



THE THIRD

TOHOKU-UEA

RESEARCH SYMPOSIUM

[Registration](#)

21 JANUARY 2021



A sustainable research partnership can only thrive in an environment of intellectual curiosity, common interests, and open discussion. In these challenging times, this young partnership between the Graduate School of Economics and Management at Tohoku University and the School of Economics at UEA is showing potential and demonstrating resilience in finding new ways to bring researchers together and continue the dialogue we started three years ago here in Norwich. I feel honoured to support the research collaboration between our two Schools.

Dr Emiliya Lazarova - Head of School (UEA)

To access the workshop, follow the link below:

<https://zoom.us/j/98602352144?pwd=eW93dkZWeTlZenE3YnMwdUkzYXB2dz09>

meeting ID: 986 0235 2144

passcode: 6CRqWQ



THURSDAY 21 JANUARY ON ZOOM

UK Time	JP Time	Speaker	Title
08:25-08:30	17:25-17:30	<i>Emiliya LAZAROVA & Yasumasa MATSUDA</i>	<i>WELCOME</i>
08:30-09:05	17:30-18:05	<i>Dai ZUSAI</i>	<i>Gains in Evolutionary Dynamics: A Unifying and Intuitive Approach to Linking Static and Dynamic Stability</i>
09:05-09:35	18:05-18:35	<i>Ayobami ILORI</i>	<i>Fiscal Policy Shocks and International Spill-overs</i>
09:35-10:10	18:35-19:10	<i>Takuya ISHIHARA</i>	<i>Evidence Aggregation for Treatment Choice</i>
10:10-10:20	19:10-19:20		<i>BREAK</i>
10:20-10:50	19:20-19:50	<i>Yuan GAO</i>	<i>Evaluating Innovation Disruptiveness by Measuring Destructiveness and New Knowledge Involvement: A Network Approach to Patent Data Analysis</i>
10:50-11:10	19:50-20:10	<i>Anqi LI</i>	<i>Spatial Analysis of Happiness in Japan</i>
11:10-11:40	20:10-20:40	<i>Binwei CHEN</i>	<i>Margin Trading, Short Selling, and Market Quality: Evidence from Chinese ETFs</i>
11:40-11:45	20:40-20:45	<i>Corrado DI MARIA & Yasumasa MATSUDA</i>	<i>CLOSE</i>

PRESENTATION 1 | 08:30-09:05 | 17:30-18:05

GAINS IN EVOLUTIONARY DYNAMICS: A UNIFYING AND INTUITIVE APPROACH TO LINKING STATIC AND DYNAMIC STABILITY

Dai ZUSAI - TOHOKU

Dai is an Associate Professor at Tohoku University, where his main research interests are Equilibrium Stability and Evolutionary Game Theory. An active scholar in the area of evolutionary game theory, his research is distinguished by taking a variety of structural components in strategic decision making and social interactions into the general framework of evolutionary dynamics. Prior to joining Tohoku University, Dai was Associate Professor of Economics at Temple University, Philadelphia, USA.

Abstract:

Static stability in an economic model means negative incentives for deviation from equilibrium strategies, which we expect to assure a return to equilibrium, i.e., dynamic stability, as long as agents respond to incentives. There have been many attempts to prove this link, especially in evolutionary game theory, yielding both negative and positive results. This paper offers a universal and intuitive approach to this link. We prove that static stability assures dynamic stability if agents' decisions of switching strategies are rationalizable by revealing costs and constraints behind distortions from exact optimization. This idea guides us to track the remaining expected payoff gains from switches, after deducting the costs and to be maximized subject to the constraints as a Lyapunov function. It also explains reasons behind the known negative results. While our analysis here is confined to myopic evolutionary dynamics in population games, our approach is applicable to more complex situations.



PRESENTATION 2 | 09:05-09:35 | 18:05-18:35

FISCAL POLICY SHOCKS AND INTERNATIONAL SPILL-OVERS

Aayobami ILORI - UEA (Co-authors: Juan Paez-Farrell; Christoph Thoenissen)

Aayobami is a Lecturer in Economics at the School of Economics, UEA. His research interests span the areas of Dynamic Macroeconomics, International Macroeconomics, and Applied Macroeconometrics. In his research, he works with theoretical and empirical models to study domestic and international business cycle fluctuations and the transmission and propagation of macroeconomic shocks. Aayobami's professional experience also includes working as a research economist intern with the UK government's Department for Communities and Local Government, and as an audit associate with Deloitte Nigeria.

Abstract:

The domestic and international transmission mechanism of fiscal policy shocks are analysed in large developed economies. Using a Bayesian VAR approach, we find that fiscal expansions are associated with increases in output, private consumption and, in many cases, with an increase in private investment. The terms of trade, which affect the international transmission of fiscal policy shocks, are found to depreciate in response to a fiscal expansion, thus transferring some of the increased domestic purchasing power abroad. A US government spending shock is expansionary for all non-US G7 members. A German government spending shock is expansionary for most, but not all European economies, both within and outside the Euro Area. The dynamics of the BVAR are rationalised using a dynamics stochastic general equilibrium model where heterogeneous households and firms face borrowing constraints.



PRESENTATION 3 | 09:35-10:10 | 18:35-19:10

EVIDENCE AGGREGATION FOR TREATMENT CHOICE

Takuya ISHIHARA - TOHOKU (Co-author: Toru Kitagawa)

Takuya is a postdoctoral researcher in Japan Society for the Promotion of Science (JSPS) with a joint position of visiting fellow at the Graduate School of Economics, Tohoku University. Takuya's main research themes are: theories of econometrics and applications to social issues by microdata.

Abstract:

Consider a planner who has to decide whether or not to introduce a new policy to a certain population of interest, but has limited knowledge on the policy's causal impact due to the lack of credible evidence for this population. She instead has access to the publicized results of the intervention studies performed for similar policies on different populations. How should she make use of and aggregate these existing evidence to make her policy decision? Building on the perspective of "patient-centered meta-analysis" proposed by Manski (2020 "Towards Credible Patient-Centered Meta-Analysis", *Epidemiology*), we formulate the planner's problem as a statistical decision problem with a social welfare objective of the population, and solve for an optimal aggregation rule under the minimax-regret criterion. We investigate its analytical properties and welfare performance, and compare with the plug-in based decision rules based on meta-regression or stylized mean-squared-error optimal prediction. We apply our rule to decide adoption of an active labor market policy based on the 14 randomized control trial studies performed in 8 different countries.

BREAK (10 minutes)



PRESENTATION 4 | 10:20-10:50 | 19:20-19:50

EVALUATING INNOVATION DESTRUCTIVENESS AND NEW KNOWLEDGE INVOLVEMENT: A NETWORK APPROACH TO PATENT DATA ANALYSIS

Yuan GAO – UEA (Co-author: Emiliya Lazarova)

Yuan is a postdoctoral researcher at UEA. She specializes in applied networks science and data analysis in socio-economics. With an inter-disciplinary background, her main research interests include technology innovation, knowledge diffusion and mobility, online gig economy and e-commerce.

Abstract:

Researchers have long been studying technological innovation due to its significance in driving economic growth. Designed to protect the deemed values of inventions, patents and their information have been widely used in such studies to generate statistics for innovation evaluation. However, many of the commonly used patent measures are based on simply counting invention quantities. Such conventional metrics are incapable to provide in-depth understanding of the quality of innovation, especially the degree of novelty. In this paper we build on the literature of creative destruction to propose two new measures of disruptive technologies: the destructiveness index that captures technological-cohort recombination, and the involvement of new knowledge origins. These are based on a network approach that we develop to identify clusters of patent technological classifications and measure the changes of such clusters over time. We present our work at several layers, focusing on the Pharmaceuticals sector and the Computer Technology sector: With the analysis at network level, we describe a conjectured notion of technological evolution cycles consisting of the exploration stage and the intensification stage. At patent level, we include conventional patent quality indicators and national R&D investment and resource data. The results show that destructiveness contributes to both the volume and quality of innovation outcomes. New knowledge is negatively related to patent volume but positively to quality. Our multivariate regressions also demonstrate sectorial differences in how disruptiveness is related to innovation.



PRESENTATION 5 | 10:50-11:10 | 19:50-20:10

SPACIAL ANALYSIS OF HAPPINESS IN JAPAN

Anqi LI -TOHOKU (Co-authours: Takaki Sato; Yasumasa Matsuda)

Anqi started her PhD in Tohoku University in October, 2019 after completing a master program at the Graduate School of Economics, Tohoku University. Her current research interests are focused on theories and applications of Data Science in Economics.

Abstract:

We will report the Japanese features of subjective well-beings by a survey of 22,539 respondents living in 46 prefectures in Japan. We applied a Bayesian hierarchical model to the dataset to examine the effects of individual characteristics such as age, salary, occupation jointly with the regional heteroscedasticities. We introduce new findings on individual characteristics evaluated as unique features of Japanese, such as the partial effects of housewives, education level and health conditions on happiness. We report the regional heteroscedasticity of happiness identified after controlling the individual characteristics, from which it is found that the coastal areas damaged by the Tsunami and nuclear plant accidents in 2011 are the unhappiest regions in Japan.



PRESENTATION 6 | 11:10-11:40 | 20:10-20:40

MARGIN TRADING, SHORT SELLING, AND MARKET QUALITY: EVIDENCE FROM CHINESE ETFs

CHEN, Binwei - UEA

Binwei started her PhD in the University of East Anglia in January 2019. Prior to this she obtained an MSc in International Financial Management from the University of Surrey. Her current research interests are focused on Exchange Traded Funds (ETFs) and relevant policy evaluation.

Abstract:

This chapter applies extended synthetic control methods and two diagnostic tests to examine the effect of margin trading and short selling on Chinese ETFs. Although trading volume and turnover for treated ETFs increased in the post-treatment period, only the treatment effect for trading volume passed the placebo test. The volatility and return of treated ETFs showed unstable and inconsistent treatment effects, and neither of them passed diagnostic tests. In short, the introduction of margin trading and short selling improved ETF liquidity, but had no significant effect on volatility and returns in the Chinese ETF market.

