

# The Titles and Abstracts

## Presented on the 3rd Sophia Research Workshop in Economics

The speakers' titles and abstracts are respectively.  
Each title and abstract are followed by the speaker's name.

### ① 10:10-10:50

**Tetsuya Horie (Sophia University),**

***The First Order Impact of the Introduction of Carbon Pricing Policy on Chinese Industries***

(jointly with Karen Ohyori)

To be announced

### ② 10:50-11:30

**Morihiro Yomogida (Sophia University),**

***Border Carbon Adjustments and Foreign Direct Investment with Technology Transfer***

(jointly with Yan Ma, Kobe University)

Implementing a carbon price in a country may cause production migration and carbon leakage to another country that does not have a comparable carbon price. To tackle the leakage problem, Border Carbon Adjustments (BCAs) are proposed, i.e., carbon tariffs on imports and carbon price refunds for exports. Although pollution-haven foreign direct investment (FDI) could act as a channel for carbon leakage, existing studies do not examine the effect of BCA policies on firms' FDI decisions. This paper develops a North-South oligopoly model in which a firm can make decisions on production locations and technology adoptions, namely producing in the North or making FDI in the South and adopting "clean" or "dirty" technology. We show that, even under a North's BCA policy that eliminates South's competitive advantage based on its lower carbon price, a Northern unilateral emission tax could induce that country's firms to engage in FDI in the South. Such FDI, however, could result in negative carbon leakage, i.e., global emissions would decline because the BCA policy provides an incentive for the firm to adopt "clean" technology in the South. We also show that the North's welfare-maximizing emission tax could induce its firms to make FDI with clean technology transfers to the South.

③11:30-13:00

**Euston Quah (Nanyang Technological University),**

***Belt and Road Initiative: Cost-Benefit Analysis and Meeting Environmental Obligations***

China's Belt and Road Initiative (BRI) is expected to bring about significant economic growth through trade, infrastructure, finance, policy and people. To ensure sustainable infrastructure and resource extraction, manage environmental impacts, and create a win-win outcome for China and the world, Cost-Benefit Analysis (CBA) is an important economic tool for policy evaluation. In conducting Cost - Benefit Analysis (CBA), for the BRI, one has to take into account both the tangible and intangible costs and benefits, considering issues such as pollution, employment, and even China's role as the environmental steward for the region. In addition, one has to note the various constraints in conducting CBA in developing countries, adjusting for inefficient markets and survey biases.

The BRI is also not spared the Not-In-My-Backyard (NIMBY) Syndrome, which calls for local environmental management and the involvement of stakeholders. With the conduct of complete and inclusive CBA, the resolution of NIMBY conflicts, and the engagement of stakeholders, the BRI could perhaps prove that the goals of economic development and meeting environmental obligations can be simultaneously met by China.

④14:00-14:40

**Masamitsu Kurata (Sophia University),**

***Gendered Impacts of Household and Ambient Air Pollution on Child Health: Evidence from Household and Satellite-based Data in Bangladesh*** (jointly with Kazushi Takahashi and Akira Hibiki)

Reducing health risks from household air pollution (HAP) and ambient air pollution (AAP) is a critical issue in achieving sustainable development worldwide, especially in low-income countries. Children are particularly at high risk because their respiratory and immune systems are not fully developed. Previous studies have identified the adverse impacts of air pollution on child health; however, most have neither focused on HAP and AAP simultaneously nor addressed differences in the timing and magnitude of prenatal and postnatal exposure across genders. This article examines the impacts of prenatal and postnatal exposure to ambient particulate matter with an aerodynamic diameter of 2.5  $\mu\text{m}$  or less (PM<sub>2.5</sub>) and household use of solid fuels (a main cause of HAP) on child health in Bangladesh. We combine individual-level data from nationally representative surveys with satellite-based high-resolution data on ambient PM<sub>2.5</sub>. We find that: (1) the use of solid fuels is associated with respiratory illness among girls but not boys; (2) prenatal exposure to ambient PM<sub>2.5</sub> adversely affects stunting, without any clear evidence on gender differences; and (3) postnatal exposure consistently increases the risk of both stunting and respiratory illness for both genders. These results provide new evidence on the heterogeneous impacts of AAP and HAP on children in terms of gender and the timing of exposure. The main policy implications are that intervention against HAP would be more effective by targeting girls and that intervention against AAP should cover not only born children but also pregnant mothers. In sum, our findings highlight the importance of protecting women from air pollution and achieving Target 3.9 of the Sustainable Development Goals.

⑤14:40-15:20

**Yu Ri Kim (Sophia Institute for Human Security),**

***Management Practices, Quality Control and Trade: Evidence from SMEs in Vietnam***

(jointly with Yasuyuki Todo)

There has been long literature linking export performance to firm productivity. But how can firm improve productivity and enter the international market? Sometimes, foreign capital, technology adoption and large size do not work. One key answer to improving productivity is good management practices. Using unique firm-level data collected from Northern Vietnam, we investigate whether these sample small and medium-sized enterprises with good management practices and quality control mechanisms have a better chance of export. To measure the management practices, we ask the top managers regarding targets, monitoring and incentive schemes. For quality control, we let the professional inspectors score each firm and each product according to the industrial standards. We find that improving management practices raise the likelihood of export. More specifically, firms with better management and quality control enhance export performance by reducing difficulty to adapt products to be suitable for exports and difficulty to deal with tax and regulations related to export activities.

⑥15:20-16:20

**Zadia M. Felciano (Queens College, The City University of New York),**

***Hurricane Maria's Impact on Puerto Rico's Labor Market: Plant Closing, Job Losses and Wages***

Several months before Hurricane Maria landed in Puerto Rico on September 20th 2017 as a category 4 hurricane, the government of Puerto Rico filed for bankruptcy similar to chapter 9 of the U.S. Bankruptcy Code. Puerto Rico's government owes more than \$74 billion dollars to creditors and 40 billion in pension liabilities. Lack of spending in infrastructure may have contributed to the long and difficult recovery from the hurricane, responsible for thousands of deaths estimated to range from 1,400 to 3,000 and 94.4 billion dollars in damages. Moreover, the slow recover dealt a blow to an already weak labor market. In the three months following the hurricane, October to December 2017, Puerto Rico experienced 76,402 gross job losses and net employment losses of 30,415, which represents -4.6% of private employment. The economy regained only a fraction of those jobs nine months after the hurricane, from January to June 2018, Puerto Rico had a net employment gain of 22,842, approximately 2/3 of the jobs lost after the Hurricane. In this paper, I estimate the impact of the hurricane on overall employment, the sectors of the economy that were hurt the most and those that rebounded quickly. I estimate differences in the impact of the hurricane on regional employment, considering the distance of each region from the path of the hurricane, infrastructure quality, poverty rates and economic importance in the island.

⑦16:40-17:20

**Gabriel Iván Fuentes Córdoba (Tohoku University),**

***The Long-Term Effect of Civil Conflict on Political Beliefs and Preferences: Evidence from Guatemala***

Does exposure to civil conflicts during childhood changes political beliefs and preferences? I combine data from the distribution of the number of human rights violations during Guatemala's civil war with nationally representative data on political beliefs and behaviors from 2003 to 2017. Preliminary results suggest that exposure to conflict during youth have little impact on later preference for democracy, social capital, and voting. However, the baseline results on preference for democracy seem to mask a heterogeneous effect by gender. Exposure to conflict during childhood has a negative effect on preference for democracy for males while it has no effect for females. The results are robust to a number of specification checks.

⑧17:20-18:00

**Kohei Kamaga (Sophia University),**

***Infinite Population Utilitarian Criteria*** (jointly with Geir B. Asheim and Stéphane Zuber)

We examine utilitarian criteria for ranking well-being distributions for infinitely many individuals. One possible interpretation of such distributions is that they represent intergenerational well-being distributions where the possibly different number of individuals are alive in each generation. Since there is no natural order for counting individuals and no natural isomorphism between individuals alive in different distributions, we examine strongly anonymous utilitarian criteria. We introduce four strongly anonymous utilitarian criteria, including the limit of rank-discounting criterion, the strongly anonymous Cesàro summation criterion, and the strongly anonymous catching-up criterion. We clarify the relationship between them and present an axiomatic characterization of a class of evaluation criteria that includes the three criteria using sensitivity, independence, and continuity axioms.

⑨18:00-19:00

**Yoshio Kamijo (Kochi University of Technology),**

***Mother's Paradox: Proxy Vote for Children Lowers Parents' Altruism for Future Society***

We test for altruism towards future generation and how it is affected by the collective decision rule by conducting an incentivized voting experiment with 2,000 participants. Controlling for whether participants have young children, we compare the ordinary voting rule, where each person has one ballot, with the proxy voting rule, where parents have additional ballots on behalf of their un-enfranchised children and thereby exert a greater impact on voting outcomes. We show that mothers with young children exhibit the highest altruism towards the future generation. However, the results also reveal that under the proxy-voting rule, mothers' voting behaviours tend to be egoistic. Consequently, empowering the most altruistic people for the future generation rather demotes the sustainability decision. A possible interpretation of this finding is that the proxy ballot emphasizes the benefit of the voter's own children so that the mothers' original altruistic motives towards the future generation are redirected towards their own children.