The 1st Annual International Conference on

Econometrics

nHawaii

November 45

2015

Ala Moana Hotel, Honolulu

Program Abstracts

Welcome to the International Conference in Hawaii!

More than 7 years have passed since the onset of the world financial crisis. The world economy seems to have gone through the bottom, yet it is still in a rather unstable condition. Financial markets respond quite nervously to the events like Greece's debt negotiations, China's slow down, and the US interest rate hike. Many new policy initiatives are under way aiming to reform the economic systems: new regulations on global financial institutions, the Trans Pacific Strategic Economic Partnership, the ASEAN Economic Community, the Asian Infrastructure Investment Bank, and etc. Many changes for the participants of the world economy have been taking place, and, at the same time, so many challenges for the economists to work on arose. On this occasion, we are delighted to have this meeting, "The 1st Annual International Conference on Applied Econometrics in Hawaii", based on the cooperation with strong research universities around the Pacific. We thank you to all the distinguished participants and staff for their contributions for this conference and hope that this leads to fruitful research collaborations in the future.

Toshiki JINUSHI
Dean of the Graduate School of Economics
Kobe University

Laush.

Introduction of Participating Universities

Hanyang University

Since its establishment in 1959, the College of Economics and Finance (CE&F) at Hanyang University has developed a distinctive program which allows students to master simultaneously the inseparable subjects of economics and finance. The College welcomes students with its endowment of faculty with superb academic credentials and impressive research records, along with its modernized student-centered facility. CE&F wants to train and challenge students and invites them to make the College their springboard towards realization of their goals and dreams.

Kobe University

Established in 1902 as Kobe Higher Commercial School, Faculty of Economics of Kobe University boasts the longest history among all the social science higher institutions in Japan. Our Faculty has the largest number of fields of research among the national universities in Japan. Its research and teaching activities incorporate: Theoretical Analysis, Historical Analysis, Statistics and Econometric Analysis, Industrial and Social Policy, Monetary and Public Policy, Comparative Economic Policy, Technological and Environmental Analysis, and International Economic Policy. Thus, we offer various courses and research opportunities, in Japanese and English, in order to cater to our students' specific needs, both at undergraduate and graduate level. Our goal is to train talented individuals to achieve a high degree of knowledge in economics in order to pursue successful careers in any sectors. In addition to the excellent learning and research opportunities provided by our department, students can also benefit from interdisciplinary research, inter-regional collaboration, international exchanges, and excellent infrastructure.

Nanyang Technological University

Established in 1991, Nanyang Technological University (NTU) is one of the biggest engineering universities in the world, and with two-thirds of the university in the various fields of engineering, this discipline remains a major strength. But it is not just about engineering. Besides the six undergraduate schools in the colleges of engineering, there are another six schools in business, science, humanities, arts, and social sciences. Ranked 39th in the world and top 5 in Asia by QS ranking, it is also the world's top young elite university. NTU is a vibrant hub for learning and a hotbed for research at the confluence of the most important disciplines.

National Taiwan University

Taipei imperial university, established in 1928, was transferred to Chinese administration in 1945 and renamed as National Taiwan University. At present, the university has 11 colleges, with 54 departments and 103 graduate institutes, plus four university-level research centers. The total number of students, including those enrolled at the School of Professional and Continuing Studies, has grown to over 33,000, including over 17,000 university students and 15,000 graduate students. The College of Social Science consists of four departments and two independent institutes. The Graduate Institute of Journalism only has a Master's program, while other institutes have both Master's and PhD degrees programs. The college has 134 full-time teaching staff, 83 part-time teaching staff, and more than 3000 students.

University of Hawai'i at Mānoa

Established in 1907, the University of Hawai'i at Mānoa is the flagship campus of the University of Hawai'i System. A destination of choice, students and faculty come from across the nation and the world to take advantage of UH Mānoa's unique research opportunities, diverse community, nationally-ranked Division I athletics program, and beautiful landscape. One of only a handful of universities nationwide to hold the distinction of being a land-, sea-, and space-grant institution, UH Mānoa is ranked in the top 50 U.S. public universities in research expenditures by the National Science Foundation. In the Department of Economics, graduate student and faculty research encompasses exciting topics, including climate change, ocean resources, energy, property rights, intergenerational transfer accounts, experimental economics, foreign investment, econometric analysis, labor markets, health economics, law and economics, China and Japan economies, monetary economics, and microeconomic theory.

Xiamen University

Xiamen University, established in 1921 by Mr. Tan Kah-Kee, a well-known Chinese expatriate, is located in the resort-like island of Xiamen in Southeast China. The School of Economics of Xiamen University, grown out of Business Department primarily established in 1921, and established in May, 1982, is one of the first schools of economics established in China. Its basic target of construction is to become a research-oriented school top-ranking at home and famous abroad.

*Alphabetical order

Participants

Keynote Speakers



Andrew MASON

University of Hawai'i at Mānoa (PhD, University of Michigan) Population Economics and Macroeconomics



Eric WEESE

Yale University (PhD, Massachusetts Institute of Technology)
Political Economy



Youngho CHANG

Nanyang Technological University (PhD, University of Hawai'i at Mānoa) Energy Economics, Environmental and Resource Economics



Gui fu CHEN

Xiamen University (PhD, Kobe University) Macroeconomics, Labor Economics



Elliott FAN

National Taiwan University (PhD, University of Toronto)
Family Economics, Labor Economics, Development Economics



Qu FENG

Nanyang Technological University (PhD, Syracuse University) Econometrics, Productivity Analysis, Chinese Economy



Shigeyuki HAMORI

Kobe University (PhD, Duke University)
Financial Econometrics, Applied Time Series Analysis



Toshiki JINUSHI

Kobe University (PhD, Harvard University) Monetary Policy and the US Economy



Kun Ho KIM

Hanyang University (PhD, University of Chicago) Econometrics



Takuji KINKYO

Kobe University (PhD, University of London)

Exchange Rate Economics, Finance and Growth, Asian Economic Integration



Tomoko KINUGASA

Kobe University (PhD, University of Hawai'i at Mānoa)

Population Economics, Agricultural Economics



Yu LIU

Xiamen University (PhD, State University of New York)

Econometrics, Human Capital



Tamotsu NAKAMURA

Kobe University (PhD, Kobe University)

Macroeconomics and Economic Theory



Akio NAMBA

Kobe University (PhD, Kobe University)

Econometrics, Statistics



Zheng ming QIAN

Xiamen University (PhD, Xiamen University)

Quantitative Economics and Econometrics, Economic and Business Statistics



Serena RHEE

University of Hawai'i at Mānoa (PhD, University of Pennsylvania)

Macroeconomics, Labor Economics



Nori TARUI

University of Hawai'i at Mānoa (PhD, University of Minnesota)

Environmental and Resource Economics



Yi-Chan TSAI

National Taiwan University (PhD, Ohio State University)

Macroeconomics, Monetary Economics



Yufei YUAN

Xiamen University (PhD, University of Western Ontario)

Quantitative Macroeconomics, Financial Economics, Real Estate Economics

*Alphabetical order



November 3

18:00-20:00 Welcome dinner at Royal Garden, Ala Moana Hotel

Welcome Speech: Toshiki JINUSHI, Kobe University

November 4

7:30- 8:20 Continental breakfast at Plantation café, Ala Moana Hotel

8:40- Registration

Session I Chair: Shigeyuki HAMORI, Kobe University

8:50- 9:30 Presentation 1

"Does Demographic Change Influence International Trade?: An Empirical

Study in APEC Economies"

Speaker: Tomoko KINUGASA, Kobe University

Discussant: Serena RHEE, University of Hawai'i at Mānoa

9:30-10:10 Presentation 2

"Population Aging, Migration Spillovers, and the Decline in Interstate Migration"

Speaker: Serena RHEE, University of Hawai'i at Mānoa

Discussant: Tomoko KINUGASA, Kobe University

10:10-10:25 Coffee Break

Keynote Speech 1 Chair: Toshiki JINUSHI, Kobe University

10:25-11:25 "Inefficiency and Self-Determination: Simulation-based evidence from Meiji

Japan"

Speaker: Eric WEESE, Yale University

11:25-13:00 Lunch

Session II Chair: Tamotsu NAKAMURA, Kobe University

13:00-13:40 Presentation 3

"Housing Wealth and Aggregate Fluctuation: The Perspective of Large-Open

Economy"

Speaker: **Yufei YUAN**, Xiamen University Discussant: **Takuji KINKYO**, Kobe University

13:40-14:20 Presentation 4

"The Impact of Distributed Generation and Energy Efficiency on Utilities'

Financial Health"

Speaker: **Nori TARUI**, University of Hawai'i at Mānoa Discussant: **Zheng ming QIAN**, Xiamen University

14:20-14:40 Coffee Break

Session III Chair: Akio NAMBA, Kobe University

14:40-15:20 Presentation 5

"Environmental Regulation and Green Economic Efficiency: Based on the

nonparametric conditional efficiency model"

Speaker: **Zheng ming QIAN**, Xiamen University

Discussant: Youngho CHANG, Nanyang Technological University

15:20-16:00 Presentation 6

"Volatility and Causality in Strategic Commodities: Characteristics, Myth and

Evidence"

Speaker: Youngho CHANG, Nanyang Technological University

Discussant: Nori TARUI, University of Hawai'i at Manoa

18:00- Reception at Japanese-style bar "Tairyo"

Speaker: Tamotsu NAKAMURA, Kobe University

November 5

7:30- 8:20 Continental breakfast at Plantation café, Ala Moana Hotel

Session IV Chair: Takuji KINKYO, Kobe University

9:00- 9:40 Presentation 7

"Dynamic Mirrlees taxation with capital-skill complementarity"

Speaker: Yi-Chan TSAI, National Taiwan University

Discussant: Qu FENG, Nanyang Technological University

9:40-10:20 Presentation 8

"Is Public Investment Growth-enhancing? The Case of China"

Speaker: **Qu FENG**, Nanyang Technological University Discussant: **Yi-Chan TSAI**, National Taiwan University

10:20-10:35 Coffee Break

Keynote Speech 2 Chair: **Tomoko KINUGASA**, Kobe University

10:35-11:35 "The Generational Economy and Aging in East Asia"

Speaker: Andrew MASON, University of Hawai'i at Mānoa

11:35-13:00 Lunch

Session V Chair: Tamotsu NAKAMURA, Kobe University

13:00-13:40 **Presentation 9**

"Knowledge Spillover and Effects of Education on Economic Growth"

Speaker: Yu LIU, Xiamen University

Discussant: Elliott FAN, National Taiwan University

13:40-14:20 Presentation 10

"Chased by Ghost: Exploring the Economic Factors and Health Consequences

of Shifting the Timing of Birth"

Speaker: Elliott FAN, National Taiwan University

Discussant: Yu LIU, Xiamen University



14:20-14:40 Coffee Break

Session VI Chair: Shigeyuki HAMORI, Kobe University

14:40-15:20 Presentation 11

"Local Deviations from Uncovered Interest Parity: The Role of Fundamentals

and Risk Premium"

Speaker: **Kun Ho KIM**, Hanyang University Discussant: **Akio NAMBA**, Kobe University

15:20-16:00 Presentation 12

"Simulations on the Wild Bootstrap Tests for a Structural Break when the Break

Point is Unknown and the Variance Changes with the Break"

Speaker: Akio NAMBA, Kobe University

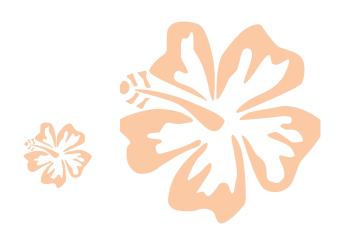
Discussant: Kun Ho KIM, Hanyang University

16:00-16:15 Closing Remarks

Speaker: Gui fu CHEN, Xiamen University

November 6

6:30- 8:30 Pancake Tour at Eggs'n Things, Ala Moana (Optional)





"Does Demographic Change Influence International Trade?: An Empirical Study in APEC Economies"

Tomoko KINUGASA, Kobe University

Nowadays, trade in APEC economies accounts for almost one-half of world trade and trade surplus in East Asian economies and trade deficits in the United States are causing global trade imbalance. In this research, based on the previous studies about the effect of age distribution on trade openness and trade balance, we empirically investigate whether trade openness and trade balance are influenced by age distribution using panel data of APEC economies. According to our empirical results, share of working-age population in total population has a significantly positive effect on trade openness and trade balance. In the sample period (1951-2010), the share of working-age population increased in APEC economies. It is considered that age distribution contributed trade integration and trade imbalance in APEC economies to some extent.

Presentation 2

"Population Aging, Migration Spillovers, and the Decline in Interstate Migration"

(Coauthored by Dr. Fatih Karahan at the Federal Reserve Bank of New York)

Serena RHEE, University of Hawai'i at Mānoa

Does population aging explain the declining interstate migration in the United States since the mid-1980s? We document that an increase in the share of middle-aged workers in one state causes a fall in the migration of all local workers. We develop an island model in which firms prefer hiring local workers with high moving costs as they command lower wages. Population aging causes firms to recruit more from the local market instead of from elsewhere, increasing local job prospects and reducing everyone's migration rate. Empirical evidence is provided for the mechanism. Our model explains half of the observed decline.

Presentation 3

"Housing Wealth and Aggregate Fluctuation: The Perspective of Large-Open Economy"

Yufei YUAN, Xiamen University

Since 2008 financial crises, the research started paying attention to the interaction between housing assets and aggregate economy. Majority of the current study focuses on the close economy. However, the empirical evidence strongly supports the connection between the variations of housing wealth and the trade balance. Another reason why we may need to study this question from the perspective of open economy is that with the development of new technologies, the international capital flows has been exploding, which generates the close links across the money markets of different countries. Plus the expanding trade connections, the monetary policies and business cycles of the countries influence each other deeper than ever be. In this paper, we take the U.S. economy as an example of large open economy. Besides the shocks widely studied in macroeconomic literature, we add three exogeneous shocks from US trade partners: preference, inflation and interest rate. With these shocks, we can discuss the co-dynamics of trade sector, international capital flow, exchange rates and the domestic macroeconomic variables. Within this framework, we keep the housing sector and its collateral channel of financial accelerator. In addition, we also model the unique feature, location, of houses and endogenize the location value implicitly into this DSGE framework, so as to better describe the co-enforcing cycles of housing wealth, wage rates and the rest of the economy.

"The Impact of Distributed Generation and Energy Efficiency on Utilities' Financial Health" Nori TARUI, University of Hawai'i at Mānoa

As energy conservation programs are adopted and distributed generation increases in scale, electric utilities' sales growth has been slowing down in a number of U.S. states. Many states have adopted renewable portfolio standards to mandate increased electricity generation from renewable sources. Some have also adopted revenue decoupling (RD), where the utility is allowed to adjust electric rates to maintain its revenue when its sales decrease. Depending on the nature of utility regulation and the electricity market, both policies have ambiguous impacts on the utilities' profitability. This study investigates the financial impacts of these policies on investor-owned utilities by exploiting heterogeneity in utility-specific regulatory regimes across space and time.

Presentation 5

"Environmental Regulation and Green Economic Efficiency: Based on the nonparametric conditional efficiency model" Zheng ming QIAN, Xiamen University

This paper proposes a nonparametric conditional efficiency model with resource and environmental constraint based on SBM model, and uses the new model to test the mechanism's empirical effects of macro environmental regulation. The results suggest that with improvement of the regulation, green economic efficiency decreases firstly and then increases, proving the nonlinear relationship between environmental regulation and green economic efficiency. The empirical results also indicate that environmental regulation in east area has the same effect on its green economic efficiency, however, enhancing the regulation strength has the negative effects on the middle and west areas at this moment.

Presentation 6

"Volatility and Causality in Strategic Commodities: Characteristics, Myth and Evidence" Youngho Chang, Nanyang Technological University

Commodity prices have fluctuated sharply and Brent oil has been considered the most volatile commodity in price. This paper aims to reveal the true characteristics of the price volatility of six commodities, namely, Brent oil, gold, silver, wheat, corn and soybean and to verify the existence of a long-run relationship and causation among each pair of commodity prices. It finds that there has been persistent volatility in prices of all six commodities from 1986 to 2010. Contrary to the common belief, however, Brent oil appears not to be the most volatile in price. Rather, the prices of precious metals and agricultural commodities have been more volatile than Brent oil for some time periods. It also finds that there has been a long-run relationship between the prices of Brent oil and soybean, of Brent oil and wheat, and a bilateral causality relationship between them, which implies that there has been a simultaneous impact on the price trajectories of these commodities.

"Dynamic Mirrlees taxation with capital-skill complementarity" Yi-Chan TSAI, National Taiwan University

The relative price of equipment capital has been falling over time. With capital-skill complementarity, this secular trend keeps on pushing up the demand for skilled relative to unskilled workers, contributing to the secular rise of skill premium and the disparities of economic well-being between skilled and unskilled workers. How should a government set taxes on capital versus labor dynamically in face of the secular cheaping of equipment capital? Employing an empirically plausible capital-skill complementarity form of production function, this paper quantitatively characterizes the optimal tax structure by means of the Mirrlees approach. It is shown at a point in time: (i) optimal marginal tax rates on structures capital are zero, but those on equipment capital are positive; (ii) optimal marginal labor tax rates on the unskilled are positive, but those on the skilled are negative. It is also shown the substitution of labor tax for capital tax marginally over time. We offer intuitions underlying these results and demonstrate that the output level will become higher and the consumption inequality will become lower if our Mirrleesian tax program is to replace the existing U.S.tax system.

Presentation 8

"Is Public Investment Growth-enhancing? The Case of China" Ou FENG, Nanyang Technological University

The productivity and efficiency of public investment is at the central of many policy debates regarding fiscal austerity and development strategy. After the 2008 global financial crisis, promoting public infrastructure investment as a growth engine has been revived by economists. However, the literature has provided conflicting empirical results. To address this puzzle, this paper employs China's provincial level data. As widely documented in the literature, one distinct feature of China's economic miracle is that under the socalled "GDP tournament" scheme local governments have been playing an active role in promoting economic growth, including investing in infrastructure. Using a panel of 30 Chinese provinces covering periods from 1996 to 2013, we find that the positive correlation between the GDP growth and public investment does not necessarily indicate the growth-enhancing effect of public investment. Instead, public infrastructure investment could be the consequence of economic growth.

Presentation 9

"Knowledge Spillover and Effects of Education on Economic Growth" Yu LIU, Xiamen University

This paper studies the effects of different levels of education on economic growth using panel data analysis. We adopt a special specification of aggregated production function embodying technological innovation and imitation. The human capital or its proxy are divided into three groups based on principle of the knowledge spillover: the primary education mainly used as production factor. The initial attempt shows that the education has significant effects on economic growth. However, primary education contributes mainly to the final output production, advanced education contributes to technological innovation and imitation. At the current economic structure, the primary education is economically more efficient than the advanced education. Financial development and other factors will be included in the the regression models for robust test. Finally, we discuss some policy implications to coordinate the development of education and economy.



"Chased by Ghost:

Exploring the Economic Factors and Health Consequences of Shifting the Timing of Birth"

Elliott FAN, National Taiwan University

We explore the effects on health at birth of shortened gestation length due to a cultural belief to avoid giving birth in the Ghost Month in Taiwan. We document changes in birth numbers and gestational weeks associated with shifts in birth timing and estimate the effects of hospital competition on the size of birth timing shifting. We find that the number of births in the last week of June was around 26% higher than earlier weeks of June, and doctors in clinics are more likely to allow for earlier births when the market becomes more competitive. We then develop an instrumental variable approach based on the timing of conceive to estimate health impacts of timing shifts of births. Our IV results suggest that shorter gestational length lead to a significant loss in birthweight and a higher risk of respiratory morbidity for newborn males, and both effects enlarge dramatically as gestational duration shortens. Both effects are noticeably larger than suggested by OLS estimates using the same samples.

Presentation 11

"Local Deviations from Uncovered Interest Parity: The Role of Fundamentals and Risk Premium"

Kun Ho KIM, Hanyang University

This paper uses recently developed kernel smoothing regression procedures and uniform confidence bounds to investigate the forward premium anomaly. These new statistical methods estimate the local time-varying slope coefficient of the regression of spot returns on the lagged interest rate differential. The uniform confidence bands indicate the extent of the rejections of uncovered interest parity and find remarkable variation in both regimes when the anomaly occurs, and also the magnitude of the slope coefficient estimate. The time-varying slope parameter can be substantially explained by fundamentals and variables associated with time-dependent risk premium. The appropriateness of different models for risk are assessed by a frequentist model-averaging technique.

Presentation 12

"Simulations on the Wild Bootstrap Tests for a Structural Break when the Break Point is Unknown and the Variance Changes with the Break" Akio NAMBA, Kobe University

In this paper we consider a linear regression model with an unknown break point. To test the existence of the structural break, Andrews (1996) proposed several test statistics and his sup-Wald statistic can be used to test the structural break when the disturbance variance changes with the break. However, the size distortion of the sup-Wald test is severe in small samples. In this paper, we propose to apply the wild bootstrap method to the sup-Wald statistic and examine the performance of the proposed method. Our simulation results show that the size distortion of the sup-Wald statistic is reduced by the wild bootstrap method in small sample sizes.

Staff Members



Hideo NISHIHASHI

Head of the Administrative Office of the Faculty of Economics, Kobe University

We would like to show our sincere gratitude and deep appreciation to all participants from prominent institutions in the Pacific Rim for attending the 1st Annual International Conference on Applied Econometrics. We believe that this conference will provide a great opportunity to encourage future joint research projects and to enhance the international networking. It is our pleasure to do our best to support this conference.



Nanako INOUE

Administrative staff of the Faculty of Economics, Kobe University

Message from Organizing Committee

The organizing committee is excited to hold the 1st Annual International Conference on Applied Econometrics at the Ala Moana Hotel, Hawaii. It is our great honor to welcome such highly recognized speakers in pioneering research to the conference. Your support helps us offer outstanding opportunities for professional and personal development, education and networking. Thank you for considering our request for your warm support to make this conference the best it can be.

Without the financial support from our sponsor, Shizen Research Institute, Ltd., we would not be able to provide such a quality program. Also, we would like to express our sincere gratitude to Ms. Eastman, the Asian Services Manager at Ala Moana Hotel, and staff members at RIEB for the immeasurable amount of support.

Best regards, Tomoko WATANABE Assistant staff member

2015 The Organizing Committee

Professor Shigeyuki HAMORI
Professor Tomoko KINUGASA
Tomoko WATANABE and Yuki NAKAYAMA
Assistant staff members



A Ala Moana Center



Ala Moana Center is one of the largest shopping malls in Hawaii, and it has over 240 shops in open ceiling space. This spot is very popular among local people and tourists.

Ala Moana Beach Park



Ala Moana Beach Park has a calm and beautiful white-sand beach, streching about 1 km. It has some free facilities like free tennis courts and BBQ, so it attracts a lot of families with children on weekends.

B Waikiki Beach Walk



Waikiki Beach Walk is located on beautiful Lewers Street in the city cencer. It has over 40 shops, including nice restaurants and Hawaiian shops.

Ward Centers

Ward Centers is an entertainment complex with 22 nice restaurants, 125 shops a 16-screen cinema complex and a big gaming center.

Wal-Mart

Wal-Mart is a 24 hour discount shop. It covers houseweares, toys and souveniors.

Nordstrom

Nordstrom is a popular department store, and it has the latest fashionable shops for adults to babies.

Ala Moana Hotel

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