by the WFD. We find that an improvement in water quality is associated with a statistically significant change in recreational property values, and the impact is highly non-linear. We show how the additional measure of water quality, ecological status, developed for the WFD compare with the two other measures. Finally, we ponder a philosophical question: is it possible to use economic valuation when the good to be valued is defined purely by ecological conditions?

Room 313 Session 1d: Labour Market, Macroeconomy and Demographics

The role of demography in macroeconomic development after financial crisis in Finland
Risto Vaittinen (Finnish Centre for Pensions), Reijo Vanne

The role of demography in macroeconomic development after financial crisis in Finland
In this paper we argue that demography has played important but largely ignored role in recent macroeconomic development in Finland. Using approach of National transfer accounts decomposition of income and expenditure by age we demonstrate that recent demographic development is capable of explaining the large part of deterioration in external balance, change in real exchange rate and relative share of output in tradable and non-tradable production.

The effect of labor market frictions and health on retirement
Annaliina Kotilainen (Aalto University)

I study the effect of labor market frictions and health on timing of retirement and retirement policy implications. To do this, I build a life-cycle search and matching model where workers are subject to exogenous health shocks and calibrate it to US data on labor markets and health. I analyze the retirement policy implications by conducting three quantitative experiments. In these experiments, I evaluate the effects of an increase in official retirement age from 65 to 67 years using 1) the benchmark model with frictions and health, 2) a model without frictions and 3) a model with frictions, but no heterogeneity in health. A comparison of the policy effects under the three models provides an estimate of the significance of labor market frictions and health for retirement policy considerations.

Changing Age Composition and the Labor Market
Artturi Björk (Aalto University)

Individual outcomes like wages, employment and wealth differ systematically by age. Populations are aging. What are the composition effects on the observed aggregate outcomes? I multiply the sampling weights of microdata with a reweighting factor equal to the probability of the observed characteristics of the individual in the target distribution divided by the probability of the individual characteristics in the microdata. The new weights replicate the composition of the target distribution in the microdata. I show that the the composition effects of aging have been modest on the aggregates in the USA, Italy, UK, Germany and Finland. The projected changes in the age distribution of the population are smaller than past changes, hence the projected composition effects are negligible.

Labour market institutions and business cycle dynamics
Petteri Juvonen (University of Jyväskylä)

This paper studies the effects of labour market institutions on the business cycle dynamics. I estimate a Bayesian Vector Autoregression for panel of OECD countries and the priors for the parameters are allowed to depend on labour market institution variables. I study how employment protection, generosity of unemployment benefits and the coordination in the wage setting affect on the short run dynamics of unemployment, GDP, wages and inflation. I study how labour market institutions are related to business cycle statistics. Using signs restrictions I identify demand and supple shock and study how labour market institutions shape the impulse responses.

Room 401 Session 1e: Financial Econometrics

Relevance of uncertainty on the bond market trading volume

Helinä Laakkonen (Bank of Finland)

This paper studies the impact of uncertainty on the investors' reactions to news on macroeconomic statistics. With daily data on realized volatility and trading volume, we show that the investors in the US Treasury bond futures market react significantly stronger to US macroeconomic news in times of low macroeconomic, financial and political uncertainty. We also find that investors are more sensitive to the uncertainty in the financial market compared to the macroeconomic and political uncertainties. Our results might partly explain the sudden freeze and low liquidity in some financial markets during the latest financial crisis.

Nonlinear dynamic interrelationships between real activity and stock returns

Henri Nyberg (University of Helsinki), Markku Lanne

We explore the differences between a linear Gaussian and noncausal vector autoregressive (VAR) models in capturing a potentially nonlinear real activity-stock return-relationship. Unlike the conventional linear structural VAR model, the noncausal VAR model is capable of accommodating various nonlinear and non-Gaussian dependencies characteristic of stock returns, and, therefore, it is likely to produce real activity and stock market shocks different from those implied by a conventional linear structural VAR model. In quarterly U.S. data (1953 - 2012), we find evidence in favor of noncausality, which suggests that the stock return is an insufficient proxy for news affecting real activity and stock prices. In addition, especially when conditioning on the state of the business cycle, the real activity shock is found more important for the determination of stock returns than a linear structural VAR model employed in the previous literature would suggest.

Forecasting commodity prices with noncausal autoregressions

Matthijs Lof (Aalto University), Henri Nyberg

This paper provides further evidence on the role of exchange rates in forecasting commodity prices. Chen, Rogoff and Rossi (QJE, 2010) find that exchange rates have out-of-sample predictive power. We replicate and confirm these results. When we reconsider the evidence using noncausal autoregressions, which may capture the effects of nonlinearities and omitted variables, the predictive power of exchange rates is less robust.

Room 405 Session 1f: Corporate Taxation in Finland

Simulating the Dynamic Effects of Corporate Income Tax Cut in Finland
Tarmo Valkonen (Etla)

This study simulates with two dynamic models the macroeconomic and public finance outcomes of a reduction in the corporate income tax rate in Finland. FOG-model is a dynamic CGE model, which is calibrated to the Finnish economy. NiGEM is a multi-country macroeconometric model. The results show that a surprising cut in the corporate income tax rate falls after all adjustments both on new investments and the yield of existing capital. The losses in the tax revenues are capitalized in the market value of the firms, of which many are partly foreign-owned. Investments increase, but the influence in production is mitigated by low reaction of labour supply. Wages increase as well as the public expenditure relates to wages. Gross profits do dot change much. The dynamic effects on tax bases compensate for 30–50 per cent of the losses in the corporate income tax revenues, depending on the model used. If also the increased public expenditure is considered, the compensation rate falls to 25–30 percent. If the tax rate cut is announced well in advance, both the macroeconomic and the public finance results are more favourable. The simulations do not consider the positive effects of profit shifting on corporate income tax revenues.

Corporate tax in an international environment
Seppo Kari (VATT)

The paper discusses some issues with current corporate taxation in a globalized world with a focus on multinational enterprises (MNE). It first considers recent trends in international practice and then moves on to reviewing the literature on the effects of corporate taxes in closed and open economies. The paper emphasizes the severity of the problems caused by current international tax rules, especially the source principle and the principle of separate accounting. They are shown to be the ultimate factors producing incentives for MNEs to relocate economic activity to low tax countries and for countries to compete over corporate tax rates. The paper compares various national and international policy alternatives discussed in the literature, and takes two recent tax reform proposals by Swedish and Norwegian tax commissions into closer analysis. These proposals differ in interesting ways. The Swedish proposal relies on the so called CBIT model which allows a strong cut in the tax rate combined with base broadening. The Norwegian approach is to retain the traditional corporate tax but to implement adjustments in tax rates throughout the income tax system. The paper concludes that the problems of current international corporate taxation are fundamental and may be difficult to solve entirely. Both Nordic proposals may serve well as medium term solutions.

Room 405 Session 1f: Corporate Taxation in Finland (cont.)

Taxation, Profit Distribution and Investment of Non-listed Companies in Finland

Niku Määttänen (Etla), Olli Ropponen (VATT)

This paper studies the taxation of non-listed companies and their owners in Finland. We first describe the main features of the Finnish tax system regarding the taxation of dividends from non-listed companies. We use firm-level data to illustrate how the tax incentives are reflected in firms' profit distribution policies. We then build a dynamic investment model that features the main characteristics of the Finnish dividend taxation. In the model, entrepreneurs face a borrowing constraint and have a consumption smoothing motive. We use the model to investigate how the current dividend taxation affects the investment incentives. The results illustrate how the current dividend taxation in certain cases distorts firms' investment decisions.

Room 505 Session 1g: Finnish Economic Policy

Why not Train More Physicians? The Welfare Loss of Physician Shortage in Finland

Mauri Kotamäki (Ministry of Finance)

At present in Finland, we have more physicians than ever. According to the Finnish association of physicians, in the beginning of 2014, there were approximately 20 000 working-age physicians in total, or, one physician per every 270 residents. Nevertheless, at the same time, there are several health care centers whereto it is almost impossible to recruit formally educated physician. This brings about a huge pressure on public sector finances, because many tasks performed by physicians are decreed compulsory by law, and consequently, municipalities are forced to use very expensive temporary labour force, thus giving rise to the quite profitable branch of industry that exploits the excess demand of physicians. In this paper, I build a stylized framework for analyzing the welfare loss of excess-demand of physicians. The result is that the welfare loss is substantial.

Back to School? Labor-Market Returns to Vocational Postsecondary Education

Mika Haapanen (University of Jyväskylä), Petri Böckerman, Christopher Jepsen

Outside the U.S., little is known about the labor-market returns to vocational (or polytechnic) postsecondary education. This paper focuses on the labor-market returns to polytechnic bachelor's degrees in Finland. Using detailed administrative data, we estimate person fixed effect models to study returns for individuals with labor-force attachment prior to polytechnic school enrollment. We find sizable earnings and employment impacts for polytechnic bachelor's degree, although the returns vary by personal characteristics and field of study.

Quality of Upper Secondary Schools in Finland: Evaluating Persistent and Non-Persistent Differences in Value-Added

Mika Kortelainen (VATT), Heikki Pursiainen

We analyze differences in school quality or value-added using a comprehensive panel data set covering all upper secondary school graduates in Finland during the years 2002-2013. School quality is defined as the impact of a school on standardized matriculation exam results controlling for quality of student intake.
Using the value-added modeling approach recently proposed by Chetty, Friedman and Rockoff (2014, American Economic Review) we measure both cross-sectional differences in value-added and the persistence of these differences over time. We also control for the uncertainty inherent in assessing the value-added of smaller schools with a relatively low number of graduates. We use each pupil's comprehensive school grades to control for pupil quality. Also, comprehensive school fixed effects are used to control for differences in comprehensive school grading as well as unobserved socioeconomic factors.
We find that there are relatively large cross-sectional differences in value-added between the top and bottom schools each year: the difference measured in average matriculation score points is around one grade point in a scale of 1 to 7. However, large differences are observed only between the very top and bottom institutions. For most schools estimates are much closer to each other: the interquartile range each year is only about a fifth of a grade average point. Our results also indicate that there is persistence over time in value-added, but it is far from complete. This implies that the ranking of the majority of schools is highly unstable over time, making any yearly league tables dubious.

Measuring house price bubbles

Elias Oikarinen (University of Turku), Steven Bourassa, Martin Hoesli

As the recent past has shown, house price bubbles can be highly detrimental to the economy of a country. A method that would provide an early signal that a bubble is forming would hence be pivotal; policy actions could then be taken to avoid further house price increases. This paper provides a comprehensive comparison of methods that are commonly used to assess whether a house price bubble exists. These methods include several ratio measures, regression methods, and a method that relies solely on house price growth rates. We apply a subset of these methods to six metropolitan housing markets in three countries: Chicago, Miami and San Francisco in the U.S., Geneva and Zurich in Switzerland, and Helsinki in Finland. A regression-based method with aggregate personal income as the only explanatory variable is found to be most effective in assessing bubbles both ex post and ex ante.

Room 405 Session 2a: Empirical Banking

Too Big to Discipline?
Patricia Boyallian (Aalto University)

Bank supervisors can compel banks to limit their risk by means of formal enforcement actions. Moreover, formal enforcement actions are public, so they may communicate important information to investors and depositors about banks' financial condition and, thus, constitute a source of market discipline. In this paper, we document that US supervisors appear to have a bias when issuing formal enforcement actions: Very large financial institutions are less likely to receive formal enforcement actions than one would expect on the basis of their fundamentals. At the same time, they do not seem to be less risky than smaller, yet still large, financial firms. Very large financial institutions seem to be too big to publicly discipline.

Does state ownership of banks matter? Russian evidence from the financial crisis.
Denis Davydov (University of Vaasa)

This paper examines the effects of state ownership and government interventions on lending behavior and capitalization of banks over the period 2005-2011. Using data from the highly state-influenced Russian banking sector, it is documented that the relationship between state ownership and lending is nonlinear. While overall loan growth decreased and interest rates rose, it is found that fully state-controlled banks increased lending and charged lower interest rates during the crisis of 2008-2010. Moreover, fully state-owned and state-supported banks demonstrated counter-cyclical lending behavior during the crisis. However, while state-owned banks were better protected against asset default, there is a weak evidence to suggest that government interventions may result in increased riskiness of banks.

Room 405 Session 2a: Empirical Banking (cont.)

Does the Type of Debt Matter?

Zuzana Fungacova (Bank of Finland), Ch. Godlewski, L. Weill

We study the effect of bank loan and bond announcements on borrower's stock price. We apply an event study methodology on a sample of companies from 17 European countries. We find that debt announcement generates a positive stock market reaction. However, our main conclusion is that the issuance of a loan exerts a significantly higher reaction than the issuance of a bond. This finding supports the hypothesis that loan issuance conveys a positive certification effect. The analysis of the determinants of abnormal returns following debt announcements shows a positive impact of financial development and a negative effect of the Eurozone crisis.

Network linkages to predict bank distress

Peter Sarlin (Hanken & Risklab), Tuomas Peltonen, Andreea Piloiu

This paper provides a framework for predicting bank distress by combining bank networks with early-warning models. For European banks, we link an estimated interdependence network to an early-warning model to provide information on the potential spread of distress via connectedness in the banking system. We use multivariate extreme value theory to estimate equity-based tail-dependence networks, whose links proxy for the markets' view of bank interconnectedness via direct bilateral or common exposures. The paper finds that models with estimated tail dependencies consistently outperform bank-specific benchmark models. The results are robust to variation in model specification and also hold in relation to simpler benchmarks of contagion. Generally, this paper gives direct support for measures of interconnectedness in early-warning models, and moves toward a unified representation of cyclical and cross-sectional dimensions of systemic risk.

Room 309 Session 2b: Macro

Fiscal devaluation in a monetary union

Juha Tervala (University of Helsinki), Philipp Engler, Giovanni Ganelli, Simon Voigts

Given that exchange rate devaluations are no longer available in a monetary union, fiscal devaluations are one potential way to address divergence in competitiveness and trade imbalances as observed in the run-up to the recent crisis of the euro area. We use a DSGE model calibrated to the euro area to investigate the impact of a fiscal devaluation. We are the first to quantify the international effects of a fiscal devaluation implemented as a revenue-neutral shift from employers' social contributions rather than wage taxes to the Value Added Tax. We find that this design of a fiscal devaluation carried out in Southern European countries has a strong positive effect on output, which is five times larger than under a wage tax cut. However, the effect on the trade balance and the real exchange rate is mild. In addition, the negative effect on "Central-Northern countries" output is weak.

Room 309 Session 2b: Macro (cont.)

Government spending in a volatile economy at the zero lower bound
Harri Turunen (University of Helsinki)

We study the effects of exogenous uncertainty in government expendi- ture and aggregate productivity on the effectiveness of fiscal policy. With uncertainty modeled as stochastic volatility, we apply a global, nonlinear solution method to a model where the zero lower bound on the nominal interest rate binds occasionally. We find that stochastic volatility has both an effect on the properties of the economy at the lower bound and on the effectiveness of public spending: reductions in uncertainty regarding future productivity and spending can both amplify and dampen the multiplier. The size of the multiplier depends also strongly on the size of the expenditure increase and the shock that brings the economy to the bound; discount shocks lead to effective fiscal policy, while monetary policy shocks lead to low multipliers.

The Interaction of Monetary and Macroprudential Policies in Economic Stabilisation
Aino Silvo (University of Helsinki)

I analyse the interaction of monetary and macroprudential policies in a New-Keynesian DSGE model of credit frictions. In this model, the balance sheets of both capital-producing firms and banks play a key role in the business cycle dynamics. The monetary policy uses a Taylor-type rule to stabilise inflation and output gap fluctuations. The macroprudential policy seeks to stabilise the credit-to-output ratio of the economy by using a countercyclical tax on banks' balance sheets. I look at both non-optimised rule-based policies and jointly optimal Ramsey policies in response to various real and financial shocks. I find that in response to a productivity shock, important policy trade-offs can arise if the two policies are not coordinated, but set independently. In contrast, in response to a financial shock, no trade-off arises, but instead the two policies support each other even when not coordinated. The results suggest that there is an important role for prudential policies in the stabilisation of credit cycles, but also a need for proper coordination between monetary and macroprudential policies to guarantee adequate policy responses.

Long-term unemployment and public finances
Juuso Vanhala (Bank of Finland), Meri Obstbaum

This paper studies the consequences on unemployment persistence and long term unemployment on the accumulation and persistence of public debt. We construct a New Keynesian macro model with fiscal policy and a Mortensen-Pissarides type characterization of the labor market that includes short- and long-term unemployment. When long term unemployment increases in a recession and the matching rate of workers falls with unemployment duration, the rise in unemployment in response to negative shocks is more persistent. Employment also increases more sluggishly in recoveries. The higher persistence of negative labour market effects reduces labour tax income of the government and increases social welfare expenditures. This leads to a larger accumulation of public debt and more persistent debt. We analyze the effects of reforms in taxes, government expenditures and unemployment benefits for debt and labour market dynamics.

Room 505 Session 2c: Labour Market Policy Evaluation

The effects of higher unemployment insurance benefits on subsequent labor market outcomes: evidence from an RKD approach

Hanna Pesola (VATT), Tomi Kyyrä

This paper analyzes the effects of the unemployment insurance (UI) benefit level on subsequent labor market outcomes. There is a wide range of studies showing that higher UI benefits prolong unemployment. However, the results on the effects of more generous UI benefits on post-unemployment labor market outcomes are far less clear. More generous UI benefits will decrease search effort but at the same time will provide the worker with a chance to find a better job match. On the other hand, human capital may depreciate during prolonged unemployment spells. We exploit a kink in the relationship between previous earnings and UI benefits in Finland to identify the causal effect of the UI benefit level on subsequent outcomes by using a regression kink design. According to our findings, higher UI benefits lead to longer unemployment durations which is in line with previous literature. We also find that the benefit level has a clear positive effect on subsequent employment durations. The effects on re-employment wages are not as clear cut, with some evidence of a slight negative effect of higher UI benefits on subsequent earnings.

Do higher benefits for labour market program participants enhance re-employment?

Jouko Verho (Kelan tutkimusosasto), Tomi Kyyrä

In 2005, the unemployment benefits were increased for those in labour market programs in Finland. Unemployed workers with at least three years of work experience received on average 14 euros higher benefits per day if they participate in the counselling and training organised by the employment office. We evaluate the impact of this reform on re-employment hazard. The analysis data are based on administrative registers including extensive information on benefit payments, unemployment and employment histories. These individual level data cover the whole unemployed population. Preliminary analysis compares unemployed workers who were eligible for increased benefits to a group of ineligible unemployed with shorter employment histories. Our objective is also to estimate the effect of the reform in a timing-of-events framework. This will allow us to identify the impact of labour market training and increased benefits separately on unemployment duration.

Regional wage curves and the local monopsony power

Juho Jokinen (University of Jyväskylä)

In this paper, we test whether the unemployment elasticity of wages is more pronounced in less agglomerated and more isolated regions, as might be expected if employers have local monopsony power in these regions. Our findings challenge the monopsony power hypothesis once the unobserved worker heterogeneity is controlled for: the unemployment elasticity of wages is unrelated to the degree of regional economic agglomeration.

Room 505 Session 2c: Labour Market Policy Evaluation (cont.)

Health, Incentives and Activation

Kaisa Kotakorpi (University of Turku), Caroline Hall, Linus Liljeberg, Jukka Pirttilä

We study the effects of a major activation programme targeted at young unemployed, introduced in Sweden in 2007. We use a regression discontinuity design to analyse individual reactions to the programme. A key question of interest is whether there are differences with respect to characteristics such as past health and school drop-out status in individual reactions. Our hypothesis is that individuals who are in a more advantaged position may be more likely to respond to the threat of activation (in which case activation programmes work more as a screening device), than individuals with a challenging overall life situation. We use register data covering the entire Swedish population, including very detailed information on health.

Room 313 Session 2d: Labour Markets

Inter-regional and inter-sectoral labour mobility - A panel data analysis of Finnish high technology sector

Jaakko Simonen (University of Oulu), Rauli Svento, Philip McCann

In this paper we analyse how agglomeration of the high technology industry as well as regional amenities affects labour mobility. In order to do this we employ panel data on the regional and industrial labour mobility of the Finnish high technology firms and regional economies on a period of 1990-2007. Analyzing this dataset allows us to identify the roles which the structure of the high technology sector, regional economic and amenity variables have played both in the inter-regional and inter-sectorel labour mobility of high technology workers. Our findings show that structure of the high technology sector as well as regional economic and amenity variables have an influence on the migration decisions of the high technology workers, although their roles vary in within-region and across-region mobility. In addition, the effects of the variables seem to vary at different stages of the industry life cycle.

Room 313 Session 2d: Labour Markets (cont.)

The Loss of Production Work: Evidence Based on Local Soviet Trade Shocks
Elias Einiö (VATT)

This paper examines changes in the structure of labor demand in manufacturing over the past three decades. I identify relative labor demand functions from local shocks arising from the unexpected abolishment of the bilateral trade agreement between Finland and the Soviet Union in December 1990. The collapse of Soviet-import demand induced a larger negative shock in localities with a higher output share of commodities traded with the Soviet Union. From 1990 to 1991, manufacturing output fell by around 10 % in municipalities falling within the highest Soviet-import dependence quintile, while it changed only a little in municipalities falling within the lowest Soviet-import dependence quintile. The shock induced variation in unit labor costs across local labor markets, which I use to identify labor demand elasticities for manufacturing plants producing for the non-Soviet markets. Using the identified substitution elasticities, I find a uniform decline in the relative demand for production work across industries in the 1980s consistent with pervasive production-labor-saving technological change. The aggregate relative labor demand shift decelerated in the 1990s, while it accelerated again in the 2000s but with substantially diverging patterns across industries. The results are in line with demand-driven deroutinization of the job task content of work as individual-level data on occupations indicate that work in production occupations is more routine task-intensive compared to work in nonproduction occupations. I employ an IV strategy based on ICT and offshoring shocks in US manufacturing to assess the relative importance of ICT and offshoring in explaining the demand shift. The results indicate significant negative impacts of ICT and offshoring on the relative demand for production work with both factors accounting for around one-third of the observed decline in the 2000s.

Internal and external hiring: the role of prior job assignments
Antti Kauhanen (Etla), Jed DeVaro, Nelli Valmari

Using a large linked employer-employee panel data set from Finland, we characterize the internal and external routes through which individuals enter jobs, and show that job entrants' job histories perhaps the most important signal recruiters have about external job candidates' characteristics vary considerably according to the routes the entrants have arrived at the job. Our results show that external candidates need strong observable indicators of ability in terms of prior career success and occupation-specific human capital to be hired. In addition to having strong job history, the external hires are also more educated and experienced. We also show that job and firm characteristics associate with the incidence of various entry channels.

Understanding the Employment Effects of Importing
Kristiina Huttunen (Aalto University), Katariina Nilsson-Hakkala

This study analyzes the employment effects of importing using Finnish longitudinal employer-employee data matched to firm-level data on imports. We make a distinction between import competition and offshoring of intermediate inputs. Our aim is in particular to understand the mechanism through which importing affects employment structure within firms and industries.

Room 312 Session 2e: Satisfaction and Well-Being

Panel data evidence on the relationship between GDP and subjective well-being
Jani-Petri Laamanen (University of Tampere), Matti Hovi

We study the short-term and long-term effects of per capita GDP on subjective well-being. Our analysis utilizes the within country variation in subjective well-being and GDP per capita in developed and developing nations. Adopting second generation panel unit root approach leads us to conclude that subjective well-being has not grown significantly over the long-term. Further, we show that the variation in life satisfaction coincides with the cyclical fluctuations in GDP per capita.

The well-being effects of the French 35-hour workweek
Matti Hovi (University of Tampere), Kaisa Kotakorpi, Jani-Petri Laamanen

We study the effects of weekly working hours on subjective well-being. As a source of exogenous variation in working hours we utilize the 35-hour workweek law implemented in France during 1998-2002. The law aimed at reducing regular working hours from 39 to 35. During the first stage of the law's implementation it did not bind firms with less than 21 employees. Also in the region of Alsace, the implementation of the law was not as strict as in the rest of France. We study the effects of the working time reduction on life satisfaction. Possible spillover well-being effects on individuals whose working time was not reduced are taken into account. We use Eurobarometer surveys, which include information on individuals' preferred working hours. We are thus able to directly look at the effect of the reform on working time preferences.

What you know can't hurt you (for long): A field experiment on relative performance feedback
Manuel Bagues (Aalto University)

In this paper we study the effect of providing feeback to college students on their relative performance. In a cohort of 1,000 second-year students, a random sample of them received feedback on their position in the distribution of grades. This information was updated every six months during a three-year period. In the meantime, students in the control group could only access information on their own accumulated grade point average (AGPA). Initially, most students are underconfident: they report that, relatively to other students in the same cohort, their AGPA is lower than it is in reality. After the three-year treatment, students exposed to the treatment are correctly informed about their position in the distribution but the control group is still underconfident. However, the treatment was not associated to an improvement in students' academic performance. On the contrary, treated students experience a significant short-term decrease in their educational performance and a short term increase in self-reported satisfaction. The negative impact on performance fades away after six months. At the same time, we observe no significant impact on the perceived easiness of the courses, self-reported effort, or the choice of elective courses. Our results suggest that providing feedback on relative performance does not necessarily lead to higher performance. Its impact might depend crucially on subjects' priors and on their preferences.

Room 312 Session 2e: Satisfaction and Well-Being (cont.)

Childhood physical activity and long-term labor market outcomes

Jaana Kari (LIKES-Research Center for Sport and Health Sciences and University of Jyväskylä), Jaakko Pehkonen, Olli T. Raitakari, Tuija Tammelin et al.

Previous literature has examined the role of adulthood physical activity in the labor markets, but there is only little evidence on childhood physical activity and long-term labor market outcomes. Using the data from Young Finns Study (YFS) combined with a register-based Finnish Longitudinal Employer-Employee Data (FLEED), we examine how physical activity in childhood and youth is related to labor market outcomes in adulthood. The results show that, among men, physical activity at the age of 9-, 12-, and 15-years is positively related to earnings and employment over a twenty-year period. The positive association between physical activity and labor market outcomes is robust to controlling e.g. family income, parental physical activity, and person's own chronic conditions.

Room 401 Session 2f: Lab Experiments

How Do People Reason in Dynamic Games?

Nadine Chlaß (University of Turku), Andrés Perea

We study strategic reasoning in a two-stage dynamic game. One player observes an action of her opponent before both players can interact. The opponent's action reveals with some probability her belief about the player's choice in this future interaction. We show for the first time experimentally that an individual's propensity to forwardly or backwardly induct is a function of her belief whether the opponent's action in stage one was a mistake. We also report for the first time that individuals can exhibit pure forward induction outside the framework of equilibrium refinements and show that strategic reasoning varies along with individuals' personality. Our experimental setting neutralizes the potential effects of social preferences.

Subliminal priming and generosity

Topi Miettinen (Hanken)

We experimentally vary a subliminal prime prior to charity donation decisions. The primes are words shown to subjects for a very short duration (17 ms), i.e. below the duration needed to reach conscious awareness. There are two alternative primes: one with connotations with pro-social values (universalism) and another prime without any particular value-laden connotations (neutral). For our first hypothesis, that the universalism prime increase overall donations, we cannot reject the null hypothesis of no difference. For our second hypothesis, that the universalism prime increase donations among subjects with strong universalism preferences, we find some support. For subjects above the median level of universalism, as measured one week before the priming experiment, donations is about 10-15 % higher with the universalism prime. This interaction effect between universalism and priming is consistent with psychological priming theories and a recent study on supraliminal priming and team contest contributions. A similar effect is also found in our data when interacting the universalism prime with the personality characteristic of agreeableness (BigFive). In a test for "subliminality" some subjects recognize some of the prime words, and the results are mixed when controlling for the capacity to recognize the prime words. In summary, our results suggest that subliminal prosocial priming increase donations among individuals with high levels of prosociality, but further work is needed to confirm this result.

Room 401 Session 2f: Lab Experiments (cont.)

Competitive Behavior, Stress, and Gender

Marja-Liisa Halko (Aalto University), Lauri Sääksvuori

There is substantial anecdotal and scientific evidence that women are more reluctant to compete than men. This paper investigates whether physiological effects of stress explain gender differences in competitiveness. We measure participants' autonomic nervous system activity under non-competitive and competitive incentive schemes using heart rate variability measurement. We find that women shy away from competition more often than men due to high accumulated physiological stress. In contrast, men who self-select into a competitive incentive scheme experience competition-induced acute arousal. This reaction is strongly associated with higher self-confidence among the best performing men. Our results suggest that gender differences in the functioning of the autonomic nervous system are associated with the desire to compete. Our method and results may prove useful to understand the determinants of gender differences in labor market outcomes and evaluate the health consequences of policies designed to facilitate the promotion of women to high professional positions.

Room 208 Session 2g: Environmental Economics

Prices vs. quantities when information is incomplete and asymmetric

Kimmo Ollikka (VATT)

I extend the Weitzman (1974) model by allowing firms to have private information about their uncertain abatement costs. The abatement costs are correlated between firms. I propose a two-stage regulation. In the first stage, the regulator conducts a generalized Vickrey-Clarke-Groves (VCG) mechanism. The first-stage auction mechanism serves as an initial allocation method of pollution permits and also collects private information from regulated firms. In the second stage, the regulator implements either a constant price or a constant quantity regulation. In the constant price regulation, a uniform tax rate is set at the level of the expected first-best price. The constant quantity regulation is implemented through a tradeable permit program, where the supply of permits is fixed at the level of the expected first-best aggregate pollution. I show, using an affine linear model, that the VCG mechanism is incentive compatible when followed by the constant quantity regulation, whenever the positive correlation between emissions reduction benefits and costs is not too high. However, if the constant price regulation is used in the second stage, the information mechanism is incentive compatible only if the negative correlation between emissions reduction benefits and costs is relatively high.

Room 208 Session 2g: Environmental Economics (cont.)

Optimal Management of Markets for Bankable Emission Permits

Jussi Lintunen, Olli-Pekka Kuusela

We examine the optimal management of emission permit markets when banking but not borrowing of permits is allowed. The regulator maximizes expected social welfare through an optimal allocation rule in an infinite horizon setting. The policy is second-best as the emission cap is set before the uncertainty about the current state of the economy is resolved. In this setting, the role of banking is to decrease the regulator's risk as it generates an endogenous price floor in the permit markets. We show that the regulator's optimal policy adjusts the emissions cap irrespective of the existing number of permits in the bank, with the implication that the regulator neutralizes the effect of the existing bank on future permit prices. We derive the optimality conditions for the second-best emission cap with banking and solve the model analytically in the case of IID shocks. Our results show that the discount factor together with the slopes of the marginal damages and benefits determine the welfare gains from allowing banking of permits. Finally, to address the current state of the EU Emission Trading Scheme (EU ETS) and guide the design of future permit markets, we solve the model numerically with persistent shock process and show that the optimal emission cap is positively correlated with business cycles, meaning that during downturns the regulator should tighten the cap. The expected emissions and permit prices also correlate positively with economic activity.

Too many traders? About the welfare ranking of prices and quantities

Pauli Lappi (University of Helsinki)

We claim that the number of traders in a permit market is a factor in prices versus quantities discussion by analyzing the welfare ranking of emissions trading and emission tax in a multi-period model, where the per period welfare is defined in the conventional way as the difference between benefits and damages from emissions. We assume that at any time period it is possible that a perturbation happens in the permit market, which can be interpreted for example as trades conducted by nonregulated organizations. We find that when the externality is of flow type emission tax yields higher level of welfare than emissions trading. We extend this result also to stock externality. When the choice of instruments is made in a political process, the comparison becomes ambiguous. However, taxes outperform permits in an important special case.

International Fisheries Agreements: Choice of Management Instruments under Coalition Formation

Marko Lindroos (University of Helsinki), Lone G. Kronbak, Gordon Munro

The purpose of the current paper is to study how different management instruments work when we allow for coalition formation. We will modify the Ruseski (1998) model to include coalition formation at the country and/or fisher level. We use the same two management instruments, subsidies and fleet licenses in the present study. However, later studies could also incorporate other management options including TACs and/or ITQs. As an extension of our model we study a case where one country uses subsidies and the other fleet licenses. This allows us to take one step towards the question: What is the optimal management for each country. From the social/global point of view it is also interesting to study which combination of management instruments yields the highest economic returns, or largest stable coalitions.

Room 309 Session 3a: Suomenkielinen sessio

Täystyöllisyyden mahdollisuus hidastuneen talouskasvun oloissa

Pekka Tiainen, (Helsingin Yliopisto ja TEM)

Talouskasvu- ja työllisyyskeskustelua on paljolti käyty siitä lähtökohdasta, että korkeampi työllisyys edellyttää nopeaa talouskasvua ja sitten on jakolinja ollut siinä, painotetaanko enemmän kustannuskilpailukykyä ja tarjontaa vai kysyntää. Esityksessä avataan vastakkainasettelua selvittämällä, millä ehdoilla ja keinoilla korkea työllisyys voidaan saavuttaa hidastuneen talouskasvun oloissa siten, että toimintalinja samalla tukee työllistävää kasvua. Avainkysymys on, että kasvu keskimäärin on nopeampaa kuin työn tuottavuuden kasvu mitattuna tuotannolla työllistä kohden ja siten nopeampaa kuin tehdyt työtunnit jaettuna työajalla työllistä kohden. Erotus kasvaa jos kasvu nopeutuu ja tuottavuus työllistä kohden ei vastaavasti nopeudu hitaamman työn tuottavuuden nousun takia tehtyä työtuntia kohden sekä keskimäärin lyhyemmän työajan vuoksi. Tämä on yhdistettävissä eturivin teknologiseen kehitykseen ja täystyöllisyyteen kolmella reunaehdolla, jotka käydään läpi.

Kausaalisuuden ongelma taloustieteessä

Hanna Willman-Iivarinen, (Tampereen Yliopisto)

Taloustieteessä sekä kuvaillaan erilaisia talouden ilmiöitä, tutkitaan mitkä tekijät niihin vaikuttavat. Monissa malleissa pyritään ennustamaan mitä tapahtuu tulevaisuudessa, ja mitä seurauksia erilaisilla toimenpiteillä on. Taloustieteen tutkimukset ovat usein deduktiivisia: jos oletukset ovat tosia, johtopäätöksetkin ovat tosia. Kausaalisuus tai vähintäänkin ilmiöiden yhteys voidaan todistaa teoreettisissa empiirisessä aineistossa, mutta miten oikeastaan voidaan rakentaa silta teoreettisesti ja empiirisesti testatuista malleista reaalimaailmaa koskeviin oletuksiin? Miten voidaan osoittaa, että jokin reaalimaailman ilmiö johtuu jostain toisesta ilmiöstä tai tapahtumasta? Vaikka kausaalisuus on taloustieteen ytimessä, sitä on vaikeaa perustella. Tässä artikkelissa pohditaan kausaalisuuden filosofiaa ja ongelmia kausaalisuuden osoittamisesta käytännössä.

Irtisanomisen marginaalikustannus - kuinka kannattavaa julkinen työllistäminen on tai ei ole?

Mika Idman (VATT), Mauri Kotamäki

Tässä paperissa lasketaan yhden julkisen sektorin työntekijän irtisanomisen julkiselle taloudelle. Kustannus tässä yhteydessä pitää sisällään havaitut ja arvioidut kustannukset eli 1) alentuneen palkkamenon, 2) kasvaneen sosiaaliturvamenon ja 3) pienemmän verokertymän. Irtisanomisen kustannus on tärkeä selvittää, jotta mahdollisten irtisanomisten tapauksessa tehty toimi olisi oikein mitoitettu suhteessa tavoiteltuihin säästöihin.

Tämä paperi tuottaa tärkeää tietoa julkisen sektorin tehtävärakenteesta ja sitä kautta eri työntekijätyyppien aiheuttamasta kustannuksesta julkiselle taloudelle. Kustannustietoa voi käyttää myös taustana, jos laskusuhdanteessa mietitään suhdanneluonteista julkisen sektorin työllisyyspolitiikkaa.

Room 208 Session 3b: Empirical finance

What constrains micro-entrepreneurship? Evidence from street paper vendors

Niilo Luotonen (University of Aalto)

I study which constraints most affect the behavior of people engaging in or considering micro-entrepreneurship. By micro-entrepreneurship, I refer to a small-scale, easy-to-enter, informal but legal form of self-employment. The self-employment opportunity I examine is to become a vendor of the Iso Numero magazine, a so-called street paper mainly sold in Helsinki, Finland. After investing in a stock of magazines, the vendors resell them in public places for a profit of three euro per copy. Among existing vendors, I study whether liquidity or risk is more important in limiting the amount invested in magazines. I do this by following their day-to-day purchasing behavior over five months, and through interviews. During my sample period, an unexpected change in pricing occurred, which significantly helps me in identifying the more relevant constraint. Among potential vendors, who so far have not grabbed the selling opportunity, I use interviews to study why this is the case. My sample (so far) consists of 240 vendors, most of them temporary immigrants from Romania and Bulgaria, and 20 Finnish individuals considered potential vendors. Preliminary findings indicate that risk of losing invested capital is a more relevant constraint than lack of liquidity in limiting vendor investment.

The role of bank ownership type in cyclicality of loan loss provisions in West Europe in 2004-2013

Jari-Mikko Meriläinen (University of Vaasa)

Using a panel of consolidated bank-level data on 18 West European countries, this study examines the cyclicality of loan loss provisions in 2004-2013. Special focus is on the effects of the financial crisis of 2008-2009 and the sovereign debt crisis of 2010-2013 on loan loss provisions. The banks are divided into four categories by their ownership type. The categories are commercial banks, cooperative banks and private and publicly owned savings banks. The study uses dynamic Arellano-Bover/Blundell-Bond estimators as an empirical method. According to the regression results, loan loss provisions peaked in the financial crisis and mostly stayed above the pre-crisis level in the sovereign debt crisis. The problem was mitigated by cooperative and publicly owned savings banks. Cooperative banks' provisions increased in the financial crisis much less than provisions of the three other ownership types. The effect of the sovereign debt crisis was more diverse, because economy briefly recovered in 2010, but cooperative banks provisioned less than the other ownership types also during the sovereign debt crisis. Publicly owned savings banks increased their provisions in the two crises, but kept their level much lower than the other ownership types. This was funded from the loan loss reserves that were created before the two crises. These results suggest that cooperative and publicly owned savings banks manage intertemporal risk by the use of loan loss provisions. The reasons for the different provisioning policies likely are their business ideas and ownership structures.

Room 208 Session 3b: Empirical finance (cont.)

A Nonlinear Dynamic Model of Asset Market Linkages: Specification, Testing and Applications
Hannu Kahra (Oulu Business School)

A general framework for specifying and testing nonlinear dynamic models is proposed and applied to identifying the propagation of shocks between national and global asset markets. The model is characterized by latent factors with time-varying factor loadings, which in general yields a nonlinear relationship between the conditional mean and shocks across asset markets. Multivariate tests of dependence and nonlinearities are also developed following and compared with existing testing methodologies. Applying the framework to daily asset returns for a range of countries the empirical results show strong evidence of nonlinearities amongst asset returns. The model is also able to explain the presence of volatility smirks commonly observed in stock options.

Room 104 Session 3c: Equality of Opportunity

The Evolving Geography of Inequality
Matti Sarvimäki (Aalto University VATT), Daron Acemoglu, Kjell Salvanes

We examine the associations between intergenerational mobility and cross-sectional inequality in Norway over four generations. We do this for a particularly interesting period when Norway transforms from a poor, rural and unequal country into a rich, urbanized and highly redistributive welfare state.

On the optimal lifetime redistribution and equality of opportunities
Terhi Ravaska (University of Tampere), Matti Tuomala

In this paper we examine the aspects of equality of opportunity framework on optimal lifetime redistribution policy. The dynamic complications are avoided by studying the optimal redistribution within a cohort. We characterize optimal redistribution policy when there are differences not only in individuals' productivities but also in their tastes towards the timing of consumption, i.e. some are patient and others impatient in consumption over the life-cycle. This work continues the research done by Tenhunen & Tuomala (2008) by exploring the impacts of different social welfare functions in three- and four-type models. The numerical results verify the direction of binding self-selection constraints and the sign of the implicit distortion on saving decision in a simple two-period model. The model can be also interpreted without any private savings; then we consider the second period consumption as publicly provided pension. Here the main finding is a progressive pension system with longer working careers of the high-productivity and patient individuals.

Room 104 Session 3c: Equality of Opportunity (cont.)

Veblen effect, Work Hours, and Inequality

Elina Tuominen (University of Tampere), Matti Tuomala, Hannu Tanninen

In this paper we examine the link between work hours and inequality in 18 advanced economies. We aim to investigate whether the increase in the top 1 per cent income share is associated with an increase in the average annual hours worked. The results are compared to Bowles and Park (2005) and Oh, Park, and Bowles (2012) who propose that the explanation for this type of relationship may be the Veblen effect. Veblen effect links the consumption of the rich to the behaviour of those who are less well off. Also the size of government is incorporated into our empirical analysis.

Room 312 Session 3d: Agriculture and Development

The Impact of Agriculture Extension on Malaria Reduction: Regression Discontinuity Evidence from Uganda

Yao Pan (Aalto University), Saurabh Singhal

Agriculture and malaria share a complex relationship and little is known about the effects of agricultural development on malaria. In this paper we exploit a spatial discontinuity in the coverage of an extension services program in Uganda to causally identify the effects of agricultural development on malaria. We find that coverage under the program reduced the incidence of malaria and that there is age-specific heterogeneity with the young and the elderly experiencing most these improvements. Importantly, an examination of the underlying mechanisms indicate greater food security and an increase in the ownership and usage of bednets to be the most likely candidates driving these effects. Taken together, these results signify the importance of liquidity constraints in investments for malaria prevention and the potential role that agricultural development can play in easing it.

Welfare effects of mining externalities on tourists – a contingent behavior survey

Anna-Kaisa Kosenius (University of Helsinki), Paula Horne

This paper applies the combination of the travel cost (TC) and the contingent behavior (CB) methods to estimate the change in the recreational use value of the Oulanka national park and its surroundings due to mining in the north-eastern Finland. The externalities considered are the visibility of the mine to the highest peaks of the recreational area, traffic effects, impacts on endangered aquatic species, and impacts on recreational possibilities. In relation to species and recreation, the impact of the geographical scope of the mining externalities on intended visits to the area was analyzed.

The data, containing five observations from each respondent, were analyzed with the negative-binomial count data model. The results show that visitors are sensitive to the scope and magnitude of mining externalities and to the visibility of the mine. Moreover, the number of intended visits to the area correlates with attitudes and tourist profiles. Compared to an average respondent, anglers, paddlers, nature photographers, and overnight hikers are subject to larger losses in welfare.

Under current environmental conditions, the annual welfare effect for an average tourist visiting the nature site is 623.08 euros. Alternative scenarios on future mining externalities correspond to an annual welfare loss of 170.81-580.03 euros per tourist.

Room 312 Session 3d: Agriculture and Development (cont.)

Environmental Investment, Energy Efficiency and Environmental Performance: A Network Approach

Moriah Bostian (University of Turku/Lewis Clark College),
Rolf Färe, Shawna Grosskopf, Tommy Lundgren

This study examines the role of investment in environmental production practices for both environmental performance and energy efficiency over time. We employ a network DEA approach that links successive production technologies through inter-temporal investment decisions. This allows us to estimate energy efficiency and environmental performance separately, as well as productivity change and its associated decompositions into efficiency change and technology change. Incorporating a network model also allows us to account for both short-term environmental management practices and long-term environmental investments in each of our productivity measures. We apply this framework to a panel of detailed plant-level production data for Swedish manufacturing firms covering the years 2001 - 2008.

Room 401 Session 3e: Theory

The Value of NATO Option for a New Member

Vesa Kanniainen (University of Helsinki), Staffan Ringbom

The paper introduces a welfarist approach to national safety in a world where membership in a defense alliance of heterogeneous members with a country-specific safety classification is an option. There are two public goods, the domestic military budget and the incremental safety provided by the membership in an alliance. The commitment of the alliance, however, is imperfect in the creation of the international safety. A sufficient condition is stated for the non-membership. Necessary conditions for a positive option value of the membership are stated. Several adverse incentive effects shaping the option value of the membership are identified, including the incentive to free ride in domestic defense investment and a moral hazard effect in terms of reduced preparedness for the domestic defense effort. The cost of participation is determined in the spirit of the median voter theorem. The equilibrium is shown to be of two potential types, a stable alliance equilibrium with a positive mass with a finite number of members or a shrunken one with one member only. The driving force is the nature of adjustment of the safety class of the median voter relative to the size of alliance.

Room 401 Session 3e: Theory (cont.)

Why are bank runs sometimes partial?

Ilkka Kiema (University of Helsinki), Esa Jokivuolle

Empirical evidence shows that even if bank deposits are protected by a deposit guarantee by a government, a distress that the bank or the government faces might cause bank-run-like large-scale withdrawals of deposits. Such bank runs have been observed to be gradual and partial, and we shall consider a new explanation for their partiality. In our model the combination of potential bank instability and distrust in the deposit guarantee provided by the government might lead to a partial bank run when there is a dynamic inconsistency in the preferences of a welfare-maximizing government. More specifically, even if it were in the interest of the government to promise full deposit guarantee under all circumstances in order to prevent bank runs, it might be welfare-promoting not to keep the promise under sufficiently adverse economic circumstances. The positive welfare effect from deposit guarantee breakdown is decreased by a partial bank run, which decreases the future liabilities that a bank failure might cause to the government. Hence, the partial bank run also reduces the incentives of the remaining depositors to withdraw deposits. Our model yields an endogenously determined size for the considered partial bank run and enables us to analyze the comparative statics of the probability and size of bank runs with respect to government-related parameters. As a further application for our model, we shall shortly consider the suggestion that the deposit insurance schemes of the euro zone countries should be pooled.

Orthogonality conditions for identification of joint production technologies: Axiomatic nonparametric approach to the estimation of stochastic distance functions

Timo Kuosmanen (Aalto University), Andrew Johnson, Christopher Parmeter

The classic econometric approach treats productivity as a residual term of the standard microeconomic production model. Critics of this approach argue that productivity shocks correlate with the input factors that are used as explanatory variables of the regression model, causing simultaneity bias. This paper uses production theory and the known properties of the stochastic distance and directional distance functions to address the simultaneity bias. We first examine the standard cost minimization problem subject to a production function with a multiplicative error term to demonstrate that even if the observed inputs and outputs are endogenous, consistent estimation of the input distance function is possible under certain conditions. This result reveals that the orthogonality conditions required for econometric identification critically depend on the specification of the distance metric, which suggests the directional distance function as one possible solution to the simultaneity problem. We then introduce a general stochastic data generating process of joint production where all inputs and outputs correlate with inefficiency and noise. We show that an appropriately specified direction vector provides the orthogonality conditions required for identification of the directional distance functions. A consistent nonparametric estimator of the directional distance function is developed, which satisfies the essential axioms of the production theory. We examine the specification of the direction vector for the two different purposes of econometric estimation versus efficiency evaluation in an application to electricity distribution firms.

Room 313 Session 3f: Patents and R&D

The relationship between first and second tier patent protection: the case of the Dutch short-term patent system abolition

Jussi Heikkilä (University of Jyväskylä)

While the effect of changes in patent protection strength on innovative activity has been studied extensively, the role of second tier patent protection systems in national innovation systems has been a neglected research topic. Empirical evidence on the interaction between patent and second tier patent protection especially in advanced economies remains very scarce. This paper studies how the abolition of Dutch short-term patent system affected the level of domestic patent filing activity in the short and medium run. Synthetic control method is implemented to investigate the effect. The results indicate that abolition of short-term patent institution did not affect the level of domestic patent applications, which indicates that there was a shift from short-term patents to normal patents. The result questions the justification of short-term patent protection in advanced economies: It might be a better option to adjust the patent system for the needs of SMEs and smaller inventors than to have a separate second tier patent protection institution.

Returns to international R&D activities in large European firms

Jaana Rahko (University of Vaasa)

Previous studies indicate that international R&D investments can improve innovation performance of firms. However, the evidence is scarce on the contribution of the international R&D investments on firm level productivity and R&D returns to productivity. This paper studies whether European firms with international R&D activities obtain higher returns to their R&D investments than firms with domestic R&D. Because international knowledge sourcing is a key driver of international R&D investments, we expect that the effect of international R&D activities depends on the knowledge sourcing opportunities and thus on the relative technological strengths of home and R&D host countries. An augmented Cobb-Douglas production function is estimated with System GMM estimation. The results indicate that the R&D elasticity of output is significantly higher in firms with international R&D activities. In addition, we find that the increase is associated with the R&D investments targeted to technologically leading countries, while overseas R&D in technologically lagging countries does not significantly boost the R&D returns.

Complementarity of firm's innovation strategies: knowledge search, in-house R&D and external R&D acquisition

Heli Koski (Etla), Rauli Svento

We use data from over 1500 Finnish companies for the years 2006-2008 and 2008-2010 to explore complementarity of a firm's in-house and external R&D strategies and its external knowledge acquisition and innovation collaboration strategies. We define knowledge complementarity (tacit knowledge complementarity) of R&D capabilities to exist when increase in investments in R&D also increases marginal returns from broader external knowledge search (deeper innovation collaboration with external partners). Our estimation results provide support for knowledge complementarity and tacit knowledge complementarity of the strategy combining in-house R&D and the acquisition of external R&D. We find further find that complementarity of internal and external R&D is asymmetric. The order in which the R&D strategies are adopted matters for the complementarity of strategies.

Room 505 Session 3g: Macroeconomic modeling

National Accounts as a Stock-Flow Consistent System. Part 1: The Real Accounts

Matti Estola (University of Eastern Finland), Alia Dannenberg

The 2008 economic crisis could not be forecast by existing macroeconomic tools. Thus macroeconomics needs new tools. We present here the real part of National Accounts of an economy as a money flow diagram between the following macro-sectors: Non-financial firms, financial firms, households, government, and the rest of the world. Property incomes, transfers, and subsidies are presented as separate diagrams to avoid complexity, and the correctness of our modeling is verified by Finnish data. We give the first time a circular-flow diagram that is one-to-one with the National Accounting principles and data in an economy, and we show how the accounting identities like GDP by expenditures and GDP by income are obtained in the diagram. Our work serves as a basis for systems analytic macro-models that explains the positive and the negative feedback elements in the macroeconomic production system that are created by interactions between economic units and between real and financial markets in the economy.

Macroeconomic Theory, Models and World Economic System

Seppo Ruoho (University of Tampere)

Abstract: The models of economic theory have mainly been models and theories of natural sciences. Later this has been complemented with less quantitative models like e. g. German Historical schools, Institutional economics or computable empirical systems models. Macroeconomic theory as its own substance was introduced as a challenge in rapidly developing systems of national accounting in the inter-war period. At the same time the object of macroeconomic theory and models have developed first as markets, national states and lastly empirical world economic system models based on standardized international statistics. There have been interesting turns in economic theory and models lately. There have been the latest world depression, the crisis in Euro zone and the developments in the theory of international trade. All these have influenced the types and hierarchies of macro economic theory. In this paper we will go through typological and formal properties of macroeconomic models. We are mainly interested in large system models that have been built on international statistics. We will ponder quantitative empirical models used by international organizations. The three points to make here are the problems of aggregation and reduction in large models, the new data and methods available for model building and the unavoidable hybrid nature of macroeconomic models as a part of the larger environment systems.

Room 505 Session 3g: Macroeconomic modeling (cont.)

Kansantalouden tilinpidon simulaatiomalli

Kristian Vepsäläinen (University of Eastern Finland)

Kyseessä on Matlab-ohjelmiston SIMULINK-työkalulla tehty malli, jolla simuloidaan Suomen kansantalouden rahavirtoja. Mallinnuksen keskeinen tavoite on ollut kuvata rahavirrat siten, että systeemiin ei tule rahaa ulkopuolelta eikä sitä myöskään häviä. Mallissa on viisi lohkoa eli julkishallinto, rahamarkkina yritykset, ei-rahamarkkinayritykset, kotitaloudet ja ulkomaat. Simulaatio kuvaa näiden sektoreiden väliset keskeiset rahavirrat vuosilta 1975-2012. Kyseessä on ensimmäinen kerta, kun on tehty näin laaja simulaatio kansantalouden tilinpidosta. Simulaation tavoitteena on kuvata sektorien välistä vuorovaikutusta ja eri rahavirtoja toistensa suhteen. Varsnaiset sovitteet ovat muuttujasta riippuen joko lineaarisia yhtälöitä asteluvultaan 1-3 tai ensimmäisen, toisen tai kolmannen kertaluvun differenssiyhtälöitä. Näillä yhtälöillä ennustetaan aina kunkin muuttujan käyttäytymistä erikseen ja näin saatava ennuste välitetään eteenpäin seuraavalle sektorille. Mallin avulla voidaan tehdä erilaisia kansantaloustieteellisiä ennusteita ja kokeiluja. Näitä tuloksia voidaan käyttää päätöksenteon apuvälineinä eri yhteiskunnan sektoreilla. kansantalouden rahavirtoja. Mallinnuksen keskeinen tavoite on ollut kuvata rahavirrat siten, että systeemiin ei tule rahaa ulkopuolelta eikä sitä myöskään häviä. Mallissa on viisi lohkoa eli julkishallinto, rahamarkkina yritykset, ei-rahamarkkinayritykset, kotitaloudet ja ulkomaat. Simulaatio kuvaa näiden sektoreiden väliset keskeiset rahavirrat vuosilta 1975-2012. Kyseessä on ensimmäinen kerta, kun on tehty näin laaja simulaatio kansantalouden tilinpidosta. Simulaation tavoitteena on kuvata sektorien välistä vuorovaikutusta ja eri rahavirtoja toistensa suhteen.

Varsinaiset sovitteet ovat muuttujasta riippuen joko lineaarisia yhtälöitä asteluvultaan 1-3 tai ensimmäisen, toisen tai kolmannen kertaluvun differenssiyhtälöitä. Näillä yhtälöillä ennustetaan aina kunkin muuttujan käyttäytymistä erikseen ja näin saatava ennuste välitetään eteenpäin seuraavalle sektorille.

Room 405 Session 3h: Networks

Reciprocal Equilibria in Link Formation Games
Hannu Salonen (University of Turku)

We study non-cooperative link formation games in which players have to decide how much to invest in relationships with other players. A link between two players is formed, if and only if both make a positive investment. The cost of forming a link can be interpreted as the opportunity cost of privacy. We analyze the existence of pure strategy equilibria and the resulting network structures with tractable specifications of utility functions. Sufficient conditions for the existence of reciprocal equilibria are given and the corresponding network structure is analyzed. Pareto optimal and strongly stable network structures are studied. It turns out that such networks are often complete.

The Finnish corporate network and its effect on financial performance
Matti Pihlava (University of Turku)

This paper studies Finnish firms and especially it's boardroom network and the effects that it has on financial performance. Based on the firms' year end reports the results show that firms that are connected to the main component of the network are on average greater in size but they also lose the average Return On Investments. Network centrality does not affect the effect. Compared to international results, the results are contrary to what has been noted earlier. In general, the main component of the network is relatively smaller in size but slightly more dense than those found in other countries.

The Invisible Hand of Connections: How Contacts Help to Make Better Choices in Academia
Natalia Zinovyeva

In this paper we analyze how academic connections help researchers to take more informed decisions. We use evidence from Italy, where candidates to Full and Associate Professor positions are required to qualify in a nation-wide evaluation known as Abilitazione Scientifica Nazionale. Failure in these evaluations is costly, as unsuccessful candidates cannot apply again during the following two years. In 2012 and 2013, these evaluations involved around 69,000 applications and 1,000 (randomly chosen) evaluators in all academic disciplines. As expected, we find that potential candidates have better chances of success whenever the corresponding evaluation committee includes, due to the random draw, a co-author or a colleague. Somehow more surprisingly, we find that having a connection with the committee decreases the probability of participation in the qualifying exam. The evidence is consistent with the idea that weaker candidates with contacts in committee access better information on their likelihood of success, avoid costly mistakes, and consequently speed up their career progress.

Room 309 Session 4a: Competition, Innovation and Policy

Does market size matter also for charities?
Janne Tukiainen (VATT), Kimberley Scharf

We analyze implications of market size on market structure in the not-for-profit sector. While a standard analytical framework of oligopolistic competition between forprofits predicts a positive relationship between market size and firm size, we show that an analogous framework of not-for-profit competition predicts that an increase in market size either leaves charity size unchanged when charities are fully pro-socially, or reduces it when charities are biased towards their own output in striking contrast with predictions for the for-profit case. We then interrogate the analytical framework through an empirical investigation of five charitable markets for local public goods. Our findings support the theory's predictions, and differ substantially from previous findings concerning various industries in the for-profit sector. These findings both reject the applicability of the classic theories of oligopolistic competition between for-profits to the non-profit case sector and fail to reject the new model proposed here.

Hospital pharmaceutical market as an investment
Markku Siikanen (Aalto University)

This paper focuses on the link between hospital and retail pharmaceutical markets. The Finnish reference pricing reform implemented in 2009 provides a unique opportunity to test whether pharmaceutical companies use hospital market as investment to increase the demand for their products in the retail market. To the best of my knowledge this is the first paper, which attempts to answer the question if retail and hospital pharmaceutical markets are interconnected. Theoretical predictions are drawn from a modification of Klemperer(1987) model on consumer switching costs. The reference pricing regulation is added to the switching costs model. The model is used to characterize the bids submitted to the hospital procurement. These theoretical predictions can be tested with the Finnish hospital pharmaceutical procurement data. Differences-in-differences identification strategy is proposed.
Descriptive analysis shows that there is a negative correlation between the tendered hospital prices and the past retail market pharmaceutical consumption. This finding gives support for the investment hypotheses. The formal differences-in-differences analysis of the bidding data is not completely ready, but it seems that the market shares of the retail pharmaceutical market affect the bids submitted to the hospital procurement. Preliminary results do not rule out the possibility that pharmaceutical companies use hospital market as an investment.

Room 309 Session 4a: Competition, Innovation and Policy (cont.)

Welfare Effects and Environmental Impact of an Emissions-Differentiated Car Sales Tax
Robin Stitzing (Aalto University)

Taxes on the sale of new cars generate substantial revenue in many countries. Finland, Ireland, and Israel, have introduced differentiated car sales taxes to incentivize consumers to buy cars with low carbon dioxide (CO2) emissions. Percentage tax rates of ad valorem sales taxes became increasing functions of model-specific average CO2 emissions. The 2008 differentiation of the Finnish car tax created a range of model-specific tax rates from 39 % to 138 %, compared to the previous non-differentiated tax system with a tax rate of on average 76.6 %. I evaluate the welfare effects of this tax differentiation as well as its impact on the quantity and environmental profile of sold cars.

Patent Duration, Breadth and Costly Imitation: Evidence from the U.S. Pharmaceutical Market
Olena Izhak (University of Helsinki), Tuomas Takalo, Tanja Saxell

There is an abundant theoretical literature on the effects on patent breadth and duration on innovation and imitation but robust empirical evidence is scarcer. We first present a simple model where we capture the predictions of the basic theory. We then study the effects of patent breadth and duration by using drug-level data from the U.S. pharmaceutical industry where patent term adjustments (PTA) create variation in patent durations across innovations. To estimate the causal effect of patent breadth and duration on imitation, we exploit a quasi-random allocation of examiners to patent applications and differences in their drafting style. We find that increasing patent breadth reduces the probability of generic drug entry but the effects of longer patent duration are more ambiguous, just like predicted by the basic theory. This suggests that pharmaceutical patent duration is too long from the welfare point of view.

Room 208 Session 4b: Political economy

Voting on nuclear power: how much do risk perceptions matter, and to whom?
Piia Remes (VATT)

This paper studies congruence of risk preferences among politicians and citizens. In a representative democracy policy outcomes should reflect the preferences of citizens. Using Finnish survey data on Members of Parliament (MP) and citizens we study to what extent voters and politicians have similar preferences in a certain policy domain. The surveys elicited economic and environmental risk perceptions regarding a nuclear power vote in the Finnish parliament in 2010. Controlling for individual socioeconomic and constituency characteristics, like age, gender, education and electricity consumption and unemployment rate, we get robust estimates for the risk perceptions and voting behavior both for MPs and citizens. The results show that risk perceptions and their impact on voting behavior differ among the citizens and MPs. The gender effect of non-congruence is stronger among female respondents: Female MPs' preferences differ more strongly from the female citizens' than male MPs' from male citizens' preferences. MPs are generally more in favor of nuclear power and underline the economic risks. Citizens, on the contrary, regard nuclear accident and nuclear waste risk high. All in all, the non-congruence of preferences between the decision-makers and their constituents has impacts on the society. If the preferences of the voters are not reflected in the public policy it leads to reductions in the well-being of the citizens. Knowing the association between risk perceptions and voting behavior and the heterogeneity of risk preferences helps in analyzing impacts of the policy decisions.

Room 208 Session 4b: Political economy (cont.)

General budget support, health expenditures and neonatal mortality - Synthetic control approach

Kaisa Alavuotunki (Aalto University & University of Tampere)

One of the desired goals of general budget support (GBS) is to enable recipient country governments to allocate more resources into pro-poor sectors, such as health, education and agriculture. However, lack of eligible control countries makes it difficult to evaluate if these additional funds have been allocated in a pro-poor manner as a result of general budget support. Country-specific studies and evaluations typically face the problem of a missing counterfactual while cross-country estimations are loaded with well-known problems of endogeneity and, even at their best, only reveal an average effect of budget support for a very heterogeneous group of recipient countries. In this paper, I use synthetic control method approach which allows for the construction of a counterfactual for each country separately in a data driven manner. First, I analyze changes in health sector expenditure before and after the start of GBS. Second, I look at the decline rate of neonatal mortality (a presumed proxy for scope and quality of health services) especially in the countries which have increased their health spending after an introduction of GBS. The results indicate that, at least, in Malawi, Burkina Faso and Tanzania - and to some extent in Burundi, Rwanda and Niger - receiving GBS did have a positive effect on health expenditure. Further, parallel to increased health sector spending, neonatal mortality rate decreased in many of these countries relatively more than in their synthetic control countries.

Does Being In Office Influence The Policy Positions?

Riikka Savolainen (Aalto University)

In this paper, I investigate if experience as a municipal councilor influences incumbent politicians' policy positions in the following elections in a regression discontinuity setup. There is a large number of policy positions related to various current topics so I first summarize the policy positions with factor analysis in order to avoid the multiple-testing problem. Factor analysis results in a factor describing the liberalism-conservativeness axis. Comparing the close winners and the close losers of the previous elections, I do not find differences in their policy positions in the following elections.

Room 312 Session 4c: Taxation

Optimal Taxation and Public Provision for Poverty Minimization

Tuuli Ylinen (University of Aalto), Ravi Kanbur, Jukka Pirttilä, Matti Tuomala

We examine the determinants of optimal redistributive policies in the context of a developing country that can only implement linear tax policies due to administrative reasons. The optimal conditions for linear income taxation, commodity taxation, public provision of private and public goods, and minimum wage are provided for the poverty minimization case, and the results are compared to those derived under a general welfarist objective function. We also study the implications of informality on optimal redistributive policies for such countries. These formulae capture the sufficient statistics that the governments need to pay attention to when designing poverty alleviation policies.

Room 312 Session 4c: Taxation

Macroeconomic Effects of Income Taxation - The Aggregation Problem Reconsidered
Yrjö Vartia (University of Helsinki), Juhani Turkkila

We present in the paper a new causally motivated aggregation method for the progressive income taxation, which is common to all agents (taxpayers) and typically changes from one year to another. Main properties of state income taxation make it an ideal platform for studying the possibilities, problems and effects of aggregation of the individual behavioural functions to the macro level. We try to demonstrate intuitively (without much mathematics and proofs), how the change in average tax will be decomposed to 1) change in the tax function and 2) change in the income distribution (for a fixed tax function). Our method utilizes 100 centile (percentile) classes of incomes and corresponding taxes, which all contain roughly 40 000 agents (tax payers) in Finland. Calculations are performed in Access database and Excel datasheet without need of heavy statistical programs. The main result is that the effective marginal tax MC_{eff} fluctuates strongly but intuitively from one year to another. The reason for its changes is that actual income changes can be decomposed (using regression) into lump sum changes and (uniform) proportional changes and the importance of these components varies from one year to another.

The effect of VAT threshold on the behavior of small businesses: evidence and implications
Tuomas Matikka (VATT), Jarkko Harju, Timo Rauhanen

Small businesses are often regarded as important determinants of economic growth. Simultaneously, many tax rules and regulations are size-dependent, which might decrease efficiency and the economic activity of firms. We study the effects of VAT threshold on the behavior of small businesses . In Finland, firms with annual sales below 8,500 euros are not liable to pay VAT and separately report sales to the Tax Administration. We use detailed register data on the universe of Finnish business and the bunching method to provide robust and clear evidence on behavioral effects. Furthermore, we utilize variation in tax incentives at the threshold to analyze the role of both tax incentives and compliance costs. We find that the VAT threshold has notable effects among small business. Firms bunch actively just below the threshold, which implies notable efficiency implications. We find that changing tax incentives at the threshold does not have a significant effect on the extent of the response, which implies that compliance costs are also important. We find no clear traces of tax avoidance or evasion, which suggests that firms respond by reducing output. Finally, we find that bunching behavior is relatively permanent, which implies that the threshold decreases the growth of small businesses.

A Kink that Makes You Sick: the Effect of Sick Pay on Absence in a Social Insurance System
Ohto Kanninen (Labour Institute of Economic Research)

We examine the effect of the replacement rule of a statutory sickness insurance system on sickness absence. A pre-determined, piecewise linear policy rule in which the replacement rate is determined by past earnings allows identification of the effect using a regression kink design in the Finnish context. Using a large administrative dataset, we find a substantial and robust behavioral response. The statistically significant point estimate of the elasticity of the duration of sickness absence with respect to the replacement rate in a social insurance system is on the order of 1.

Room 313 Session 4d: Financial Markets and the Macroeconomy

The mortgage spread as a predictor of real-time economic activity in a data-rich environment
Jari Hännikäinen (University of Tampere)

This paper analyzes the real-time predictive ability of the mortgage spread for U.S. real GDP and industrial production growth in a data-rich environment. We find that the mortgage spread is a useful leading indicator for both measures of real economic activity. The mortgage spread contains substantial predictive power for industrial production. Inclusion of the mortgage spread in the forecasting model reduces industrial production forecast errors by 5-20%, depending on the forecast horizon and the specification of the forecasting model. However, the predictive power of the mortgage spread changes over time. The mortgage spread has been particularly informative since early 2000s.

Is the Tide Rising? New Indicators for Financial Crises
Juhani Raatikainen (University of Jyväskylä), Juha Junttila

We test whether financial crisis can be predicted by simple indicators based on investor behavior. Our novel approach is to analyze the interactions between the stock market, and the ultimate safe haven, i.e., the gold market, and the investors' risk evaluations measured by two forward looking variables: the VIX volatility index and the TED spread. Technically the analysis is carried out by estimating a VAR-AGDCC-GARCH model. In order to correctly model how the market pressure builds up prior to the financial crisis we have to control the exogenous structural shocks caused by terrorist attacks, wars, political turmoil and gold market specific events. This gives us an opportunity to analyze the impact of these types of shocks on financial markets, and at the same time, observe the transmission of shocks between the financial markets and the gold market. Our key findings are the following. According to our results all the dynamic correlations increase prior to the financial crisis. The correlation between the return on the VIX index and the change in the TED spread, which measures the relationship between price risk and credit risk, is the most promising early warning indicator of financial crisis. Our second major finding is that the interaction between the gold market and the stock market is much tighter than previously observed or even scrutinized. Especially some of the gold market specific shocks, as for example the ones related to central bank money market sales, have a long lasting impact also on the financial markets. Also some events, which may have been miss-interpreted as minor shocks regarding the financial markets, have in fact had significant impacts on both stock and gold markets.

The risk of financial crises: Does it involve real or financial factors?
Karolin Kirschenmann (Aalto University), Tuomas Malinen, Henri Nyberg

The recent financial crisis appears to point to credit booms as the most important driver of crises. However, could macroeconomic factors such as income inequality potentially be the real root cause of financial crises? We explore a broad variety of financial and macroeconomic variables and employ a general-to-specific model selection process to find the most reliable predictors of financial crises in 14 developed countries over a period of more than 100 years. Our in-sample results indicate that income inequality has predictive power in addition to and above loan growth and several other financial variables. Out-of-sample forecasts for individual predictors in different time periods show that their predictive power tends to vary considerably over time, but income inequality yields individual predictive power in each forecasting period.

Room 505 Session 4e: Macro-Prudential Policy

Countercyclical capital buffer - an introduction
Jukka Vauhkonen (Bank of Finland)

The countercyclical capital buffer requirement is one of the new macroprudential instruments that will come into use in Finland. It enables the strengthening of the banking sector's resilience to systemic risks resulting from excessive credit growth. In setting the requirement, strong emphasis should be placed on a small range of indicators to be selected, defined and published in advance. In contrast, reducing or releasing the buffer should primarily be based on judgment by the relevant authorities.

Why is credit-to-GDP a good measure for setting countercyclical capital buffers?
Esa Jokivuolle (Bank of Finland), Jarmo Pesola, Matti Virén

We examine banks' loan losses in Europe in 1982-2012 using a nonlinear three-factor model that takes into account output growth, real interest rate, and the ratio of private credit to GDP relative to its trend (i.e., "excessive indebtedness"). We find that a drop in output has an intensified impact on loan losses if the private sector is excessively indebted. Because increased bank credit risk should be matched with higher bank capital, the result motivates the Basel III's countercyclical capital buffers as a function of private indebtedness relative to its trend. The result also helps to explain differences in the amount of loan losses in different recessions across time and across countries. The model also indicates that low interest rates during the recent recession have clearly mitigated loan losses.

Indicators used in the decision-making for setting the countercyclical capital buffer
Eero Tölö (Bank of Finland), Helinä Laakkonen, Simo Kalatie

This paper aims to find the best possible early warning indicators (EWI) for the six risk categories that European Systemic Risk Board (ESRB) recommends the policy maker to follow when determining whether to set the countercyclical capital buffer for the banks or not. As the primary indicator is suggested to be the gap in the trend of the debt-to-GDP ratio (Basel indicator), ESRB also suggest policy maker to use additional indicators when determining the buffer. We find that identification of the EWIs is relatively easier for the categories related to overvaluation of property prices, credit developments, external imbalances and private sector debt burden, and more difficult for mispricing of risk and strength of bank balance sheets.

Room 505 Session 4e: Macro-Prudential Policy (cont.)

A Financial Stress Index for Finland

Jarkko Huotari (Bank of Finland)

This paper develops a financial stress index (FSI) for the Finnish financial system. The aim of the index is to measure prevailing systemic stress in the financial markets as a whole. The FSI strives to extract information from a noisy signal of several financial markets and indicators and provide a single measure for the level of systemic stress in the financial markets. The FSI is a continuous variable, with a quarterly frequency and covers the most important parts of the financial system. The use of a continuous indicator gives more information compared to binary crisis variables and can be utilized in assessing near-miss events, the different levels of stress prevailing during a specific crisis as well as the exact start and end of a crisis. The main practical motivation behind the study is the demand for a measure of systemic stress in the financial system, emerging from the current issues of macro-prudential policy. Such a measure of systemic stress could be used in operationalising the countercyclical capital buffer (CCB). The paper uses 11 individual financial stress measures to build market-specific subindices and applies three different methods to the aggregation of subindices into a final FSI. Based on a literature review, equal-variance weighting, principal component analysis and an application of portfolio theory are used to form the FSI for Finland. The different methods and resulting FSIs are then assessed from the perspective of macro-prudential policy as well as their ability to capture the standard definitions of systemic risk.

Room 405 Session 4f: Intergenerational mobility

The Sins of the Fathers in Troubled Times? The Long-term Effect of Parental Unemployment during Recession

Aleksi Karhula (University of Turku), Hannu Lehti, Jani Erola

We study the intergenerational impact of parental unemployment on the socioeconomic status of the children examining whether or not the impact is reduced in the context of deep recession. In our analyses, we apply data from one of the deepest recessions in the history of OECD countries, namely Finnish recession of 1990s, and compare the findings to the pre-recession results. By contrasting whether parental unemployment was experienced during a period of growth or recession, length of unemployment spell and father's and mother's unemployment we analyze the mechanisms behind the negative effects. We compare the children facing parental unemployment during the rapid economic growth of the late 1980s and the recession of the early 1990s at the age of 12-18. The ISEI status of the children was observed when they were 30 years old in the mid-2000s, after a decade of growing economic prosperity.
We use propensity score matching to analyze high quality register data, including 15991 children. We match children experiencing parental unemployment to a pair with similar parental background according to matching variables and calculate the average treatment effect on the treated (ATT) to measure effects on ISEI. The matching variables include the occupational class status and educational background of both parents, whether the parents were divorced or separated and household income before the experienced parental unemployment.
Our results show negative effects of parental unemployment that are not significantly reduced at the time of recession. In general the results in the study underline the importance of economic mechanisms behind the negative effects of parental unemployment. The hypothesis for stigmatization effects did not gain support. We also underline that the parental unemployment during recession leads to negative consequences for the child contradictory to some previous theories and studies.

Personality characteristics and labor market outcomes: evidence from twins

Terhi Maczulskij (Labour Institute for Economic Research), Jutta Viinikainen

We examine the long-term labor market outcome effects of personality using a large sample of twins from Finland, matched to detailed register-based income and employment data. Our earnings and labor market attachment measures are calculated over a twenty-year period (1990-2009) for the prime working age twins. We use the within-twin dimension to control for unobservable family and genetic confounding factors. Our within-twin estimates for genetically identical twins indicate that Neuroticism is related to lower long-term earnings and employment, while Activity is associated with favourable earnings and employment prospects.

Room 405 Session 4f: Intergenerational mobility (cont.)

The evolution of social mobility: Norway over the 20th century

Tuomas Pekkarinen (VATT), Kjell Salvanes, Matti Sarvimäki

We estimate trends in intergenerational mobility in Norway using data that spans cohorts born between 1932 and 1964. Using both intergenerational income rank correlations and elasticities, we show that the intergenerational persistence of inequality decreased substantially between cohorts born in 1932 and 1944. After that income mobility has remained stable and high in Norway. Measuring mobilty with brother correlations yields similar results. We also examine mechanisms behind changes in mobility by studying trends in the association between father's earnings and different measures of sons human capital such as IQ and educational attainment. Also this association became weaker between cohorts born in the 1930's and 1950's. These changes in intergenerational mobility coincide with the building of the Norwegian welfare state institutions.

Room 401 Session 4g: Dynamic Decisions

Sustainable Social Welfare under Uncertainty

Mitri Kitti (University of Turku)

Social preferences over stochastic processes are defined over infinite sequences of probability distributions on a finite set of states of the world. Under usual assumptions for preference orders and the assumptions on the no-dictatorship of the present and the future, sustainable social welfare orders are represented as convex combinations of a countably additive part and a part corresponding to a purely finitely additive measure. The specific case of a symmetric combination of discounted utilitarianism and expected utility over the occupation measure is also characterized.

Prudential Saving: Evidence from an Experiment

AJ Bostian, (University of Tampere), Christoph Heinzel

"Prudence" is a behavioral attitude that determines the intertemporal saving response to risk. In an expected-utility setting, the third derivative of the utility function controls prudence exclusively. But under more complex recursive utilities (e.g., Epstein-Zin), prudence is a nonlinear mash of different utility functions governing risk aversion and intertemporal substitution. Using simulations, we show that identifying these functions from variation in risk and income is quite difficult, even when such variation is made substantial and purely exogenous. In particular, small decision errors cause curvature information to be lost very quickly. With non-trivial frequency, recursive utility functions that actually involve increasing relative risk aversion (IRRA) and decreasing elasticity of intertemporal substitution (DEIS) instead empirically appear to possess constant aspects in both dimensions. We implement the lessons learned in an experiment involving real saving opportunities, and a real time interval. We estimate a structural Euler equation using the experiment data, and find that the average coefficient of relative risk aversion is 2.06, the average elasticity of intertemporal substitution is 0.75, and the average coefficient of relative prudence is 3.90. But these averages mask a good deal of cross-subject heterogeneity: the coefficient of variation in prudence is about 70%. The most common utility pattern is IRRA/DEIS, followed by constant aspects in both dimensions. We speculate that the number of subjects having the IRRA/DEIS pattern is larger, but that decision error likely attenuated the curvature.

Room 401 Session 4g: Dynamic Decisions (cont.)

Consumption Smoothing and Precautionary Saving under Recursive Preferences

Christoph Heinzel (Institut National de la Recherche Agronomique), AJ Bostian

Intertemporal choices simultaneously activate discounting, risk aversion, and intertemporal substitution. The future risk stimulates, more specially, higher-order aspects of preference. While a vast empirical literature has studied discounting, risk preferences, and basic consumption smoothing, empirical knowledge of higher-order preferences is still scarce. Based on a two-period consumption/saving model, we investigate the interaction of risk and time preferences in intertemporal decisions that involve future risk. We show that the main carriers of saving variation in intertemporal decisions under risk, according to the model, are intertemporal preferences. Risk preferences only play a minor role. The predictions under Expected Utility (EU) resemble those of the intertemporal-substitution component of recursive utility. Our simulations also show that second- and third-derivative effects are the most essential features of preferences in the decisions in question. Effects already from the fourth order on have essentially no impact. While the risk effects under EU are stronger than under recursive preferences, the few-relevance result regarding third- and higher-order risk effects persists. For a deeper understanding for preferences underlying intertemporal choice, correctly identifying intertemporal preference seems to be the single most critical aspect. The quantitative differences between EU and recursive preferences may allow to empirically discriminate between the preference concepts.

Participants (A-J)

Name	Affiliation
Jukka Ala-Peijari	EURONOMICD OY
Kaisa Alavuotunki	Aalto University & University of Tampere
Kari Alho	
Eeva Alho	PTT ja Helsingin yilopisto
Jukka Appelqvist	Eläketurvakeskus
Channing Arndt	UNU-WIDER
Manuel Bagues	Aalto University
Artturi Björk	Aalto-yliopisto
Moriah Bostian	University of Turku Department of Economics
AJ Bostian	University of Tampere
Patricia Boyallian	Aalto University school of Business, Department of Finance
Petri Böckerman	Palkansaajien tutkimuslaitos
Nadine Chlass	University of Turku
Túlio Cravo	UNU-WIDER
Denis Davydov	University of Vaasa
Elias Einiö	VATT
Matti Estola	Itä-Suomen yliopisto, Sosiaali- ja terveysjohtamisen laitos
Zuzana Fungacova	Suomen Pankki
Sami Grönberg	VATT
Sergei Guriyev	Sciences Po
Mika Haapanen	Jyväskylän yliopisto
Marja-Liisa Halko	Aalto-yliopisto, Kauppakorkeakoulu
Christian Hattendorff	FU Berlin, visiting BOFIT
Jussi Heikkilä	Jyväskylän yliopiston kauppakorkeakoulu
Kari Heimonen	Jyväskylän yliopisto
Christoph Heinzel	INRA - UMR SMART
Veera Holappa	Pellervon taloustutkimus
Markus Holopainen	Risklab Finland
Matti Hovi	Tampereen yliopisto
Anni Huhtala	VATT
Jarkko Huotari	Aalto University
Janne Huovari	Pellervon taloustutkimus PTT
Kristiina Huttunen	Aalto Yliopisto
Hannu Huuki	Oulun yliopiston kauppakorkeakoulu, Taloustieteen yksikkö
Jari Hännikäinen	Tampereen yliopisto
Olena Izhak	Helsingin Yliopisto
Signe Jauhiainen	Pellervon taloustutkimus PTT
Juho Jokinen	University of Jyväskylä
Esa Jokivuolle	Suomen Pankki
Junttila Juha	JSBE
Petteri Juvonen	University of Jyväskylä

Participants (K-L)

Name	Affiliation
Hannu Kahra	Oulu Business School
Annina Kainu	Åbo Akademi
Vesa Kanniainen	Helsingin yliopisto
Ohto Kanninen	Palkansaajien tutkimuslaitos
Santtu Karhinen	Oulun yliopiston kauppakorkeakoulu
Aleksi Karhula	Turun yliopisto
Hannu Karhunen	Jyväskylän yliopiston kauppakorkeakoulu
Jaana Kari	LIKES-Research Center for Sport and Health Sciences and University of Jyväskylä (JSBE)
Seppo Kari	VATT
Antti Kauhanen	ETLA
Karlo Kauko	Suomen Pankki
Olli Kauppi	Kilpailu- ja kuluttajavirasto
Jenni Kellokumpu	Valtiovarainministeriö
Leena Kerkelä	Eduskunta
Ilkka Kiema	Helsingin Yliopiston tutkijakollegium
Karolin Kirschenmann	Aalto University School of Business
Mitri Kitti	University of Turku
Maria Kopsakangas-Savolainen	Suomen Ympäristökeskus/Oulun yliopisto
Mika Kortelainen	Valtion taloudellinen tutkimuskeskus
Anna-Kaisa Kosenius	Helsingin yliopisto, taloustieteen laitos
Heli Koski	Etla
Mauri Kotamäki	VM
Kaisa Kotakorpi	University of Turku
Annaliina Kotilainen	Aalto Yliopisto
Timo Kuosmanen	Aalto yliopiston kauppakorkeakoulu
Annika Kuusela	Jyväskylän yliopiston kauppakorkeakoulu
Tomi Kyyrä	VATT
Olli Kärkkäinen	Eduskunta
Helinä Laakkonen	Bank of Finland
Seppo Laaksonen	Helsingin yliopisto
Jani-Petri Laamanen	Tampereen yliopisto
Pauli Lappi	Helsingin yliopisto
Marita Laukkanen	VATT
Heikki Lehkonen	University of Jyväskylä
Mikko Leppämäki	Aalto University
Lin Zhitao	University of Jyväskylä, City University of Hong Kong
Marko Lindroos	Helsingin yliopisto
Jussi Lintunen	Luonnonvarakeskus (Luke)
Matthijs Lof	Aalto University
Niilo Luotonen	Aalto-yliopiston kauppakorkeakoulu

Participants (M-R)

Name	Affiliation
Terhi Maczulskij	Palkansaajien tutkimuslaitos
Tuomas Malinen	Helsingin yliopisto
Emmi Martikainen	Kilpailu- ja kuluttajavirasto
Tuomas Matikka	VATT
Jari-Mikko Meriläinen	Vaasan yliopisto/Taloustiede
József Mezei	Åbo akademi University
Topi Miettinen	Hanken
Jussi Mustonen	Elinkeinoelämän keskusliitto EK
Niku Määttänen	ETLA
Satu Nurmi	Tilastokeskus
Henri Nyberg	Helsingin yliopisto
Meri Obstbaum	Valtiovarainministeriö
Elias Oikarinen	Turun yliopisto
Sami Oinonen	Bank of Finland
Kimmo Ollikka	Valtion taloudellinen tutkimuskeskus VATT
Petri Palmu	Ammattiliitto Pro
Sinikka Parviainen	Aalto-yliopisto ja UNU-WIDER
Tuomas Pekkarinen	VATT
Tuomas Peltonen	European Central Bank
Hanna Pesola	VATT
Matti Pihlava	Turun Yliopisto
Jukka Pirttilä	UNU-WIDER
Juhani Raatikainen	Jyväskylän yliopisto
Jaana Rahko	Vaasan yliopisto
Terhi Ravaska	Tampereen yliopisto
Piia Remes	VATT
Kim Ristolainen	University of Turku
Olli Ropponen	VATT
Seppo Ruoho	TaY (alumni)
Enni Ruokamo	Oulun yliopisto
Samuel Rönnqvist	Åbo Akademi University / TUCS

Participants (S-Y)

Name	Affiliation
Anna Sahari	Aalto-yliopiston kauppakorkeakoulu
Hannu Salonen	Turun yliopisto
Peter Sarlin	Hanken School of Economics and RiskLab Finland
Matti Sarvimäki	Aalto University
Riikka Savolainen	Aalto-yliopisto
Allan Seuri	Tampereen yliopisto
Smriti Sharma	UNU-WIDER
Markku Siikanen	Aalto yliopisto
Heikki Sillantaka	Kansantaloustieteen alumni
Aino Silvo	University of Helsinki
Jaakko Simonen	Oulun kauppakorkeakoulu, Oulun yliopisto
Saurabh Singhal	UNU-WIDER
Laura Solanko	Suomen Pankki
Robin Stitzing	Aalto University
Tuomo Suhonen	VATT
Antti Suvanto	Suomen Pankki
Rauli Svento	Oulu Business School
Finn Tarp	UNU-WIDER
Juha Tervala	Helsingin yliopisto
Marko Terviö	Aalto-yliopisto
Pekka Tiainen	TEM, HY
Mervi Toivanen	Suomen Pankki
Heli Tujula	
Janne Tukiainen	VATT
Eljas Tuomaala	Tilastokeskus
Elina Tuominen	Tampereen yliopisto
Harri Turunen	Helsingin yliopisto ja University of Cambridge
Veli-Matti Törmälehto	Tilastokeskus
Jussi Uusivuori	Luonnonvarakeskus Luke
Risto Vaittinen	Eläketurvakeskus
Tarmo Valkonen	ETLA
Juuso Vanhala	Suomen Pankki
Yrjö Vartia	University of Helsinki
Jukka Vauhkonen	Suomen Pankki
Kristian Vepsäläinen	University of Eastern Finland
Jouko Verho	Kelan tutkimusosasto
Saku Vähäsantanen	Turun kauppakorkeakoulu, Porin yksikkö
Yao Pan	Aalto University
Ilkka Ylhäinen	Jyväskylän yliopiston kauppakorkeakoulu
Tuuli Ylinen	Aalto-yliopisto, VATT
Natalia Zinovyeva	Aalto University