# RIETI

Research Institute of Economy, Trade and Industry, IAA

# Annual Report April 2017 - March 2018



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### Abbreviations

- RIETI: Research Institute of Economy, Trade and Industry, IAA
- METI: Ministry of Economy, Trade and Industry
- CRO: Chief Research Officer
- SA: Senior Advisor
- SRA: Senior Research Advisor
- PD: Program Director
- SF: Senior Fellow
- F: Fellow
- FF: Faculty Fellow
- CF: Consulting Fellow
- VF: Visiting Fellow
- VS: Visiting Scholar
- RC: Research Coordinator
- RAs: Research Associate



### About RIETI

The Research Institute of Economy, Trade and Industry (RIETI), an incorporated administrative agency, was established on April 1, 2001 to conduct extensive policy research and formulate policy recommendations. Leveraging its location in Kasumigaseki, RIETI takes full advantage of the synergy among policymakers, researchers, industry leaders, and other stakeholders, and has developed an excellent reputation both in Japan and abroad for its evidence-based theoretical, empirical research and its recommendations on a diverse array of issues regarding the economy, industry, and society.

RIETI has set up an overall framework of research themes to respond to policymaking needs. Within this overall framework, fellows undertake their own research in a free atmosphere, building organic linkages with other current research. Furthermore, RIETI incorporates the knowledge and insights of outside experts into its research through symposiums and other forums. In order to effectively and efficiently disseminate the research findings obtained and promote policy recommendations, RIETI makes proactive use of various tools such as websites, public relations magazines, and publications.

For the realization of a flexible and interdisciplinary research environment, a diverse group of fellows are engaged in research at RIETI. In addition to full-time fellows, RIETI also appoints part-time fellows consisting of Faculty Fellows who concurrently hold positions at universities and Consulting Fellows who belong to other organizations such as administrative agencies while participating in research.

Nine programs have been set under RIETI's research framework, and leading experts in respective fields serve as program directors and supervise multiple projects.

The world is changing at a blistering pace. To deal with these changes and build a Japanese society that is mature as well as energetic, Japan needs to craft policy backed by research that breaks out of conventional frameworks more than ever. RIETI will continue to provide theoretical backing and knowledge networks efficiently and effectively to authorities in their policy formulation. We will continue to work toward our mission of strengthening and improving the quality of policymaking capacities and helping to invigorate policy discussions.

### Messages from the Chairman and the President

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In FY2017, the Japanese economy expanded favorably in keeping with the global economic recovery. Companies registered record high profits, and capital investment picked up. Wages, although moderate, rose as well, underpinning consumption.

However, there remain some economic challenges. One such challenge is that wage growth remains sluggish compared to the growth seen in corporate earnings. The reasons underlying this phenomenon include the fact that despite the increasingly tight labor market, the ratio of non-regular employees with low wages to the working population has not decreased and utilization of women and elderly people's capacity in the labor force is still underway. In addition, it has been pointed out that the employment trend is shifting from the manufacturing industry with relatively high productivity to the service industry where the productivity is comparatively lower.

In light of these circumstances, the government is promoting working style reform. The reform is intended to promote work-life balance through reducing excessive overtime, and to revitalize domestic demand by resolving the disparities between regular and non-regular workers and enhancing productivity.

As a policy think tank, RIETI has pursued theoretical and empirical research that contributes to the formulation of economic, industrial, and social policies, and presents evidence-based policy recommendations. At the same time, we proactively publicize these research findings at symposiums and seminars while making them available online and through other avenues.

In April 2016, RIETI started its Fourth Medium-Term Plan which focuses on "cultivating Japan's strength in the world economy," "making Japan into an innovative nation," and "overcoming population decline."

In FY2017, the second year of this plan, we published a large number of research papers across a wide range of policy areas including economics and finance, human capital, trade policy, and productivity. We also hosted many symposiums, seminars, and workshops related to working style reform as well as others including "Information Technology in the New Globalization: Asia's Economy Today and Tomorrow," "Overcoming Challenges Faced by Japanese Companies in Overseas M&A," and "Toward the Promotion of Evidence-Based Policymaking."

The domestic and global economies are both undergoing significant change, and the anti-globalism movement continues to gain traction. With the advent of artificial intelligence (AI), the time has come when we must improve and advance the level of human resource capabilities. It is within this context that RIETI, as a policy think tank, also will focus our commitment this year on producing results from our wide-ranging research and communicate them in a timely manner.

At RIETI, we aim at advancing knowledge and understanding of the economy and industries and, thus, contributing to better economic and industrial policymaking in Japan. This country is now facing "cataclysmic" economic and social changes, such as an aging and shrinking population, technological advances relating to what is referred to as the Fourth Industrial Revolution, deepening global economic partnerships, and an increasingly competitive environment of international rulemaking. Under these circumstances, we address three main issues during our Fourth Medium-term Plan period (FY2016 through FY2019):

- I. Cultivating Japan's strength in the world economy
- II. Making Japan into an innovative nation
- III. Overcoming population decline

With a focus on these topics, RIETI conducts academic and interdisciplinary evidence-based research to (1) promote mutual interactions among various policy fields including industry, human resources, fiscal issues, and the international economy; and (2) investigate the nature of problems facing the economy and society that are increasingly diverse and complex.

In April 2018, we launched the Evidence-Based Policymaking (EBPM) Promotion team. EBPM has gained considerable attention among governments and scholars since the late 1990s. Japan is no exception. In line with the government's policies to promote EBPM, RIETI has been preparing for the program; last year, for example, we organized a symposium on EBPM, the success of which evidences the growing interest in Japan. RIETI is committed to the development of EBPM with our research strength encompassing:

- 1. Providing effective policy proposals from the perspectives of both the government and academia that are impartial and objective
- 2. Building networks of expertise integrating leading researchers, universities, and industrial circles within and beyond Japan so as to facilitate multidisciplinary research
- 3. Offering databases and resources that provide firm evidence for policy evaluation.

As the world is rapidly changing with the progress of globalization and technological innovations, we are determined to make our utmost efforts to further promote our research activities and to help Japan form a new growth path.



NAKAJIMA Atsushi Chairman May 2018



YANO Makoto President and CRO May 2018

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# **Overview of FY2017 Activities**

FY2017 marked the second year of RIETI's Fourth Medium-Term Plan (FY2016 to FY2019), in which our primary mission is to propose feasible evidence-based policy measures to address increasingly diversified and complex challenges faced both inside and outside Japan, and thereby contribute to the improvement of Japan's economic and industrial policies by making use of the strength of our extensive research network. In FY2017, within our research framework comprised of nine separate research programs to accomplish our mission, RIETI actively conducted research and implemented multidisciplinary studies on interrelated research topics traversing a wide range of challenges, such as our artificial intelligence (AI)-related research projects. Building constructively on the findings of the past 16 years to reinforce our position as one of Japan's leading intellectual platforms, RIETI has enhanced its partnerships with researchers from private sector research institutions as well as Japanese and foreign corporate professionals via personnel exchanges and other channels, and proactively disseminated our research findings. The following are the research and public relations activities presented by RIETI in FY2017.

Note: Titles and affiliations are as of the day of the events.

### **1** Research Activities

RIETI conducts research in line with our nine programs and others (special projects) in fields not limited to these programs by taking a multidisciplinary approach.

Research Programs in FY2017 Program Director		Number of Research Projects	
	Macroeconomy and Low Birthrate/ Aging Population	KOBAYASHI Keiichiro, FF	8
	International Trade and Investment	TOMIURA Eiichi, FF	7
	Regional Economies	HAMAGUCHI Nobuaki, FF	11
IV	Innovation	NAGAOKA Sadao, FF	8
V	Industry Frontiers	OHASHI Hiroshi, FF	12
VI	Raising Industrial and Firm Productivity	FUKAO Kyoji, FF	5
VII	Human Capital	TSURU Kotaro, FF	7
VIII	Law and Economy	YANO Makoto, President and CRO (Acting Program Director)	3
IX	Policy History and Policy Assessment	TAKEDA Haruhito, FF	4
SP Special Projects		4	
Total Number of Research Projects			

We exchange views with policymakers right from the start when research projects are being formed so that the research produced takes into account of policymaking needs. Furthermore, researchers, including RIETI's Chairman and Vice President, exchange views with policymakers on issues pertaining to new policies and provide expertise that transcends the research project framework.

In addition, to enhance the quality of our research, RIETI emphasizes engaging in thorough discussions not only within our institute, but also with policymakers and experts from both Japan and around the world. More specifically, when a research project is launched, brainstorming workshops (BSWS) are held to review proposed research plans, and, also at the final stage, review sessions are convened when paper drafts are completed to allow participants to exchange comments and deliberate on the content. Moreover, researchers from Japan and other countries have been invited to workshops and other events hosted by RIETI where they engage in discussions that delve into specific specialized topics.

As a result, we published a total of 175 research papers, of which 148 are theoretical, analytical, and empirical discussion papers (DP), and 27 are policy discussion papers (PDP), which are published in a timely manner and are highly relevant to a variety of policy issues currently being confronted. RIETI endeavors to convey the policy significance of these research papers in a more communicative style by preparing and releasing "non-technical summaries," which accompany DPs and detail policy implications based upon the analytical results, so that our research results may impact the policy formulation.

Attesting to the high quality of RIETI's scholarly research, 46 of our research pieces were published in internationally recognized, peer-reviewed English-language journals and other specialized publications, and one paper has been accepted for publication in the *Journal of Political Economy*, which is among the top five authoritative economic journals worldwide.

Beyond this, RIETI research results have been cited in a variety of white papers, official council data, and others. These include the use of research results regarding utilizing diverse personnel in the human capital program as well as those analyzing the productivity of small and medium-sized enterprises and startup activities in the *White Paper on Small and Medium Enterprises in Japan*; quoting research results concerning the role of indirect trade as well as those related to China in the *White Paper on International Economy and Trade*. Databases provided by RIETI have also been utilized, including the RIETI Trade Industry Database (RIETI-TID), Japan Industrial Productivity Database (RIETI-TID) and Regional-level Japan Industrial Productivity Database (R-JIP Database) among others.

### **2** Public Relations Activities

A total of 17 public symposiums, seminars, and other events were held, to which experts both from Japan and other countries were invited, to provide a forum for deliberating important policy that makes use of the latest research studies.

### (1) Research Dissemination

In FY2017, RIETI hosted symposiums and seminars on topics such as information technology and globalization, regional revitalization, and evidence-based policymaking (EBPM) to disseminate the research results of each project and stimulate public debate.

**RIETI International Symposium** 

### Information Technology and the New Globalization: Asia's economy today and tomorrow

August 1, 2017

Based on the results of the Asia KLEMS Conference which was held from the beginning of the previous day, the first half of the symposium welcomed Professor Dale Jorgenson of Harvard University who gave the first keynote speech on Japan's growth strategy with a focus on the second phase of Abenomics, and Richard Baldwin, president of the Centre for Economic Policy Research (CEPR), who gave the second keynote speech on the great convergence that will be produced by IT and the new globalization. In the second half, seven panelists analyzed the current state of the Asian economy from the standpoints of globalization and productivity, and engaged in a discussion on its future.

#### https://www.rieti.go.jp/en/events/17080101/info.html



Hokuriku AJEC-RIETI- IDE-JETRO- Fukui Prefectural University Joint Symposium

### Revitalization of the Hokuriku Region, Internationalization, and Innovation: How to incorporate global growth into the local economy

November 30, 2017

Since 2015, RIETI, the Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO), Fukui Prefectural University, and Around Japan Sea Economic Exchange Conference in Hokuriku (Hokuriku AJEC) have conducted joint research on "Hokuriku Region Revitalization, Internationalization and Innovation." The study has found that despite the high rate of internationalization which Hokuriku companies have achieved even among the regional areas, they have not enjoyed the advantages at a relative level. This symposium first clarified the current challenges facing the regional areas and sought to address the actions to be taken toward promoting innovation and globalization in a multidisciplinary manner in order to integrate global economic growth into the Hokuriku economy.

https://www.rieti.go.jp/en/events/17113001/info.html



**RIETI EBPM Symposium** 

### Toward the Promotion of Evidence-based Policymaking

December 19, 2017

With the enormous amount of data accumulation which has been facilitated by rapid advances made in IoT, interest is growing in evidence-based policymaking (EBPM). While EBPM has been utilized increasingly in Europe and the United States, Japan has been slow in promoting its use as demonstrated by a relevant government level decision only finally being made on the subject in May 2017. RIETI will launch the EBPM Promotion team in FY2018 to strengthen EBPM directly affecting policy, in addition to augmenting previous EBPM research from a scholarly perspective. Presenting actual cases from both Japan and other countries, the symposium facilitated the exchange of opinions among experts from various institutions about what should be done to make EBPM more widespread and how to promote its use in Japan. https://www.rieti.go.jp/en/events/17121901/info.html



#### The 19th RIETI Highlight Seminar

### Current Situation and Future Prospects of Economies and Markets Facing Significant Uncertainty: Based on the economic policy uncertainty index

ITO Arata (F, RIETI)

FUKAO Mitsuhiro (SRA, RIETI / Professor, Musashino University) July 11, 2017

https://www.rieti.go.jp/en/events/17071101/info.html



### (2) International Partnerships

RIETI has been working to foster international partnership to address timely global issues through exchanges with various research institutions and international organization around the world. In conjunction with the International Monetary Fund (IMF), RIETI invited three economists from the IMF headquarters in March 2018, and held a workshop on an issue facing the world economy, namely, long-term growth and secular stagnation. Since 2007, RIETI has been actively engaging in research exchange with the Centre for Economic Policy Research (CEPR), a leading European research institute. In February 2018, we held an international workshop with CEPR entitled "Science and Innovation" in London. Beginning in 2012, columns written by RIETI fellows and related scholars have been published on the CEPR policy portal VoxEU.org, and this effort has been reciprocated with timely VoxEU.org columns on topics such as economic nationalism and financial democratization reposted on the RIETI website. (A total of 47 articles were reciprocally posted in FY2017.)

In October 2017, experts from RIETI along with those from the Taiwan Institute of Economics Research (TIER) and the Korea Institute for Industrial Economic and Trade (KIET) gathered in South Korea to hold a workshop on trade issues and policies under the new protectionism, which is a topic of great interest. Furthermore, together with the Australia-Japan Research Centre, Australian National University (ANU AJRC), RIETI hosted a well-timed symposium on how Japan and Australia should seek to lead the Asia-Pacific region amid the increasing protectionism tendency, just one week after the signing of the TPP11. RIETI has engaged in other international partnerships by welcoming researchers from overseas research institutes, as well as hosting international symposiums and workshops where researchers, experts, and influential people from around the world were invited.



TIER-RIETI-KIET Workshop, October 19, 2017

#### **RIETI-ANU Symposium**

### Japan and Australia: Leading Asia Pacific regionalism in uncertain times March 15, 2018

What types of strategies should both nations, which have been key negotiators in both the TPP and RCEP and whose interests align in protecting the global economic system, employ to ensure an open and rules-based trade and investment system? With this awareness of the issue and immediately after signing of the TPP11, this symposium brought together Australian National University's Japan specialists and RIETI researchers as experts in Japan-Australia relations, and top officials and other experts responsible for trade policy in both Japan and Australia in one forum, where they discussed ways for Japan and Australia to take the lead in strategically advancing toward formulation of highquality trade and investment rules in the Asia-Pacific region. https://www.rieti.go.jp/en/events/18031501/info.html



### (3) Collaboration with the Ministry of Economy, Trade and Industry (METI)

In FY2017, RIETI held symposiums with METI policymakers on key policy topics such as the Fourth Industrial Revolution.

#### METI-RIETI Policy Symposium

### New Industrial Structure Vision: Japan's strategies and challenges for establishing new economic and social systems

August 23, 2017

At the end of May 2017, METI complied the "Future Vision toward 2030s" in an aim to overcome all types of structural challenges facing society by taking advantage of technological innovations including the Internet of Things (IoT), big data, artificial intelligence (AI) and robots; direct such achievements toward Japan's economic growth; and achieve a more affluent society, which contains a medium to long-term roadmap and specific strategies. RIETI and METI hosted the symposium, where experts from RIETI and members of the New Industrial Structure Committee, who drafted the vision, exchanged views in aiming to identify challenges facing Japan and its strategies toward constructing a new economic and social system, and to foster a sense of crisis about securing a competitive edge. https://www.rieti.go.jp/en/events/17082301/info.html



#### **METI-RIETI Symposium**

### Overcoming Challenges Faced by Japanese Companies in Overseas M&A

November 29, 2017

METI established the "Study Group for Japanese Companies' M&A Overseas" in August 2017 in response to the recent increase in cross-border M&A activity where Japanese companies have acquired companies overseas. Based on the finding of the study group and the research result of the "Frontiers in Corporate Governance Analysis" project at RIETI, academics experts and business practitioners exchanged views at the symposium. In his keynote speech, RIETI Faculty Fellow Hideaki Miyajima pointed out the importance of companies constructing a story narrating their own growth through M&A overseas, and Shigenobu Nagamori, Chairman of the Board, President and CEO of Nidec Corporation, talked about the importance of M&A expansion overseas accompanying selfsustaining growth.

#### https://www.rieti.go.jp/en/events/17112901/info.html



#### METI JPO-RIETI International Symposium

### **Toward Solving Disputes over Standard Essential Patents (SEPs): Licensing 5G SEPs** March 13, 2018

In the field of communications technology where standard essential patents (SEPs) are used, with the arrival of the age of IoT and 5G (fifth generation mobile communication system), new challenges are emerging such as differences in licensing rules and methods of determining royalties where licensing negotiations now take place among players from different sectors.

RIETI and the Japan Patent Office, which has been working to formulate guidelines to help prevent or smoothly resolve disputes over SEPs, hosted this symposium where RIETI Faculty Fellows Sadao Nagaoka and Masabumi Suzuki, legal professionals, and intellectual property professionals from Japan and overseas gathered together to discuss a variety of pertinent issues regarding SEPs.

https://www.rieti.go.jp/en/events/18031301/info.html



### (4) Brown Bag Lunch (BBL) Seminars

RIETI hosted a total of 38 BBL Seminars in FY2017 on timely topics inviting representatives of international organizations including the IMF and OECD, ambassadors from European countries, researchers from the National Institute of Advanced Industrial Science and Technology, corporate executives, and other professionals. Some topics were related to RIETI's research results, and others covered a variety of subjects contributing to research and policymaking at government ministries including the situation in Europe after the much watched general elections, improving productivity in the service industry. BBL Seminars provided a forum for discussion among participants consisting of policymakers, academics, journalists, and others.

### **Causal Inference in Economics**

#### **NAKAMURO** Makiko

(Associate Professor, Faculty of Policy Management & Graduate School of Media and Governance, Keio University)

April 6, 2017



### **Energy Markets: What to do when forecasting** is useless

#### **Robert S. PINDYCK**

(Bank of Tokyo-Mitsubishi Professor of Economics and Finance, Sloan School of Management, Massachusetts Institute of Technology)

May 17, 2017



### **Brexit: Recent Developments—The EEA Option Carl BAUDENBACHER**

(President, Court of Justice of the European Free Trade Association States (EFTA Court))

August 30, 2017



#### Germany after the General Elections—Political and Economic Directions Wolfgang TIEFENSEE

(Thuringian Minister of Economy, Science and the Digital Society) Hans Carl VON WERTHERN

(Ambassador of the Federal Republic of Germany to Japan)

October 3, 2017



### **Economic Developments and Monetary Policy:** Will we ever get out of low interest rates? MOMMA Kazuo

(Executive Economist, Mizuho Research Institute Ltd.) October 4, 2017



#### Toward the Sustainable Growth of the Food Service Industry **KIKUCHI Tadao**

(Chairman & CEO, ROYAL HOLDINGS Co., Ltd.)

December 13, 2017



### France's Renewed Commitment to EU Reform Laurent PIC

(Ambassador of France to Japan) February 7, 2018



### (5) Publications

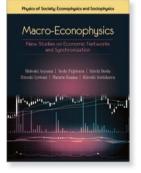
Seven books compiling RIETI's research results were published in FY 2017 (see the list of publications on p.64).



Gender Inequality in the Workplace: Theory and empirical analysis Written by YAMAGUCHI Kazuo (VF)



Scientific Management of Human Resources with Applications to Japanese Companies: Utilizing data based on causal inference Written by OWAN Hideo (FF)



Macro-Econophysics: New Studies on Economic Networks and Synchronization Written by AOYAMA Hideaki (FF), FUJIWARA Yoshi, IKEDA Yuichi, IYETOMI Hiroshi, SOUMA Wataru, YOSHIKAWA Hiroshi (FF)



Revitalization of the Hokuriku Region, Internationalization, and Innovation

Written and edited by MARUYA Toyojiro, HAMAGUCHI Nobuaki (PD, FF), KUMAGAI Satoru, SHIRAMATA Shuji



SMEs' Attempts to Go IoT Written and edited by IWAMOTO Koichi (SF), INOUE Yusuke



### Spatial Economics in the Age of Declining Population

Written by FUJITA Masahisa, HAMAGUCHI Nobuaki (PD, FF), KAMEYAMA Yoshihiro



Role of Local Financial Institutions for Regional Revitalization Written and edited by YAMORI Nobuyoshi (FF)

### (6) PR magazine - RIETI Highlight

RIETI Highlight, a PR magazine introducing RIETI's major activities, is published on a quarterly basis, together with a special English-language edition. Each issue presents topics of a timely nature as the "Special Feature," and the topics covered in the FY2017 quarterly editions included the Fourth Industrial Revolution, EBPM, information technology and economic growth, and globalization of Japanese firms. The special edition provided English-language descriptions of RIETI's activities in FY2017, especially on its key projects and research results, and symposiums and seminars in which eminent researchers participated (See "Publicity Materials" on p.66).



Special issue (in English)

RIETER

### (7) Website

The RIETI website is operated in three languages: Japanese, English, and Chinese. It offers a steady stream of the latest information on RIETI activities-notices of symposiums and seminars, newly released research papers and Non-Technical Summaries, columns by fellows, columns by renowned researchers worldwide entitled "Perspectives from Around the World," etc. Moreover, the website is compatible with mobile devices such as smartphones.

Among the topics that particularly interested our online visitors in FY2017 were IoT, working style reform, productivity enhancement, and EBPM. We are also taking advantage of the growing variety of tools to publicize our research findings by providing timely information provision services through methods such as posting contents on Facebook and an RSS feed service that notifies subscribers with newly-arrived information for each specified policy category via a short e-mail (See "Website" on p.65).



Website (https://www.rieti.go.jp/en/)



Facebook (https://www.facebook.com/en.RIETI)

# **Research Activities**

### **Research Programs / Projects**

### List of Research Programs / Projects

- I Macroeconomy and Low Birthrate / Aging Population 🔵
- II International Trade and Investment
- III Regional Economies 🔴
- IV Innovation
- V Industry Frontiers
- VI Raising Industrial and Firm Productivity 🔵
- VII Human Capital
- VIII Law and Economy
- IX Policy History and Policy Assessment
- SP Special Projects

### **Research Papers**

Discussion Papers Policy Discussion Papers List of Peer-reviewed Papers Published in Academic Journals



#### Macroeconomy and Low Birthrate / Aging Population Program

Project Title Project Leader		Project Leader	Page
-1	Microeconomics, Macroeconomics, and Political Philosophy toward Economic Growth	KOBAYASHI Keiichiro, FF	12
I -2	Fiscal and Social Security Policy under a Low Birth Rate and Aging Demographics	KITAO Sagiri, FF	12
I -3	Monetary and Fiscal Policy in the Low Growth Era	FUJIWARA Ippei, FF	12
-4	Exchange Rates and International Currency	OGAWA Eiji, FF	13
I-5	Economic Analysis of the Development of the Nursing Care Industry in China and Japan	YIN Ting, F	13
1-6	Exploring Inhibition of Medical Expenditure Expansion and Health-oriented Business Management Based on Evidence-based Medicine	NAWATA Kazumitsu, FF	13
I -7	East Asian Production Networks, Trade, Exchange Rates, and Global Imbalances ( I )	Willem THORBECKE, SF	14
I -8	East Asian Production Networks, Trade, Exchange Rates, and Global Imbalances ( ${ m II}$ )	Willem THORBECKE, SF	14

#### International Trade and Investment Program

Project	Title	Project Leader	Page
- 1	Empirical Analysis of Corporate Global Activities in the Digital Economy	TOMIURA Eiichi, FF	16
II -2	Studies on Firm Management and Internationalization under the Growing Fluidity of the Japanese Economy	ZHANG Hongyong, F	16
II - 3	Research on Global Inter-firm Networks and Related Policies	TODO Yasuyuki, FF	17
-4	A Study of the Effects of Trade Policy: A microdata analysis of Japan from the 1990s to 2010s	URATA Shujiro, FF	17
II - 5	Analyses of Offshoring	ISHIKAWA Jota, FF	17
II -6	Comprehensive Research on the Current International Trade/Investment System (pt. ${ m III}$ )	KAWASE Tsuyoshi, FF	17
II -7	Comprehensive Research on the Current International Trade/Investment System (pt. ${ m IV}$ )	KAWASE Tsuyoshi, FF	18

### Program III Regional Economies

Project	Project Title Project Leader		Page
- 1	Stable Development of Regional Economies under a Declining Population	HAMAGUCHI Nobuaki, FF	20
III -2	Dynamics of Inter-organizational Network and Geography	SAITO Yukiko, SF	20
III - 3	An Empirical Framework for Studying Spatial Patterns and Causal Relationships of Economic Agglomeration	MORI Tomoya, FF	21
-4	Economic Analysis of Property and Reform Proposal	SATO Motohiro, FF	21
III - 5	An Empirical Study on Compact City: Evaluating place-based policies in Japan	KONDO Keisuke, F	22
III -6	Regional Economic Structural Analysis and its Application to Regional Creation	NAKAMURA Ryohei, FF	22
III -7	Innovation Enhancing Regional Economic Structure and Evolution of Cities	NAKAMURA Ryohei, FF	22
III -8	Spatial Economic Analysis on Trade and Labor Market Interactions in the System of Cities	TABUCHI Takatoshi, FF	23
III -9	Spatial Economic Analysis on Intracity Economic Activities and Interregional Economic Activities	TABUCHI Takatoshi, FF	23
III - 10	The Role of Regional Financial Institutions toward Regional Revitalization: How do regional financial institutions contribute to improving the quality of employment in the local economy?	YAMORI Nobuyoshi, FF	23
III – 1 1	The Role of Regional Financial Institutions as the Core of the Local Economy and Regional Cooperation	YAMORI Nobuyoshi, FF	24

### Program **|V** Innovation

Project	Project Title Project Leader		Page
IV -1	Study on Industrial Innovation Capability and Innovation Infrastructure	NAGAOKA Sadao, FF	25
IV-2	Frontiers of Innovation Policy: Evidence from micro data	NAGAOKA Sadao, FF	25
IV - 3	Mobility of Knowledge and Innovation Performance	YAMAUCHI Isamu, RAs	26
IV-4	Comparative Studies of the Social Impacts of Artificial Intelligence (AI): From the perspectives of economics, sociology, and natural science/engineering	CHUMA Hiroyuki, FF	26
IV - 5	Productivity Revolution through IoT	IWAMOTO Koichi, SF	26
IV-6	Empirical Study on the Management and Utilization of Data Generated from Industry	WATANABE Toshiya, FF	27
IV - 7	Empirical Analysis of Innovation Ecosystems in Advancement of the Internet of Things (IoT)	MOTOHASHI Kazuyuki, FF	28
IV - 8	Creation and Development of High-tech Startups	HONJO Yuji, FF	28



### Program V Industry Frontiers

	-	1	
Project	Title	Project Leader	Page
V - 1	Policy Analyses on Industrial Organization	OHASHI Hiroshi, FF	29
V-2	Study on Markets and Policies in the Power System Reform	TANAKA Makoto, FF	29
V-3	Large-scale Simulation and Analysis of Economic Network for Macro Prudential Policy	AOYAMA Hideaki, FF	30
V-4	Economic and Financial Analysis of Commodity Markets	OHASHI Kazuhiko, FF	30
V-5	Heterogeneity across Agents and Economic Growth	YOSHIKAWA Hiroshi, FF	31
V-6	Study Group on Corporate Finance and Firm Dynamics	UESUGI lichiro, FF	31
V-7	Development of New Indicators for Service Sector Analysis and EBPM	KONISHI Yoko, SF	31
V-8	Globalization, Innovation, and Competition Policy	KAWAHAMA Noboru, FF	32
V-9	Productivity Gaps and Industrial Competitiveness	NOMURA Koji, FF	32
V-10	Japan's History of Thought on Agricultural Policy and Structural Reform of Agriculture	YAMASHITA Kazuhito, SF	32
V-11	Economics of Artificial Intelligence	MANAGI Shunsuke, FF	33
V-12	Macro & Micro Economics of Artificial Intelligence	MANAGI Shunsuke, FF	33

### Program VI Raising Industrial and Firm Productivity

Project	Project Title Project Leader		Page
VI - 1	East Asian Industrial Productivity	FUKAO Kyoji, FF	35
VI-2	Microeconometric Analysis of Firm and Industry Growth	HOSONO Kaoru, FF	36
VI-3	Research on Productivity-improving Capital Investment	MIYAGAWA Tsutomu, FF	36
VI-4	Analysis of the Regional-Level Industrial Productivity and Regional Production Networks	TOKUI Joji, FF	36
VI-5	Research on the Improvement in Resource Allocation and Productivity among the Healthcare and Education Service Industries	INUI Tomohiko, FF	36

### Program VII Human Capital

Project	Title	Project Leader	Page
VII - 1	Reform of Labor Market Institutions	TSURU Kotaro, FF	38
VII-2	Transformation of the Japanese Labor Market: Toward a labor market for all	KAWAGUCHI Daiji, FF	38
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### Program **VIII** Law and Economy

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# Macroeconomy and Low Birthrate / Aging Population

Program Director KOBAYASHI Keiichiro



Maintaining long-term growth has been a challenge for economies around the world, and Japan is facing a rapidly aging population ahead of that of other nations. We will conduct research that contributes to policies to maintain Japan's economic vitality as well as to the development of the global economy. Specifically, we will consider system infrastructure, such as the role of Asian currency baskets, and analyze trends in international finance and the global economy, and long-term deflation mechanisms, etc. Furthermore, we will conduct multifaceted and integrated research on the analysis of comprehensive panel data on the elderly, direction of the comprehensive reform of the social security and taxation systems, policy proposals for economic recovery, fiscal consolidation, etc.

### • Introduction of Research Projects •

### 1 - 1

### Microeconomics, Macroeconomics, and Political Philosophy toward Economic Growth

Project Leader: KOBAYASHI Keiichiro, FF

Project Period: December 11, 2017 - November 30, 2019

### Overview

We conduct comprehensive analysis of the policy measures that aim at enhancing economic growth in Japan. To this end, we focus on three aspects of policy analysis, i.e., microeconomics, macroeconomics, and political philosophy. For the microeconomics aspect, based on the hypothesis that corporate governance affects aggregate productivity, we pursue the efficient reform measures of the investment chain, which consists of asset holders, asset managers, and investees (business firms). For the macroeconomics aspect, we analyze the hypothesis of secular stagnation using the standard neoclassical macroeconomic theory to find the policy implications for Japan and other developed economies. Finally, for the political philosophy aspect, we pursue a framework for political decision making for a policy agenda, of which the time horizon exceeds one or two generations.

### **I - 2**

### Fiscal and Social Security Policy under a Low Birth Rate and Aging Demographics

Project Leader: KITAO Sagiri, FF Project Period: June 20, 2016 – May 31, 2018

### Overview

Comprehensive reform of the fiscal and social security system is inevitable in the economy with rapidly aging demographics and a low birth rate. In this project, we build a macroeconomic model founded with the decision making of individuals over the life-cycle and perform quantitative analysis of policy changes in such an economy. Using the demographic projections and incorporating microdata and institutional details into a macro model, we search for desirable fiscal and social security policy and analyze the effects on the aggregate economy and individuals' welfare.

### I - 3

### Monetary and Fiscal Policy in the Low Growth Era

Project Leader: FUJIWARA Ippei, FF

Project Period: September 5, 2016 - March 31, 2018

### Overview

Since the onset of the global financial crisis, developed economies have been suffering low growth and inflation rates. As a result of this long-lasting stagnation, room for further expansionary policy through traditional channels has shrunk.

In this project, we first search for effective monetary and fiscal policies even as the usefulness of traditional stabilization policies has its limits. Then, we aim to understand the implications of such structural changes as societal aging and globalization on policy impacts, which are considered as part of the background as well as the consequence of the stagnant economic developments.

### **I-4**

# Exchange Rates and International Currency

Project Leader: OGAWA Eiji, FF

Project Period: July 3, 2017 – June 30, 2019

#### Overview

In this project, we aim to develop the research conducted in our previous project "Exchange Rates and International Currency." Specifically, to provide broad policy implications, we set three themes: Exchange rates and currency system; invoice currency and exchange rate pass-through; and macroeconomic analysis of current account and trade structure. Furthermore, through publishing our original datasets (Asian Monetary Unit, Asian Monetary Unit Deviation Indicator, and Industryspecific Real Effective Exchange Rates), we open our research results to the public. Also, we make concerted efforts to publish our work in reputed academic journals.

#### Major Research Results

#### **RIETI-IWEP-CESSA** Joint Workshop

"Issues over Currency and Exchange Rate: Empirical Studies on China and Japan" (December 1, 2017)

See p.77



### I - 5

### Economic Analysis of the Development of the Nursing Care Industry in China and Japan

Project Leader: **YIN Ting, F** Project Period: July 24, 2017 – June 30, 2019

#### Overview

A super-aged society that Japan has been rushing toward with unprecedented speed is facing a new challenge. Under these circumstances, improving the productivity of the nursing care industry has been an extremely important political issue. China, Japan's neighbor and with a huge potential demand for nursing care, has shared the dual problems of rapid aging. It is a golden opportunity to export know-how on nursing care which has been accumulated up to now to China. By constructing a database of both nations, this project presents several empirical analyses with the objective of devising possible solutions on top of clarifying the actual status. First, by constructing a comprehensive database of Japan's nursing facility, we conduct efficiency analyses including an estimation on the output function by considering the quality and the charges of care service. Then, based on the results of the above analyses, we compare with that of the other industries and clarify the differences among them, which can set policy recommendations for the future shape of the growth industry and for the employment generation. Second, this project sheds light on the type of nursing care service preferred by China, how to set the charges and the care worker's payment, and the economic conditions facing the assisted-living residents by conducting an online survey on the demands for nursing care via a conjoint method in Japan and China. All of these are very important and helpful to Japanese companies in entering the Chinese nursing care industry.

### **I - 6**

### Exploring Inhibition of Medical Expenditure Expansion and Healthoriented Business Management Based on Evidence-based Medicine

Project Leader: NAWATA Kazumitsu, FF

Project Period: August 7, 2017 - July 31, 2019

### Overview

Evidence-based medicine (EBM) is a paradigm which maintains that medical interventions and health promotion measures should be performed in line with evidence backed by reliable data and appropriate analyses rather than experts' opinions and subjective experiences. The idea of EBM has been spreading all over the world. In this project, we explore ways to inhibit the expansion of medical expenditures without harming human health and attain effective health-oriented business management based on EBM. We also conduct studies on how to improve mental health and deal with cognitive decline prevention properly based on EBM.

### I - 7

### East Asian Production Networks, Trade, Exchange Rates, and Global Imbalances ( | )

Project Leader: Willem THORBECKE, SF

Project Period: October 14, 2015 - September 30, 2017

### Overview

Intricate value chains have emerged centered in East Asia. This project investigates the roles that Japan, China, South Korea, ASEAN countries, United States, and other countries play within these networks.

Specific questions that it tackles include: 1) how Japan's export structure has evolved over time and how it has changed since the onset of the Global Financial Crisis in 2007; 2) how exchange rate changes, economic activity in the rest of the world, political considerations, and other factors affect exports from Asian countries and elsewhere; 3) how a slowdown in China would affect the rest of Asia and the rest of the world; 4) what lessons Japan can learn from policies in other industrialized economies; 5) to what extent East and Southeast Asian are country comrades, working together within production networks, and to what extent they are competitors, exporting similar products to third markets; 6) how sophisticated exports from Japan, South Korea, Taiwan, China, and ASEAN are, how close the goods they produce are to the technological frontier, and how they are progressing at moving up the ladder of comparative advantage; 7) what types of policies would promote growth and stability in Japan, Asia, and the rest of the world.

#### **Major Research Results**

#### **Discussion Papers**

- Exchange Rates and the Swiss Economy (Willem THORBECKE and KATO Atsuyuki) DP 17-E-064
- The Effect of the Fed's Large-scale Asset Purchases on Inflation Expectations (Willem THORBECKE) DP 17-E-097
- Exposure of U.S. Manufacturing Industries to Exchange Rates (Willem THORBECKE) DP 18-E-005



### **I - 8**

### East Asian Production Networks, Trade, Exchange Rates, and Global Imbalances ( || )

Project Leader: Willem THORBECKE, SF Project Period: February 1, 2018 – January 31, 2020

#### Overview

Intricate value chains have emerged centered in East Asia. This project investigates the roles that Japan, China, South Korea, Association of Southeast Asian Nations (ASEAN) countries, United States, and other countries play within these networks.

Specific questions that it tackles include: 1) How do exchange rate changes, economic activity in the rest of the world, political considerations, and other factors affect exports from Asian countries and elsewhere; 2) How has the rise of China affected the rest of Asia and the rest of the world; 3) How have countries been able to advance to more complex products; 4) Do exchange rate changes affect exports of more complex products less than exports of other products; 5) How can Japan and East Asia deflect protectionist pressures that are threatening the world

Macroeconomy and Low Birthrate/ Aging Population

trading system; 6) To what extent are East and Southeast Asian country comrades, working together within production networks, and to what extent are they competitors, exporting similar products to third markets; 7) How sophisticated are exports from Japan, South Korea, Taiwan, China, and ASEAN, how close are the goods they produce to the technological frontier, and how they are progressing at moving up the ladder of comparative advantage; 8) What types of policies would promote growth and stability in Japan, Asia, and the rest of the world; 9) How have the rise of regional value chains, the Chinese economy, and other factors affected inflation in the world and the ability of central banks to hit their inflation targets; 10) What policy implications flow from the answers to the questions above.

Other research results in Program I

Research results belonging to research projects prior to FY2016

### On Monetary and Fiscal Policy under Structural Changes and Societal Aging

Project Leader: FUJIWARA Ippei, FF

Project Period: May 27, 2014 - March 31, 2016

### **Discussion Paper**

 Fiscal Forward Guidance: A case for selective transparency (FUJIWARA Ippei and WAKI Yuichiro) DP 17-E-087

### Theoretical and Empirical Analyses on Incidences of Corporate Income Taxation

Project Leader: DOI Takero, FF

Project Period: June 2, 2014 – August 31, 2016

### **Discussion Paper**

 Corporate Tax Reform and Tax Incidence in Japan (DOI Takero) DP 17-J-051

### Toward a Comprehensive Resolution of the Social Security Problem: A new economics of aging

Project Leader:

ICHIMURA Hidehiko FF

Sub-Leader: SHIMIZUTANI Satoshi CF

Project Period: May 1, 2015 - March 31, 2017

### **Discussion Paper**

 Quantifying Health Shocks over the Life Cycle (FUKAI Taiyo, ICHIMURA Hidehiko and KANAZAWA Kyogo) DP 18-E-014

### International Financial System and the World Economy: Medium and longterm issues

Project Leader: UEDA Kenichi, FF Project Period: July 6, 2015 – March 31, 2017

### **Discussion Paper**

 Industrial Revolutions and Global Imbalances (Alexander MONGE-NARANJO and UEDA Kenichi) DP 17-E-067



Program

# International Trade and Investment

Program Director TOMIURA Eiichi



When considering Japan's economic policies in the midst of globalization, an understanding of international trade and foreign direct investment is even more important now than in the past. This program, focusing on the globalization of firm activities (i.e., exports and overseas production), will study the international trading networks of firms from theoretical and empirical perspectives, while also studying trade policies and international trade and investment rules from empirical and legal perspectives.

### • Introduction of Research Projects •

### II - 1

### Empirical Analysis of Corporate Global Activities in the Digital Economy

Project Leader: TOMIURA Eiichi, FF

Project Period: May 22, 2017 - April 30, 2019

### Overview

This project empirically analyzes corporate globalization activities in the era of digitization. The primary target is the data gathering by a survey on Japanese firms for understanding the current state of cross-border data transfers. Based on firm-level data, we also analyze various globalization activities, such as exporting, foreign direct investment, offshore outsourcing, intra-firm trade, and trade intermediation.

### II - 2

### Studies on Firm Management and Internationalization under the Growing Fluidity of the Japanese Economy

Project Leader: ZHANG Hongyong, F

Project Period: June 20, 2016 - May 31, 2018

### Overview

This project empirically studies four subjects: (i) the construction of panel data based on firm survey and analysis of the relationship between uncertainty and firm

management, (ii) the effect of uncertainty on the investment and domestic employment of Japanese firms, (iii) the patterns of Japanese firms' participation in global value chains and the effects of overseas uncertainty, and (iv) the costs of regulatory barriers in the services sector and their effects on the internationalization of Japanese firms. The results are expected to provide evidence useful for the formation of economic and industrial policy in Japan.

### **Major Research Results**

### **Discussion** Paper

 Uncertainty, Imperfect Information, and Learning in the International Market (CHEN Cheng, SENGA Tatsuro, SUN Chang and ZHANG Hongyong) DP 18-E-010



### Seminar

"Re-examining the Impact of the China Trade Shock on the US Labor Market: A value-chain perspective" (September 5, 2017) See p.75

### II - 3

### Research on Global Inter-firm Networks and Related Policies

Project Leader:

### TODO Yasuyuki, FF

Project Period: July 10, 2017 - June 30, 2019

### Overview

This project aims to examine how global inter-firm networks, particularly networks of production, shareholding, and research collaboration, affect economic growth and resilience and what policies related to such networks can positively affect the economy, using large-scale, firm-level data for firms around the world. To utilize large-scale data and provide more useful policy implications, collaborative efforts on this project are made by economists, network scientists, simulation scientists, and policymakers.

### **Major Research Results**

### WINPEC-RIETI Workshop

"2018 International Workshop on the World and Asian Economy – The 5th Tokyo Network Workshop –" (March 2, 2018) See p.79

### II - 4

### A Study of the Effects of Trade Policy: A microdata analysis of Japan from the 1990s to 2010s

### Project Leader: URATA Shujiro, FF

Project Period: July 10, 2017 – June 30, 2019

### Overview

The objective of this research project is to investigate the impacts of trade liberalization on economic activities/ performance in Japan and to provide the Japanese government with useful information for formulating trade policy. Recently, the importance of evidence-based policy recommendation has been emphasized, but to our surprise, the economic impacts of trade liberalization have not been analyzed by applying scientific approaches in the case of Japan. In light of these observations, we undertake this project in which the impacts of a reduction in tariff rates in the 1990s and those of the introduction of free trade agreements/economic partnership agreements in the 2000s will be analyzed. Specifically, we are interested in discerning the impacts on trade, consumption, production, and employment.

### II - 5

### Analyses of Offshoring

Project Leader: ISHIKAWA Jota, FF

Project Period: November 1, 2017 – October 31, 2019

### Overview

Offshoring (foreign direct investment and foreign outsourcing) has played a crucial role in recent globalization. Offshoring affects both domestic and foreign production, employment, research and development (R&D), etc. Thus, it is useful for policymaking to investigate both the determinants and effects of offshoring. The objective of this research project is to explore offshoring to deepen the understanding of globalization and trade and industrial policies and obtain useful policy implications for the Japanese economy.

### II - 6

### Comprehensive Research on the Current International Trade / Investment System (pt. III)

Project Leader: **KAWASE Tsuyoshi, FF** Project Period: October 1, 2015 – September 30, 2017

### Overview

The main subject of this research project for this period is the international economic law on competitive neutrality. While the Trans-Pacific Partnership (TPP) has just concluded and the Transatlantic Trade and Investment Partnership (TTIP) negotiations are still in the middle of drafting rules on state-owned enterprises (SOEs), the current legal frameworks on trade, investment, and competition are continued to be challenged by state capitalism. In the preceding period to this project, a broader range of notable developments on competitive distortion caused by government intervention were observed, including China's "One Belt, One Road," the centerpiece of which are the Asian Infrastructure Investment Bank (AIIB) and the BRICS Development Bank, a series of World Trade Organization (WTO) cases on subsidies contributed by SOEs, debates on application of anti-dumping/countervailing duties against China as a non-market economy after the upcoming expiration of the special rule in China's protocol of WTO accession, and, in

Japan, Japan Fair Trade Commission (JFTC) analysis on governmental support for corporate revitalization and consequent competition distortion, in particular, the Japan Airlines (JAL) case. Also, analysis and evaluation of the TPP SOE chapter is one of the issues left unexplored. Under the circumstances, this project discusses the possibilities of application of the relevant rules in force and elaboration of new rules to ensure neutrality of government intervention to international trade and investment.

This project also continues the coverage of studies on WTO case law from the preceding period.

#### **Major Research Results**

#### **Discussion Papers**

- Vietnamese State-owned Enterprises under International Economic Integration (FUJITA Mai) DP 17-E-121
- Subsidies to Public Firms and Competition Modes under a Mixed Duopoly (HIGASHIDA Keisaku) DP 18-E-001
- Natural Resources Giant Kazakhstan: What kind of international economic regulation framework is applicable to its SOEs? (Alisher UMIRDINOV) DP 17-J-029
- Antidumping Duties on Chinese Products: Effects of expiration of Article 15.a.ii of China's WTO Accession Protocol and countermeasures (UMEJIMA Osamu) DP 17-J-41
- Malaysia's GLC Transformation Programme in the Context of the Bumiputera Policy (KUMAGAI Satoru) DP 17-J-055
- Overcapacity Problem and Subsidies in China's Steel Industry: A test on the existence of soft budget constraint (WATANABE Mariko) DP 17-J-058
- Export Promotion through SOEs and Countervailing Duties (YOMOGIDA Morihiro) DP 17-J-059
- Legal Issues Arising from the Feed-in Tariff of Renewable Energy: Controversial issues in investorstate dispute settlement (TAMADA Dai) DP 17-J-060
- Decline and Restructuring of a State-owned Enterprise Group in the Vietnamese Iron and Steel Industry (KAWABATA Nozomu) DP 17-J-066
- Regulation of State-owned Enterprises through Trade Agreements: Evolving concept of commercial consideration (SEKINE Takemasa) DP 17-J-069
- Goals and Roles of the EU State Aid Regulation (AOYAGI Yuka) DP 17-J-070
- A Single Economic Entity of Chinese SOEs: EDF/CGN/ NNB Group of Companies merger case (2016) (TAKEDA Kuninobu) DP 18-J-001

#### **Policy Discussion Papers**

- [WTO Case Review Series No.17] Peru—Additional Duty on Imports of Certain Agricultural Products (WT/ DS457): Certain implications on the variable tariff system and the relationship between the WTO Agreement and Regional Trade Agreements (KAWASE Tsuyoshi) PDP 17-P-016
- [WTO Case Review Series No.18] India—Certain Measures Relating to Solar Cells and Solar Modules (WT/DS456): Developing interpretation regarding government procurement, Articles XX(d) and XX(j) of the GATT (SEKINE Takemasa) PDP 17-P-018
- [WTO Case Review Series No.19] United States— Measures Affecting the Importation of Animals, Meat and Other Animal Products from Argentina (WT/DS447): A delay in the review procedures upon request for imports and the SPS Agreement (ISHIKAWA Yoshimichi) PDP 17-P-023
- [WTO Case Review Series No.20] United States— Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products (DS381/RW): The notion of "calibration" and legitimate regulatory distinctions under Article 2.1 of the TBT Agreement (NAIKI Yoshiko) PDP 17-P-024
- [WTO Case Review Series No.21] United States— Certain Country of Origin Labelling Requirements (DS384/RW, 386/RW): Clarifying Article 2.2 of the TBT Agreement (NAIKI Yoshiko) PDP 17-P-025
- [WTO Case Review Series No.22] Argentina—Measures Relating to Trade in Goods and Services (DS453): Discrimination against countries not cooperating for tax transparency purposes and legal disciplines of the GATS (KAWASHIMA Fujio) PDP 17-P-028
- [WTO Case Review Series No.23] Colombia—Measures Relating to the Importation of Textiles, Apparel and Footwear (DS461): The legality of trade restrictions intended to prevent money laundering (ITO Kazuyori) PDP 17-P-030
- [WTO Case Review Series No.24] Russian Federation— Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union (DS475): Clarifying the regulatory framework of regionalization under Article 6 of the SPS Agreement (ISHIKAWA Yoshimichi) PDP 17-P-034

### II - 7

Comprehensive Research on the Current International Trade / Investment System (pt. IV)

### Project Leader: KAWASE Tsuyoshi, FF

Project Period: December 18, 2017-November 30, 2019

#### Overview

The main subject of this research project for this period is development of multilateral rules on digital trade. The Internet now is an indispensable means of trade in real goods and services, and in the age of the Industry 4.0, digital information including big data is subject to trade in the same manner as goods. Such transnational expansion of the digital economy compels urgent development of international rules that assure free and non-discriminatory digital trade. The rules on this subject have been developed mainly in the context of regional economic integration (FTAs, EPAs), however, lately we have recognized the necessity for rulemaking in multilateral forums, in particular, the WTO, for this purpose. Against this background, in this project, members will engage in basic research on digital trade rules, starting with studies on regulatory impediments to the free flow of data and comparative analysis of digital trade rules in FTAs/EPAs.

This project also continues the coverage of studies on the international economic law on competitive neutrality and WTO case law from the preceding period.

### Other research results in Program II

# Research results independent from any research project

### **Policy Discussion Paper**

 China's One Belt One Road Initiative is the New World Order Leading to Mutual Prosperity (ENOMOTO Shunichi) PDP 17-P-021

# Research results belonging to research projects prior to FY2016

### A Study of Free Trade Agreements

Project Leader: URATA Shujiro, FF

Project Period: July 6, 2015 - December 31, 2016

### **Discussion Papers**

 FTAs and the Pattern of Trade: The case of the Japan-Chile FTA (KUNO Arata, URATA Shujiro, and YOKOTA Kazuhiko) DP 17-E-091  The Impact of FTAs on Procurement Behavior of Japanese Firms' Overseas Affiliates (URATA Shujiro and KATO Atsuyuki) DP 17-E-113

### Firms' Domestic and International Networks

### Project Leader: TODO Yasuyuki, FF

Project Period: August 3, 2015 - January 31, 2017

#### **Discussion Paper**

 Does Inter-firm Collaboration Network Improve Quality of Innovation? International comparative analysis from worldwide patent data (IINO Takashi, INOUE Hiroyasu, SAITO Yukiko and TODO Yasuyuki) DP 17-J-034

### Empirical Analysis of Global Activities and Transaction Networks of Japanese Firms

Project Leader:

### TOMIURA Eiichi, FF

Project Period: May 18, 2015 - March 31, 2017

#### **Discussion Paper**

 Global Sourcing and Domestic Production Networks (FURUSAWA Taiji, INUI Tomohiko, ITO Keiko and Heiwai TANG) DP 18-E-004

### **Empirical Studies on the Chinese** Market and Trade Policy

Project Leader: WAKASUGI Ryuhei, FF

Project Period: May 18, 2015 - March 31, 2017

#### **Discussion Paper**

 Political Connections and Antidumping Investigations: Evidence from China (ZHANG Hongyong) DP 17-E-092

### **Analyses of Trade Costs**

Project Leader: ISHIKAWA Jota, FF

Project Period: July 27, 2015 - March 31, 2017

#### **Discussion Paper**

 Relationship Specificity, Market Thickness, and International Trade (ARA Tomohiro and FURUSAWA Taiji) DP 17-E-105

# **Regional Economies**

Program Director HAMAGUCHI Nobuaki



This program will study the effect of international trade, movement of capital and labor, and changes in technology on urban and rural areas and industries, while viewing the regions of Japan in the context of the global economy and using this to develop proposals, etc. on such important policy issues as the aging population and regional revitalization. Specifically, we will consider policies to promote the features of export industries in regional areas and regional economic circulation, strengthen functions of regional financial institutions, create social institutions that utilize cutting-edge information technology and transport infrastructure, and utilize and strengthen international production networks (value chains), as well as create statistical indicators that conform with the structure of economic spaces, form policymaking frameworks, etc.

### Introduction of Research Projects

### III - 1

### Stable Development of Regional Economies under a Declining Population

Project Leader:

### HAMAGUCHI Nobuaki, FF

Project Period: January 15, 2018 - December 31, 2019

### Overview

We analyze three main topics of the regional economies of Japan where the population is predicted to continue to decline for at least the next 100 years. These topics are the revision of regional spatial structure which has strengthened the Tokyo-monocentric concentration; enhancing the resilience of destabilized de-popularizing regions; and internationalization of regional firms. This project is an extension of and new developments based on the results obtained from our previous projects in RIETI's Regional Economies program. The topic of the revision of regional spatial structure is related to the study on the regional spatial structure compatible with the positive effects of skilled labor turnovers across regions on innovation outcomes. In relation to this topic, we study human capital development required especially in large cities for computerized working environments with the introduction of artificial intelligence. The resilience of regional economies focuses on the condition for the introduction of a business continuity plan (BCP) in small and medium-sized firms, with particular attention to the business relationship with regional financial institutions. The study on the internationalization of regional economies analyzes the

Kyushu region on topics such as networking through supply chains and retail sellers and business with Asian countries.

### III - 2

### Dynamics of Inter-organizational Network and Geography

Project Leader: SAITO Yukiko, SF Project Period: May 31, 2016 – April 30, 2018

### Overview

We examine the dynamics of inter-organizational networks, focusing on the "power of network" as a source of Japanese firms' competiveness, driven by strong connections between organizations. Inter-organizational networks are inter-firm transaction networks and networks related to knowledge spillover. While there exists geographical friction in the construction of these networks, these networks spread globally across country borders. In order to make use of the "power of network," it is necessary to construct efficient networks against other countries as well as strong inter-organizational networks domestically. We focus on the following themes to obtain policy implication for supporting network construction.

 How reducing geographical friction changes inter-firm transaction networks which relate to firms' performance and inter-organizational collaboration networks and citation networks accompanied by the effect on productivity of knowledge-creating activities.

#### Major Research Results

#### **Discussion Papers**

- The Dynamics of Inter-firm Networks and Firm Growth (FUJII Daisuke, SAITO Yukiko and SENGA Tatsuro) DP 17-E-110
- International Trade and Domestic Production Networks (FUJII Daisuke) DP 17-E-116
- Does Sales Factor Apportionment Benefit the Welfare of State? (MIYOSHI Yoshiyuki) DP 17-E-124

#### **Policy Discussion Paper**

 Structural Change in Firm Dynamics, Inter-firm Network, and Geography (OGURA Yoshiaki and SAITO Yukiko) PDP 18-P-004

#### Workshop

"Dynamics of Inter-firm Network and Macro Fluctuation" (February 26, 2018) See p.79



### III - 3

### An Empirical Framework for Studying Spatial Patterns and Causal Relationships of Economic Agglomeration

Project Leader: MORI Tomoya, FF

Project Period: June 27, 2016 - May 31, 2018

#### Overview

This project develops a unified empirical framework to study spatial patterns and causal relationships of economic agglomerations. Unlike the existing approaches, each individual agglomeration is identified on a map, and both the local spatial properties of individual agglomerations and the global spatial patterns of all agglomerations are studied simultaneously. From the spatial coordination among different industries and different types of research and development (R&D) activities, this framework enables us to identify economic regions, in each of which trade and research interactions are relatively more dense and self-contained. As an economic region generally extends well beyond the administrative regions, it can be considered as the basis of regional policy coordination toward sustainable regional development. The framework is applied to describe the evolution of regional industrial structure in Japan after 1980.

#### Major Research Results

#### **Discussion Paper**

 Spatial Scale of Agglomeration and Dispersion: Theoretical foundations and empirical implications (AKAMATSU Takashi, MORI Tomoya, OSAWA Minoru and TAKAYAMA Yuki) DP 17-E-125

### III - 4

### Economic Analysis of Property and Reform Proposal

Project Leader: SATO Motohiro, FF

Project Period: June 27, 2016 - May 31, 2018

#### Overview

Property tax is a major tax revenue for municipality governments in Japan. It follows the benefit principle in theory and is regarded as a case of good local tax in the literature on local public finance. The practice of local governments however deviates from the theory of good local tax. Property tax in Japan has the feature of capital tax as is levied on capital equipment such as machine. The capital tax feature works to discourage investment especially for small and medium enterprises with credit constraint. Moreover, there exists favorable tax treatments for small size housing and agricultural land which undermine efficient land usage. In principle, property tax exerts substantial effects on land and urban development. This research, by constructing theoretical models and conducting empirical analysis, addresses the economic consequences of property tax especially on land use and capital investments. We then consider reform of the property tax to enhance regional development as well as to secure local government revenue.

### III - 5

### An Empirical Study on Compact City: Evaluating place-based policies in Japan

Project Leader:

### KONDO Keisuke, F

Project Period: September 19, 2017 – August 31, 2019

### Overview

Japan faces a new phase of population decline, in addition to a declining birth rate and the rapid population aging. In such situation, the compact city policy is an important concept to achieve high economic growth with efficient fiscal administration including sustainable urban and regional policies. The Japanese government has undertaken policies to revitalize city center districts, and thus there is a growing necessity for policy evaluation. This project aims to contribute to effective policymaking by evaluating these compact city policies that have played a central role in Japan using micro data of household and firms.

### III - 6

### Regional Economic Structural Analysis and its Application to Regional Creation

### Project Leader:

### NAKAMURA Ryohei, FF

Project Period: July 1, 2015 - June 30, 2017

### Overview

We extend our original "Regional Economic Structural Analysis" which has been developed over the last decade, and seek to apply it to the national policy issue "Regional Creation."

In this project, the following seven topics are considered:

- (1) The role of regional wholesale in terms of enhancing export and regional employment
- (2) Investigating regional money leakages in large factories by using individual firm data
- (3) Applying endogenous expenditures in a regional inputoutput (IO) model and testing regional economic circulation
- (4) Developing an employment IO model and its application to small/medium sized cities
- (5) Analyzing the export effect related to interregional migration of creative classes
- (6) Regional portfolio analysis and finding a favorable industrial composition
- (7) Identifying regional basic industries and local multiplier analysis

### **Major Research Results**

#### **Discussion Papers**

- Wholesalers, Indirect Exports, Geography, and Economies of Scope: Evidence from firm transaction data in Japan (ITO Tadashi, NAKAMURA Ryohei and MORITA Manabu) DP 17-E-114
- Economic Impact Analysis of Regional Policy: An interregional input-output model considering interregional commuting and consuming regions (ISHIKAWA Yoshifumi and NAKAMURA Ryohei) DP 17-J-061

### <u>III - 7</u>

# Innovation Enhancing Regional Economic Structure and Evolution of Cities

Project Leader: NAKAMURA Ryohei, FF

Project Period: October 2, 2017 - September 30, 2019

### Overview

Based on previous research projects including "Advancement on Regional Economic Structural Analysis" which looked at wholesale productivity analysis, we continue with our current research. The topics addressed are as follows:

- (1) Employment multiplier analysis of the innovative industry and occupation by extension of the economic base model
- (2) New economic geography (NEG) simulation regarding regional income disparities and population distribution incorporating heterogeneity of labor in the basic industry
- (3) Identification of exportable service industry and finding industrial structure generating innovation as a city
- (4) Generalization of a regional input-output (IO) model incorporating income flow between regions and regional tax effect focusing on regional economic circulation
- (5) Analyses on the distribution change of population/ establishments movement and the change of city productivity in the framework of a "proper location inducing plan"
- (6) Simulation of self-organization and urban revolution in the framework of economic base theory
- (7) Matching between manufacturing agglomeration and local trading company as wholesaler, and productivity analysis and economies of scope
- (8) Verification of the innovation possibilities generating from human diversity and networks

### <mark>III - 8</mark>

### Spatial Economic Analysis on Trade and Labor Market Interactions in the System of Cities

Project Leader: TABUCHI Takatoshi, FF

Project Period: July 1, 2015 - June 30, 2017

### Overview

Urban economics is closely interacted with international trade and labor market. We analyze the factors of sustainable growth of cities in the progress of globalization and the service economy with an aging society. We also investigate the factors of changing intercity economic differentials and social welfare based on the spatial economic approach. Combined with economic geography, trade theory, transport economics, labor economics, and development economics, and developing new research areas, we aim to derive useful economic policy implications.

### Major Research Results

#### **Discussion Papers**

- Demographics, Immigration, and Market Size (FUKUMURA Koichi, NAGAMACHI Kohei, SATO Yasuhiro and YAMAMOTO Kazuhiro) DP 17-E-103
- Corporate Tax Competition in the Presence of Unemployment (MORITA Tadashi, OGAWA Yoshitomo and ONO Yoshiyasu) DP 17-E-118

#### Tokyo Workshop on Spatial Economics 2017

"Recent Developments in Spatial Economics" (June 6, 2017) See p.73

### **RIETI International Seminar**

"Urban Spatial Structure on Residential and Commercial Buildings" (June 7, 2017) See p.73

### III - 9

### Spatial Economic Analysis on Intracity Economic Activities and Interregional Economic Activities

Project Leader: TABUCHI Takatoshi, FF

Project Period: October 2, 2017 - September 30, 2019

### Overview

Urban and regional economies are closely related to international trade and labor markets. We analyze the factors

of sustainable growth of cities and regions in the progress of globalization and the service economy with an aging society. We also investigate how different income classes and races are spatially distributed based on the spatial economic approach and analyze the factors of intercity and intracity economic differentials. Combined with economic geography, trade theory, transport economics, labor economics, and development economics, and developing new research areas, we aim to derive useful economic policy implications from welfare economic and social points of view.

#### Major Research Results

#### **Discussion Paper**

• Where Do the Rich Live in a Big City? (TABUCHI Takatoshi) DP 18-E-020

### III - 10

The Role of Regional Financial Institutions toward Regional Revitalization: How do regional financial institutions contribute to improving the quality of employment in the local economy?

Project Leader:

YAMORI Nobuyoshi, FF

Project Period: July 6, 2015 - June 30, 2017

### Overview

We aim to study the way in which regional financial institutions contribute to the improvement of employment and income in the local economy. Specifically, we will conduct a survey of those who work to revitalize the regional economy (e.g., bank staff) in order to investigate how cooperation functions among financial institutions, local governments, various commerce organizations such as the Chamber of Commerce, and academic organizations such as universities, as such cooperation is crucial in revitalizing the regional economy. Also, we will investigate the effect of the action of the regional financial institutions on the local economy, evaluate the efforts of government policies that aim to enhance the function of the regional finance, such as the enlargement of the credit guarantee system and the injection of public funds, and analyze the corporate governance of regional financial institutions as well as the reorganization of regional financial institutions.

### **Major Research Results**

#### **Discussion Papers**

 The Number of Bank Relationships and Bank Lending to New Firms: Evidence from firm-level data in Japan (OGANE Yuta) DP 17-E-112

- How Do Branch Managers of Regional Financial Institutions Deal with Regional Revitalization: Results of the 2017 RIETI branch manager questionnaire (YAMORI Nobuyoshi, AIZAWA Tomoko, UMINO Shingo, OGAWA Hikaru, OZAKI Yasufumi, KONDO Kazumine, TAKAKU Kenya, TOMIMURA Kei, HARIMAYA Kozo and YANAGIHARA Mitsuyoshi) DP 17-J-044
- Do Branch Network Sizes of Regional Banks Influence Their Management Performances Positively? (KONDO Kazumine) DP 17-J-045
- Capital Injection and Japanese Regional Bank Lending (NAGATA Kunikazu) DP 17-J-046
- The Impact of the Competitive Environment of Regional Financial Institutions on the Opening and Closing of Business Establishments (HARIMAYA Kozo and OZAKI Yasufumi) DP 17-J-047
- Investment Behavior of Japanese Small and Mediumsized Enterprises and its Structural Change: The influences of the guarantee system and macroeconomics conditions after the financial crisis (KOZUKA Masafumi) DP 17-J-054
- The Impact of Educational Programs for Managers by Community Banks: The case of a program by Kanazawa Shinkin Bank (KITANO Yuji) DP 17-J-056
- Risk-taking Behavior in Cooperative Financial Institutions and Financial Stability in Japan: Lessons from the Global Financial Crisis (OHKUMA Masanori) DP 17-J-064

### Publication

YAMORI Nobuyoshi, Role of Local Financial Institutions for Regional Revitalization, Chuokeizai-sha, Inc., March 2018

### III - 11

### The Role of Regional Financial Institutions as the Core of the Local Economy and Regional Cooperation

### Project Leader: YAMORI Nobuyoshi, FF

Project Period: January 15, 2018 - December 31, 2019

### Overview

In order to revitalize regional economies, it is essential to improve the competitiveness of small and medium-sized enterprises (SMEs) in regional areas, and regional financial institutions are required to support them in cooperation with other various entities. Therefore, in this project, we will focus not only on the activities of the financial institutions alone, but also the efforts that regional financial institutions make to collaborate with various regional entities (local governments, commerce and industry bodies such as chambers of commerce and industry; expert groups such as tax accountants of SMEs). We position regional financial institutions as the core of cooperation between these entities and analyze the current state and issues of the cooperation. Specifically, we mainly analyze efforts to raise risk management capabilities of SMEs to prepare for natural disasters, which are of great interest from the perspective of the policy, and mergers of regional financial institutions.

### Other research results in Program III

Research results belonging to research projects prior to FY2016

# Regional Economies in the New Era of Globalization and Informatization

Project Leader:

### HAMAGUCHI Nobuaki, FF

Project Period: August 4, 2015 - March 31, 2017

#### **Discussion Papers**

- Overseas Production Expansion and Domestic Transaction Networks (HAYAKAWA Kazunobu and MATSUURA Toshiyuki) DP 17-E-085
- The Pollution Outsourcing Hypothesis: An empirical test for Japan (Matthew A. COLE, Robert R.J. ELLIOTT, OKUBO Toshihiro and Liyun ZHANG) DP 17-E-096
- Does Foreign Ownership Explain Company Export and Innovation Decisions? Evidence from Japan (OKUBO Toshihiro, Alexander F. WAGNER and YAMADA Kazuo) DP 17-E-099

### **Policy Discussion Paper**

 Spatial Economic Analysis of Natural Disaster Restoration (FUJITA Masahisa, HAMAGUCHI Nobuaki and KAMEYAMA Yoshihiro) PDP 17-P-014

#### Hokuriku AJEC-RIETI- IDE-JETRO- Fukui Prefectural University Joint Symposium

"Revitalization of the Hokuriku Region, Internationalization, and Innovation: How to incorporate global growth into the local economy" (November 30, 2017) See p.3 / p.69



### Publications

MARUYA Toyojiro, HAMAGUCHI Nobuaki, KUMAGAI Satoru, and SHIRAMATA Shuji, *Revitalization of the Hokuriku Region, Internationalization, and Innovation*, Nippon Hyoronsha Co., Ltd., September 2017

FUJITA Masahisa, HAMAGUCHI Nobuaki, and KAMEYAMA Yoshihiro, *Spatial Economics in the Age of Declining Population*, Nikkei Publishing Inc., February 2018

# Innovation

Program Director NAGAOKA Sadao



The creation of new knowledge and its exploitation to resolve problems which we face is the main source of innovation. This program will develop original data to understand the innovation processes, and will conduct research from an international perspective, so as to contribute to evidence-based policy formation. Specifically, the program will analyze the innovation capabilities of industries, the economic impact of artificial intelligence, intellectual property systems, open innovation, knowledge transfer and the mobility of human resources across organizations, university-industry cooperation, technical standards, and business and industrial organizations that promote innovation.

### Introduction of Research Projects

### IV - 1

### Study on Industrial Innovation Capability and Innovation Infrastructure

Project Leader:

### NAGAOKA Sadao, FF

Project Period: July 28, 2015 – June 30, 2017

### Overview

The creation of new knowledge and exploiting such knowledge for solving social and economic problems is the cornerstone of innovations. This project studies industrial innovation capability and the institutional infrastructure for innovation from this perspective. One key element of industrial innovation is a combination of knowledge and capability across borders and organizations. This project examines such capability of Japanese firms from an international comparative perspective with U.S. and European firms. The studies for institutional infrastructure will include those on the disclosure function of the patent system, the measurement of patent premiums in the United States and Japan, a broad-based analysis of university industry collaboration (including that for developing industrial absorptive capability for science), and technology-based startups. The project also has a pilot component on the use of artificial intelligence (AI) for innovation research.

Major Research Results

**Discussion Papers** 

- To Support R&D or Linkages? Seeking a better policy mix for SME support (SUZUKI Jun) DP 17-E-098
- How does Graduate Education Affect Inventive Performance? Evidence from undergraduates' choices during recessions (ONISHI Koichiro and NAGAOKA Sadao) DP 18-E-016

### IV - 2

### Frontiers of Innovation Policy: Evidence from micro data

Project Leader: NAGAOKA Sadao, FF

Project Period: October 10, 2017 - September 30, 2019

### Overview

The creation of new scientific and technological knowledge and exploiting such knowledge for solving social and economic problems is the cornerstone of innovations. Strengthening the capability to realize such innovations continuously is a necessary condition for enhancing economic growth. Exploiting new and expanding technological opportunities brought about by artificial intelligence (AI), Internet of Things (IoT), and big data, the absorption of scientific progress as well as exploitation of global knowledge for original discoveries and innovations have become very important in this regard. It also will be important to assess innovation policy from this perspective. This research will assess the innovation capability of the Japanese industry from this perspective based on original micro data and deepen the analysis hitherto made by the research members in order to examine the frontier issues and agenda for innovation policy.

### IV - 3

# Mobility of Knowledge and Innovation Performance

### Project Leader: YAMAUCHI Isamu, RAs

Project Period: July 27, 2015 - May 31, 2017

### Overview

This project examines the effects of exploitation of outside knowledge on the firm's innovation performance. Especially, our focus is on the effects of (i) mobility and diversity of inventors, (ii) collaboration with other organizations and the firm's openness of technological knowledge, and (iii) knowledge exchange through overseas expansion to the Association of Southeast Asian Nations (ASEAN) countries. We also examine the effect of (iv) the Chinese patent system and the preferential treatment system for the high-tech enterprise on the efficiency of the catching-up process of those firms. These analyses will provide some important implications for Japanese innovation policy.

### Major Research Results

**Discussion Paper** 

 Innovation Responses of Japanese Firms to Chinese Import Competition (YAMASHITA Nobuaki and YAMAUCHI Isamu) DP 17-E-126

### IV - 4

Comparative Studies of the Social Impacts of Artificial Intelligence (AI): From the perspectives of economics, sociology, and natural science/ engineering

### Project Leader:

### CHUMA Hiroyuki, FF

Project Period: July 28, 2015 - September 30, 2017

### Overview

The main purpose of this project is to study the social impacts of artificial intelligence (AI) that has been developing at an alarmingly accelerated speed beyond the last century from the perspectives of economics, sociology, and natural science/engineering. From this study, we aim to find the important clues which could help revitalize Japanese science-based industries represented by the semiconductor, pharmaceutical, and software industries as the advent of highly advanced AI technologies is predicted to cause the competitiveness of these industries to decline progressively in the same pattern as observed in the age of information and communications technology (ICT).

### Major Research Results

### **Discussion Papers**

- Background Analysis on the Anxiety toward New Technology: Comparison between Japan and the United States (TODA Akihito, CHUMA Hiroyuki, HAYASHI Susumu and KUME Koichi) DP 17-J-049
- Self-Evolvability and Attitude toward Technological Changes: An empirical analysis using a survey (KUME Koichi, CHUMA Hiroyuki, HAYASHI Susumu and TODA Akihito) DP 17-J-053
- Role of Managers in the Fourth Industrial Revolution: From the viewpoint of comparing Japan and the United States (TODA Akihito, CHUMA Hiroyuki, HAYASHI Susumu and KUME Koichi) DP 17-J-062

### **Policy Discussion Papers**

- Human Capital Theory Reconsidered as Social Network in the Age of Al/IoT (CHUMA Hiroyuki) PDP 17-P-015
- Human Capital/Human Intelligence and Neuromorphic Artificial Intelligence: In pursuit of the relevant intelligence concept (CHUMA Hiroyuki, IMAI Masaharu and KUROKAWA Toshiaki) PDP 17-P-031
- AI and the Future Society: Impact on labor and globalization (HAYASHI Susumu) PDP 17-P-033

### IV - 5

### Productivity Revolution through IoT

Project Leader:

### IWAMOTO Koichi, SF

Project Period: February 29, 2016 - March 31, 2018

### Overview

There are two major fields that have hardly been studied

despite the fact that information from these fields is required to satisfy social needs. One is the improvement of basic information data. Authorities involved in policymaking, research institutes, and private companies are improving the basic information data from which they will quote for years to come as the basis of how they design their business in the Internet of Things (IoT)/ Industrie 4.0/artificial intelligence (AI)/big data/ information technology (IT). The other is the spread of the IoT to regional areas and small- and medium-sized enterprises (SMEs). Although large companies supposedly will introduce an IoT system independently, it is highly likely that regional areas and SMEs will be left behind the trend. We will conduct research and analysis on how we can support spreading the IoT systems to regional areas and SMEs.

### Major Research Results

#### **Policy Discussion Papers**

- Development of SME Competitiveness Using IoT in the Fourth Industrial Revolution (IWAMOTO Koichi and HATANO Aya) PDP 17-P-020
- Digitalization, Computerization, Networking, Automation, Future of Jobs, and Social Policy in Japan's Fourth Industrial Revolution (IWAMOTO Koichi and HATANO Aya) PDP 17-P-029



 Why Did Germany's Hidden Champions Succeed in Globalization? (IWAMOTO Koichi) PDP 17-P-032

#### Publication

IWAMOTO Koichi and INOUE Yusuke, *SME's Attempts to Go IoT*, Nikkan Kogyo Shimbun, September 2017

### IV - 6

### Empirical Study on the Management and Utilization of Data Generated from Industry

Project Leader:

### WATANABE Toshiya, FF

Project Period: August 1, 2016 - September 30, 2018

#### Overview

In this study, we carry out a qualitative and quantitative evaluation of the data held by Japanese firms, and create a panoramic figure (business ecosystem) showing the ownership structure of the data in each industrial field. Moreover, we consider what kinds of contract conditions are appropriate to share the data. By analyzing the created panoramic figure, this study can be expected to provide a discussion about how Japanese firms should use the data and how industry should be evolved. Specifically, we try to figure out the following:

- 1) In what kinds of technological and industrial fields do Japanese firms hold data? What kinds of data and how much of them do Japanese firms possess?
- 2) How do Japanese firms manage the data?
- 3) To what extent do Japanese firms give other firms permission to use the data via contracts?
- 4) What kinds of terms are contained in the contracts?
- 5) Do Japanese firms have a strategy for the usage of the data? What kind of strategy do they have?
- 6) What kind of information should be collected as data using IoT, etc. going forward?

At the same time, discussion sessions on contracts dealing with data access rights will be organized by inviting intellectual property (IP) professionals with a focus on the Antimonopoly Act. The kinds of contract conditions that are reasonable and fair both for data providers and data users will be discussed in order to supply a fundamental framework for data contracts which are expected to be organized in the near future.

### IV - 7

### Empirical Analysis of Innovation Ecosystems in Advancement of the Internet of Things (IoT)

### Project Leader: MOTOHASHI Kazuyuki, FF

Project Period: May 1, 2017 - March 31, 2019

### Overview

Digitalization of businesses and advancement of the Internet of Things (IoT) in the global economy have transformed the current industrial structure and competitive environment of traditional industries. As a response to such trend, Japanese firms must shift their strategic focus from "product-based innovation" to "solution provision" to customers. In addition, such strategic shift requires firms to take ecosystem-based actions, instead of an in-house development model. In this research project, we will conduct conceptualization of innovation in the digital economy to measure its advancement, database development, and empirical studies of innovation ecosystems in order to provide scientific evidence in innovation policy discussions.

### Major Research Results

### **Discussion** Paper

 Inventor Name Disambiguation with Gradient Boosting Decision Tree and Inventor Mobility in China (1985-2016) (YIN Deyun and MOTOHASHI Kazuyuki) DP 18-E-018

### IV - 8

### Creation and Development of Hightech Startups

Project Leader: HONJO Yuji, FF Project Period: October 10, 2017 – September 30, 2019

### Overview

The startup ecosystem incorporating linkages with external organizations is important to foster new technology-based firms as business uncertainty increases over time. In this research project, we survey high-tech startups and venture capital, and address issues for the startup ecosystem in Japan. In particular, we focus on high-tech startups' linkages with external organizations and examine the performance of spinoffs and corporate venture capital, while taking into account the role of existing organizations in industries. This study provides a better understanding of the startup ecosystem in the Japanese economy and elucidate how effectively high-tech startups conduct innovation through the linkages and networking with external organizations.

### Other research results in Program IV

# Research results independent from any research project

### Policy Discussion Paper

 Analysis of a Typical Japanese Offshore Wind Farm Project: Reviewing the Kitakyushu Hibikinada offshore wind farm industrial accumulation project (IWAMOTO Koichi) PDP 17-P-026

# Research results belonging to research projects prior to FY2016

### Empirical Studies on "Japanese-style" Open Innovation

Project Leader: MOTOHASHI Kazuyuki, FF

Project Period: April 1, 2015 - March 31, 2017

### Policy Discussion Paper

 Survey of Big Data Use and Innovation in Japanese Manufacturing Firms (MOTOHASHI Kazuyuki) PDP 17-P-027

# **Industry Frontiers**

Program Director OHASHI Hiroshi



Through innovation in the key technological areas of sophistication of data processing and evolution of telecommunication networks, signs of changes in the industrial structure have begun to be seen in Japan as well as in other leading nations. Via the Internet of Things (IoT) using sensor technology, large quantities of unstructured data have now become accessible, and artificial intelligence (AI) technology is being gradually put into practical use. In Japan, new industrial frontiers are opening. As such, this program will venture on research as to how policies should be instituted to overcome the challenges facing the Japanese economy, taking cross-industry policies into perspective, in addition to conventional policies intended for individual industries.

### • Introduction of Research Projects •

### V - 1

### Policy Analyses on Industrial Organization

Project Leader: OHASHI Hiroshi, FF Project Period: January 15, 2018 – December 31, 2019

### Overview

Abenomics has been successful in the past years as evidenced by nominal gross domestic product (GDP) and corporate revenues reaching record high levels, and the unemployment rate also hitting its lowest level. In the meantime, capital investment of firms and consumption are stagnant. The purpose of this study is to examine the extent to which market structure matters in the weak corporate activities, and analyze the extent to which policy measures play roles in stimulating corporate activities.

### V-2

### Study on Markets and Policies in the Power System Reform

Project Leader: TANAKA Makoto, FF

Project Period: December 1, 2015 - November 30, 2017

### Overview

The reform process of the electric power system is ongoing in Japan. The retail market will be fully liberalized in 2016, and vertical unbundling of generation, transmission/ distribution, and retail sectors will be implemented in 2018-2020. There are still a number of issues in designing effective wholesale, retail, and balancing markets to ensure security and efficiency of the power system. This project aims to provide useful policy implications by conducting theoretical, empirical, and simulation analysis of the electricity markets primarily based on economics along with an engineering perspective.

### Major Research Results

### **Discussion Papers**

- Illiquidity in the Japan Electric Power Exchange (IKEDA Shin Suke) DP 17-E-122
- Negawatt Trading and Energy Efficiency in Adjustment Markets (KURAKAWA Yukihide and TANAKA Makoto) DP 18-J-003

### **Policy Discussion Papers**

- Markets for Balancing Power and Transmission Rights Operated by the European TSOs: Implications for the electric power system reform in Japan (HATTA Tatsuo and IKEDA Shin Suke) PDP 18-P-001
- Locational Transmission Tariffs in Sweden (KUMAGAI Reiko) PDP 18-P-002

### V-3

### Large-scale Simulation and Analysis of Economic Network for Macro Prudential Policy

Project Leader: AOYAMA Hideaki, FF

Project Period: June 30, 2016 - May 31, 2018

### Overview

This project aims to define and establish macro prudential policy though model construction and simulation on big economic data, especially the Credit Risk Database (CRD) financial data of small-to-medium enterprises and trade network data owned by RIETI.

Macroeconomic phenomenon are caused by interaction between multitudes of heterogeneous economic agents, which yields co-movements. Among them are business cycles and chain bankruptcy. Thus, establishment of macro prudential policy required for detection and dealing with economic crisis requires detection of these co-movements and modeling of their dynamics. On the other hand, a number of economic agents such as the firms included in the big economics data, with which Japan is fortunate to possess unlike any other country, exceed a million per year. This leads to unique results which no other country can produce. With this in mind, our project will co-operate with K computer of RIKEN AICS in order to utilize huge computational resources and carry out large calculations unheard of so far.

Through these, this research project will produce an evidence-based quantitative definition of macro prudential policy, through which we will establish monitoring of macro-economic situations, evaluation of policies based on it, and simulation of the economy under various external shocks, thereby yielding policy proposals.

### Major Research Results

### **Discussion Papers**

- Empirical Evidence for Collective Motion of Prices with Macroeconomic Indicators in Japan (KICHIKAWA Yuichi, IYETOMI Hiroshi, AOYAMA Hideaki and YOSHIKAWA Hiroshi) DP 18-E-007
- How Firms Choose their Partners in the Japanese Supplier-Customer Network? An application of the exponential random graph model (Hazem KRICHENE, ARATA Yoshiyuki, Abhijit CHAKRABORTY, FUJIWARA Yoshi and INOUE Hiroyasu) DP 18-E-011

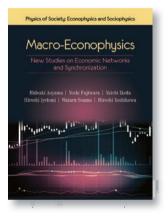
 Firm-level Simulation of Supply Chain Disruption Triggered by Actual and Predicted Earthquakes (INOUE Hiroyasu and TODO Yasuyuki) DP 18-E-013

### Policy Discussion Paper

 Structure of Leading and Lagging Relationships between Early Warning Indicator's Detection of Financial Crises (SOUMA Wataru, IYETOMI Hiroshi and YOSHIKAWA Hiroshi) PDP 18-P-005

#### Publication

AOYAMA Hideaki, FUJIWARA Yoshi, IKEDA Yuichi, IYETOMI Hiroshi, SOUMA Wataru, and YOSHIKAWA Hiroshi, *Macro-Econophysics: New Studies on Economic Networks and Synchronization*, Cambridge University Press, July 2017



### V-4

### Economic and Financial Analysis of Commodity Markets

Project Leader: OHASHI Kazuhiko, FF

Project Period: August 22, 2016 - March 31, 2018

### Overview

This project analyzes commodity markets through the knowledge and methodology of finance in order to support the valuation, risk management, and investment decision making on commodities. More specifically, it focuses on the analyses of (1) characteristics of commodity prices, (2) price relations between commodities and other assets, e.g., stocks and bonds, (3) effects of commodity prices on macro-economies, (4) determinants of electricity prices in the Japan Electric Power Exchange (JEPX), and (5) relations between electricity deregulation and corporate finance.

#### Major Research Results

#### **Discussion Papers**

- Asymmetric Reactions of the U.S. Natural Gas Market and Economic Activity (Bao H. NGUYEN and OKIMOTO Tatsuyoshi) DP 17-E-102
- Intraday Seasonality in Efficiency, Liquidity, Volatility, and Volume: Platinum and gold futures in Tokyo and New York (IWATSUBO Kentaro, Clinton WATKINS and XU Tao) DP 17-E-120
- Diversification Effect of Commodity Futures on Financial Markets (KANAMURA Takashi) DP 18-E-019
- Construction of JEPX Forward Pricing Model Based on the Spot Price Prediction Method (YAMADA Yuji) DP 17-J-072

#### AJRC and RIETI Workshop

"Economic and Financial Analysis of Commodity Markets" (September 14-15, 2017) See p.76



### V-5

# Heterogeneity across Agents and Economic Growth

Project Leader: YOSHIKAWA Hiroshi, FF

Project Period: July 3, 2017 - March 31, 2019

#### Overview

This project focuses on interactions between heterogeneity across economic agents and economic growth. Heterogeneity may stimulate economic activities and induce growth. Thus, it is reasonable to ask what type of heterogeneity would be important for higher growth. Inversely, higher (lower) economic growth would bring different impacts on heterogeneity (or inequality). We will figure out theoretically and empirically the relationship and causality between heterogeneity and economic growth. Understanding their interactions should be relevant information for economic or industrial policymaking.

### V-6

### Study Group on Corporate Finance and Firm Dynamics

Project Leader: UESUGI lichiro, FF

Project Period: July 14, 2017 - June 30, 2019

#### Overview

This project aims to set policy-oriented research agenda on corporate finance, banking, and firm dynamics and implement empirical studies on them. The policy-oriented research agenda includes the (1) role of the public sector in the loan market, (2) startups and exits of firms, (3) measurement of the cost and benefit of financial intermediaries in Japan, (4) role of real estate in the financial market, and (5) role of interfirm networks and the propagation of financial shocks.

### Major Research Results

#### Workshop

"Hitotsubashi-RIETI International Workshop on Real Estate and the Macro Economy" (December 14-15, 2017) See p.77



### V-7

### Development of New Indicators for Service Sector Analysis and EBPM

Project Leader: KONISHI Yoko, SF

Project Period: December 19, 2017 - November 30, 2019

### Overview

Through the spread of utilization of big data, artificial intelligence (AI), and Internet of Things (IoT) technology in recent years, due to the provision of data and technology, it is becoming possible to analyze industries and evidence-based policy making (EBPM) which was difficult hitherto. The purpose of this project is to develop new economic indicators that complement government statistics for the service industry where the proportion of the gross domestic product (GDP) and labor market has increased and statistical data is strongly required in order to grasp the actual state of the economy. Specifically, we aim to propose highly useful data points such as sales trends, competitiveness, business confidence, and productivity, and implement empirical analysis using them. Among the service industries, we attempt policy evaluation and proposals using EBPM methods with big data on infrastructure closely related to daily life such as logistics, communication, and finance.

### V-8

### Globalization, Innovation, and Competition Policy

Project Leader: KAWAHAMA Noboru, FF

Project Period: January 15, 2018 - December 31, 2019

### Overview

The globalization of the economy has entered a new phase and the importance of innovation and competition policies as drivers of economic growth has been increasingly recognized on an international level. Against this background, today, competition laws are actively enforced not only in the United States and the European Union but also in other jurisdictions all over the world. In Japan, too, pursuing an active competition policy and promoting the innovation thereof are vital to the economy. Therefore, it is important to ask what policy issues might arise in this process and what solutions are available. These questions should be resolved by taking into account the real state of the Japanese economy and the necessity of an internationally harmonized approach to competition policy. The goal of the research project is to present the direction that competition policy should take when globalization and innovation are unprecedentedly emphasized. This interdisciplinary project employs insights from economics and legal studies, as well as lessons obtained through practicing law and policy.

### V-9

### Productivity Gaps and Industrial Competitiveness

Project Leader: NOMURA Koji, FF

Project Period: January 15, 2018 - December 31, 2019

### Overview

Policies to enhance productivity in the Japanese economy, where expansion of the productivity gap is noted, are required in the second stage of Abenomics. This project analyzes the industrial origins and the structural factors in Japan's productivity gap. In particular, the project focuses mainly on the source of inferiority in the wholesale and retail industry, the role of labor quality and industry allocation for reducing the labor productivity gap in the service industry, and the relationship between energy productivity and overall efficiency.

### V-10

### Japan's History of Thought on Agricultural Policy and Structural Reform of Agriculture

Project Leader: YAMASHITA Kazuhito, SF Project Period: February 13, 2018 – January 31, 2020

### Overview

For Japanese agriculture to survive, we must explore foreign markets by enhancing its price competitiveness as the domestic market shrinks due to an aging and decreasing population. In terms of policies, we have to take measures to achieve a structural reform of agriculture in order to increase its productivity and shift from price support to direct payments which have been introduced in the United States and the European Union. From the Meiji era and on, the majority of the agricultural society has strongly supported the idea of protecting small-scale farmers with price support. Kunio Yanagida, Tanzan Ishibashi, and others, however, actively and positively advocated the necessity of a structural reform of agriculture. I introduce their forgotten ideas in order to contribute to the formation of a structural reform policy of agriculture.

## V-11

### **Economics of Artificial Intelligence**

Project Leader:

### MANAGI Shunsuke, FF

Project Period: January 18, 2016 – December 31, 2017

### Overview

This project studies the economics of artificial intelligence in considering future business demand. Currently, industrialization of new technologies is often related to automation using artificial intelligence in the United States and Germany. The expected changes in industrial composition are large, and therefore we intend to quantify these aspects for our study.

### Major Research Results

### **Discussion Papers**

- Trends and Priority Shifts in Artificial Intelligence Technology Invention: A global patent analysis (FUJII Hidemichi and MANAGI Shunsuke) DP 17-E-066
- White Collar Exemption: Panacea for long work hours and low earnings? (HASEBE Takuya, KONISHI Yoshifumi, SHIN Kong Joo and MANAGI Shunsuke) DP 18-E-002
- Losses on Asset Returns Caused by Perception Gaps of Fundamental Values: Evidence from laboratory experiments (HIGASHIDA Keisaku, TANAKA Kenta and MANAGI Shunsuke) DP 18-E-008
- Impacts of Working Time on Life Satisfaction: Empirical analysis using data from a large-scale survey in Japan (TSURUMI Tetsuya and MANAGI Shunsuke) DP 17-J-073
- The Effects of the Use of Information Technology on Markups in Japanese Manufacturing (MATSUKAWA Isamu) DP 18-J-002
- Autonomous Vehicles in Japan: Latent demand and social dilemma (MORITA Tamaki and MANAGI Shunsuke) DP 18-J-004
- Effects of Automated Driving on Vehicle Miles Traveled: An empirical analysis of Japanese household survey data (IWATA Kazuyuki and MANAGI Shunsuke) DP 18-J-005
- Relationship between Labor Regulations and Investment for Technology: Analysis of the effect of labor regulation change for investment of capital and information technology (TANAKA Kenta, KOMURA Mizuki and MANAGI Shunsuke) DP 18-J-006

### V-12

### Macro & Micro Economics of Artificial Intelligence

Project Leader: MANAGI Shunsuke, FF

Project Period: March 1, 2018 - February 29, 2020

### Overview

The race in the development of artificial intelligence (AI) has become even more competitive all around the world. AI has already started being implemented in real economic activity. Diffusion of AI has the potential to overcome several problems in our society. On the other hand, it also causes several new problems. When we consider the change expected in our society caused by AI diffusion, there is a need to identify the relationships between AI and many factors related to the current policy, law, and economic activity of each entity. The purpose of our research project proposes labor and other policies in considering the impact of AI in the medium and long run.

### Other research results in Program V

Research results belonging to research projects prior to FY2016

### Globalization, Innovation, and Competition Policy

Project Leader: KAWAHAMA Noboru, FF

Sub-Leader: OHASHI Hiroshi, FF

Project Period: July 1, 2015 - December 31, 2016

### Discussion Paper

 Defining the Relevant Market in the Digital Platform Industry (KAWAHAMA Noboru and TAKEDA Kuninobu) DP 17-J-032

### Sustainable Growth and Macroeconomic Policy

Project Leader: YOSHIKAWA Hiroshi, FF

Sub-Leader:

### UNAYAMA Takashi CF

Project Period: May 11, 2015 - March 31, 2017

### **Discussion Papers**

- A Compositional Data Analysis of Market Share Dynamics (ARATA Yoshiyuki and ONOZAKI Tamotsu) DP 17-E-076
- Wealth Distribution in the Endogenous Growth Model with Idiosyncratic Investment Risk (HIRAGUCHI Ryoji) DP 18-E-009
- Household Savings Rate in National Accounts and Household Surveys in Japan (UNAYAMA Takashi and OHNO Taro) DP 17-J-035
- Economic Growth and the Change of Industrial Structure (YOSHIKAWA Hiroshi and ANDO Koichi) DP 17-J-042

# Study on Corporate Finance and Firm Dynamics

Project Leader: UESUGI lichiro, FF

Project Period: May 11, 2015 - March 31, 2017

### **Discussion Papers**

- Foreign Institutional Ownership and Risk Taking (XU Peng) DP 17-E-061
- Bank-Firm Relationship and Small Business Innovation (XU Peng) DP 17-E-062
- Forecasting Firm Performance with Machine Learning: Evidence from Japanese firm-level data (MIYAKAWA Daisuke, MIYAUCHI Yuhei and Christian PEREZ) DP 17-E-068
- Market Thickness, Input-Output Linkages, and Agglomeration (MIYAUCHI Yuhei and MIYAKAWA Daisuke) DP 17-E-072
- When Japanese Banks Become Pure Creditors: Effects of declining shareholding by banks on bank lending and firms' risk taking (ONO Arito, SUZUKI Katsushi and UESUGI lichiro) DP 17-E-079

- Intangible Capital and the Choice of External Financing Sources (HOSONO Kaoru and TAKIZAWA Miho) DP 17-E-080
- Forgiveness Versus Financing: The determinants and impact of SME debt forbearance in Japan (ONO Arito and YASUDA Yukihiro) DP 17-E-086
- Listing and Financial Constraints (UEDA Kenichi, ISHIDE Akira and GOTO Yasuo) DP 17-E-090
- Empirical Analysis on the Earnings Quality of Japanese SMEs (KIM Hyonok and YASUDA Yukihiro) DP 17-J-031
- Does Impaired Loss Accounting Affect Firms' Investment? Evidence from Japan (UESUGI lichiro, NAKAJIMA Kentaro and HOSONO Kaoru) DP 17-J-033

### Agricultural Policy Reform Aimed at Competitive Agriculture in the Age of Globalization and Decreasing Population

Project Leader:

### YAMASHITA Kazuhito, SF

Project Period: August 11, 2015 - March 31, 2017

#### **Policy Discussion Paper**

 IT and AI Technology and New Agricultural Management (YAMASHITA Kazuhito) PDP 17-P-017

# Basic Research on New Industrial Policy

Project Leader:

### OHASHI Hiroshi, FF

Project Period: August 24, 2015 - March 31, 2017

#### **Discussion Papers**

- Assessing the Impact of Renewable Energy Sources: Simulation analysis of the Japanese electricity market (YOSHIHARA Keisuke and OHASHI Hiroshi) DP 17-E-063
- Penetration of Generic Drugs and Incentives: Effect of introducing pricing premiums for generic prescriptions (NISHIKAWA Kohei and OHASHI Hiroshi) DP 17-J-039

# Raising Industrial and Firm Productivity

Program Director FUKAO Kyoji



The aim of this program is to measure industry and firm-level productivity and its determinants for Japan and other East Asian countries and to conduct research on policies aimed at raising productivity. At the industry level, in addition to updating and expanding the Japan Industrial Productivity (JIP) and China Industrial Productivity (CIP) databases in collaboration with Hitotsubashi University, we will construct an industrial productivity database by prefecture for Japan and examine the total factor productivity (TFP) disparity between regions and the factors behind it, etc. At the firm or establishment level, employing micro-data from government statistics and corporate financial data in Japan and abroad, we will research the following: determinants of productivity gaps among firms; the impact of globalization and changes in demand affect corporate performance; policies for raising productivity dynamics. We will also measure investment in intangible assets such as research and development, software, in-house training, and organizational structure, all of which are important sources of innovation and productivity growth at both industry and firm levels, and examine the economic effects of such investments.

### • Introduction of Research Projects •

### VI - 1

### **East Asian Industrial Productivity**

Project Leader: FUKAO Kyoji, FF

Project Period: April 24, 2017 - March 31, 2019

### Overview

Given the demographic headwind of a declining population, raising Japan's potential growth rate requires faster total factor productivity (TFP) growth and a more efficient use of factors of production (capital, intangible assets, labor, and land). In addition, since the 1980s, Japan's economy has suffered from an almost constant lack of effective demand, and in order to create sufficient demand and eliminate the negative output gap, it is essential to increase investment by raising the return on capital, boost private consumption through an increase in real wages, and raise the international competitiveness of firms.

Against this background, the current project, in cooperation with Hitotsubashi University, has been working on updating and expanding the Japan Industrial Productivity (JIP) Database—a database covering the entire Japanese economy that provides data on factor inputs, factor prices, and TFP by detailed industry from 1955 until the most recent year, and which forms the basis for analyses of Japan's economic growth from the supply side. Based on these analyses, we make various proposals on how to raise Japan's potential growth rate and effective demand.

Moreover, utilizing microdata from government

statistics, we examine the causes of the decline in Japan's productivity growth as well as the sluggish investment in tangible and intangible assets. In this analysis, we focus in particular on the declining international competitiveness of Japanese companies, the decline in corporate earning power through falling markup rates, the substantial productivity gap between large and small firms, which is more pronounced in Japan than in comparable countries abroad, the inefficiency of resource allocation within and across firms, problems in the lifetime employment system, and the unravelling of interfirm relationships.

Furthermore, for China, whose era of high-speed growth is coming to an end, we are constructing the China Industrial Productivity (CIP) Database, which is similar to the JIP Database for Japan, and which we use for various analyses. We are also updating and expanding the East Asian Listed Companies (EALC) Database, which measures the productivity and international competitiveness of East Asian countries at the firm level. In addition, by collaborating with the World KLEMS project, the EU KLEMS project, the Asia KLEMS project, the Organisation for Economic Cooperation and Development (OECD), etc., we are making it possible to compare trends in productivity and factor inputs by industry in Japan and China with other countries. Apart from this, though collaboration with other projects in the "Raising Industrial and Firm Productivity" program, we are working on prefecture-level productivity analyses using the Regional-Level Japan Industrial Productivity (R-JIP) Database and on analyses of the economic effects of investment in intangibles.

### Major Research Results

#### **RIETI International Symposium**

"Information Technology and the New Globalization: Asia's economy today and tomorrow" (August 1, 2017) See p.3 / p.67

Workshop

"The Fourth Asia KLEMS Conference" (July 31 - August 1, 2017) See p.74

### VI - 2

### Microeconometric Analysis of Firm and Industry Growth

Project Leader:

HOSONO Kaoru, FF

Project Period: May 22, 2017 – April 30, 2019

### Overview

The aim of this project is to pin down key factors for firm growth from various firm activities. Specifically, using firm-, establishment-, or item-level micro data, this project conducts empirical analyses on the relationship between firm growth and (1) research and development (R&D) and innovation and (2) overseas activities. This project further analyzes the relationship between firm productivity and industrial development with special attention given to resource misallocation among firms and industries.

### VI - 3

### Research on Productivity-improving Capital Investment

Project Leader: MIYAGAWA Tsutomu, FF

Project Period: July 3, 2017 - June 30, 2019

### Overview

This project has two aims. One is to support the construction of an extended version of the Japan Industrial Productivity (JIP) database, estimating comprehensive capital account by industry. In December 2016, the Cabinet Office published a new version of the National Accounts of Japan (SNA), following the SNA 08 standard which recommended including several types of intangibles into the capital account. We will construct a new revised capital account which integrates the tangible capital account with the intangible capital account.

The other aim is to study the effects of several types of capital assets on economic performance. The project's focus is not only on the complementarity between the usual tangibles and intangibles, but also on the intangibles such as management resources, human resources, and customer satisfaction which are crucial factors for performance in the service sector firms and non-profit organizations.

### **Major Research Results**

#### **Policy Discussion Paper**

 Survey of the Consequences and Determinants of Corporate Social Responsibility (ENDO Kazumi) PDP 18-P-003

### VI - 4

### Analysis of the Regional-Level Industrial Productivity and Regional Production Networks

Project Leader: **TOKUI Joji, FF** Project Period: July 3, 2017 – June 30, 2019

#### Overview

This project aims to update and refine our Regional-Level Japan Industrial Productivity Database (R-JIP) and conduct related analyses using the database. Since many regions are predicted to face severe declines in their population and rapid aging, it is vital that they conduct a thorough examination of their position within national production networks and design coherent policies to remedy the situation. We plan to upload the newly-updated R-JIP 2017 database, in which data are extended to 2012. In providing R-JIP 2017, we added some major refinement to our estimation methods, which will be explained. We also provide a regional inputoutput (IO) table categorized by prefectures. Using this original regional IO table, we undertake value chain analysis to give a more accurate picture of vertical specialization of each region, and conduct more sophisticated analysis of regional price level differences, taking into account the input structure and input prices of each service industry. In performing these analyses, we can cast a new light on the background of regional productivity differences.

### VI - 5

### Research on the Improvement in Resource Allocation and Productivity among the Healthcare and Education Service Industries

Project Leader: INUI Tomohiko, FF

Project Period: July 3, 2017 - June 30, 2019

### Overview

The primary objective of this project is to focus on the healthcare and education sectors, wherein measuring the quality of service and productivity still are academically and practically unclear. The project will aim to use the various sets of micro level data and empirically analyze the determinants of the quality services and productivities. The key may be the establishment of causality. While rigorously addressing endogeneity, we seek an optimal resource allocation and propose more cost-effective policies to improve the services in both sectors.

### Other research results in Program VI

# Research results belonging to research projects prior to FY2016

### **East Asian Industrial Productivity**

Project Leader:

### FUKAO Kyoji, FF

Project Period: April 1, 2015 - March 31, 2017

#### **Discussion Papers**

- Job Creation and Destruction at the Levels of Intra-firm Sections, Firms, and Industries in Globalization: The case of Japanese manufacturing firms (ANDO Mitsuyo and KIMURA Fukunari) DP 17-E-100
- Has the Offshore Service Network Been Expanded by Japanese Firms? (ITO Yukiko) DP 17-E-107
- Accounting for the Role of Information and Communication Technology in China's Productivity Growth (Harry X. WU and David T. LIANG) DP 17-E-111

### The Role of Intangibles on Productivity Improvement

### Project Leader: MIYAGAWA Tsutomu, FF

Project Period: April 21, 2015 - March 31, 2017

### **Discussion Papers**

- R&D and Product Dynamics (MIYAGAWA Tsutomu, EDAMURA Kazuma and KAWAKAMI Atsushi) DP 17-E-101
- Headquarters and Skill Biased Technical Change (KAWAKAMI Atsushi) DP 17-J-043

### **Policy Discussion Paper**

 Survey on Management Score and Quality Adjustment in Medical and Nursing Services (INUI Tomohiko, ITO Yukiko, MIYAGAWA Tsutomu and SATO Kina) PDP 17-P-022

### Refinement and Analysis of the Regional-Level Japan Industrial Productivity Database: Providing basic information for Japan's regional development policy

### Project Leader: TOKUI Joji, FF

Project Period: April 21, 2015 - March 31, 2017

#### **Discussion Paper**

 Location of Universities and National Research Institutes and Firms' Location Choice of R&D Facilities (EDAMURA Kazuma, INUI Tomohiko and YAMAUCHI Isamu) DP 17-J-048

### Measurement of the Qualities of Health and Education Services, and Analysis of their Determinants

### Project Leader:

#### INUI Tomohiko, FF

Project Period: April 21, 2015 - March 31, 2017

#### **Discussion Papers**

- Empirical Study on the Utilization and Effects of Health Checkups in Japan (INUI Tomohiko, ITO Yukiko, KAWAKAMI Atsushi, MA Xin Xin, NAGASHIMA Masaru and ZHAO Meng) DP 17-E-082
- Regional Variations in Access to Healthcare among Japanese Individuals over 50 Years Old: An analysis using JSTAR (SHOJI Keishi and IBUKA Yoko) DP 17-J-036

# Raising Industr and Firm Productivity

### **Microeconometric Analysis of Firm Growth**

### Project Leader: HOSONO Kaoru, FF

Project Period: April 21, 2015 - March 31, 2017

### **Discussion Papers**

- Size-dependent Policy and Firm Growth (HOSONO Kaoru, TAKIZAWA Miho and TSURU Kotaro) DP 17-E-070
- Competition, Uncertainty, and Misallocation (HOSONO Kaoru, TAKIZAWA Miho and YAMANOUCHI Kenta) DP 17-E-071
- Do Overseas Subsidiaries Benefit from Parent Firms' Intangibles? (HOSONO Kaoru, MIYAKAWA Daisuke and TAKIZAWA Miho) DP 17-E-073
- Decomposition of Aggregate Productivity Growth with Unobserved Heterogeneity (KASAHARA Hiroyuki, NISHIDA Mitsukuni and SUZUKI Michio) DP 17-E-083
- Venture Capital Networks: An analysis using the exponential random graph model (KOUJAKU Sadamori and MIYAKAWA Daisuke) DP 17-E-084
- University-Industry R&D Collaboration as an Engine of Firm Growth? An empirical evaluation of knowledge cluster policies in Japan (OKAMURO Hiroyuki and IKEUCHI Kenta) DP 17-J-037
- The Impact of Dividend Exemption on the Activities of Japanese-owned Foreign Affiliates (HASEGAWA Makoto and KIYOTA Kozo) DP 17-J-038

# **Human Capital**

Program Director **TSURU Kotaro** 



For Japan, a nation with scarce resources, to maintain and strengthen economic vitality and innovation and increase its growth potential by using its advantages amid a declining population resulting from a rapidly aging society and intensifying global competition among other factors, a significant key is how to utilize its human resources. We will conduct multifaceted, comprehensive research on ideal labor market systems to increase worker incentive and capability; reconstruction of employment institutions and systems from a full life-cycle perspective from early childhood education through higher education; human resources development in employment years; and utilization of elderly as human resources as well as from the perspective of promoting diversity including increased women's participation.

### • Introduction of Research Projects •

### VII – 1

### **Reform of Labor Market Institutions**

Project Leader: TSURU Kotaro, FF

Project Period: April 1, 2016 - March 31, 2018

### Overview

In order to study a new "form" for Japan's labor market institutions, and types of reform, we will organize a study group that will conduct theoretical and empirical research from various perspectives such as law, economics and management. While looking broadly at labor market institutions as a whole, we will also look into the interrelationships of each constituent part, and in particular will make suggestions regarding a comprehensive system of labor laws and policies from a standpoint that transcends vertical segmentation and boundaries. When conducting our analysis we will fully embrace international viewpoints and methods of analysis, including experiences from Europe and elsewhere, and will attempt to elucidate the relationships between labor laws and institutions and the labor market and employment systems, and in turn the relationship with economic performance.

### Major Research Results

### **Discussion Paper**

 Contents, Methods, and Skills Outcome of University Education by Academic Disciplines in Humanities and Social Sciences (HONDA Yuki) DP 17-J-071

### Workshop

"Reconstructing Japan's Employment Systems" (July 31, 2017)

See p.74

### VII - 2

### Transformation of the Japanese Labor Market : Toward a labor market for all

Project Leader:

KAWAGUCHI Daiji, FF

Project Period: September 29, 2015 - May 31, 2017

### Overview

The dependency ratio—the ratio of the population aged 65 and over to that between ages 15 and 64—of Japan was 25% in 2000 and is projected to reach 74% in 2050. To avoid fiscal crisis caused by growing social security expenditure, increased tax revenue through an expanded labor force as well as productivity improvement per worker are indispensable. This project focuses on groups of workers whose labor force participation as regular workers are traditionally low such as youth, women, and elderly. We describe the trends of utilization of these groups of workers, investigate the obstacles against full utilization, and propose policies to remove the obstacles. We exploit microdata of high-quality government statistics in an innovative way to address these issues.

### Major Research Results

### **Discussion Papers**

- The Effects of Supply Chain Disruptions Caused by the Great East Japan Earthquake on Workers (KONDO Ayako) DP 17-E-089
- Do Teaching Practices Matter for Students' Academic Achievement? A case of linguistic activity (TANAKA Ryuichi and ISHIZAKI Kazumi) DP 17-E-108
- Welfare Benefits and Labor Supply: Evidence from a

natural experiment in Japan (YUGAMI Kazufumi, MORIMOTO Atsushi and TANAKA Yoshiyuki) DP 17-E-109

- Parental Leaves and Female Skill Utilization: Evidence from PIAAC (KAWAGUCHI Daiji and TORIYABE Takahiro) DP 18-E-003
- On the Effects of Teachers' Majors in Natural Science on Students' Academic Achievement in Science: An analysis of TIMSS data for Japan (INOUE Atsushi and TANAKA Ryuichi) DP 17-J-052

#### Workshop

"Toward Japan's Labor Market Policy: Women, education, poverty and disasters" (May 22, 2017) See p.73

### VII - 3

### Change in the Utilization of and Investment in Human Resources

Project Leader:

#### HIGUCHI Yoshio, FF

Project Period: November 22, 2016 – March 31, 2018

#### Overview

The relative labor price of Japanese workers has stagnated. This could be attributed to the increase in the number of part-time workers, decrease in human investment, as well as the potential of undermining the relations between workers' skills and firms' performance. We attempt to answer the following questions: (1) how the skill level and developing talents of employees, especially female workers, have changed, and (2) how and why the relations between workers' skill and firm's performance have been undermined.

#### Major Research Results

#### **Discussion Paper**

 Labor Market Impact of Labor Cost Increase without Productivity Gain: A natural experiment from the 2003 social insurance premium reform in Japan (KODAMA Naomi and YOKOYAMA Izumi) DP 17-E-093

### **VII - 4**

# Research on Working Style Reform and Health Management

Project Leader:

#### YAMAMOTO Isamu, FF

Project Period: December 9, 2016 - November 30, 2018

#### Overview

We empirically investigate how the ways of working in Japanese firms are related with workers' mental health and firms' health management. We also examine how sustainably workers and firms can accumulate the healthy and efficient human capital necessary to increase labor productivity. While taking advantage of the knowledge of labor economics, clinical psychology, and mental health sciences, we use a variety of micro-data on the firms and employees to derive the academic and policy implications.

### VII - 5

### Employment System Reform to Use Human Resources More Efficiently

Project Leader: OWAN Hideo, FF Project Period: May 29, 2017 – April 30, 2019

#### Overview

Decision making and employment practices of Japanese companies had been incompatible with those from overseas, which became a major hurdle in the globalization process for Japanese companies. With economic globalization further developing, integration through standardization of systems and establishment of knowledge networks has been increasingly important, while correcting human resource management divided between domestic and overseas. Meanwhile, partially due to requests from governments and societies seeking working style reforms and difficulties in recruitment, workforces have been diversifying in terms of attributes, needs, and careers. The range of responsibility for front-line managers in terms of recruitment, training, placement, and evaluation has been expanding. This is referred to as decentralization of personnel functions. While the Human Resources department delegate authority to frontline managers, it is expected that it will further strengthen the collection of information to support front-line managers' decision making and monitor the health of the organization.

In recent years, due to increasing use of enterprise resource planning (ERP) software packages and groupware, various human resources data have become increasingly available including: (1) information on goals and task assignment under the management by objectives (MBO), (2) evaluation of bosses by subordinates and colleagues under a 360-degree evaluation system, (3) work environment information obtained through employee satisfaction surveys, and (4) non-cognitive ability information collected by aptitude tests and human assessments. The development of artificial intelligence (AI) technology will further accelerate this trend.

Utilizing these new data, this project would like to explore important research questions in labor economics and behavioral economics and conduct exploratory research both theoretically and empirically. Furthermore, by tying up with companies, I also would like to measure the effectiveness of personnel measures exploiting quasi-experimental settings. Specifically, during the research period, we focus on seven categories: gender gap, working style reform, effect of corporate training programs, mental health, hiring and matching, measuring the ability of middle managers, and innovation within organizations.

### VII - 6

### Fundamental Research for Economic Growth and Productivity Improvement in Japan

Project Leader:

### NISHIMURA Kazuo, FF

Project Period: June 19, 2017 - May 31, 2019

### Overview

The economic growth of Japan has been supported by talented people with high human capital generating innovation. However, the Ministry of Education, Culture, Sports, Science and Technology's White Paper of Science and Technology 2013 states that "the number of articles which are quantitative indicators of innovation has been decreasing......it is greatly lowered the world ranking" and pointed out that research and development capabilities have declined in Japan in recent years.

The number of Japanese patent applications has declined by more than 10% in 2014 from its peak in 2005. In addition, per capita national income and the number of engineering papers published also declined sharply in the second half of the 2000s. From this trend, it is viewed that, in Japan, educational investment does not sufficiently push up the competitiveness and economic growth of the country.

In this research, we analyze the role of human capital in economic growth from an empirical as well as theoretical viewpoint. Specifically, we look at the economic system as a complex system, analyze the roles that human capital plays in economic growth and business cycles, and analyze how education and child rearing factor in accumulating human capital. Furthermore, our research topics include neuroeconomics. We will perform personal brain activity measurements and study how the perception of economic agents affects learning and decision making.

### VII - 7

# Empirical Studies on Employment, Migration, and Family Issues of Foreigners in Japan

Project Leader:

### LIU Yang, F

Project Period: March 26, 2018 - February 29, 2020

### Overview

In the background of globalization and preceding with the Fourth Industrial Revolution, firms' demand of foreign labor has increased greatly. Recently in Japan, attracting skilled foreigners has been part of the country's economic growth strategy, and the number of foreign workers has grown largely in the past few years. However, as a country with a very small number of foreigners for decades, many issues on foreigners in Japan, including their employment, migration, and family decisions, are not clear. Furthermore, although the number of foreigners has increased greatly, many problems remain which reduce the attractiveness of working and living in Japan; most of those problems are not limited to foreigners but to the entire Japanese society. This project is designed to tackle the following issues: first, it examines the employment of highly skilled foreign workers, focusing on the determinants of wage levels and factors that affect their job satisfaction. Second, several approaches are applied to tackle issues of migration decisions of skilled foreign labors in Japan, including macroeconomics, microeconomics, and sociology. Third, it provides analysis on the family issues of foreigners in Japan, such as children education and female labor participation. The purpose of this project is to provide empirical evidence and suggestions on how to achieve better advantages of foreign labor on the Japanese economy and society, as well as academic contributions on migration studies.

### Other research results in Program VII

# Research results independent from any research project

### **Discussion Paper**

 More Schooling, More Generous? Estimating the effect of education on intergenerational transfers (YIN Ting and ZHANG Junchao) DP 17-E-074

# Research results belonging to research projects prior to FY2016

### The Effect of Diversity on Economic Growth and Business Competitiveness

Project Leader:

### HIGUCHI Yoshio, FF

Project Period: May 27, 2014 - March 31, 2016

### **Discussion Paper**

 Highly Skilled Immigrants' Occupational Choices and the Japanese Employment System (HASHIMOTO Yuki) DP 17-E-059

### Economic Analysis of Human Resource Allocation Mechanisms within the Firm: Insider econometrics using HR data

Project Leader: OWAN Hideo, FF

Project Period: April 6, 2015 - March 31, 2017

### Publication

OWAN Hideo, Scientific Management of Human Resources with Applications to Japanese Companies: Utilizing data based on casual inference, Nikkei Publishing Inc., June 2017

# Program

## Law and Economy

Acting Program Director YANO Makoto



Technological innovation is expected to accelerate in many fields such as financial services, information/communications, and life sciences. In such an environment, what can a nation do to build an economy that leads the world in innovation? Many cases have been observed that important innovation is born in a market in which free entry and free enterprise are guaranteed. In order to foster such a market, various rules and institutional arrangements need to be built into the economy. From this viewpoint, in the present program, the design of new types of economic and industrial policies is investigated.

### • Introduction of Research Projects •

### VIII - 1

### **Intellectual Property and** Standardization—Strategy and Policy

Project Leader: SUZUKI Masabumi, FF

Project Period: July 5, 2016 - March 31, 2018

### Overview

Intellectual property (IP) and standardization strategies are considered critical in the 2016 Science, Technology and Innovation Strategy ratified by the Cabinet and in the government's Artificial Intelligence Strategy Conference. In the past, Japan has been active in securing IP rights and standardization in technologies such as chemistry and electronics. The mixed results are the reflection of the increasing intensity of worldwide competition in IP and standards, as not only firms but also nations in the Americas, Europe, and Asia engage in their strategic use. This has resulted in more IP litigation and intervention of competition authorities in matters related to IP and standards, leading to challenges and new approaches to standardization and litigation rules.

In this project, we first examine past IP and standardization strategies and policies thru statistical analysis of data, case studies, and economic theory. Based on the analysis, we present strategy and policy options for new technologies, such as artificial intelligence and Internet of Things, that best utilize Japan's strengths, notably those in scientific fields and technologies in which it leads.

### Major Research Results

#### **RIETI Policy Seminar**

"Standards and Intellectual Property: Strategies Japan should adopt in light of current global trends" (December 8, 2017)

See p.77



### <u>VIII - 2</u>

### Frontiers in Corporate Governance Analysis

Project Leader: MIYAJIMA Hideaki, FF

Project Period: August 14, 2017 - July 31, 2019

### Overview

As the Stewardship Code and Corporate Governance Code are executed, governance reform in Japan in principle will enter a new phase of maintaining effective enforcement stemming from the formal arrangement. In order to enhance the performance (earning capability) of Japanese firms further, the reforms should contribute to encourage research and development (R&D), human capital investment, merger and acquisition (M&A), corporate restructuring, and selection of appropriate financial policies, all of which form the base of corporate innovation. However, there is limited research that examines the extent and the channels through which such changes in governance arrangement have influenced corporate behavior. It is also unclear whether the reforms based on the U.S. model are indeed compatible with other economic institutions in Japan such as the long-term employment system, and whether those reforms would induce myopic behavior by firms through excessive external pressure. Considering such problems, this project will highlight the effect of changing governance arrangement on various phases of corporate innovative activities including R&D, human investment, M&A, restructuring, and capital and organizational choice.

### VIII - 3

### Evidence-based Policy Study on the Law and Economics of Market Quality

Project Leader:

FURUKAWA Yuichi, FF

Project Period: March 12, 2018 - February 29, 2020

### Overview

As Makoto Yano explains in his previous work, high quality markets are vital for the healthy growth of a modern economy. In order to develop a high quality market, it is important to take a roundabout approach or, in other words, to design various parts of what Yano calls market infrastructure (e.g., laws, institutions, policies, and culture), keeping the market to function in a heathy manner. For this purpose, it is crucial first to measure the quality of a particular market and its relationship to market infrastructure correctly. With such measure, the present study aims to capture the relationship between market quality and market infrastructure by constructing and utilizing new big panel data. We will feedback those empirical results to theoretical modelling, by which we will study the comprehensive design of laws, institutions, and policies with which the economy grows in a healthy manner. It is hoped that this research will lead to a new approach in law and economics.



# Policy History and Policy Assessment



Program Director TAKEDA Haruhito

This program aims to review and assess policy shifts, chiefly during the period 1980–2000, as we look at the roles played by Japan's economy and society as well as its trade and economic industrial policies at the end of the 20th century. While the final two decades of the 20th century were a time of significant changes in Japan's economy and society, they also represent an important point of comparison when considering the development of policy after the creation of the Ministry of Economy, Trade and Industry from a historical perspective. We will attempt to clarify how changes in trade and industrial policy at the turn of the century were affected, based on the recognition of policy issues over the preceding quarter-century, choice of policy responses, and evaluation on their results.

### • Introduction of Research Projects •

### IX - 1

### **Historical Study on Industrial Policy**

Project Leader:

### TAKEDA Haruhito, FF

Project Period: September 13, 2016 – August 31, 2018

### Overview

In line with the principle of the Policy History and Policy Assessment program, this project will address the following three policy processes in line with the life cycles of industries from growth to decline.

First, we will show the process of the Intelligent Manufacturing System (IMS), which was initiated in the late 1980s and terminated in 2010, as well as its historical meaning.

Second, we will focus on the industry revitalization policy from the 1990s to 2000s and elucidate its historical significance.

Third, based on our previous project on an international comparison study of the relationship between high growth economies and industrial policy, we will focus on the industrial development in East Asia (Japan, Korea, Taiwan, and China), which led to the high growth of the region, and analyze it while emphasizing the role and involvement of the government.

Major Research Results

### **Discussion Paper**

 Historical Significance of the Intelligent Manufacturing Systems (IMS) (TAKEDA Haruhito) DP 17-J-076

### IX - 2

### Political Analysis and Policy History Research on the Kyoto Protocol Negotiations

Project Leader: MAKIHARA Izuru, FF

Project Period: October 5, 2015 - September 30, 2017

### Overview

Global warming and climate change have been the crucial political issues in Japan since the end of the 20th century. In this policy area, coordination among stakeholders (e.g., inter-departmental and inter-industrial coordination) is indispensable. The adoption of the Kyoto Protocol, which was the first experience for Japan to tackle this policy, was the result of a hard bargaining process. In previous research, however, there was insufficient investigation on the recognition of decision-makers and the details of decision-making processes. Oral history research that collects historical information from individuals involved in the political process is necessary for understanding the whole political debate. We analyze the origin of Japan's global warming policy by conducting interviews with the political actors involved in the Kyoto Protocol negotiations.

#### Major Research Results

#### **Discussion Paper**

 Political and Policy Implications on the History of the Kyoto Protocol (MAKIHARA Izuru) DP 17-J-074

### IX - 3

### Historical Evaluation of Industrial Policy (FY2016)

Project Leader: OKAZAKI Tetsuji, FF Project Period: July 5, 2016 – June 30, 2018

#### Overview

This project evaluates industrial policies by MITI and METI quantitatively, integrating economic analysis and historical study. First, we examine the regional development policy in the 1960s. The Comprehensive National Development Plan (Zenkoku Sogo Kaihatsu Keikaku) in 1962 and the two laws based on it, namely, the NEW Industrial Cities Development Promotion Law (Shin Sangyo Toshi Kensetsu Sokushin Ho, 1962) and the Special Industrial Areas Development Promotion Law (Kogyo Seibi Tokubetsu Chiiki Seibi Sokushin Ho, 1964), were a large-scale policy endeavor to change the spatial distribution of industries. As there were extensive inputs from local governments and politicians in policy making, this series of policies are interesting not only in the context of the industrial policy research but also in the context of spatial economics, economic history, and political economy. In this project, we evaluate them using the relevant statistical data and historical information. Second, we explore the implications of the series of regional economic policies from the 1970s, such as Industrial Relocation Promotion Law (Kogyo Saihaichi Sokushin Ho, 1972), Technopolis Law (1983), and Key Facilities Siting Law (Zuno Ricchi Ho, 1988). These policies would affect the micro aspects of the economy, namely, industrial organization and firm structure. We examine these longterm impacts using the micro data of the Manufacturing Census and other statistics.

#### Major Research Results

#### **Discussion Paper**

 Excess Capacity and Effectiveness of Policy Interventions: Evidence from the cement industry (OKAZAKI Tetsuji, ONISHI Ken and WAKAMORI Naoki) DP 18-E-012

### IX - 4

# Promoting Evidence-based Policy in Japan

### Project Leader: YAMAGUCHI Kazuo, VF

Project Period: February 6, 2017 - January 31, 2019

#### Overview

Japan has systems to promote the plan-do-check-act (PDCA) cycle of policies, e.g., the Policy Evaluation (Seisaku Hyoka) and the Public Projects Review (Gyosei Jigyo Review). Yet, most methodologies used in Japan rely disproportionately on qualitative methodologies. Even the limited cases in which quantitative methodologies are used involve issues since the adopted methodologies barely contain control groups with which the government can compare treatment groups. Moreover, systems to reflect evidence on policies and budgets are not effective.

On the other hand, other countries, in particular, the United Kingdom and the United States, made progress in utilizing evidence in making policies and budgets, which resulted in improved cost effectiveness in various policy areas.

As Japan faces pressing challenges such as a rapidly aging society, shrinking population, and the accumulated government deficit far beyond 200% of its gross domestic product (GDP), this research project works on evidencebased policies from the following perspectives: 1) analysis of other countries' evidence-based policies; 2) analysis of the reasons behind the lack of progress in making evidence-based policies in Japan; 3) sharing new experiences utilizing rigorous evaluations such as randomized controlled trials (RCTs) in Japan; 4) designing new experiments in Japan that are similar to the past experiments that showed positive results in other countries; and 5) consideration on designing a system to promote utilization of evidence-based policies in Japan.

#### Major Research Results

#### **RIETI EBPM Symposium**

"Toward the Promotion of Evidence-based Policymaking" (December 19, 2017) See p.3 / p.70

#### Others

"Promoting Evidence-based Policymaking in Japan," interim progress reported as a reference

# **Special Projects**

Special Projects are independent from the prior nine Research Programs.

### Introduction of Research Projects

### SP-1

### Survey of International Trends and Discussions in Greenhouse Gas Emission Reduction Projects under the UN Framework Convention on Climate Change

Project Leader:

### KAINOU Kazunari, F

Project Period: September 14, 2011 -

#### Overview

Under the United Nations Framework Convention on Climate Change (UNFCCC), parties to the Kyoto Protocol, including Japan and the European Union, are allowed to use the Kyoto Mechanisms--emissions trading, Joint Implementation (JI), Clean Development Mechanism (CDM), etc.--in the first commitment period from 2008 to 2012 in addition to their domestic activities to achieve their respective greenhouse gas (GHG) emission reduction commitments. Specifically regarding CDM and JI, under which investments in emission reduction projects in third countries can be taken as emission credits, various problems have been pointed out and, accordingly, discussions are now underway to make changes to the mechanisms.

In the 16th Conference of Parties (COP-16) to the UNFCCC held in Cancun, Mexico in 2010, a new framework differing from that of the Kyoto Protocol and involving the participation of the United States, China, and other developing countries was set up as part of the Cancun Agreement. Under the new framework, participating countries or regions would voluntarily set GHG emission reduction targets, and the achievement of the targets would be made subject to multilateral review. It was also agreed that a new set of flexible mechanisms, similar to the Kyoto Mechanisms, be institutionalized under the new framework. However, the specifics of such flexible mechanisms have yet to be worked out. This survey seeks to investigate, analyze, and evaluate the progress going forward in reforming the Kyoto Mechanisms under the Kyoto Protocol, and moves toward that in developing a new mechanism with an aim to put forward international policy proposals for efficient and effective GHG emission reductions in the future.

### SP-2

### **RIETI Data Management Project**

Project Leader: IKARI Hiroshi, SF Project Period: April 1, 2015 –

### Overview

The data in RIETI's possession can be categorized as follows: data available at relatively low cost, which research institutions would ordinarily be expected to have on hand; large-scale datasets purchased by individual research projects for use in their research; and data generated by these research projects (including the results of questionnaire surveys). The purpose of this project is to develop infrastructure for facilitating a more efficient utilization of these datasets by users. An additional purpose of this project is to serve such facilities as a forum for active policy discussion of related topics, with an eye to considering the possibility of sharing as well as methods to make these datasets available to both researchers and the public at large as a source of new knowledge.

### Major Research Results

**Discussion Papers** 

 Wages, Job Productivity, and Job Creation and Destruction: Evidence from Japanese division-level employment data (LIU Yang) DP 17-E-060

- Firm Age, Size, and Employment Dynamics: Evidence from Japanese firms (LIU Yang) DP 18-E-006
- Markups, City Size, and Exports: Evidence from Japan (KONDO Keisuke) DP 18-E-017
- Relationship between Overseas and Domestic Employment: An empirical analysis of Japanese multinational manufacturing firms (ARAKI Shota) DP 18-J-007

### SP-3

### Research on the Liberalist Reforms of the Public-Private Relationship and the Establishment of the Third Sector in Japan

Project Leader:

USHIRO Fusao, FF

Project Period: May 18, 2015 - March 31, 2018

### Overview

The present research aims to offer a specific plan for the liberalist reforms of the relationship between the public and private sectors and to identify the challenges and the direction to be taken to restructure the third sector through the reforms. This is to be done by researching and studying the real picture of the public-private relationship as seen in regulations, commissioning and subsidiaries between government agencies and the third-sector organizations concerned, as well as the business status of the third-sector organizations therein, in each policy area such as elderly care, welfare services for the disabled, childcare, education and medical care, or in a cross-sectoral manner. Here, the process is referred to as a liberalist reform as we think that introducing drastic reforms in the existing public-private relationship, toward encouraging free and transparent competition among diverse providers and offering choice to users, is indispensable in order to ensure efficient and high-quality public services in our country. The research is performed through analysis of the results of the fourth questionnaire survey, hearings from the persons concerned, and visiting surveys.

### Major Research Results

### **Discussion Papers**

- Current Conditions and Challenges of Third-sector Organizations in Japan: Considerations based on the Fourth Survey on the Third Sector (2017) (USHIRO Fusao and SAKAMOTO Haruya) DP 17-J-063
- Components of the Japanese Third Sector and its Transformation: Focusing on the period of association founding (YAMAMOTO Hidehiro) DP 17-J-065

- Regional Revitalization and Financial Relations between Local Governments and the Third Sector (KITAMI Tomitaro) DP 17-J-067
- Evaluating Factors Affecting the Occurrence of Mission Drift in Third-sector Organizations (KOTAGIRI Yasuhiko) DP 17-J-068
- Influence of Having Legal Person Status, Commercialization, and Professionalization of Third Sector Organizations on Their Employment: Based on the survey data on Japan's third sector in 2014 (NIHEI Norihiro) DP 18-J-011

### SP-4

### Study on the Medium- to Long-term Social Security System

Project Leader: OSHIO Takashi, FF

Project Period: October 2, 2017 – September 30, 2019

### Overview

As a follow-up of the preliminary report by the Ministry of Economy, Trade and Industry (METI)'s Vice-Minister and young officials' project, this research investigates a variety of issues related to the medium- to long-term social security and tax systems in Japan. The specific topics are as follows:

- 1) Reconsidering the definition of elderly people and constructing a lifelong working society.
- 2) Conversion toward a self-supporting healthcare and long-term care systems.
- 3) Desirable allocation of additional revenue raised from the consumption tax rate hike focusing on child rearing and education expenditures.

Other research results in Special Projects

Research results belonging to research projects prior to FY2016

### Attitudes toward Immigration in an Aging Society: Evidence from Japan

Project Leader: NAKATA Hiroyuki, SF

Project Period: April 20, 2015 - March 31, 2017

### **Discussion Papers**

- Countering Public Opposition to Immigration: The impact of information campaigns (Giovanni FACCHINI, Yotam MARGALIT and NAKATA Hiroyuki) DP 17-E-094
- Attitudes towards Immigration in an Ageing Society: Evidence from Japan (NAKATA Hiroyuki) DP 17-E-095

### Multidisciplinary research results

# Research results independent from any research project

### **Discussion Papers**

- The Macroeconomic Effects of Japan's Unconventional Monetary Policies (MIYAO Ryuzo and OKIMOTO Tatsuyoshi) DP 17-E-065
- Who Are Afraid of Losing Their Jobs to Artificial Intelligence and Robots? Evidence from a survey (MORIKAWA Masayuki) DP 17-E-069
- Impact of Policy Uncertainty on Consumption and Saving Behavior: Evidence from a survey on consumers (MORIKAWA Masayuki) DP 17-E-075
- Are Part-time Employees Underpaid or Overpaid? Productivity–wage gaps in Japan (MORIKAWA Masayuki) DP 17-E-077
- Occupational Licenses and Labor Market Outcomes (MORIKAWA Masayuki) DP 17-E-078
- Uncertainty over Production Forecasts: An empirical analysis using monthly firm survey data (MORIKAWA Masayuki) DP 17-E-081
- Dispersion and Volatility of TFPQ in Service Industries (MORIKAWA Masayuki) DP 17-E-088
- No-arbitrage Determinants of Japanese Government Bond Yield and Credit Spread Curves (OKIMOTO Tatsuyoshi and TAKAOKA Sumiko) DP 17-E-104
- Impact of Foreign Tourists on Productivity in the Accommodation Industry: A panel data analysis (MORIKAWA Masayuki) DP 17-E-106
- Wage Premium of Exporting Plants in Japan: Do plant and firm size matter ? (ITO Koji) DP 17-E-115
- Japanese Plants' Heterogeneity in Sales, Factor Inputs, and Participation in Global Value Chains (ITO Koji, Ivan DESEATNICOV and FUKAO Kyoji) DP 17-E-117
- Household Income and the OECD's Four Types of Social Capital (YODO Masato and YANO Makoto) DP 17-E-119
- Efficiency among Japanese SMEs: In the context of the zombie firm hypothesis and firm size (GOTO Yasuo and Scott WILBUR) DP 17-E-123

- Uncertainty over Working Schedules and Compensating Wage Differentials: From the viewpoint of labor management (MORIKAWA Masayuki) DP 18-E-015
- Research on Fiscal System Reform in China: For reconstruction of the relationship between central and local governments (MENG Jianjun) DP 17-J-030
- Strong Belief in the Japanese Farm Policy of the Need to Support Small-scale Farmers (YAMASHITA Kazuhito) DP 17-J-040
- Wage Premium of Exporting Plants in Japan: Analysis on matched employer-employee data (ITO Koji) DP 17-J-050
- The Latent Heterogeneity of the Wage Structure and Gender Wage Gap: Dual economy analysis revisited (YAMAGUCHI Kazuo) DP 17-J-057
- Review of Necessary Assumptions for Difference-In-Difference (DID) Estimation and Development of Bias Correction Methods for DID where Spillover Effects of Treatment/ Causal Effects to the Control Group are not Ignorable and SUTVA Violated (KAINOU Kazunari) DP 17-J-075
- Uncertainty over Working Schedules and Compensating Wage Differentials (MORIKAWA Masayuki) DP 18-J-008
- Long Commuting Time and the Benefits of Telecommuting (MORIKAWA Masayuki) DP 18-J-009
- Smoking, Obesity, and Labor Market Outcomes (MORIKAWA Masayuki) DP 18-J-010
- Effects of Distance and Borders on International and Interregional Tourist Flows: A micro gravity analysis (MORIKAWA Masayuki) DP 18-J-012

### **Policy Discussion Papers**

- Policy Uncertainty in Japan (ITO Arata) PDP 17-P-019
- Aesthetic Activities Will Increase in the Era of General Purpose AI (FUJI Kazuhiko) PDP 17-P-035

#### **RIETI** International Seminar

"Death versus Destruction in the Economics of Catastrophes" (May 17, 2017) See p.73

### **RIETI Special BBL Seminar**

"2017 White Paper on Small and Medium Enterprises in Japan and 2017 White Paper on Small Enterprises in Japan" (May 24, 2017) See p.73

"Outline of the White Paper on Manufacturing Industries (Monodzukuri)" (June 22, 2017) See p.74

"Outline of White Paper on International Economy and Trade 2017: How can we promote free trade in a sustainable way?" (July 7, 2017) See p.74 "Germany after the General Elections--Political and Economic Directions" (October 3, 2017) See p.6 / p.76

"France's Renewed Commitment to EU Reform" (February 7, 2018) See p.6 / p.78

Institute of Economic Research, Kyoto University Symposium Series II: Toward Realization of an Evidence-based Society Nurturing Prosperity

The 5th Round: "Human Resource Development that Nurtures the Idea of Integrating Humanities and Science: Connecting creators with users" (June 17, 2017) See p.67

The 6th Round: "Creating Society for Tomorrow: Science technology and universities" (December 2, 2017) See p.69

The 7th Round: "The Future of a Society with Bright Prospects" (March 10, 2018) See p.70



### The 19th RIETI Highlight Seminar

"Current Situation and Future Prospects of Economies and Markets Facing Significant Uncertainty: Based on the Economic Policy Uncertainty index" (July 11, 2017) See p.4 / p.74

### International Workshop

"Accounting for Micro and Macro Patterns of Trade" (August 2, 2017) See p.75



RIETI Special Seminar "U.S. Tax Reform: Prospects and Roadblocks" (August 21, 2017) See p.75



#### METI-RIETI Policy Symposium

"New Industrial Structure Vision: Japan's strategies and challenges for establishing new economic and social systems" (August 23, 2017) See p.5 / p.68

#### TIER-RIETI-KIET Workshop

"Trade Issues and Policies under the New Protectionism" (October 19, 2017) See p.76

#### **RIETI** International Seminar

"Incidence of Social Security Contributions: Evidence from France" (November 27, 2017) See p.76

#### METI-RIETI Symposium

"Overcoming Challenges Faced by Japanese Companies in Overseas M&A" (November 29, 2017) See p.5 / p.68

#### CEPR-RIETI Workshop

"Science and Innovation" (February 26, 2018) See p.78

### METI JPO-RIETI International Symposium

"Toward Solving Disputes over Standard Essential Patents (SEPs): Licensing 5G SEPs" (March 13, 2018) See p.5 / p.71

#### **RIETI-ANU Symposium**

"Japan and Australia: Leading Asia Pacific regionalism in uncertain times" (March 15, 2018) See p.4 / p.72

#### **RIETI International Workshop**

"Long-term Growth and Secular Stagnation" (March 30 2018)

See p.79



### Publication YAMAGUCHI Kazuo, *Gender Inequality in the Workplace: Theory and empirical analysis*, Nikkei Publishing Inc., May 2017

# **Discussion Papers**

Note: Discussion Papers listed below were published from April 2017 to March 2018.

Discussion Papers are research results formed in the shape of treatises which principally have been through an internal review process. To stimulate active debates, they are posted on our website.

DP No.	Date	Title	Author(s)	Project No.
I7-E-059	April 2017	Highly Skilled Immigrants' Occupational Choices and the Japanese Employment System	HASHIMOTO Yuki (Kyushu University)	VII - Others
7-E-060	April 2017	Wages, Job Productivity, and Job Creation and Destruction: Evidence from Japanese division-level employment data	LIU Yang (RIETI)	SP - 2
7-E-061	April 2017	Foreign Institutional Ownership and Risk Taking	XU Peng (Hosei University)	V - Others
7-E-062	April 2017	Bank-Firm Relationship and Small Business Innovation	XU Peng (Hosei University)	V - Others
7-E-063	April 2017	Assessing the Impact of Renewable Energy Sources: Simulation analysis of the Japanese electricity market	YOSHIHARA Keisuke (The University of Tokyo) OHASHI Hiroshi (RIETI)	V - Others
7-E-064	April 2017	Exchange Rates and the Swiss Economy	THORBECKE, Willem (RIETI) KATO Atsuyuki (RIETI)	I - 7
7-E-065	May 2017	The Macroeconomic Effects of Japan's Unconventional Monetary Policies	MIYAO Ryuzo (The University of Tokyo) OKIMOTO Tatsuyoshi (RIETI)	Multidisciplinar
7-E-066	May 2017	Trends and Priority Shifts in Artificial Intelligence Technology Invention: A global patent analysis	FUJII Hidemichi (Nagasaki University) MANAGI Shunsuke (RIETI)	V - 11
7-E-067	May 2017	Industrial Revolutions and Global Imbalances	Alexander MONGE-NARANJO (FRB St. Louis / Washington University) UEDA Kenichi (RIETI)	I - Others
7-E-068	May 2017	Forecasting Firm Performance with Machine Learning: Evidence from Japanese firm-level data	MIYAKAWA Daisuke (Hitotsubashi University) MIYAUCHI Yuhei (MIT) Christian PEREZ (Carnegie Mellon University)	V - Others
7-E-069	May 2017	Who Are Afraid of Losing Their Jobs to Artificial Intelligence and Robots? Evidence from a survey	MORIKAWA Masayuki (RIETI)	Multidisciplinar
7-E-070	May 2017	Size-dependent Policy and Firm Growth	HOSONO Kaoru (RIETI) TAKIZAWA Miho (Toyo University) TSURU Kotaro (RIETI)	VI - Others
7-E-071	May 2017	Competition, Uncertainty, and Misallocation	HOSONO Kaoru (RIETI) TAKIZAWA Miho (Toyo University) YAMANOUCHI Kenta (Keio University)	VI - Others
7-E-072	May 2017	Market Thickness, Input-Output Linkages, and Agglomeration	MIYAUCHI Yuhei (MIT) MIYAKAWA Daisuke (Hitotsubashi University)	V - Others
7-E-073	May 2017	Do Overseas Subsidiaries Benefit from Parent Firms' Intangibles?	HOSONO Kaoru (RIETI) MIYAKAWA Daisuke (Hitotsubashi University) TAKIZAWA Miho (Toyo University)	VI - Others

### Discussion Papers written in English https://www.rieti.go.jp/en/publications/act\_dp.html

DP No.	Date	Title	Author(s)	Project No.
17-E-074	May 2017	More Schooling, More Generous? Estimating the effect of education on intergenerational transfers	YIN Ting (RIETI) ZHANG Junchao (Institute of Statistical Mathematics)	VII - Others
17-E-075	May 2017	Impact of Policy Uncertainty on Consumption and Saving Behavior: Evidence from a survey on consumers	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-076	May 2017	A Compositional Data Analysis of Market Share Dynamics	ARATA Yoshiyuki (RIETI) ONOZAKI Tamotsu (Rissho University)	V - Others
17-E-077	May 2017	Are Part-time Employees Underpaid or Overpaid? Productivity-wage gaps in Japan	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-078	May 2017	Occupational Licenses and Labor Market Outcomes	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-079	May 2017	When Japanese Banks Become Pure Creditors: Effects of declining shareholding by banks on bank lending and firms' risk taking	ONO Arito (Chuo University) SUZUKI Katsushi (Hitotsubashi University) UESUGI lichiro (RIETI)	V - Others
17-E-080	May 2017	Intangible Capital and the Choice of External Financing Sources	HOSONO Kaoru (RIETI) TAKIZAWA Miho (Toyo University)	V - Others
17-E-081	May 2017	Uncertainty over Production Forecasts: An empirical analysis using monthly firm survey data	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-082	May 2017	Empirical Study on the Utilization and Effects of Health Checkups in Japan	INUI Tomohiko (RIETI) ITO Yukiko (Tsuda University) KAWAKAMI Atsushi (Toyo University) MA Xin Xin (Hitotsubashi University) NAGASHIMA Masaru (GRIPS) ZHAO Meng (KONISHI Moe) (Gakushuin University)	VI - Others
17-E-083	May 2017	Decomposition of Aggregate Productivity Growth with Unobserved Heterogeneity	KASAHARA Hiroyuki (University of British Columbia) NISHIDA Mitsukuni (Johns Hopkins University) SUZUKI Michio (Hitotsubashi University)	VI - Others
17-E-084	May 2017	Venture Capital Networks: An analysis using the exponential random graph model	KOUJAKU Sadamori (University of Bristol) MIYAKAWA Daisuke (Hitotsubashi University)	VI - Others
17-E-085	May 2017	Overseas Production Expansion and Domestic Transaction Networks	HAYAKAWA Kazunobu (IDE, JETRO) MATSUURA Toshiyuki (Keio University)	III - Others
17-E-086	May 2017	Forgiveness Versus Financing: The determinants and impact of SME debt forbearance in Japan	ONO Arito (Chuo University) YASUDA Yukihiro (Hitotsubashi University)	V - Others
17-E-087	June 2017	Fiscal Forward Guidance: A case for selective transparency	FUJIWARA Ippei (RIETI) WAKI Yuichiro (University of Queensland)	I - Others
17-E-088	June 2017	Dispersion and Volatility of TFPQ in Service Industries	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-089	June 2017	The Effects of Supply Chain Disruptions Caused by the Great East Japan Earthquake on Workers	KONDO Ayako (The University of Tokyo)	VII - 2
17-E-090	June 2017	Listing and Financial Constraints	UEDA Kenichi (The University of Tokyo / TCER) ISHIDE Akira (Northwestern University) GOTO Yasuo (RIETI)	V - Others
17-E-091	June 2017	FTAs and the Pattern of Trade: The case of the Japan-Chile FTA	KUNO Arata (Kyorin University) URATA Shujiro (RIETI) YOKOTA Kazuhiko (Waseda University)	II - Others
17-E-092	June 2017	Political Connections and Antidumping Investigations: Evidence from China	ZHANG Hongyong (RIETI)	II - Others

DP No.	Date	Title	Author(s)	Project No.
17-E-093	June 2017	Labor Market Impact of Labor Cost Increase without Productivity Gain: A natural experiment from the 2003 social insurance premium reform in Japan	KODAMA Naomi (RIETI) YOKOYAMA Izumi (Hitotsubashi University)	VII - 3
17-E-094	June 2017	Countering Public Opposition to Immigration: The impact of information campaigns	Giovanni FACCHINI (University of Nottingham) Yotam MARGALIT (Tel Aviv University) NAKATA Hiroyuki (RIETI)	SP - Others
17-E-095	June 2017	Attitudes towards Immigration in an Ageing Society: Evidence from Japan	NAKATA Hiroyuki (RIETI)	SP - Others
17-E-096	July 2017	The Pollution Outsourcing Hypothesis: An empirical test for Japan	Matthew A. COLE (University of Birmingham) Robert R.J. ELLIOTT (University of Birmingham) OKUBO Toshihiro (Keio University) Liyun ZHANG (University of Birmingham)	III - Others
17-E-097	July 2017	The Effect of the Fed's Large-scale Asset Purchases on Inflation Expectations	THORBECKE, Willem (RIETI)	- 7
17-E-098	July 2017	To Support R&D or Linkages? Seeking a better policy mix for SME support	SUZUKI Jun (GRIPS)	IV -1
17-E-099	July 2017	Does Foreign Ownership Explain Company Export and Innovation Decisions? Evidence from Japan	OKUBO Toshihiro (Keio University) Alexander F. WAGNER (University of Zurich) YAMADA Kazuo (Nagasaki University)	III - Others
17-E-100	July 2017	Job Creation and Destruction at the Levels of Intra-firm Sections, Firms, and Industries in Globalization: The case of Japanese manufacturing firms	ANDO Mitsuyo (Keio University) KIMURA Fukunari (Keio University / ERIA)	VI - Others
17-E-101	July 2017	R&D and Product Dynamics	MIYAGAWA Tsutomu (RIETI) EDAMURA Kazuma (Japan Productivity Center) KAWAKAMI Atsushi (Toyo University)	VI - Others
17-E-102	July 2017	Asymmetric Reactions of the U.S. Natural Gas Market and Economic Activity	Bao H. NGUYEN (Australian National University) OKIMOTO Tatsuyoshi (RIETI)	V - 4
17-E-103	July 2017	Demographics, Immigration, and Market Size	FUKUMURA Koichi (Osaka University) NAGAMACHI Kohei (Kagawa University) SATO Yasuhiro (The University of Tokyo) YAMAMOTO Kazuhiro (Osaka University)	III - 8
17-E-104	July 2017	No-arbitrage Determinants of Japanese Government Bond Yield and Credit Spread Curves	OKIMOTO Tatsuyoshi (RIETI) TAKAOKA Sumiko (Seikei University)	Multidisciplinary
17-E-105	August 2017	Relationship Specificity, Market Thickness, and International Trade	ARA Tomohiro (Fukushima University) FURUSAWA Taiji (Hitotsubashi University)	II - Others
17-E-106	August 2017	Impact of Foreign Tourists on Productivity in the Accommodation Industry: A panel data analysis	MORIKAWA Masayuki (RIETI)	Multidisciplinary
17-E-107	August 2017	Has the Offshore Service Network Been Expanded by Japanese Firms?	ITO Yukiko (Tsuda University)	VI - Others
17-E-108	August 2017	Do Teaching Practices Matter for Students' Academic Achievement? A case of linguistic activity	TANAKA Ryuichi (The University of Tokyo) ISHIZAKI Kazumi (Tsushima High School)	VII - 2
17-E-109	August 2017	Welfare Benefits and Labor Supply: Evidence from a natural experiment in Japan	YUGAMI Kazufumi (Kobe University) MORIMOTO Atsushi (Kobe University) TANAKA Yoshiyuki (Kobe University)	VII - 2

DP No.	Date	Title	Author(s)	Project No.
17-E-110	August 2017	The Dynamics of Inter-firm Networks and Firm Growth	FUJII Daisuke (RIETI) SAITO Yukiko (RIETI) SENGA Tatsuro (RIETI)	III - 2
17-E-111	August 2017	Accounting for the Role of Information and Communication Technology in China's Productivity Growth	Harry X. WU (Hitotsubashi University) David T. LIANG (Hitotsubashi University)	VI - Others
17-E-112	September 2017	The Number of Bank Relationships and Bank Lending to New Firms: Evidence from firm-level data in Japan	OGANE Yuta (Nanzan University)	III - 10
17-E-113	September 2017	The Impact of FTAs on Procurement Behavior of Japanese Firms' Overseas Affiliates	URATA Shujiro (RIETI) KATO Atsuyuki (RIETI)	II - Others
17-E-114	September 2017	Wholesalers, Indirect Exports, Geography, and Economies of Scope: Evidence from firm transaction data in Japan	ITO Tadashi (Gakushuin University) NAKAMURA Ryohei (RIETI) MORITA Manabu (Aomori Chuo Gakuin University)	III - 6
17-E-115	October 2017	Wage Premium of Exporting Plants in Japan: Do plant and firm size matter?	ITO Koji (RIETI)	Multidisciplinary
17-E-116	October 2017	International Trade and Domestic Production Networks	FUJII Daisuke (RIETI)	III - 2
17-E-117	October 2017	Japanese Plants' Heterogeneity in Sales, Factor Inputs, and Participation in Global Value Chains	ITO Koji (RIETI) Ivan DESEATNICOV (University of Tsukuba) FUKAO Kyoji (RIETI)	Multidisciplinary
17-E-118	November 2017	Corporate Tax Competition in the Presence of Unemployment	MORITA Tadashi (Kindai University) OGAWA Yoshitomo (Kindai University) ONO Yoshiyasu (Osaka University)	III - 8
17-E-119	November 2017	Household Income and the OECD's Four Types of Social Capital	YODO Masato (Kyoto University) YANO Makoto (RIETI)	Multidisciplinary
17-E-120	November 2017	Intraday Seasonality in Efficiency, Liquidity, Volatility, and Volume: Platinum and gold futures in Tokyo and New York	IWATSUBO Kentaro (Kobe University) Clinton WATKINS (Kobe University) XU Tao (Kobe University)	V - 4
17-E-121	November 2017	Vietnamese State-owned Enterprises under International Economic Integration	FUJITA Mai (IDE-JETRO)	II - 6
17-E-122	November 2017	Illiquidity in the Japan Electric Power Exchange	IKEDA Shin Suke (Otaru University of Commerce)	V-2
17-E-123	December 2017	Efficiency among Japanese SMEs: In the context of the zombie firm hypothesis and firm size	GOTO Yasuo (RIETI) Scott WILBUR (University of Southern California)	Multidisciplinary
17-E-124	December 2017	Does Sales Factor Apportionment Benefit the Welfare of State?	MIYOSHI Yoshiyuki (RIETI)	III - 2
17-E-125	December 2017	Spatial Scale of Agglomeration and Dispersion: Theoretical foundations and empirical implications	AKAMATSU Takashi (Tohoku University) MORI Tomoya (RIETI) OSAWA Minoru (Tohoku University) TAKAYAMA Yuki (Kanazawa University)	III - 3
17-E-126	December 2017	Innovation Responses of Japanese Firms to Chinese Import Competition	YAMASHITA Nobuaki (Royal Melbourne Institute of Technology) YAMAUCHI Isamu (RIETI)	IV - 3
18-E-001	January 2018	Subsidies to Public Firms and Competition Modes under a Mixed Duopoly	HIGASHIDA Keisaku (Kwansei Gakuin University)	II - 6
18-E-002	January 2018	White Collar Exemption: Panacea for long work hours and low earnings?	HASEBE Takuya (Sophia University) KONISHI Yoshifumi (University of Tsukuba) SHIN Kong Joo (Kyushu University) MANAGI Shunsuke (RIETI)	V - 11

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18-E-003	January 2018	Parental Leaves and Female Skill Utilization: Evidence from PIAAC	KAWAGUCHI Daiji (RIETI) TORIYABE Takahiro (The University of Tokyo)	VII - 2
18-E-004	January 2018	Global Sourcing and Domestic Production Networks	FURUSAWA Taiji (Hitotsubashi University) INUI Tomohiko (RIETI) ITO Keiko (Senshu University) Heiwai TANG (Johns Hopkins University)	ll - Others
18-E-005	February 2018	Exposure of U.S. Manufacturing Industries to Exchange Rates	Willem THORBECKE (RIETI)	I - 7
18-E-006	February 2018	Firm Age, Size, and Employment Dynamics: Evidence from Japanese firms	LIU Yang (RIETI)	SP - 2
18-E-007	February 2018	Empirical Evidence for Collective Motion of Prices with Macroeconomic Indicators in Japan	KICHIKAWA Yuichi (Niigata University) IYETOMI Hiroshi (Niigata University) AOYAMA Hideaki (RIETI) YOSHIKAWA Hiroshi (RIETI)	V - 3
18-E-008	February 2018	Losses on Asset Returns Caused by Perception Gaps of Fundamental Values: Evidence from laboratory experiments	HIGASHIDA Keisaku (Kwansei Gakuin University) TANAKA Kenta (Musashi University) MANAGI Shunsuke (RIETI)	V - 11
18-E-009	February 2018	Wealth Distribution in the Endogenous Growth Model with Idiosyncratic Investment Risk	HIRAGUCHI Ryoji (Meiji University)	V - Others
18-E-010	March 2018	Uncertainty, Imperfect Information, and Learning in the International Market	CHEN Cheng (University of Hong Kong) SENGA Tatsuro (RIETI) SUN Chang (University of Hong Kong) ZHANG Hongyong (RIETI)	II - 2
18-E-011	March 2018	How Firms Choose their Partners in the Japanese Supplier-Customer Network? An application of the exponential random graph model	Hazem KRICHENE (University of Hyogo) ARATA Yoshiyuki (RIETI) Abhijit CHAKRABORTY (University of Hyogo) FUJIWARA Yoshi (University of Hyogo) INOUE Hiroyasu (University of Hyogo)	V - 3
18-E-012	March 2018	Excess Capacity and Effectiveness of Policy Interventions: Evidence from the cement industry	OKAZAKI Tetsuji (RIETI) ONISHI Ken (Singapore Management University) WAKAMORI Naoki (The University of Tokyo)	IX - 3
18-E-013	March 2018	Firm-level Simulation of Supply Chain Disruption Triggered by Actual and Predicted Earthquakes	INOUE Hiroyasu (University of Hyogo) TODO Yasuyuki (RIETI)	V - 3
18-E-014	March 2018	Quantifying Health Shocks over the Life Cycle	FUKAI Taiyo (The University of Tokyo) ICHIMURA Hidehiko (RIETI) KANAZAWA Kyogo (The University of Tokyo)	I - Others
18-E-015	March 2018	Uncertainty over Working Schedules and Compensating Wage Differentials: From the viewpoint of labor management	MORIKAWA Masayuki (RIETI)	Multidisciplinary
18-E-016	March 2018	How does Graduate Education Affect Inventive Performance? Evidence from undergraduates' choices during recessions	ONISHI Koichiro (Osaka Institute of Technology) NAGAOKA Sadao (RIETI)	IV - 1
18-E-017	March 2018	Markups, City Size, and Exports: Evidence from Japan	KONDO Keisuke (RIETI)	SP - 2
18-E-018	March 2018	Inventor Name Disambiguation with Gradient Boosting Decision Tree and Inventor Mobility in China (1985-2016)	YIN Deyun (The University of Tokyo) MOTOHASHI Kazuyuki (RIETI)	IV - 7
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18-E-020	March 2018	Where Do the Rich Live in a Big City?	TABUCHI Takatoshi (RIETI)	III - 9

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17-J-030	April 2017	Research on Fiscal System Reform in China: For reconstruction of the relationship between central and local governments	MENG Jianjun (RIETI)	Multidisciplinary
17-J-031	April 2017	Empirical Analysis on the Earnings Quality of Japanese SMEs	KIM Hyonok (Tokyo Keizai University) YASUDA Yukihiro (Hitotsubashi University)	V - Others
17-J-032	April 2017	Defining the Relevant Market in the Digital Platform Industry	KAWAHAMA Noboru (RIETI) TAKEDA Kuninobu (Osaka University)	V - Others
17-J-033	April 2017	Does Impaired Loss Accounting Affect Firms' Investment? Evidence from Japan	UESUGI lichiro (RIETI) NAKAJIMA Kentaro (Hitotsubashi University) HOSONO Kaoru (Gakushuin University)	V -Others
7-J-034	April 2017	Does Inter-firm Collaboration Network Improve Quality of Innovation? International comparative analysis from worldwide patent data	IINO Takashi (Niigata University) INOUE Hiroyasu (University of Hyogo) SAITO Yukiko (RIETI) TODO Yasuyuki (RIETI)	ll - Others
17-J-035	April 2017	Household Savings Rate in National Accounts and Household Surveys in Japan	UNAYAMA Takashi (RIETI) OHNO Taro (Shinshu University)	V - Others
17-J-036	May 2017	Regional Variations in Access to Healthcare among Japanese Individuals over 50 Years Old: An analysis using JSTAR	SHOJI Keishi (Research Office on Financial Affairs, Research Bureau, The House of Representatives) IBUKA Yoko (Keio University)	VI - Others
17-J-037	May 2017	University-Industry R&D Collaboration as an Engine of Firm Growth? An empirical evaluation of knowledge cluster policies in Japan	OKAMURO Hiroyuki (Hitotsubashi University) IKEUCHI Kenta (RIETI)	VI - Others
17-J-038	May 2017	The Impact of Dividend Exemption on the Activities of Japanese- owned Foreign Affiliates	HASEGAWA Makoto (GRIPS) KIYOTA Kozo (RIETI)	VI - Others
17-J-039	June 2017	Penetration of Generic Drugs and Incentives: Effect of introducing pricing premiums for generic prescriptions	NISHIKAWA Kohei (Setsunan University) OHASHI Hiroshi (RIETI)	V - Others
17-J-040	June 2017	Strong Belief in the Japanese Farm Policy of the Need to Support Small-scale Farmers	YAMASHITA Kazuhito (RIETI)	Multidisciplinar
17-J-041	July 2017	Antidumping Duties on Chinese Products: Effects of expiration of Article 15.a.ii of China's WTO Accession Protocol and countermeasures	UMEJIMA Osamu (Takasaki City University of Economics)	II - 6
17-J-042	July 2017	Economic Growth and the Change of Industrial Structure	YOSHIKAWA Hiroshi (RIETI) ANDO Koichi (Chuo University)	V - Others
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17-J-044	July 2017	How Do Branch Managers of Regional Financial Institutions Deal with Regional Revitalization: Results of the 2017 RIETI branch manager questionnaire	YAMORI Nobuyoshi (RIETI) AIZAWA Tomoko (Nihon University) UMINO Shingo (Kochi University) OGAWA Hikaru (The University of Tokyo) OZAKI Yasufumi (Kushiro Public University) KONDO Kazumine (Aichi Gakuin University) TAKAKU Kenya (Hirosihma City University) TAKIMAYA Kei (Aichi University) HARIMAYA Kozo (Ritsumeikan University) YANAGIHARA Mitsuyoshi (Nagoya University)	III - 10

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17-J-045	July 2017	Do Branch Network Sizes of Regional Banks Influence Their Management Performances Positively?	KONDO Kazumine (Aichi Gakuin University)	III - 10
17-J-046	August 2017	Capital Injection and Japanese Regional Bank Lending	NAGATA Kunikazu (Kagoshima University)	III - 10
17-J-047	August 2017	The Impact of the Competitive Environment of Regional Financial Institutions on the Opening and Closing of Business Establishments	HARIMAYA Kozo (Ritsumeikan University) OZAKI Yasufumi (Kushiro Public University)	III - 10
17-J-048	August 2017	Location of Universities and National Research Institutes and Firms' Location Choice of R&D Facilities	EDAMURA Kazuma (Japan Productivity Center) INUI Tomohiko (RIETI) YAMAUCHI Isamu (RIETI)	VI - Others
17-J-049	August 2017	Background Analysis on the Anxiety toward New Technology: Comparison between Japan and the United States	TODA Akihito (Recruit Works Institute) CHUMA Hiroyuki (RIETI) HAYASHI Susumu (Kyoto University) KUME Koichi (Toyo University)	IV - 4
17-J-050	August 2017	Wage Premium of Exporting Plants in Japan: Analysis on matched employer-employee data	ITO Koji (RIETI)	Multidisciplinary
17-J-051	August 2017	Corporate Tax Reform and Tax Incidence in Japan	DOI Takero (Keio University)	I - Others
17-J-052	August 2017	On the Effects of Teachers' Majors in Natural Science on Students' Academic Achievement in Science: An analysis of TIMSS data for Japan	INOUE Atsushi (GRIPS) TANAKA Ryuichi (The University of Tokyo)	VII - 2
17-J-053	August 2017	Self-Evolvability and Attitude toward Technological Changes: An empirical analysis using a survey	KUME Koichi (Toyo University) CHUMA Hiroyuki (RIETI) HAYASHI Susumu (Kyoto University) TODA Akihito (Recruit Works Institute)	IV - 4
17-J-054	August 2017	Investment Behavior of Japanese Small and Medium-sized Enterprises and Its Structural Change: The influences of the guarantee system and macroeconomics conditions after the financial crisis	KOZUKA Masafumi (University of Marketing and Distribution Sciences)	III - 10
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17-J-056	August 2017	The Impact of Educational Programs for Managers by Community Banks: The case of a program by Kanazawa Shinkin Bank	KITANO Yuji (Momoyama Gakuin University)	III - 10
17-J-057	September 2017	The Latent Heterogeneity of the Wage Structure and Gender Wage Gap: Dual economy analysis revisited	YAMAGUCHI Kazuo (RIETI)	Multidisciplinary
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17-J-061	October 2017	Economic Impact Analysis of Regional Policy: An interregional input-output model considering interregional commuting and consuming regions	ISHIKAWA Yoshifumi (Nanzan University) NAKAMURA Ryohei (RIETI)	III - 6
17-J-062	October 2017	Role of Managers in the Fourth Industrial Revolution: From the viewpoint of comparing Japan and the United States	TODA Akihito (Recruit Works Institute) CHUMA Hiroyuki (RIETI) HAYASHI Susumu (Kyoto University) KUME Koichi (Toyo University)	IV - 4
17-J-063	October 2017	Current Conditions and Challenges of Third-sector Organizations in Japan: Considerations based on the Fourth Survey on the Third Sector (2017)	USHIRO Fusao (RIETI) SAKAMOTO Haruya (Kansai University)	SP - 3
17-J-064	October 2017	Risk-taking Behavior in Cooperative Financial Institutions and Financial Stability in Japan: Lessons from the Global Financial Crisis	OHKUMA Masanori (Okayama University)	III-10
17-J-065	October 2017	Components of the Japanese Third Sector and its Transformation: Focusing on the period of association founding	YAMAMOTO Hidehiro (Yamagata University)	SP-3

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17-J-067	November 2017	Regional Revitalization and Financial Relations between Local Governments and the Third Sector	KITAMI Tomitaro (RIETI)	SP - 3
17-J-068	November 2017	Evaluating Factors Affecting the Occurrence of Mission Drift in Third-sector Organizations	KOTAGIRI Yasuhiko (Tokushima University)	SP - 3
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17-J-071	November 2017	Contents, Methods, and Skills Outcome of University Education by Academic Disciplines in Humanities and Social Sciences	HONDA Yuki (The University of Tokyo)	VII - 1
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17-J-073	December 2017	Impacts of Working Time on Life Satisfaction: Empirical analysis using data from a large-scale survey in Japan	TSURUMI Tetsuya (Nanzan University) MANAGI Shunsuke (RIETI)	V - 11
17-J-074	December 2017	Political and Policy Implications on the History of the Kyoto Protocol	MAKIHARA Izuru (The University of Tokyo)	IX - 2
17-J-075	December 2017	Review of Necessary Assumptions for Difference-In-Difference (DID) Estimation and Development of Bias Correction Methods for DID where Spillover Effects of Treatment/Causal Effects to the Control Group are not Ignorable and SUTVA Violated	KAINOU Kazunari (RIETI)	Multidisciplinary
17-J-076	December 2017	Historical Significance of the Intelligent Manufacturing Systems (IMS)	TAKEDA Haruhito (RIETI)	IX - 1
18-J-001	January 2018	A Single Economic Entity of Chinese SOEs: <i>EDF/CGN/NNB Group of Companies</i> merger case (2016)	TAKEDA Kuninobu (Osaka University)	II - 6
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18-J-004	January 2018	Autonomous Vehicles in Japan: Latent demand and social dilemma	MORITA Tamaki (Yamanashi Prefectural University) MANAGI Shunsuke (RIETI)	V - 11
18-J-005	February 2018	Effects of Automated Driving on Vehicle Miles Traveled: An empirical analysis of Japanese household survey data	IWATA Kazuyuki (Matsuyama University) MANAGI Shunsuke (RIETI)	V - 11
18-J-006	February 2018	Relationship between Labor Regulations and Investment for Technology: Analysis of the effect of labor regulation change for investment of capital and information technology	TANAKA Kenta (Musashi University) KOMURA Mizuki (Musashi University) MANAGI Shunsuke (RIETI)	V -11
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18-J-008	March 2018	Uncertainty over Working Schedules and Compensating Wage Differentials	MORIKAWA Masayuki (RIETI)	Multidisciplinary
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18-J-010	March 2018	Smoking, Obesity, and Labor Market Outcomes	MORIKAWA Masayuki (RIETI)	Multidisciplinary
18-J-011	March 2018	Influence of Having Legal Person Status, Commercialization, and Professionalization of Third Sector Organizations on Their Employment: Based on the survey data on Japan's third sector in 2014	NIHEI Norihiro (The University of Tokyo)	SP - 3
18-J-012	March 2018	Effects of Distance and Borders on International and Interregional Tourist Flows: A micro gravity analysis	MORIKAWA Masayuki (RIETI)	Multidisciplinary

# **Policy Discussion Papers**

Note: Policy Discussion Papers listed below were published from April 2017 to March 2018.

Policy Discussion Papers have a strong link to timely policy issues facing Japan. Although most of the papers are written only in Japanese unless otherwise stated, the English abstract of each paper can be found at the following:

# Policy Discussion Papers written in Japanesehttps://www.rieti.go.jp/en/publications/act\_pdp\_jp.htmlPolicy Discussion Papers written in Englishhttps://www.rieti.go.jp/en/publications/act\_pdp.html

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17-P-014	April 2017	Spatial Economic Analysis of Natural Disaster Restoration	FUJITA Masahisa (Konan University) HAMAGUCHI Nobuaki (RIETI) KAMEYAMA Yoshihiro (Saga University)	III - Others
17-P-015	May 2017	Human Capital Theory Reconsidered as Social Network in the Age of Al/IoT	CHUMA Hiroyuki (RIETI)	IV - 4
17-P-016	May 2017	[WTO Case Review Series No.17] <i>Peru—Additional Duty on Imports of Certain Agricultural Products</i> (WT/DS457): Certain implications on the variable tariff system and the relationship between the WTO Agreement and regional trade agreements	KAWASE Tsuyoshi (RIETI)	II - 6
17-P-017	June 2017	IT and AI Technology and New Agricultural Management	YAMASHITA Kazuhito (RIETI)	V - Others
17-P-018	June 2017	[WTO Case Review Series No.18] <i>India—Certain Measures Relating to Solar Cells and Solar Modules</i> (WT/DS456): Developing interpretation regarding government procurement, Articles XX(d) and XX(j) of the GATT	SEKINE Takemasa (Nagoya University of Commerce and Business)	II - 6
17-P-019	June 2017	Policy Uncertainty in Japan	ITO Arata (RIETI)	Multidisciplinary
17-P-020	June 2017	Development of SME Competitiveness Using IoT in the Fourth Industrial Revolution	IWAMOTO Koichi (RIETI) HATANO Aya (RIETI / Kochi University of Technology)	IV - 5
17-P-021	July 2017	China's One Belt One Road Initiative is the New World Order Leading to Mutual Prosperity	ENOMOTO Shunichi (RIETI)	II - Others
17-P-022	July 2017	Survey on Management Score and Quality Adjustment in Medical and Nursing Services	INUI Tomohiko (RIETI) ITO Yukiko (Tokyo Gakugei University) MIYAGAWA Tsutomu (RIETI) SATO Kina (Tokyo Institute of Technology)	VI - Others
17-P-023	July 2017	[WTO Case Review Series No.19] <i>United States—Measures Affecting the Importation of Animals, Meat and Other Animal Products from Argentina</i> (WT/DS447): A delay in the review procedures upon request for imports and the SPS Agreement	ISHIKAWA Yoshimichi (University of Shizuoka)	II - 6
17-P-024	August 2017	[WTO Case Review Series No.20] <i>United States—Measures</i> <i>Concerning the Importation, Marketing and Sale of Tuna and Tuna</i> <i>Products</i> (DS381/RW): The notion of "calibration" and legitimate regulatory distinctions under Article 2.1 of the TBT Agreement	NAIKI Yoshiko (Osaka University)	II - 6
17-P-025	August 2017	[WTO Case Review Series No.21] <i>United States—Certain Country of Origin Labelling Requirements</i> (DS384/RW, 386/RW): Clarifying Article 2.2 of the TBT Agreement	NAIKI Yoshiko (Osaka University)	II - 6
17-P-026	August 2017	Analysis of a Typical Japanese Offshore Wind Farm Project: Reviewing the Kitakyushu Hibikinada offshore wind farm industrial accumulation project	IWAMOTO Koichi (RIETI)	IV - Others

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17-P-027 (in English)	August 2017	Survey of Big Data Use and Innovation in Japanese Manufacturing Firms	MOTOHASHI Kazuyuki (RIETI)	IV - Others
17-P-028	August 2017	[WTO Case Review Series No.22] <i>Argentina—Measures Relating to Trade in Goods and Services</i> (DS453): Discrimination against countries not cooperating for tax transparency purposes and legal disciplines of the GATS	KAWASHIMA Fujio (Kobe University)	II - 6
17-P-029	August 2017	Digitalization, Computerization, Networking, Automation, Future of Jobs, and Social Policy in Japan's Fourth Industrial Revolution	IWAMOTO Koichi (RIETI) HATANO Aya (RIETI / Kochi University of Technology)	IV - 5
17-P-030	November 2017	[WTO Case Review Series No.23] <i>Colombia—Measures Relating to the Importation of Textiles, Apparel and Footwear</i> (DS461): The legality of trade restrictions intended to prevent money laundering	ITO Kazuyori (Hokkaido University)	II - 6
17-P-031	November 2017	Human Capital/Human Intelligence and Neuromorphic Artificial Intelligence: In pursuit of the relevant intelligence concept	CHUMA Hiroyuki (RIETI) IMAI Masaharu (ASIP Solutions, Inc.) KUROKAWA Toshiaki	IV - 4
17-P-032	November 2017	Why Did Germany's Hidden Champions Succeed in Globalization?	IWAMOTO Koichi (RIETI)	IV - 5
17-P-033	November 2017	Al and the Future Society: Impact on labor and globalization	HAYASHI Susumu (Kyoto University)	IV - 4
17-P-034	November 2017	[WTO Case Review Series No.24] <i>Russian Federation—Measures on the Importation of Live Pigs, Pork and Other Pig Products from the European Union</i> (DS475): Clarifying the regulatory framework of regionalization under Article 6 of the SPS Agreement	ISHIKAWA Yoshimichi (University of Shizuoka)	II - 6
17-P-035	December 2017	Aesthetic Activities Will Increase in the Era of General Purpose AI	FUJI Kazuhiko (RIETI)	Multidisciplinary
18-P-001	January 2018	Markets for Balancing Power and Transmission Rights Operated by the European TSOs: Implications for the electric power system reform in Japan	HATTA Tatsuo (Asian Growth Research Institute) IKEDA Shin Suke (Otaru University of Commerce)	V - 2
18-P-002	January 2018	Locational Transmission Tariffs in Sweden	KUMAGAI Reiko (Tezukayama University)	V- 2
18-P-003	March 2018	Survey of the Consequences and Determinants of Corporate Social Responsibility	ENDO Kazumi (Nakasone Yasuhiro Peace Institute)	VI - 3
18-P-004	March 2018	Structural Change in Firm Dynamics, Inter-firm Network, and Geography	OGURA Yoshiaki (Waseda University) SAITO Yukiko (RIETI)	III - 2
18-P-005	March 2018	Structure of Leading and Lagging Relationships between Early Warning Indicators' Detection of Financial Crises	SOUMA Wataru (Nihon University) IYETOMI Hiroshi (Niigata University) YOSHIKAWA Hiroshi (RIETI)	V - 3

# List of Peer-reviewed Papers Published in Academic Journals

### https://www.rieti.go.jp/jp/publications/published/

DP	/ PDP
1	Morikawa, Masayuki. "Firms' expectations about the impact of AI and robotics: Evidence from a survey." <i>Economic Inquiry</i> 55, no. 2 (2017), 1054-1063. http://onlinelibrary.wiley.com/doi/10.1111/ecin.12412/full RIETI Discussion Paper, 16-E-066 https://www.rieti.go.jp/en/publications/summary/16040008.html
2	Sawada, Yasuyuki, Hiroyuki Nakata, and Tomoaki Kotera. "Self-production, friction, and risk sharing against disasters: Evidence from a developing country." <i>World Development</i> 94 (2017), 27-37. http://www.sciencedirect.com/science/article/pii/S0305750X16305897 RIETI Discussion Paper, 11-E-017 https://www.rieti.go.jp/en/publications/summary/11030025.html
3	Kim, Young Gak, and Hyeog Ug Kwon. "Aggregate and firm-level volatility in the Japanese economy." <i>The Japanese Economic Review</i> 68, no. 2 (2017), 158-172. http://onlinelibrary.wiley.com/doi/10.1111/jere.12132/full RIETI Discussion Paper, 12-E-030 https://www.rieti.go.jp/en/publications/summary/12050006.html
4	Naito, Takumi. "An Eaton-Kortum model of trade and growth." <i>Canadian Journal of Economics</i> 50, no. 2 (2017), 456-480. http://onlinelibrary.wiley.com/doi/10.1111/caje.12265/full RIETI Discussion Paper, 12-E-055 https://www.rieti.go.jp/en/publications/summary/12090006.html
5	Kani, Masayo, and Kazuyuki Motohashi. "Determinants of demand for technology in relationships with complementary assets among Japanese firms." <i>China Economic Journal</i> 10, no. 2 (2017), 244-262. http://www.tandfonline.com/doi/full/10.1080/17538963.2017.1320048 RIETI Discussion Paper, 13-E-033 https://www.rieti.go.jp/en/publications/summary/13040015.html
6	Mukunoki, Hiroshi. "The welfare effect of a free trade agreement in the presence of foreign direct investment and rules of origin." <i>Review of International Economics</i> 25, no. 4 (2017), 733-759. http://onlinelibrary.wiley.com/doi/10.1111/roie.12282/abstract RIETI Discussion Paper, 13-E-053 https://www.rieti.go.jp/en/publications/summary/13060012.html
7	Fukao, Kyoji, Kenta Ikeuchi, Young G. Kim, and Hyeog U. Kwon. "Innovation and employment growth in Japan: Analysis based on microdata from the basic survey of Japanese business structure and activities." <i>The Japanese Economic Review</i> 68, no. 2 (2017), 200-216. http://onlinelibrary.wiley.com/doi/10.1111/jere.12146/abstract RIETI Discussion Paper, 16-J-002 https://www.rieti.go.jp/en/publications/summary/16010009.html
8	Inui, Tomohiko, Keiko Ito, and Daisuke Miyakawa. "Export experience, product differentiation, and firm survival in export markets." <i>Japanese Economic Review</i> 68, no. 2 (2017), 217-231. http://onlinelibrary.wiley.com/doi/10.1111/jere.12083/full RIETI Discussion Paper, 15-E-086 https://www.rieti.go.jp/en/publications/summary/15070014.html
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# **Public Relations Activities**

### **Dissemination of Research Results**

The role of policy research institutes does not end with the completion of research. They have an obligation to stimulate policy debates by broadly disseminating the results of their research. RIETI actively disseminates its research results via publications, website postings, publicity materials, and events such as symposiums and seminars.

### **Publications**

Website

**Publicity Materials** 

Symposiums

Workshops and Seminars

**BBL Seminars** 

# **Publications**

RIETI's research findings are distributed by various publishers.

These publications contribute to society by accumulating and providing information. https://www.rieti.go.jp/en/publications/

### Publications in the fourth medium-term period (FY2016-2017)



Toward a Service-oriented Country: Opening a new frontier of the mature economy April 2016 Written by MORIKAWA Masayuki

Nikkei Publishing Inc.



Corporate Governance and Growth Strategies February 2017 Written and edited by MIYAJIMA Hideaki Toyo Keizai Inc.



Revitalization of the Hokuriku Region, Internationalization, and Innovation September 2017 Written and edited by MARUYA Toyojiro, HAMAGUCHI Nobuaki,



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analvsis

May 2017

男女不平等

理論と実証分析

Gender Inequality in the

Nikkei Publishing Inc.

Workplace: Theory and empirical

Written by YAMAGUCHI Kazuo

The Japanese Economy and the Energy Supply following the Nuclear Power Accident: Effects of the Great East Japan Earthquake July 2016 Written by MANAGI Shunsuke Minerva Shobo Co., Ltd.



The Economy of Intangibles: Intangible Investment and Productivity Improvements in Japan September 2016 Edited by MIYAGAWA Tsutomu, ASABA Shigeru, HOSONO Kaoru University of Tokyo Press



Scientific Management of Human Resources with Applications to Japanese Companies: Utilizing data based on causal inference June 2017 Written by OWAN Hideo Nikkei Publishing Inc.



Reform of the Japanese Employment System for Revitalizing Workers and the Economy September 2016 Written by TSURU Kotaro Nikkei Publishing Inc.



Macro-Econophysics: New Studies on Economic Networks and Synchronization July 2017 Written by AOYAMA Hideaki, FUJIWARA Yoshi, IKEDA Yuichi, IYETOMI Hiroshi, SOUMA Wataru, YOSHIKAWA Hiroshi Cambridge University Press



KUMAGAI Satoru, SHIRAMATA Shuji Nippon Hyoronsha Co., Ltd.



SMEs' Attempts to Go IoT September 2017 Written and edited by IWAMOTO Koichi, INOUE Yusuke Nikkan Kogyo Shimbun



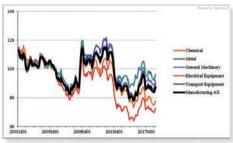
Spatial Economics in the Age of Declining Population February 2018 Written by FUJITA Masahisa, HAMAGUCHI Nobuaki, KAMEYAMA Yoshihiro Nikkei Publishing Inc.



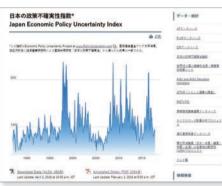
Role of Local Financial Institutions for Regional Revitalization March 2018 Written and edited by YAMORI Nobuyoshi Chuokeizai-sha, Inc.

Publications in the first, second, and third medium-term periods (FY2001-2005 / FY2006-2010 / FY2011-2015) can be found on: https://www.rieti.go.jp/en/publications/act rb.html (English publications) https://www.rieti.go.jp/en/publications/act rb jp.html (Japanese publications) Operated in three languages — Japanese, English, and Chinese — the RIETI website is a key element in our public relations activities. The number of page views for each language has been growing steadily (see the table below). The website makes available to the public a wide range of materials offering in-depth analyses on individual policy issues such as Discussion Papers written by fellows, summaries and handout materials of policy symposiums/seminars.





Industry-Specific Real Effective Exchange Rate



Japan Economic Policy Uncertainty Index

	January 22, 2002– March 31, 2018 (Approx. 16 years)	April 1, 2017– March 31, 2018 (FY2017)
Japanese	13,206,409	1,411,437
English	3,500,941	207,033
Chinese	1,084,862	55,581

Website traffic

Special efforts have been made to enrich the content of the RIETI website by providing access to the work of individual Research Fellows and study groups. These are quite unique and exclusive to RIETI.

#### Some examples are:

As part of the Raising Industrial and Firm Productivity program's results, the Japan Industrial Productivity Database 2015 (JIP Database 2015) is published to serve as a basic resource for the analysis of Japan's economic growth and changes in its industrial structure. JIP has been thoroughly reviewed in accordance to the changes made to the GDP statistics based on the 2008 SNA standards.

https://www.rieti.go.jp/en/database/JIP2015/index.html

The Research on Currency Baskets program started publishing the novel dataset of the industry-specific nominal effective exchange rate (I-NEER) and the industry-specific real effective exchange rate (I-REER) in May 2011. From March 2015, the program began releasing the daily and monthly series of I-NEER and I-REER for nine Asian economies. As of February 2018, the number of countries has increased to 25, including Europe, North America and Oceania.

https://www.rieti.go.jp/users/eeri/en/

In the Japanese Study of Aging and Retirement (JSTAR), information about a panel survey of middle-aged and elderly citizens aged 50 or higher conducted jointly by RIETI, Hitotsubashi University, and the University of Tokyo is posted. https://www.rieti.go.jp/en/projects/jstar/

The Japan Economic Policy Uncertainty Index which is a research finding of "Policy Uncertainty in Japan", an international joint research project between RIETI and the IMF Regional Office for Asia and Pacific, shows economic policy uncertainty (EPU) indices for Japan, and is now published in Japanese. https://www.rieti.go.jp/jp/database/policyuncertainty/

In the Non Technical Summary that briefly summarizes the policy implications based on an analysis of discussion papers, we actively make policy proposals. https://www.rieti.go.jp/en/publications/nts/

RIETI is partnering with the Centre for Economic Policy Research (CEPR), a leading European research network, to make its research findings more accessible to an international audience, and articles by RIETI fellows now appear on CEPR's policy portal, VoxEU.org. Vice versa, VoxEU.org articles are published on RIETI's site to raise awareness of key developments in policy discourse overseas. https://www.rieti.go.jp/en/columns/voxeu.html

The Column section features articles written by RIETI fellows on policy matters and proposals.

https://www.rieti.go.jp/jp/columns/

The Perspectives from Around the World section introduces the views of some of the world's leading researchers regarding various issues including economic policy, security, and environmental problems.

https://www.rieti.go.jp/en/special/p\_a\_w/

Other popular contents include China in Transition by Consulting Fellow Chi Hung Kwan, who shines the spotlight on five areas-economic reform in China, Chinese economics, Chinese industries and enterprises, China in the world, and Sino-Japanese relations, and From IZA, which introduces selected articles on global labor market issues from the Institute of the Study of Labor (IZA), a private independent economic research institute in Germany which aims to support evidence-based policymaking and increase awareness of labor market issues.

China in Transition: https://www.rieti.go.jp/en/china/index.html

From IZA: https://www.rieti.go.jp/en/special/from-iza/

A number of past popular serial articles by our researchers, including China in Transition, have been published in book form.

**Publicity Materials** Relations Activities

To promote wide dissemination of research results and subsequent contributions that invigorate policy debate, a variety of publicity materials are available in print and downloadable from our website.

Materials for dissemination of research results

### **RIETI Highlight**

Public

#### https://www.rieti.go.jp/en/about/pr/archive.html

RIETI Highlight is a guarterly public relations magazine that keeps readers up-to-date on the activities of RIETI. Each issue includes brief reports on symposiums, workshops and seminars, reviews of new publications, and columns written by our fellows. A column titled "Research Digest," which introduces recently published Discussion Papers through interviews with their authors, explores the motivation underlying their research in an easy-to-understand manner that has been well-received by readers.

Volume: approx. 50 pages Languages: Japanese / English (only for Special Issues)



Quarterly issues (Japanese)

Materials about RIETI

### **Brochures**

#### https://www.rieti.go.jp/en/about/pr/brochure.html

Brochures introduce general information on RIETI including RIETI's mission, research themes and processes, an access map, and organization charts.

Languages: Japanese, English, Chinese



### **Annual Report**

### https://www.rieti.go.jp/en/about/pr/index\_report.html

The Annual Report is a concise summary of RIETI's entire activities in each fiscal year. It reports on topics such as research projects, fellows' activities, and PR activities.

Volume: approx. 80 pages Languages: Japanese, English, Chinese (Chinese only available in PDF)



Institute of Economic Research, Kyoto University Symposium Series II: Toward Realization of an Evidence-based Society Nurturing Prosperity

#### The 5th Round: Human Resource Development that Nurtures the Idea of Integrating Humanities and Science: Connecting creators with users

https://www.rieti.go.jp/jp/events/17061701/info.html

Date	June 17, 2017
Venue	Symposium Hall, 5th floor, International Science Innovation Building, Kyoto University
Hosts	Institute of Economic Research, Kyoto University (KIER) (Project to Build an Evidence-based Society, The Research Center for Advanced Policy Studies (CAPS), International Joint Research Center of Advanced Economic Theory)
Co-hosts	Social Science Unit for Research and Education, C-PIER, Kyoto University; KIER Foundation; RIETI
Program	

#### **Opening Remarks**

Presentation: "Range and Depth of University Education"

Presentation: "Issues Regarding Human Resource Training at Universities: Can expertise and versatility be developed at the same time?"

Presentation: "Society's Needs and Information Transmission from Universities"

Panel Discussion: "Integration of Humanities and Science at Educational Institutions"

Introduction of the Theme: "Current Issues in Human Resource Development Programs in Terms of Public Policies"

Discussion

**Closing Remarks** 

#### Speakers/Panelists/Moderator

TOJO Junshi (Associate Professor, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER)) YANO Makoto (President and CRO, RIETI / Director, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER))

TOKIWA Yutaka (Director-General, Higher Education, MEXT)

KITANO Masao (Executive Vice-President, Kyoto University)

YOKOYAMA Hiromi (Professor, The University of Tokyo, Kavli IPMU)

NISHIYAMA Yoshihiko (Vice Director and Professor, Institute of Economic Research, Kyoto University (KIER))

NAKANISHI Hiroshi (Dean of School of Government and Professor, Kyoto University School of Government)

#### **RIETI International Symposium**

### Information Technology and the New Globalization: Asia's economy today and tomorrow

#### https://www.rieti.go.jp/en/events/17080101/info.html

Date	August 1, 2017			
Venue lino Hall and Conference Center, Room A				
Host	RIETI			
Co-hosts	Japan Productivity Center (JPC); Hitotsubashi Institute for Advanced Study (HIAS); Grant-in-Aid for Scientific Research (S) Grant Number 16H06322 Project "Service Sector Productivity in Japan (SSPJ): Determinants and Policies"			
Participants	139			
Program				
Welcoming F	lemarks			
Keynote Speech: "The Second Phase of Abenomics"				
Keynote Spe	ech: "The Great Convergence"			
Panel Discus	sion			

#### Speakers/Panelists/Moderator

NAKAJIMA Atsushi (Chairman, RIETI)

Dale W. JORGENSON (Samuel W. Morris University Professor, Harvard University)

Richard E. BALDWIN (Professor, Graduate Institute, Geneva / President, Centre for Economic Policy Research)

FUKAO Kyoji (PD and FF, RIETI / Professor, Institute of Economic Research, Hitotsubashi University / Chair of the Fourth Asia KLEMS Conference) KIYOTA Kozo (RAs, RIETI / Professor of Economics, Keio Economic

Observatory and Graduate School of Economics, Keio University) SEKINE Toshitaka (Director-General, Research and Statistics Department,

Bank of Japan)

MORIKAWA Masayuki (Vice Chairman & Vice President, RIETI) Lawrence J. LAU (Ralph and Claire Landau Professor of Economics, The Chinese University of Hong Kong)







#### METI-RIETI Policy Symposium

#### New Industrial Structure Vision: Japan's strategies and challenges for establishing new economic and social systems

https://www.rieti.go.jp/en/events/17082301/info.html

	Date	August 23, 2017
	Venue	Nadao Hall, Japan National Council of Social Welfare (Zenshakyo)
	Hosts	METI; RIETI
	Participants	212

#### Program

Opening Remarks Keynote Speech

Panel Discussion

#### Speakers/Panelists/Moderator

NAKAJIMA Atsushi (Chairman, RIETI)

KASUTANI Toshihide (Director-General, Economic and Industrial Policy Bureau, METI)

SEKIGUCHI Hiroyuki (Senior Commentator, NHK)

MIURA Takatoshi (Director, Industrial Revitalization Division, Economic and Industrial Policy Bureau, METI)

NISHIKAWA Toru (President & CEO, Preferred Networks, Inc.)

ITOH Motoshige (Chair, New Industrial Structure Committee, Industrial Structure Council / Professor Emeritus, The University of Tokyo / Professor, Faculty of International Social Sciences, Gakushuin University)

YANO Makoto (President and CRO, RIETI / Professor, Institute of Economic Research, Kyoto University (KIER))







#### METI-RIETI Symposium

### Overcoming Challenges Faced by Japanese Companies in Overseas M&A

https://v	https://www.rieti.go.jp/en/events/17112901/info.html				
<b>D</b> .	N 1 00 0017				

Date	November 29, 2017
Venue	Bellesalle Hanzomon
Hosts	METI; RIETI
Participants	428

#### Program

Opening Remarks

Address by the Minister (Video Message)

Keynote Speech 1: "Overcoming Challenges Faced by Japanese Companies in Overseas M&A: A proposal based on the discussion at the Study Group for Japanese Companies' M&A Overseas"

Keynote Speech 2: "Overseas M&A Activities of Nidec Corporation" Panel Discussion

#### Speakers/Panelists/Moderator

NAKAJIMA Atsushi (Chairman, RIETI) SEKO Hiroshige (Minister of Economy, Trade and Industry) MIYAJIMA Hideaki (FF, RIETI / Professor, Graduate School of Commerce, Waseda University / Director, Waseda Institute for Advanced Study / Chairman, Study Group for Japanese Companies' M&A Overseas, METI) NAGAMORI Shigenobu (Chairman of the Board, President & CEO, Nidec Corporation) ODA Hiroyuki (Executive Officer & General Manager, Strategic Research Division, The Bank of Tokyo-Mitsubishi UFJ, Ltd.) KATO Nobuya (Vice President, Business Development and Corporate Strategy, Japan Tobacco Inc.) DOI Koichiro (Managing Director, Head of M&A, Investment Banking, J.P. Morgan Securities Japan Co., Ltd.) Joachim BACZEWSKI (President and Representative Director, Bosch Packaging Technology K.K.) MATSUE Hideo (Partner, Deloitte Tohmatsu Consulting LLC / Member of the Study Group for Japanese Companies' M&A Overseas, METI)

MORIKAWA Masayuki (Vice President, RIETI)







Hokuriku AJEC-RIETI- IDE-JETRO- Fukui Prefectural University Joint Symposium

# Revitalization of the Hokuriku Region, Internationalization, and Innovation: How to incorporate global growth into the local economy

https://www.rieti.go.jp/en/events/17113001/info.html

Date	November 30, 2017		
Venue	Kanazawa New Grand Hotel 4F		
Hosts	Around Japan Sea Economic Exchange Conference in Hokuriku (Hokuriku AJEC); RIETI; Institute of Developing Economies, Japan External Trade Organization (IDE-JETRO); Fukui Prefectural University		
Supports	Toyama Prefecture; Ishikawa Prefecture; Fukui Prefecture; JETRO Toyama; JETRO Kanazawa; JETRO Fuku; Hokuriku Economic Federation		
Participants	85		
Program			
Opening Re	marks		
Keynote Spe Population [	eech: "The Future of Japanese Regional Economy in the Era of Decline"		
Presentation: "Revitalization of the Hokuriku Region, Internationalization, and Innovation"			
	ssion: "Revitalization of the Hokuriku Region, Internationalization, on Strategy"		
Closing Por	orke		

Closing Remarks

#### Speakers/Panelists/Moderators

KISHIMOTO Yoshio (Vice Chairman, RIETI)

HAMAGUCHI Nobuaki (PD and FF, RIETI / Professor, Research Institute for Economics and Business Administration (RIEB), Kobe University)

KUMAGAI Satoru (Director, Economic Geography Studies Group, Development Studies Center, IDE-JETRO)

KAMEYAMA Yoshihiro (Professor, Faculty of Economics, Department of Economics, Saga University)

GOKAN Toshitaka (Researcher, Economic Geography Studies Group, Development Studies Center, IDE-JETRO)

SHIRAMATA Shuji (General Manager, Planning Department and Research Department, Hokuriku AJEC)

YAMADA Shigeo (Director, Tsudakoma Corp.)

INATSUGI Takahiro (Executive officer, Nicca Chemical Co., Ltd.)

INOUE Takashi (Executive Vice President / Kurobe Manufacturing Center, YKK Corporation)

MARUYA Toyojiro (Professor Emeritus, Fukui Prefectural University / Director, Hokuriku AJEC)

MURAYAMA Mayumi (Director-General, Research Promotion Department, IDE-JETRO)

Institute of Economic Research, Kyoto University Symposium Series II: Toward Realization of an Evidence-based Society Nurturing Prosperity

### The 6th Round: Creating Society for Tomorrow: Science technology and universities

#### https://www.rieti.go.jp/jp/events/17120201/info.html

Date	December 2, 2017				
Venue Symposium Hall, 5th floor, International Science Innovation Building, Kyoto University					
Hosts	Institute of Economic Research, Kyoto University (KIER), (Project to Build an Evidence-based Society, The Research Center for Advanced Policy Studies (CAPS), International Joint Research Center of Advanced Economic Theory)				
Co-hosts	Social Science Unit for Research and Education, C-PIER, Kyoto University; KIER Foundation; RIETI				
Program					
Opening Re	emarks				
Presentatio	on 1: "Involvement of Universities in Society: Ideal university policies"				

Presentation 2: "Supporting Technology with Science"

Panel Discussion: "The Role of Science Technology and Universities to Create an Affluent Society"

Introduction	of the	Theme:	Spirit of	Science
Discussion				

Closing Remarks

#### Speakers/Panelists/Moderator

SEKINE Yoshihiro ((Associate Professor, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER)) YANO Makoto (President and CRO, RIETI/ Director, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER))

YOSHIMOTO Hiroshi (Director-General, Higher Education, MEXT)

KURIHARA Kazue (Professor, New Industry Creation Hatchery Center (NICHe), TOHOKU UNIVERSITY)

MINATO Nagahiro (Provost, Executive Vice-President for Strategy Coordination, Research, Planning, and Hospital Administration, Kyoto University) NISHIYAMA Yoshihko (Vice Director and Professor, Institute of Economic

Research, Kyoto University (KIER))

MIZOBATA Satoshi (Director and Professor, Institute of Economic Research, Kyoto University (KIER))

#### **RIETI EBPM Symposium**

#### Toward the Promotion of Evidence-based Policymaking

Date	December 19, 2017
Venue	Nadao Hall, Japan National Council of Social Welfare (Zenshakyo
Host	RIETI
Participants	274
Program	
Opening Re	marks
Introduction	
Session 1: L	atest Trends in the United Kingdom and the United States
	esentation 1: "Evidence-based Policymaking in the UK vernment"
	esentation 2: "Evidence-based Policymaking by UK Independent encies"
	esentation 3: "Evidence-based Policymaking in the U.S. vernment"
Q8	A
Session 2: H	low to Utilize Evidence in Policymaking
Pre	esentation 4: "How to Evaluate Policies Using Microdata"
	esentation 5: "Evidence Use in the Field of International velopment"
Pre	esentation 6: "Efforts in Evidence-based Policymaking by METI"
Panel Discus Policymaking	ssion: What Is Necessary to Promote Evidence-based g?
Speakers/P	anelists/Moderators
NAKAJIMA	Atsushi (Chairman, RIETI)

YAMAGUCHI Kazuo (VF, RIETI / Ralph Lewis Professor of Sociology, University of Chicago)

UCHIYAMA Yu (Professor, Graduate School of Arts and Sciences, The University of Tokyo)

KOBAYASHI Yohei (CF, RIETI / Chief Analyst, Mitsubishi UFJ Research & Consulting Co., Ltd.)

TSUDA Hirokazu (CF, RIETI / Director for Financial Affairs, Office of Financial Affairs, Finance Bureau, City of Yokohama)

OHTAKE Fumio (Professor, Institute of Social and Economic Research, Osaka University)

AOYAGI Keitaro (Representative Director, Metrics Work Consultants Inc.) MIURA Satoshi (CF, RIETI / Director, Policy Evaluation and Public Relations Division, Minister's Secretariat, METI)

NAKAMURO Makiko (Associate Professor, Faculty of Policy Management & Graduate School of Media and Governance, Keio University)

YANO Makoto (President and CRO, RIETI / Professor, Institute of Economic Research, Kyoto University (KIER))



Institute of Economic Research, Kyoto University Symposium Series II: Toward Realization of an Evidence-based Society Nurturing Prosperity

### The 7th Round: The Future of a Society with Bright Prospects

#### https://www.rieti.go.jp/jp/events/18031001/info.html

Date	March 10, 2018
Venue	Symposium Hall, 5th floor, International Science Innovation Building, Kyoto University
Host	Institute of Economic Research, Kyoto University (KIER), (Project to Build an Evidence-based Society, The Research Center for Advanced Policy Studies (CAPS), International Joint Research Center of Advanced Economic Theory)
Co-host	s Social Science Unit for Research and Education, C-PIER, Kyoto University; KIER Foundation; RIETI
Program	n
Opening	I Remarks

#### Part 1:

	Presentation 1: "Competition Policy of a New Era"
	Presentation 2: "Universities as a Member of Society"
	Presentation 3: "The Future Diagnosis that 3D Anatomical Models May Change"
Part 2:	

Presentation: "Building a Brighter Future: A message from an economist"

Panel Discussion: The Future of a Society with Bright Prospects
Closing Remarks

#### Speakers/Panelists/Moderator

KOJIMA Daizo ((Associate Professor, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER)) MINATO Nagahiro (Provost, Executive Vice-President for Strategy Coordination, Research, Planning, and Hospital Administration, Kyoto University)

SUGIMOTO Kazuyuki (Chairman, Japan Fair Trade Commission)

TOKIWA Yutaka (Director-General, Higher Education Bureau, MEXT)

TAKEDA Masatoshi (CEO, crossEffect, Inc.)

YANO Makoto (President and CRO, RIETI/ Director, The Research Center for Advanced Policy Studies (CAPS), Institute of Economic Research, Kyoto University (KIER))

NAKAJIMA Atsushi (Chairman, RIETI)

DOI Toshinori (President, Policy Research Institute (PRI))

YOKOYAMA Hiromi (Professor, The University of Tokyo, Kavli IPMU)

#### METI JPO-RIETI International Symposium

# Toward Solving Disputes over Standard Essential Patents (SEPs): Licensing 5G SEPs

#### https://www.rieti.go.jp/en/events/18031301/info.html

Date	March 13, 2018
Venue	Kioi Conference, Main Room
Hosts	RIETI; Japan Patent Office (JPO)
Participants	239

#### Program

**Opening Remarks** 

Keynote Speech: "Facilitating SEP Licensing -JPO's approach-"

Special Lecture 1: "Changes in the Environment Surrounding SEPs and Trends in Each Country in Recent Years"

Special Lecture 2: "Current Situation and Issues of International Arbitration for Resolving Disputes Concerning SEPs"

Panel Discussion 1: "Ideal Modality of Negotiations on SEP Licensing"

Panel Discussion 2: "Preventing Disputes over SEPs Involving Parties from Different Industries in the 5G Era"

Panel Discussion 3: "Concept for Calculating FRAND Royalty Rates" Panel Discussion 4: "Utilization of International Arbitrations as a Means for Resolving Disputes over SEPs"

#### Speakers/Panelists/Moderators

NAKAJIMA Atsushi (Chairman, RIETI)

MUNAKATA Naoko (Commissioner, Japan Patent Office)

David KAPPOS (Former Director, United States Patent and Trademark Office) Randall RADER (Former Chief Judge, Court of Appeals for the Federal Circuit) Heinz GODDAR (Senior Partner, Boehmert & Boehmert / German Patent

Attorney and European Patent and Trademark Attorney)

Gustav BRISMARK (Chief Intellectual Property Officer, Ericsson)

Christian LOYAU (Legal Affairs Director, European Telecommunications Standards Institute (ETSI))

NAGASAWA Kenichi (Group Executive of Corporate Intellectual Property & Legal Headquarters, Canon)

SUZUKI Masabumi (FF, RIETI / Professor, Nagoya University Graduate School of Law)

 $\mathsf{ENDO}$  Yoshihiro (Manager, Intellectual Property and Standardization Division, Honda Motor Co., Ltd.)

Dan LANG (Vice President of Intellectual Property, CISCO) Max OLOFSSON (Director of Licensing, AVANCI)

Wax OLOF330N (Director of Licensing, AVANO

Ilkka RAHNASTO (Vice President and Head of Patent Business, Nokia) NAGAOKA Sadao (FF. RIETI / Professor, Tokyo Keizai University)

John HAN (Senior Vice President, Qualcomm Inc. and General Manager, Qualcomm Technology Licensing)

Dylan LEE (Deputy Director for IP Licensing and Transaction, Huawei) TAKAHASHI Hiroshi (Manager, IP Development Section 1, Innovation IP Department, Panasonic Intellectual Property Management Corporation) BJ WATROUS (Vice President & Chief IP Counsel, Apple Inc.)

TAMAI Katsuya (Professor, Research Center for Advanced Science and Technology, The University of Tokyo)

Klaus GRABINSKI (Judge, Federal Court of Justice (Bundesgerichtshof), Germany)

Zhipei JIANG (Former Chief Judge, IP Supreme People's Court)

KATAYAMA Eiji (Attorney at Law, Patent Attorney, ABE, IKUBO & KATAYAMA)





## **RIETI-ANU Symposium**

## Japan and Australia: Leading Asia Pacific regionalism in uncertain times

## https://www.rieti.go.jp/en/events/18031501/info.html

Date	March 15, 2018
Venue	Grand Ballroom West, Grand Hyatt Tokyo
Host	RIETI, Australian National University (ANU)
Participants	180

#### Program

Welcoming Remarks

Special Speeches

Keynote Speeches

Panel Discussion: "Pursuing quality trade investment rule covering Asia-Pacific region in the future"

#### Speakers/Panelists/Moderators

NAKAJIMA Atsushi (Chairman, RIETI)

Simon NEWNHAM (Ambassador for Asia Pacific Economic Cooperation (APEC), Foreign Affairs and Trade, Australian Government)

TANAKA Shigehiro (Director-General, Trade Policy Bureau, METI)

Peter DRYSDALE (Emeritus Professor of Economics, ANU)

URATA Shujiro (FF, RIETI /Dean and Professor of Economics, Graduate School of Asia-Pacific Studies, Waseda University)

Shiro ARMSTRONG (Director, Australia-Japan Research Centre, ANU)

FUKUNAGA Tetsuro (Director-General for International Cyber Economy Policy, Trade Policy Bureau, METI)

Michael MUGLISTON (Visiting Fellow, ANU)

SUGAWARA Junichi (Senior Research Officer, Research Department-Public Policy, Mizuho Research Institute Ltd.)







**RIETI International Seminar** 

## Death Versus Destruction in the Economics of Catastrophes

https://www.rieti.go.jp/en/events/17051701/info.html		
Date	May 17, 2017	

Venue	RIETI's seminar room

## Speaker/Moderator

ARATA Yoshiyuki (F, RIETI)

Robert S. PINDYCK (Bank of Tokyo-Mitsubishi Professor of Economics and Finance Sloan School of Management, Massachusetts Institute of Technology)

#### Workshop

## Toward Japan's Labor Market Policy: Women, education, poverty and disasters

https:/	/www.rieti.go	in/in/ovent	c/17052201	/info html
nups.//	/www.neu.go	.jp/jp/event	.5/17052201	/1110.110111

Date	May 22, 2017
Venue	RIETI's seminar room

## **RIETI Special BBL Seminar**

## 2017 White Paper on Small and Medium Enterprises in Japan and 2017 White Paper on Small Enterprises in Japan

https://www.rieti.go.jp/en/events/17052401/info.html

Date	May 24, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	105

#### Speaker/Moderator

INA Tomoko (Director, Research Office, Small and Medium Enterprise Agency, METI) IKEUCHI Kenta (F, RIETI)



Tokyo Workshop on Spatial Economics 2017

## **Recent Developments in Spatial Economics**

Date	June 6, 2017
Venue	RIETI's seminar room
Host	RIETI
Co-host	The University of Tokyo
Program	
Opening R	emarks
Session I	
"Measuring	the Cost of Congestion in a Highly Congested City: Bogotá"
"Environme	ental Policies in City Systems"
Session II	
"Building th	ne City: Urban transition and institutional frictions"
"Building S	pecialization, Anchor Tenants and Agglomeration Economies"
Closing Re	marks
Speakers	
	oto (President and CRO, RIETI / Professor, Institute of Economic Kyoto University (KIER))
ТАВИСНІ Т	akatoshi (FF, RIETI / Professor, The University of Tokyo)
Gilles DUR	ANTON (Professor, University of Pennsylvania)
(GRIPS))	Takuro (Professor, National Graduate Institute for Policy Studies
	Takuro (Professor, National Graduate Institute for Policy Studies LUGER (Professor, University of Würzburg)
Michael PF	
Michael PF OSHIRO Ju KANEMOT	LUGER (Professor, University of Würzburg)
Michael PF OSHIRO Ju KANEMOT Coordinatio	LUGER (Professor, University of Würzburg) in (Associate Professor, Okinawa University) O Yoshitsugu (President, Organization for Cross-regional on of Transmission Operators) HENDERSON (Professor, London School of Economics and Political
Michael PF OSHIRO Ju KANEMOT Coordinatio J. Vernon H Science (L	LUGER (Professor, University of Würzburg) in (Associate Professor, Okinawa University) O Yoshitsugu (President, Organization for Cross-regional on of Transmission Operators) IENDERSON (Professor, London School of Economics and Politica
Michael PF OSHIRO Ju KANEMOT Coordinatio J. Vernon H Science (L YAMAMOT	LUGER (Professor, University of Würzburg) in (Associate Professor, Okinawa University) O Yoshitsugu (President, Organization for Cross-regional on of Transmission Operators) HENDERSON (Professor, London School of Economics and Politica SE))

#### **RIETI International Seminar**

#### Urban Spatial Structure on Residential and Commercial Buildings

#### https://www.rieti.go.jp/en/events/17060701/info.html

Duran	
Host	RIETI
Venue	RIETI's seminar room
Date	June 7, 2017

## Program

Opening Remarks	
"Spatial Concentration of Business Activity, Productive Cities, and Tall Commercial Buildings"	
"Housing Demand, Urban Change, and Infrastructure in the US"	
Closing Remarks	
Speakers	
NAKAJIMA Atsushi (Chairman, RIETI)	

TABUCHI Takatoshi (FF, RIETI / Professor, The University of Tokyo)

Stuart ROSENTHAL (Professor, Syracuse University)

Gilles DURANTON (Professor, University of Pennsylvania)

#### **RIETI Special BBL Seminar**

## Outline of the White Paper on Manufacturing Industries (Monodzukuri)

## https://www.rieti.go.jp/en/events/17062201/info.html

Date	June 22, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	105

## Speaker/Moderator

TOKUMASU Shinji (Director, Manufacturing Industries Policy Office, Manufacturing Industries Bureau, METI) IKARI Hiroshi (SF/ RC (Research), RIETI )



## **RIETI Special BBL Seminar**

### Outline of White Paper on International Economy and Trade 2017: How can we promote free trade in a sustainable way?

#### https://www.rieti.go.jp/en/events/17070701/info.html

Date	July 7, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	97

#### Speaker/Moderator

ISHIKAWA Yasushi (Director, Policy Planning and Research Office, Trade Policy Bureau, METI)





### The 19th RIETI Highlight Seminar

## Current Situation and Future Prospects of Economies and Markets Facing Significant Uncertainty: Based on the Economic Policy Uncertainty index

https://www.rieti.go.jp/en/events/17071101/info.html

Date	July 11, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	70

## Speakers/Moderator

ITO Arata (F, RIETI) FUKAO Mitsuhiro (SRA, RIETI / Professor, Musashino University) NAKAJIMA Atsushi (Chairman, RIETI)



#### Workshop

## **Reconstructing Japan's Employment Systems**

https://ww	w.rieti.go.jp/jp/events/17073101/info.html
Date	July 31, 2017
Venue	RIETI's seminar room

#### Workshop

## The Fourth Asia KLEMS Conference

Date	July 31- August 1, 2017
Venue	Sano Shoin Hall, Hitotsubashi University (July 31)
	RIETI's seminar room (August 1)
Host	Hitotsubashi Institute for Advanced Study (HIAS)
Co-hosts	Grant-in-Aid for Scientific Research (S) Grant Number 16H06322 Project "Service Sector Productivity in Japan (SSPJ): Determinants and Policies" ; RIETI; Japan Productivity Center (JPC); Grant-in-Aid for Scientific Research (B) Grant Number 15H03351 Project "Study on the Import of Comprehensive Social Infrastructure on the Market Economy"; Gakushuin University.
Program	
July 31	
Opening Ses	ssion
We	lcome Remarks
Invi	ited Keynote Speech: "Japan-U.S. Productivity Comparisons"
Session 1. R	eviews of Productivity in China, India, and Japan
	China: "How Do China and India Compare on Growth and oductivity Performance in the Post-Reform Era 1981-2011?"

2. India 1: "What is New about India's Economic Growth 1980-2015: The industry perspective?"

- India 2: "Aggregate-level Productivity Growth in Indian Economy: An analysis incorporating breakup of formal and informal segments of industries in the KLEMS approach"
- 3. Japan: "Quality of Consumer Services: US-Japan comparison based on a survey of the willingness to pay"

Session 2. Reviews of Productivity in the United States, Japan, Korea, and Taiwan

4. United States: "Sharing Economy in Japan and the United States"
5. Korea : "Estimates of Total Factor Productivity and Ex-post Rates of Return by Industries in Korea (1980-2014)"

6. Taiwan 1 : "The Intelligent Investment, Capital Input and TFP of Service Sectors in Taiwan during 1990-2015 and International Comparison"

Taiwan 2 : "Productivity Growth and Resource Reallocation Effects in Taiwan: 1981-2015"

Session 3. Reviews of Productivity in Russia and Indonesia

7. Russia: "Sources of Long Run Growth of the Russian Economy before and after the global financial crisis"
8. Indonesia: "Trend of the total factor productivity growth of the Indonesian economic sectors"

9. General Discussion

August 1

**Opening Remarks** 

Session 4	. Reviews of Productivity in Malaysia, Pakistan, and Thailand
	10. Malaysia: "Estimation of Time-Series Supply and Use Tables to Support Analysis of Productivity Growth in Malaysia"
1	11. Pakistan
1	12. Thailand: "Productivity and Structural Changes in Thailand"
	13. General Discussion

#### Speakers / Moderators

Speakers / Moderators
TADENUMA Koichi (Hitotsubashi University)
Dale W. JORGENSON (Harvard University)
NOMURA Koji (Keio University)
Jon D. SAMUELS (U.S. Bureau of Economic Analysis)
INUI Tomohiko (Gakushuin University)
Harry X. WU (Hitotsubashi University)
Kosaraju Leela KRISHNA (Madras Institute of Development Studies)
Deb Kusum DAS (Ramjas College, University of Delhi)
Pilu Chandra DAS (Kidderpore College, Kolkata)
Abdul Azeez ERUMBAN (The Conference Board, Brussels)
Bishwanath GOLDAR (Institute of Economic Growth)
Suresh Chand AGGARWAL (University of Delhi)
FUKAO Kyoji (Hitotsubashi University)
IKEUCHI Kenta (RIETI)
TAKIZAWA Miho (Toyo University)
Wendy LI (U.S. Bureau of Economic Analysis)
NIREI Makoto (The University of Tokyo)
YAMANA Kazufumi (Kanagawa University)
Hak K. PYO (Seoul National University)
Hyunbae CHUN (Sogang University)
Keunhee RHEE (Korea Labor Institute)
Chi-Yuan LIANG (National Central University & CIER)
Ruei-He JHENG (CIER)
Tsu-tan FU (National Chiayi University)
Chi-ting LEE (National Chiayi University)
Yih-ming LIN (National Chiayi University)
Mun S. HO (Harvard University)
llya B. VOSKOBOYNIKOV (National Research University Higher School of Economics)
Maman SETIAWAN (Center for Economics and Development Studies, Universitas Padjadjaran)

Guntur SUGIYARTO (Asian Development Bank)

MORIKAWA Masayuki (RIETI)

M. Yusof SAARI (Universiti Putra Malaysia)

Mazlina SHAFI'L (Malaysia Productivity Corporation)

Rosmiza ROSLY (Malaysia Productivity Corporation)

Abid Aman BURKI (Lahore University of Management Sciences)

Surapol SRIHUANG (National Economic and Social Development Board, Thailand)

## International Workshop

## Accounting for Micro and Macro Patterns of Trade

https://www.rieti.go.jp/en/events/17080201/info.html

Date	August 2, 2017
Venue	RIETI's seminar room
Host	RIETI

#### Speaker/Moderator

David E. WEINSTEIN (Carl S. Shoup Professor of the Japanese Economy, Columbia University / Director for Research, Center on Japanese Economy and Business)

SAITO Yukiko (SF, RIETI)

#### **RIETI Special Seminar**

## U.S. Tax Reform: Prospects and roadblocks

#### https://www.rieti.go.jp/en/events/17082101/info.html

Date	August 21, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	62
Program	

## Program

Opening Remarks Presentation: "U.S. Tax Reform: Prospects and roadblocks" Discussion

#### Speakers/Moderator

YANO Makoto (President and CRO, RIETI)

Alan J. AUERBACH (Robert D. Burch Professor of Economics and Law, University of California, Berkeley)

SATO Motohiro (FF, RIETI / Professor, Graduate School of Economics, School of International and Public Policy, Hitotsubashi University)

#### Seminar

# Re-examning the Impact of the China Trade Shock on the US Labor Market: A value-chain perspective

Date	September 5, 2017	
Venue	RIETI's seminar room	
Speakers	5	
ZHANG H	longyong (F, RIETI)	

WEI Shang-Jin (Professor of Finance and Economics, and NT Wang Chair in Chinese Business and Economy, Columbia University)

## AJRC and RIETI Workshop

## Economic and Financial Analysis of Commodity Markets

## https://www.rieti.go.jp/en/events/17091401/info.html

Date	September 14-15, 2017
Venue	Griffin Room, Crawford building, Australian National University (ANU)
Hosts	Australia-Japan Research Centre (AJRC): RIETI

#### Program

Opening Remarks	
Session 1: Electricity Markets	
Session 2: Economic Issues in Commodity Markets	
Session 3: Financial Issues in Commodity Markets	
Session 4: Financial Issues in Commodity Markets	
Closing Remarks	

## Speakers/Moderators

Shiro ARMSTRONG (ANU)
David STERN (ANU)
YAMADA Yuji (University of Tsukuba)
Zsuzsanna CSEREKLYEI (ANU)
Paul BURKE (ANU)
ASAI Kentaro (ANU)
OKIMOTO Tatsuyoshi (ANU / RIETI)
Luke MEEHAN (Independent Competition and Regulatory Commission)
Frank JOTZO (ANU)
HARADA Kimie (Chuo University)
NAKAJIMA Katsushi (Ritsumeikan Asia Pacific University)
Joaquin VESPIGNANI (University of Tasmania)
IWATSUBO Ken (Kobe University)
Antje BERNDT (ANU)
Katja IGNATIEVA (University of New South Wales)
OHASHI Kazuhiko (RIETI / Hitotsubashi University)
KANAMURA Takashi (Kyoto University)

### RIETI Special BBL Seminar

# Germany after the General Elections—Political and Economic Directions

## https://www.rieti.go.jp/en/events/17100301/info.html

Date	October 3, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	87



#### Speakers/Moderator

Wolfgang TIEFENSEE (Thuringian Minister of Economy, Science and the Digital Society)

Hans Carl VON WERTHERN (Ambassador of the Federal Republic of Germany to Japan)

MINAMI Ryo (Director, Europe Division, Trade Policy Bureau, METI)

## TIER-RIETI-KIET Workshop

## Trade Issues and Policies under the New Protectionism

Date	October 19, 2017
Venue	Sheraton Grand Incheon Hotel
Program	
Opening I	Remarks
Welcomin	g Remarks
1. TIER Se	ession
	Presentation 1: "Advancing Japan-Korea-Taiwan Economic Cooperation through Sports Development"
	Presentation 2: "The Future of TPP and RCEP"
2. RIETI S	ession
	Presentation 3: "Change of Japan Energy Policy?"
	Presentation 4: "Overseas Activities of Japanese Companies"
3. KIET Se	ession
	Presentation 5: "Korea's Export Strategy and Implication for US-Korea Bilateral Trade"
	Presentation 6: "Economic Complexity and Export Diversification in East Asia"
Closing R	emarks
Speakers	/Moderators
Byoung-G (KIET))	iyu YU (President, Korea Institute for Industrial Economic and Trade
Chien-Fu	LIN (President, Taiwan Institute of Economics Research (TIER))
NAKAJIM	A Atsushi (Chairman, RIETI)
Chen HO	(Director of International Affairs Dept., TIER)

IKARI Hiroshi (SF, RIETI)

Darson CHIU (Research Fellow, TIER)

Jooyoung YANG (Associate Research Fellow, KIET)

FUJI Kazuhiko (SF, RIETI)

Jaehan CHO (Research Fellow, KIET)

## RIETI International Seminar

# Incidence of Social Security Contributions: Evidence from France

#### https://www.rieti.go.jp/en/events/17112701/info.html

Date	November 27, 2017	
Venue	RIETI's seminar room	
Host	RIETI	

### Speakers/Moderator

NAKAJIMA Atsushi (Chairman, RIETI)	
YIN Ting (F, RIETI)	
Antoine BOZIO (Director of the Institut des politiques publiques (IPP) , Associate Researcher at the Paris School of Economics (PSE))	

#### **RIETI-IWEP-CESSA** Joint Workshop

## Issues over Currency and Exchange Rate: Empirical Studies on China and Japan

https://	/www.rieti.go.jp/en/events/17120101/info.html
Date	December 1, 2017
Venue	RIETI's seminar room
Hosts	RIETI; Institute of World Economics and Politics, Chinese Academy of Social Sciences (IWEP, CASS); Center for Economic and Social Studies in Asia, Yokohama National University (CESSA)
Progra	m
Opening	g Remarks
Session	1
	Paper 1: Real Exchange Rate Movements and Markup Dispersion within China's Manufacturing Industries
	Paper 2: Factor Decomposition of Japan's Trade Balance
Session	2
	Paper 3: The Effect of the Firms' Effective Exchange Rates Changes on Profits
	Paper 4: What Determines Safe Haven Currency?
Session	3
	Paper 5: Two-sided Heterogeneity and Exchange Rate Passthrough
	Paper 6: Exchange Rate Pass-Through and Export Competitiveness
Closing	Remarks
Speake	ers/Moderator
NAKAJI	MA Atsushi (Chairman, RIETI)
SUN Jie	e (Senior Research Fellow, IWEP, CASS)
OGAWA	Eiji (FF, RIETI / Professor, Hitotsubashi University )
MAO Ri	sheng (Senior Research Fellow, IWE,CASS)
IWAISA	KO Tokuo(RIETI Project Member / Professor, Hitotsubashi University)
SASAK	Yuri (RIETI Project Member / Professor, Meiji Gakuin University)

SASAKI Yuri (RIETI Project Member / Professor, Meiji Gakuin University)

YANG Panpan (Assistant Research Fellow, IWEP, CASS)

SHIMIZU Junko (Professor, Gakushuin University) WU Guoding (Assistant Research Fellow, IWEP, CASS)

Nagendra SHRESTHA (RIETI Project Member / Associate Professor,

Yokohama National University)

MASUJIMA Yuki (RIETI Project Member / Lead Economist, Bloomberg LP) DONG Weijia (Assistant Research Fellow, IWEP, CASS)

XU Jianwei (Associate Professor, Beijing Normal University)

SHIOJI Etsuro (RIETI Project Member / Professor, Hitotsubashi University)

SATO Kiyotaka (RIETI Project Member / Professor, Yokohama National University)

XU Qiyuan (Senior Research Fellow, Department of Global Macroeconomy, IWEP, CASS)

#### **RIETI Policy Seminar**

# Standards and Intellectual Property: Strategies Japan should adopt in light of current global trends

https://www.rieti.go.jp/en/events/17120801/info.html

Date	December 8, 2017
Venue	RIETI's seminar room
Host	RIETI
Participants	64

## Program

Opening Remarks Presentation 1: "Standards and IP—From the viewpoint of economics— Presentation 2: "Dynamic Effects of Patent Pools: Evidence from intergenerational competition in the optical disc industry" Presentation 3: "FRAND as Private Law and Public Law"

Presentation 4: "Legal Issues Concerning the Enforcement of FRANDencumbered SEPs: A view from Japan with a comparative perspective"

Panel Discussion

#### Speakers/Panelists/Moderator

YANO Makoto (President and CRO, RIETI / Professor, Institute of Economic Research, Kyoto University (KIER))

Anne LAYNE-FARRAR (Vice President, Charles River Associates)

SHIMBO Tomoyuki (Associate Professor, Kanto Gakuin University)

Jorge L. CONTRERAS (Professor, University of Utah S.J. Quinney College of Law)

SUZUKI Masabumi (FF, RIETI / Professor, Nagoya University Graduate School of Law)

Dina KALLAY (Head of Antitrust (IPR, Americas & Asia-Pacific), Ericsson)

NAGANO Juichi (Professor, Nagoya University / Former Director, International Standards Strategy, METI)

FUKUOKA Noriko (Senior Manager of Licensing Department, Panasonic Intellectual Property Management Co., Ltd.)

MIMURA Tetsuya (Senior Manager of Strategic Licensing Group, Intellectual Property Department, NTT DOCOMO, INC.)

NAGAOKA Sadao (FF, RIETI / Professor, Tokyo Keizai University)



#### Workshop

# Hitotsubashi-RIETI International Workshop on Real Estate and the Macro Economy

## https://www.rieti.go.jp/en/events/17121401/info.html

Date	December 14-15, 2017
Venue	RIETI's seminar room
Hosts	Hitotsubashi University, RIETI
Program	n
Opening	g Remarks
Session	1
	"Disentangling the Effect of Housing on Household Stock Holdings: Evidence from Japanese micro data"
	"Housing Wealth Effects in Japan: Evidence based on household micro data"
Session	2
	"Decompositions of Spatially Varying Quantile Distribution Estimates: The rise and fall of Tokyo house prices"
	"Change in the Distribution of Sale/Rental Prices: Comparison of Beijing and Tokyo"

#### Session 3

4	Depreciation in Commercial Property"
	Weekly Hedonic House Price Indices and the Rolling Time Dummy Method: An application to Sydney and Tokyo"
μ.	Alternative Land Price Indexes for Commercial Properties in Tokyo"
Session 4	
	'Collateral Channel versus Bank Lending Channel: Evidence from a nassive earthquake"
	Aging and Property Prices: Evidence from diverse economies"
	'Recurrent Bubbles, Economic Fluctuations, and Growth"
Concludin	ng Remarks
Speakers	i
NAKAJIM	A Atsushi (Chairman, RIETI)
UESUGI li	chiro (FF, RIETI / Hitotsubashi University)

HOSONO Kaoru (FF, RIETI / Gakushuin University)

ONO Arito (Chuo University)

SEKO Miki (Musashino University / Keio University)

HORI Masahiro (Cabinet Office)

YOSHIDA Jiro (Pennsylvania State University)

MIYAKAWA Daisuke (Hitotsubashi University)

Dan MCMILLEN (University of Illinois, Urbana-Champaign)

MUTO Sachio (CF, RIETI / Urban Renaissance Agency)

Xiangyu GUO (National University of Singapore)

MIYOSHI Yoshiyuki (CF, RIETI / Ministry of Land, Infrastructure, Transport, and Tourism)

UCHIDA Hirofumi (Kobe University)

Robert HILL (Institute of Economics, University of Graz)

ABE Naohito (Hitotsubashi University)

SHIMIZU Chihiro (Nihon University)

Seow Eng ONG (National University of Singapore)

INOUE Tomoo (Seikei University)

YUKUTAKE Norifumi (Nihon University)

JINNAI Ryo (Hitotsubashi University)

SAKURAGAWA Masaya (Keio University)

#### **RIETI Special BBL Seminar**

## France's Renewed Commitment to EU Reform

https://www.rieti.go.jp/en/events/18020701/info.html

Date	February 7, 2018
Venue	RIETI's seminar room
Host	RIETI
Participants	84

## Speaker/Moderator

Laurent PIC (Ambassador of France to Japan) MINAMI Ryo (Director, Europe Division, Trade Policy Bureau, METI)



#### **CEPR-RIETI Workshop**

## Science and Innovation

https://www.rieti.go.jp/en/events/18022601/info.html

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Date	February 26, 2018
Venue	National Institute of Economic and Social Research (NIESR)
Hosts	Centre for Economic Policy Research (CEPR); RIETI; NIESR
Program	n
Session	1
Opening	g Remarks
	Presentation: "Do Grace Periods Promote Knowledge Spillover? Evidence from Japan"
	Response
	General Discussion
Session	2
	Presentation: "Measuring Science Intensity of Industry Using Linked Dataset of Science, Technology and Industry"
	Response
	General Discussion
Session	3
	Presentation: "The Impact of Entrepreneurial Human Capital on Initial Funding: Evidence from Japan"
	Response
	General Discussion
Session	4
	Panel Discussion
Concluc	ling Remarks
	-

#### Speakers/Moderators

NAKAJIMA Atsushi (Chairman, RIETI)
Richard BALDWIN (President, CEPR / Professor, Graduate Institute, Geneva)
Jagjit CHADHA (Director, NIESR)
NAGAOKA Sadao (RIETI / Tokyo Keizai University)
Alfonso GAMBARDELLA (CEPR / Università Bocconi)
KEUCHI Kenta (RIETI)
Dietmar HARHOFF (CEPR / Ludwig-Maximilians-Universität München)
HONJO Yuji (RIETI / Chuo University)
Mark SCHANKERMAN (CEPR / London School of Economics)
Roger FARMER (CEPR / NIESR / UCLA)

#### Workshop

## Dynamics of Inter-firm Network and Macro Fluctuation

-	
Date	February 26, 2018
Venue	RIETI's seminar room
Host	RIETI
Program	
Opening	Remarks
Introduct	ion
"Firm-to-f	irm Trade in Sticky Production Networks"
"Imperfec	t Competition and the Transmission of Shocks: The network matters"
"The Dyn	amics of Inter-firm Networks and Firm Growth"
Speakers	s/Moderators
YANO Ma	ikoto (RIETI)
SAITO Yu	kiko (RIETI)
Kevin LIV	I (University of Toronto)
Konstanti	n KUCHERYAVYY (The University of Tokyo)

Konstantin KUCHERYAVYY (The University of Tokyo)	
Ayumu Ken KIKKAWA (University of Chicago)	
Michal FABINGER (The University of Tokyo)	
FUJII Daisuke (RIETI / University of California Los Angeles)	
ITO Tadashi (Gakushuin University)	

#### WINPEC-RIETI Workshop

# 2018 International Workshop on the World and Asian Economy—The 5th Tokyo Network Workshop—

https://www.rieti.go.jp/en/events/18030201/info.html		
Date	March 2, 2018	
Venue	Room 402 (Building No. 26, Okuma Memorial Tower)	
Host	Waseda Institute of Political Economy (WINPEC)	
Co-host	RIETI	

## Program

**Opening Remarks** 

"Exchange Rate Movements, Japanese Firm Export, and the Role of R&D and Global Outsourcing"  $% \left( \mathcal{A}_{n}^{\prime}\right) =\left( \mathcal{A}_{n}^{\prime}\right) \left( \mathcal{$ 

"Propagation of Shocks by Natural Disasters through Global Supply Chains" "The Global Production Line Position of Chinese Firms"

"Propagation of Financial Constraints in the Global Production Network"

"Firm Expectations and Investment: Evidence from the China-Japan islands

dispute"
"Global Production Sharing and the Evolution of Industrial Capabilities: Does production sharing warp the product space?"
Concluding Remarks
Speakers/Moderators
TODO Yasuyuki (RIETI/Waseda University)
INUI Tomohiko (RIETI/Gakushuin University)
KASHIWAGI Yuzuka (Waseda University)
YU Zhihong (University of Nottingham)
ZHANG Hongyong (RIETI)
Russell THOMSON (Centre for Transformative Innovation, Swinburne University of Technology)

#### **RIETI International Workshop**

## Long-term Growth and Secular Stagnation

#### https://www.rieti.go.jp/en/events/18033001/info.html

Date	March 30, 2018
Venue	RIETI's seminar room
Progra	m
Openin	g Remarks
Keynot	e Speech: "World Trade in Services: Evidence from a new dataset"
Sessior	1]
	Presentation: "The State and China's Productivity Deceleration: Firm-level evidence"
	Presentation: "Why is Agricultural Productivity So Low in Poor Countries? The case of India"
Sessior	12
	Presentation: "Secular Stagnation under the Fear of a Government Debt Crisis"
	Presentation: "Industrial Revolutions and Global Imbalances"
Sessior	13
	Presentation: "Sovereign Debt Overhang, Expenditure Portfolio, and Debt Restructurings"
	Presentation: "Recurrent Bubbles, Economic Fluctuations, and Growth"
01 .	Remarks

#### Speakers/Moderators

NAKAJIMA Atsushi (Chairman, RIETI)

Chris PAPAGEOGIOU (Division Chief, International Monetary Fund (IMF))

KOBAYASHI Keiichiro (RIETI / Keio University)

Bin Grace LI (IMF)

Oksana LEUKHINA (Federal Reserve Bank of St. Louis / McMaster University) ASONUMA Tamon (IMF)

UEDA Kenichi (The University of Tokyo)

JINNAI Ryo (Hitotsubashi University)

Brown Bag Lunch (BBL) Seminars are held during lunch hours. We invite Japanese and foreign guest lecturers and provide a venue for candid exchanges of opinions on a variety of policy issues, transcending industry-government-academia boundaries. During FY2017, 38 BBL Seminars were held, bringing the total number to 1,100 as of March 31, 2018.

## https://www.rieti.go.jp/en/events/bbl/

April 6, 2017	Causal Inference in Economics	Speaker: NAKAMURO Makiko (Associate Professor, Faculty of Policy Management & Graduate School of Media and Governance, Keio University)
April 27, 2017	A Mechanism Causing a Series of Earthquakes in Kumamoto and Elsewhere in Japan: What is thermal energy transmigration theory?	Speaker: TSUNODA Fumio (Emeritus Professor, Saitama University)
May 12, 2017	World's Great Excess of Supply	Speaker: NAKAJIMA Atsushi (Chairman, RIETI)
May 16, 2017	World Economic Outlook – Gaining Momentum?	Speaker: KASHIWASE Kenichiro (CF, RIETI / Senior Economist, Regional Office for Asia and the Pacific, International Monetary Fund (IMF))
May 17, 2017	Energy Markets: What to do when forecasting is useless	Speaker: Robert S. PINDYCK (Bank of Tokyo-Mitsubishi Professor of Economics and Finance, Sloan School of Management, Massachusetts Institute of Technology)
May 19, 2017	Global Energy Markets and the Trump Administration	Speaker: TAKAI Hiroyuki (Executive Officer, Sumitomo Corporation / President and CEO, Sumitomo Corporation Global Research Co. Ltd.)
May 24, 2017	2017 White Paper on Small and Medium Enterprises in Japan and 2017 White Paper on Small Enterprises in Japan	Speaker: INA Tomoko (Director, Research Office, Small and Medium Enterprise Agency, METI)
May 25, 2017	Tax Issues on Sharing Economy	Speaker: MORINOBU Shigeki (Professor, Chuo Law School)
June 2, 2017	Report of Future Strategic Project by Vice-Minister and Young Officials	Speakers: UEDA Keiichiro (Deputy Director, Personnel Division, Minister's Secretariat, METI) SUGA Chizuru (Deputy Director, Industrial Finance Division, Economic and Industrial Policy Bureau, METI) MIYASHITA Seiichi (Deputy Director, Trade Policy Planning Office, Trade Policy Bureau, METI) Commentator & Moderator: MORIKAWA Masayuki (Vice Chairman & Vice President, RIETI)
June 8, 2017	Technological Innovation Including IoT and AI and Globalizing E-Commerce: Challenges and their future course	Speaker: SHIBANO Tomoo (Partner, TMI Associates / Adjunct Teacher, Keio University Law School)
June 16, 2017	Economics of Inequality among Children: Those who can and cannot afford cram school and extracurricular activities	Speaker: TACHIBANAKI Toshiaki (Visiting Professor, Kyoto Women's University)
June 22, 2017	Outline of the White Paper on Manufacturing Industries (Monodzukuri)	Speaker: TOKUMASU Shinji (Director, Manufacturing Industries Policy Office, Manufacturing Industries Bureau, METI)
June 29, 2017	Social Security System, Consumption or Investment	Speaker: MATSUMOTO Takashi (Senior Advisor, Dai-Ichi-Life Research Institute Inc.)
July 6, 2017	The Science of Japanese Personnel Management—How We Should Use Data to Identify Causal Relationships	Speaker: OWAN Hideo (FF, RIETI / Professor, Institute of Social Science, The University of Tokyo)
July 7, 2017	Outline of White Paper on International Economy and Trade 2017: How can we promote free trade in a sustainable way?	Speaker: ISHIKAWA Yasushi (Director, Policy Planning and Research Office, Trade Policy Bureau, METI)
July 12, 2017	Dialogue on the Crucial Role of Education for Individual and Societal Prosperity	Speaker: KUMAHIRA Mika (Founder of Future Education Consortium)
July 13, 2017	Mechanism of Organizational Decline in Japanese Companies and Cultural Influence	Speaker: OGI Takehiko (President, Japan Human Resources Co.,Ltd.)
July 14, 2017	Policy Uncertainty in Japan	Speakers: ITO Arata (F, RIETI) MIAKE Naoko (Economist, Regional Office for Asia and the Pacific, International Monetary Fund (IMF))

July 27, 2017	Servitization of Consumer Products to Generate Co-creation Value in Use Based on IoT	Speaker: MOCHIMARU Masaaki (Director, Human Informatics Research Institute, National Institute of Advanced Industrial Science and Technology (AIST))
August 30, 2017	Brexit: Recent Developments—The EEA Option	Speaker: Carl BAUDENBACHER (President, Court of Justice of the European Free Trade Association States (EFTA Court))
September 1, 2017	Annual Report on the Japanese Economy and Public Finance 2017	Speaker: IBARAGI Hideyuki (Director for Macroeconomic Analysis, Cabinet Office)
September 15, 2017	Asian Economic Outlook and Roles of ADB	Speaker: NAKAO Takehiko (President and Chairperson, Board of Directors, Asian Development Bank (ADB))
October 3, 2017	Germany after the General Elections—Political and Economic Directions	Speakers: Wolfgang TIEFENSEE (Thuringian Minister of Economy, Science and the Digital Society) Hans Carl VON WERTHERN (Ambassador of the Federal Republic of Germany to Japan)
October 4, 2017	Economic Developments and Monetary Policy: Will we ever get out of low interest rates?	Speaker: MOMMA Kazuo (Executive Economist, Mizuho Research Institute Ltd.)
November 16, 2017	Realizing a Society where High-precision Satellite Positioning Data is Used via the Quasi-Zenith Satellite System (QZSS) and the Prospects for New Ventures in Space	Speaker: SAMBOMMATSU Susumu (Chief Researcher, Strategy Planning Department, Center for Strategic Management & Innovation, Nomura Research Institute, Ltd.) Commentator & Moderator: TSURUDA Masanori (Director, Space Industry Office, Manufacturing Industries Bureau, METI)
November 22, 2017	When Can the Primary Balance Surplus be Achieved? : Dissecting the economic and fiscal projections for medium to long term analysis	Speaker: DOI Takero (Professor, Faculty of Economics, Keio University)
December 5, 2017	World Economic Outlook, October 2017: Seeking Sustainable Growth: Short-term recovery, long- term challenge	Speaker: SUMI Chikahisa (Director, Regional Office for Asia and the Pacific, The International Monetary Fund (IMF))
December 6, 2017	Individualizing an Industry: Development of an ultra-small device factory "Minimal Fab"	Speaker: HARA Shiro (Principal Research Scientist, Nanoelectronics Research Institute, National Institute of Advanced Industrial Science and Technology (AIST))
December 13, 2017	Toward the Sustainable Growth of the Food Service Industry	Speaker: KIKUCHI Tadao (Chairman & CEO, ROYAL HOLDINGS Co., Ltd.)
January 10, 2018	Process Innovation with Room Temperature Ceramic Coating	Speaker: AKEDO Jun (Director, Advanced Coating Technology Research Center, National Institute of Advanced Industrial Science and Technology (AIST))
January 12, 2018	The Three Dilemmas Which Undermine Japan- China Relations	Speaker: ANAMI Yusuke (Professor, Graduate School of Law, Tohoku University)
February 7, 2018	France's Renewed Commitment to EU Reform	Speaker: Laurent PIC (Ambassador of France to Japan)
February 27, 2018	America Responds to Change: Implications for globalization and the future of work	Speaker: Bruce STOKES (Director, Global Economic Attitudes, Pew Research Center)
March 7, 2018	Going Digital Insights and policy implications from OECD work on digital transformation	Speaker: Dirk PILAT (Deputy Director, Directorate for Science, Technology and Innovation, OECD)
March 8, 2018	Disaster Recovery Captured by People's Migration Patterns	Speaker: OKUMURA Makoto (Professor, Tohoku University (International Research Institute of Disaster Science, Center for Northeast Asian Studies))
March 16, 2018	Xi Jinping's New Economic Policy: What's next for China?	Speaker: MENG Jianjun (VF, RIETI / Senior Fellow, Center for Industry Development and Environment Governance (CIDEG), Tsinghua University) Commentator: Chi Hung KWAN (CF, RIETI / Senior Fellow, Nomura Institute of Capital Markets Research)
March 27, 2018	Spatial Economics in the Age of Declining Population	Speaker: HAMAGUCHI Nobuaki (FF and PD, RIETI / Professor, Research Institute for Economics and Business Administration (RIEB), Kobe University)
March 29, 2018	What Causes the Strong Fluctuations in the Japanese Economy Before and After the Consumption Tax Rate Hike?	Speaker: MORINOBU Shigeki (Research Director, The Tokyo Foundation for Policy Research / Professor, Chuo Law School)

# **List of Fellows**

(April 2017 - March 2018, in alphabetical order)

Name	Research Areas
President/CRO	
YANO Makoto	Dynamic Economics, Law and Economics, Market Organization
Senior Research Advisor (SRA)	
FUKAO Mitsuhiro	International Finance, Monetary Theory, Corporate Governance
NEZU Risaburo	Science and Technology, Information Technology, Industrial Policy, Trade Policy
Program Director (PD)	
FUKAO Kyoji concurrent Faculty Fellow	International Economics, Macroeconomics, International Trade and Direct Investment in Asia, Innovation and Total Factor Productivity: Empirical Analysis Based on Industry and Firm-Level Data, International Comparison of Total Factor Productivity, Purchasing Power Parity in the 1930s, Gross Prefectural Product in Japan: 1874–2004
HAMAGUCHI Nobuaki concurrent Faculty Fellow	Spatial Economics, Regional Studies (Brazil)
KOBAYASHI Keiichiro concurrent Faculty Fellow	Endogenous Growth Theory, General Equilibrium, Business Cycles, Bad Debt Problem, Debt Control Policy, Macropolitical Economy
NAGAOKA Sadao concurrent Faculty Fellow	Policy and Institutions for Innovation
OHASHI Hiroshi concurrent Faculty Fellow	Industrial Organizations, Trade Policy
TAKEDA Haruhito concurrent Faculty Fellow	Economic History of Japan, History of Industry and Business
TOMIURA Eiichi concurrent Faculty Fellow	Empirical International Trade
TSURU Kotaro concurrent Faculty Fellow	Comparative Institutional Analysis, Organizational Economics, Labor Market Institutions
Vice President (VP)	
MORIKAWA Masayuki	Economic Policy, Industrial Structure, Productivity, Labor Market
Senior Fellow (SF)	
FUJI Kazuhiko	Effects of Trends in Crude Oil and Natural Gas on International Affairs, Impacts of Super Aging Society on Japan (including Community Theory), China's Political Economy, U.S. Political Economy, Energy Cooperation with Russia (Natural Gas Pipeline Project in Sakhalin)
HAYASHI Shigeru concurrent Director of PR Strategy	-
IKARI Hiroshi Specially Appointed	Development Finance, Capital Formation, Pension
IWAMOTO Koichi Specially Appointed	Renewable Energy, IoT/Industrie4.0, Regional Economies, German Economy, Chinese Economy
KONISHI Yoko	Econometrics
NAKATA Hiroyuki Specially Appointed	Microeconomic Theory, Financial Economics
ODA Keiichiro Specially Appointed	Game Theoretic Analysis of Investors' Strategic Interactions in Financial Markets
SAITO Yukiko	Industrial Organizations, Spatial Economics, Network Analysis
SEKIZAWA Yoichi concurrent Research Coordinator (Policy History)	Japan's FTA Policy, Application of Cognitive Therapy to Social Science
TAMURA Suguru	Science and Technology, Innovation Policy
Willem THORBECKE	International Economics, Monetary Economics
TOMITA Hideaki	Empirical Analysis of R&D, Patents and Innovation

Name	Research Areas
YAMASHITA Kazuhito Specially Appointed	Food and Agricultural Policy, Issues for Intermediate and Mountainous Areas, WTO Agricultural Negotiations, Trade and Environment, Trade and Food Safety
Fellow (F)	
ARAKI Shota Adjunct	Labor Economics, Applied Microeconometrics
ARATA Yoshiyuki	Macroeconomics, Industrial Dynamics, Stochastic Processes
FUJII Daisuke Specially Appointed	International Trade, Firm Dynamics and Macroeconomics, Supply Chain and Firm Networks, Urban Economics
IKEUCHI Kenta	Empirical Analysis of R&D, Innovation and Productivity
ITO Arata	Macroeconomics, Statistics for Economics
ITO Koichiro Specially Appointed	Energy and Environmental Economics, Industrial Organizations, Public Economics
KAINOU Kazunari	Econometrics, Sustainable Development and Quantitative Policy Evaluation
KONDO Keisuke	Spatial Economics, Development Economics, Labor Economics, Applied Econometrics (Microeconometrics, Spatial Econometrics, Bayesian Econometrics)
LIU Yang	Labor Economics, Migration, Wage, Human Capital, Labor Market
SENGA Tatsuro Specially Appointed	Macroeconomics, Macro-Finance, Firm Dynamics
YIN Ting	Macroeconomics, Household Economics, Chinese Economy, Labor Economics
ZHANG Hongyong	International Trade, Chinese Economy, Applied Microeconometrics
Research Associate (RAs)	
GOTO Yasuo	Industrial Organizations, SME Research, Financial Economics
ITO Banri	International Economics, R&D, Innovation
KATO Atsuyuki	Economic Growth, Productivity Analysis, Trade and Development
KAWAMURA Satoshi	Economic History of Japan, History of Transportation Industry, Industrial Safety Administration
KIYOTA Kozo	International Economics, Development Economics, Industrial Organizations
NAKATA Daigo	Macroeconomics, Endogenous Economic Growth, Social Security, Numerical Simulation, Sustainable PAYGO Pension System, Gender-Equal Society
TANAKA Ayumu	International Trade
TOMOHARA Akinori	International Economics, Labor Economics, Public Economics
TSUKADA Naotoshi	Economics of Innovation, Industrial Organizations
WATANABE Tsutomu	Macroeconomics, International Finance, Corporate Finance
YAMAUCHI Isamu	Innovation, R&D Management, Intellectual Property
YOKOO Hidefumi	Environmental and Resource Economics
Faculty Fellow (FF)	
AOYAMA Hideaki	Theoretical Physics, Econophysics
CHUMA Hiroyuki	Industrial Economics, Industrial Organizations, Labor Economics, Economic/Managerial Analysis Related to the Competitiveness of the Semiconductor Industry, Social Impacts of ICT/AI Development
FUJIWARA Ippei	Macroeconomics, Monetary Economics, International Finance
FURUKAWA Yuichi	Macroeconomics, Monetary Economics, Intellectual Property Rights and Innovation, and Market Quality Economics
HIGUCHI Yoshio	Econometrics, Labor Economics

Name	Research Areas
HONJO Yuji	Entrepreneurship and Small Business, Business Economics
HOSONO Kaoru	Banking Regulations, Corporate Finance, Monetary Policy, Aggregate Productivity
INUI Tomohiko	Productivity Analysis, International Economics, Health Economics, Educational Economics, Chinese Economy
ISHIKAWA Jota	International Trade Theory
KAWAGUCHI Daiji	Labor Economics, Applied Econometrics
KAWAHAMA Noboru	Antitrust Law, Competition Policy
KAWASE Tsuyoshi	International Economic Law, Trade Policy
KITAO Sagiri	Macroeconomics, Fiscal and Social Security Policy
KWON Hyeog Ug	Productivity Analysis, Industrial Organizations
MAKIHARA Izuru	Oral History Projects and Japanese Political History, Comparative Public Administration, Judicial Politics, Advanced Public Policy Research
MANAGI Shunsuke	Environmental Economics, Resource Economics, Applied Microeconomics
MIYAGAWA Tsutomu	Macroeconomics, Japanese Economy, Asian Economic Trends
MIYAJIMA Hideaki	Japanese Economy, Economic History of Japan, Corporate Finance, Corporate Governance, Comparative Financial Systems
MORI Tomoya	Spatial Economics, Urban and Regional Economies
MOTOHASHI Kazuyuki	Applied Microeconomics, Economic Statistics, Econometrics, International Comparison of Productivity, Economic Analysis of Information Technology, Technological Innovation and Economic Growth, Innovation System, Input-Output Analysis
NAKAMURA Ryohei	Regional Science, Urban Economics
NAWATA Kazumitsu	Econometrics, Statistics, Health Economics, Labor Economics
NISHIMURA Kazuo	Nonlinear Economic Dynamics, Educational Economics, Neuroeconomics
NOMURA Koji	Economic Measurement, Productivity Analysis, Energy and Environmental Economics
OGAWA Eiji	International Currency, International Finance
OHASHI Kazuhiko	Commodity Markets, Financial Innovation and Intermediation, J-REIT
OKAZAKI Tetsuji	Economic History, Development Economics, Comparative Institutional Analysis
OSHIO Takashi	Public Economics
OWAN Hideo	Personnel Economics, Organizational Economics, Labor Economics, Industrial Organizations
SATO Motohiro	Public Finance, Local Public Finance
SUZUKI Masabumi	Intellectual Property Law, International Economic Law
TABUCHI Takatoshi	Analysis of Urban Agglomeration Economies, Spatial Equilibrium, Interregional Differentials, Social Welfare in the Context of Urban Economics, New Economic Geography, International Economics, Spatial Competition Theory
TANAKA Makoto	Energy, Environment, Industrial Organizations
TODO Yasuyuki	International Economics, Development Economics, Japanese Economy, Applied Microeconometrics
TOKUI Joji	Macroeconomics, International Finance, Empirical Analysis of the Japanese Economy
UESUGI lichiro	Corporate Finance, SM, Japanese Economy, Money Market
UNAYAMA Takashi	Household Behavior, Applied Econometrics, Index Theory
URATA Shujiro	International Economics, Development Economics
USHIRO Fusao	Politics, Public Administration, Non-profit Organizations
WATANABE Toshiya	Intellectual Property Management, Technology Transfer, Science and Technology Policy
YAMAMOTO Isamu	Labor Economics, Applied Microeconomics
YAMORI Nobuyoshi	Empirical Research on the Japanese Financial System

VOSHIKAWA Hiroshi         Macroeconomics, Japanese Economy           Concurrent Stankyuki         Service Affairs Policy, Macroeconomic Policy, Regional Science and Urban Economics           ABE Takayuki         Service Affairs Policy, Macroeconomics, Applied Econometrics, Innovation and Tachmology, Economic Development (Asian Economy, ANDOH Haruhiko           ANDH Haruhiko         Alternative Energy, 38 and Exchange among Different Industries, Venture Company Innovation, Architecture, Initialectual Property Systems, and Industrial Competitiveness           AOYAGI Chie         Energy and Climate Policy           ASIA Yuya         Corporate Enance           CHIKUSHI Masahiro         Energy and Nuclear Policy, Competition Law, Tax Law           EBIHARA Fumiaki         Security, Economics Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foregin Exchange Fluctuations and Industrial Competitiveness, International Corporation, Human Resource Devecopment           FUUIDKA Masami         Healthcare           FUUINGA Masami         Healthcare           FUUINGA Masami         Healthcare           FUKUNAGA Yoshifumi         International Corporate Policy, Energy Policy           FUKUKAN Andryoshi         Industrial Policy, Healthcare           FUKUNAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Kai         Macroeconomics, Industrial Organizations, Nate Kaia	Name	Research Areas
ABE         Takaguki         Service Affairs Policy, Macroacconomic Policy, Regional Science and Urban Economics           AMBASHI Masahito         Industrial Organizations, Applied Microeconomics, Applied Econometrics, Innovation and Technology, Economic Development (Asian Economy)           ANDOH Haruhiko         Alternative Energy, SR and Exchange among Different Industrias, Verture Company Innovation, Architecture, Intelectual Property Systems, and Industrial Competitiveness           AQYAGI Chie         International Economics, International Development, Structural Reforms in Japan (Labor Market, Income Equality and Corporate Governance Reform)           ARIMA Jun         Energy and Climate Policy           ASAI Yuya         Corporate Finance           CHIRUSHI Masshirio         Energy and Nuclear Policy, Competition Law, Tax Law           EBIHARA Furniaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Fulctuations and Industrial Competitiveness, International Corporations, Human Resource Development           EUUI Toshinko         CSR, Global Aluemaking, Corporate Lobbying           FULUINAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Yoshifumi         International Economic Law, International Policy Economic Integration of ASEAN and Economic Model, History and Philosophy of Public Policy           Giovanni GANELLI         International Economics, Rescal Policy, Structural Reforms in Japan		Macroeconomics, Japanese Economy
AMBASHI Masahito         Industrial Organizations, Applied Microeconomics, Applied Econometrics, Innovation and Technology, Economic Development (Asian Economy)           ANDOH Haruhiko         Alternative Energy, 38 and Ecknergy, 38 and Seconomics, 18 and 38 an	Consulting Fellow (CF)	
ANDAACHI Niksal III.0         Economic Development (Asian Economy)         Attemative Energy, 3R and Excharge among Different Industria Competitiveness           ANDOH Haruhiko         Alternative Energy, 3R and Excharge among Different Industria Competitiveness           AOYAGI Chie         International Economics, International Development, Structural Reforms in Japan (Labor Market, Income Equality and Corporate Finance           ARIMA Jun         Energy and Climate Policy           ASAI Yuya         Corporate Finance           CHIKUSHI Masahiro         Energy and Nucleer Policy, Competition Law, Tax Law           EBIHARA Fumiaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Excharge Fluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology, Standardization, Innovation Policy           FUUII Toshihiko         CSR, Global Rulemaking, Corporate Lobbying           FUUII VAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Yoshifumi         International Economics, Industrial Policy, Energy Policy           FUKUVAMA Mitsuhiro         Globalization, East Asian Economic Integration of ASEAN and Economic Model, Hatory and Pholosophy of Public Policy           FUKUVAMA Mitsuhiro         Future Design, Technology Policy, Structural Reforms in Japan           HAMA Kentaro	ABE Takayuki	Service Affairs Policy, Macroeconomic Policy, Regional Science and Urban Economics
ANUODIn Hardfultiko         International Economics, International Economics, International Development, Structural Reforms in Japan (Labor Market, Income Equality and Corporate Governance Reform)           ARIMA Jun         Energy and Climate Policy           ASA Yuya         Corporate Finance           CHIKUSHI Masahiro         Energy and Niclear Policy. Competition Law, Tax Law           EBIHARA Fumilaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Fluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology, Standardization, Innovation Policy           FUJUIOKA Masami         Healthcare           FUKUNAGA Kai         Maroceconomics, Industrial Organizations, Labor Economics           FUKUNAGA Kai         Maroceconomics, International Political Economy, Regional Economic Integration of ASEAN and Economic Integration of ASEAN and Economic Integration of ASEAN and Economic Model, History and Philosophy of Public Policy           FUKUYAMA Mitsuhiro         Elobalization, East Asia Economic Integration, Comparative Political Economy, Japanese Political and Economics, Fiscal Policy, Structural Reforms in Japan           HAMA Kentaro         Policy Valuation, Causal Inference           HARA Keishiro         Future Design, Fiscal Analysis (National Debt Management, etc.), Social Security           HATA Shigenori         Innovation, Policy, RaD	AMBASHI Masahito	
Activation         Equality and Corporate Governance Reform in           ARIMA Jun         Energy and Cimate Policy           ASAI Yuya         Corporate Finance           CHIKUSHI Masahiro         Energy and Nuclear Policy, Competition Law, Tax Law           EBIHARA Fumiaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Fluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology, Standardization, Innovation Policy           FUUI Toshihiko         CSR, Global Rulemaking, Corporate Lobbying           FUKUNAGA Kal         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Yoshifumi         International Economic Law, International Political Economy, Regional Economy, Japanese Political and Economic Megration, Comparative Polity           FUKUYAMA Mitsuhiro         Globalization, East Asia           FUKUYAMA Mitsuhiro         Future Design, Technology Policy, Structural Reforms in Japan           HAMA Kentaro         Policy Evaluation, Causal Inference           HAMA Kentaro         Policy Evaluation           HARA Keishiro         Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HASH MuoTO Shingo         Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.),	ANDOH Haruhiko	
ASAI Yuya         Corporate Finance           CHIKUSHI Masahiro         Energy and Nuclear Policy, Competition Law, Tax Law           EBIHARA Fumiaki         Security. Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Pluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology. Standardization, Innovation Policy           FUUI Toshihiko         CSR, Global Rulemaking. Corporate Lobbying           FUUI Toshihiko         CSR, Global Rulemaking. Corporate Lobbying           FUKUNAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Yoshifumi         International Economic Law, International Political Economy, Regional Economic Integration of ASEAN and East Asia           FUKUYAMA Mitsuhiro         Globalization, East Asian Economic Integrative Policy           Giovanni GANELLI         International Economics, Fiscal Policy, Structural Reforms in Japan           HAMA Kerlatro         Policy Evaluation, Causal Inference           HARA Kelishiro         Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HARA Kelishiro         Future Design, Technology Policy and Innovation, Environmental Economics           HARA Kelishiro         Future Design, Technology Policy and Innovation, Environmental Economics	AOYAGI Chie	
CHIKUSHI Masahiro         Energy and Nuclear Policy, Competition Law, Tax Law           EBIHARA Furniaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Fluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology, Standardization, Innovation Policy           FUJII Toshihiko         CSR, Global Rulemaking, Corporate Lobbying           FUUNAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Kai         Macroeconomic Law, International Political Economy, Regional Economic Integration of ASEAN and East Asia           FUKUVAA Noriyoshi         Industrial Policy, Heatthcare Policy, Energy Policy           FUKUVAMA Mitsuhiro         Globalization, Causal Inference           HARA Keitshiro         Fuize Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HARA Keishiro         Fuize Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HARA Keishiro         Innovation Policy, RaD Evaluation           HARA Keishiro         Fuize Design, Technology Policy and Innovation, Environmental Economics           HARA Keishiro         Fuize Design, Technology Policy and Innovation, Environmental Economics           HARA Keishiro         Fuize Design, Technology Policy Analysis (N	ARIMA Jun	Energy and Climate Policy
EBIHARA Furniaki         Security, Economic Growth, Energy and Environmental Economics, Administrative Evaluation           ENOMOTO Shunichi         Foreign Exchange Fluctuations and Industrial Competitiveness, International Corporations, Human Resource Development           ETO Manabu         Management of Technology, Standardization, Innovation Policy           FUJII Toshihiko         CSR, Global Rulemaking, Corporate Lobbying           FUJII Toshihiko         CSR, Global Rulemaking, Corporate Lobbying           FUJUOKA Masami         Heatthcare           FUKUNAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Noriyoshi         Industrial Policy, Energy Policy           FUKUVAKA Noriyoshi         Industrial Policy, Healthcare Policy, Energy Policy           FUKUYAMA Mitsuhiro         Globalization, East Asia           FUKUYAMA Mitsuhiro         Globalization, East Asian Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy           Giovanni GANELLI         International Economics, Fiscal Policy, Structural Reforms in Japan           HAMA Kentaro         Policy Evaluation, Causal Inference           HARA Keishiro         Future Design, Technology Policy and Innovation, Environmental Economics           HAYASHI Ryozo         U.SJapan Relations, Economic Structural Reform           HAYASHI Ryozo         U.SJapan Relations, Economic Structural	ASAI Yuya	Corporate Finance
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FUJII Toshihiko       CSR, Global Rulemaking, Corporate Lobbying         FUJIOKA Masami       Healthcare         FUKUNAGA Kai       Macroeconomics, Industrial Organizations, Labor Economics         FUKUNAGA Yoshifumi       International Economic Law, International Political Economy, Regional Economic Integration of ASEAN and East Asia         FUKUOKA Noriyoshi       Industrial Policy, Healthcare Policy, Energy Policy         FUKUYAMA Mitsuhiro       Globalization, East Asian Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy         Giovanni GANELLI       International Economics, Fiscal Policy, Structural Reforms in Japan         HAMA Kentaro       Policy Evaluation, Causal Inference         HARA Keishiro       Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science         HASHIMOTO Shingo       Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social Security         HATA Shigenori       Innovation Policy, RAD Evaluation         HAYAFUJI Masahiro       Trade and Related Policies, Trade Regimes, Economic History, Enviromental Economics         HISANAGA Makoto       Statistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative Advantage         HISANAGA Makoto       Intellectual Property, Private International Law and International Relations         HOSOYA Yujji       Industrial Agglomerations an	ENOMOTO Shunichi	
FUJIOKA Masami       Healthcare         FUKUNAGA Kai       Macroeconomics, Industrial Organizations, Labor Economics         FUKUNAGA Yoshifumi       International Economic Law, International Political Economy, Regional Economic Integration of ASEAN and East Asia         FUKUOKA Noriyoshi       Industrial Policy, Healthcare Policy, Energy Policy         FUKUYAMA Mitsuhiro       Globalization, East Asia         Globalization, East Asian Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy         Giovanni GANELLI       International Economics, Fiscal Policy, Structural Reforms in Japan         HAMA Kentaro       Policy Evaluation, Causal Inference         HARA Keishiro       Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science         HASHIMOTO Shingo       Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social Security         HATA Shigenori       Innovation Policy, RAD Evaluation         HAYAFUJI Masahiro       Trade and Related Policies, Trade Regimes, Economic History, Environmental Economics         HISANAGA Makoto       Statistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative Advaratege         HISHINUMA Takeshi       Intelectual Property, Private International Law and International Relations         HOSOYA Yuji       Industrial Agglomerations and Innovation, SMEs, Regional Industrial Policy<	ETO Manabu	Management of Technology, Standardization, Innovation Policy
FUKUNAGA Kai         Macroeconomics, Industrial Organizations, Labor Economics           FUKUNAGA Yoshifumi         International Economic Law, International Political Economy, Regional Economic Integration of ASEAN and East Asia           FUKUOKA Noriyoshi         Industrial Policy, Healthcare Policy, Energy Policy           FUKUYAMA Mitsuhiro         Economic Model, History and Philosophy of Public Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy           Giovanni GANELLI         International Economics, Fiscal Policy, Structural Reforms in Japan           HAMA Kentaro         Policy Evaluation, Causal Inference           HARA Keishiro         Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HASHIMOTO Shingo         Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social Security           HATA Shigenori         Innovation Policy, R&D Evaluation           HAYAFUJI Masahiro         Trade and Related Policies, Trade Regimes, Economic History, Enviromental Economics           HISANAGA Makoto         Statistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative Adjunct           HISHINUMA Takeshi         Intellectual Property, Private International Law and International Relations           HOSOYA Yuji Adjunct         Industrial Agglomerations and Innovation, SMEs, Regional Industrial Policy	FUJII Toshihiko	CSR, Global Rulemaking, Corporate Lobbying
FUKUNAGA YoshifumiInternational Economic Law, International Political Economy, Regional Economic Integration of ASEAN and East AsiaFUKUOKA NoriyoshiIndustrial Policy, Healthcare Policy, Energy PolicyFUKUYAMA MitsuhiroGlobalization, East Asia Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public PolicyGiovanni GANELLIInternational Economics, Fiscal Policy, Structural Reforms in JapanHAMA KentaroPolicy Evaluation, Causal InferenceHARA KeishiroFuture Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability ScienceHASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, RAD EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Environmental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Trade Models, Empirical Analysis on Comparative AdvantageHISANAGAInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Tends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between <br< td=""><td>FUJIOKA Masami</td><td>Healthcare</td></br<>	FUJIOKA Masami	Healthcare
FOROMAGA Roshindhili         East Asia           FUKUOKA Noriyoshi         Industrial Policy, Healthcare Policy, Energy Policy           FUKUYAMA Mitsuhiro         Globalization, East Asia Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy           Giovanni GANELLI         International Economics, Fiscal Policy, Structural Reforms in Japan           HAMA Kentaro         Policy Evaluation, Causal Inference           HARA Keishiro         Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science           HASHIMOTO Shingo         Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social Security           HATA Shigenori         Innovation Policy, R&D Evaluation           HAYAFUJI Masahiro         Trade and Related Policies, Trade Regimes, Economic History, Environmental Economics           HAYASHI Ryozo         U.SJapan Relations, Economic Structural Reform           HISANAGA Makoto         Statistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative Advantage           HISHINUMA Takeshi         Intellectual Property, Private International Law and International Relations           HOSOYA Yujj         Industrial Agglomerations and Innovation, SMEs, Regional Industrial Policy           IKEDA Yoko         Innovation Policy, Rulemaking, EU Economic and Social Situation           INOUE Seitchirio         Econo	FUKUNAGA Kai	Macroeconomics, Industrial Organizations, Labor Economics
FUKUYAMA MitsuhiroGlobalization, East Asian Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public PolicyGiovanni GANELLIInternational Economics, Fiscal Policy, Structural Reforms in JapanHAMA KentaroPolicy Evaluation, Causal InferenceHARA KeishiroFuture Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability ScienceHASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Trade Models, Empirical Analysis on Comparative AdjunctHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economic Policy, Fiscal PolicyISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	FUKUNAGA Yoshifumi	
POROLAMA MitsulatioEconomic Model, History and Philosophy of Public PolicyGiovanni GANELLIInternational Economics, Fiscal Policy, Structural Reforms in JapanHAMA KentaroPolicy Evaluation, Causal InferenceHARA KeishiroFuture Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability ScienceHASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SelichiroEconomic Trends, Economic Policy, Fiscal PolicyISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	FUKUOKA Noriyoshi	Industrial Policy, Healthcare Policy, Energy Policy
HAMA KentaroPolicy Evaluation, Causal InferenceHARA KeishiroFuture Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability ScienceHASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvartageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeelichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISMU KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	FUKUYAMA Mitsuhiro	Globalization, East Asian Economic Integration, Comparative Political Economy, Japanese Political and Economic Model, History and Philosophy of Public Policy
HARA KeishiroFuture Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability ScienceHASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiInternational TradeITO KojiInternational Trade	Giovanni GANELLI	International Economics, Fiscal Policy, Structural Reforms in Japan
HASHIMOTO ShingoIndustrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social SecurityHATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economic Policy, Fiscal PolicyISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHurnan Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology	HAMA Kentaro	Policy Evaluation, Causal Inference
HATA ShigenoriInnovation Policy, R&D EvaluationHAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AcjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SelichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology	HARA Keishiro	Future Design, Technology Policy and Innovation, Environmental and Energy Policy, Sustainability Science
HAYAFUJI MasahiroTrade and Related Policies, Trade Regimes, Economic History, Enviromental EconomicsHAYASHI RyozoU.SJapan Relations, Economic Structural ReformHISANAGA MakotoStatistical and Numerical Analysis on International Trade Models, Empirical Analysis on Comparative AdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SelichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	HASHIMOTO Shingo	Industrial Structure Analysis, Fiscal Analysis (National Debt Management, etc.), Social Security
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HISAIVAGA MakotoAdvantageHISHINUMA TakeshiIntellectual Property, Private International Law and International RelationsHOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology	HAYASHI Ryozo	U.SJapan Relations, Economic Structural Reform
HOSOYA Yuji AdjunctIndustrial Agglomerations and Innovation, SMEs, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	HISANAGA Makoto	
AdjunctIndustrial Aggiomerations and Innovation, Sivies, Regional Industrial PolicyIKEDA YokoInnovation Policy, Rulemaking, EU Economic and Social SituationINOUE SeiichiroEconomic Trends, Economic Policy, Fiscal PolicyISHIGE HiroyukiInternational Economics, Industry, SMEsISHII YoshiakiSME and Venture Business Policy, Industrial Organizations, Innovation PolicyISOZUMI KojiHuman Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and TechnologyITO KojiInternational Trade	HISHINUMA Takeshi	Intellectual Property, Private International Law and International Relations
INOUE Seiichiro       Economic Trends, Economic Policy, Fiscal Policy         ISHIGE Hiroyuki       International Economics, Industry, SMEs         ISHII Yoshiaki       SME and Venture Business Policy, Industrial Organizations, Innovation Policy         ISOZUMI Koji       Human Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology         ITO Koji       International Trade		Industrial Agglomerations and Innovation, SMEs, Regional Industrial Policy
ISHIGE Hiroyuki       International Economics, Industry, SMEs         ISHII Yoshiaki       SME and Venture Business Policy, Industrial Organizations, Innovation Policy         ISOZUMI Koji       Human Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology         ITO Koji       International Trade	IKEDA Yoko	Innovation Policy, Rulemaking, EU Economic and Social Situation
ISHII Yoshiaki       SME and Venture Business Policy, Industrial Organizations, Innovation Policy         ISOZUMI Koji       Human Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between         Societies, Regulations and Technology       International Trade	INOUE Seiichiro	Economic Trends, Economic Policy, Fiscal Policy
ISOZUMI Koji     Human Resource Development, Low Birthrate and Aging Society/Social Security, Relationships between Societies, Regulations and Technology       ITO Koji     International Trade	ISHIGE Hiroyuki	International Economics, Industry, SMEs
ISO20001 Koji     Societies, Regulations and Technology       ITO Koji     International Trade	ISHII Yoshiaki	SME and Venture Business Policy, Industrial Organizations, Innovation Policy
	ISOZUMI Koji	
KASHIWASE Kenichiro Development Economics, Economics of Aging	ITO Koji	International Trade
	KASHIWASE Kenichiro	Development Economics, Economics of Aging

Name	Research Areas
KATO Hajime	International Economics, Chinese Economy, Social Security
KAWASAKI Kenichi	Computable General Equilibrium Model, Macroeconometric Model, Trade and Investment Liberalization and Facilitation, Regulatory Reform, Macroeconomic Policy, Business Cycles, Economic Outlook, Household Saving Behavior, Determination of Wages and Prices
KIHARA Takashi	International Cooperation and Development Assistance
KITAMI Tomitaro	Studies in the Governance of the Local Governments in Japan
KOBAYASHI Yohei	Public Economics, Applied Econometrics, Urban Economics
KODAMA Naomi	Applied Microeoconomics, Labor Economics
KOIKE Takahide	Fiscal and Monetary Policies, Fiscal Risks, Uncertainty and Business Cycles, Independent Fiscal Institutions
KOMETANI Kazumochi	International Economic Law including Trade Law, Investment Law, and others, International Administrative Law, Competition Law
KURITA Motoki	Policy and Institutions for Innovation and Social Security
KUTSUZAWA Ryuji	Urban Economics, Analysis of Real Estate Prices, REITs, Policies and Institutions for Innovation
Chi Hung KWAN	China's Economic Reform, Regional Integration in Asia, Yen Bloc
MATSUDA Naoko	Corporate Theory, Venture Business Theory, Al
MATSUNAGA Akira	Economic Growth, International Trade, Industrial Policy
MIKAMO Tetsuhide	Macroeconomics, Sogo-Shosha (Japanese trading companies)
MIKI Takeshi	Corporate Theory, Corporate Strategy, Industrial Cluster, CSR, Intellectual Property Strategy
MIURA Satoshi	Commodity Markets, Industrial Organization Policy, U.S. Political Economy
MIYOSHI Yoshiyuki	Public Finance, Regional Economies, Macroeconomics, Housing Policy, Infrastructure Policy
MUKAWA Kei	Economic Growth, Public Policy, Fiscal and Monetary Policies, International Relations
MUTO Sachio	Urban Economics, Transportation Economics
NAGAMACHI Daisuke	Macroeconomics, Economic Growth, Public Investment
NAKATOMI Michitaka	Trade Law, Trade Policy, International Economics
NAKAZAWA Norio	Asian Economy, International Relations, Economic Thought, Market Analysis
NAMBU Tomoshige	Public Finance, Tax Policy, Trade Policy
NASUNO Futoshi	Employment/Human Resources Policies, Corporate Law, Global Warming
NISHIDA Akio	Macroeconomics, Public Finance
NISHIGAKI Atsuko	Governance Structure, Competition Policy, Countermeasures to the Low Birthrate
NISHIOKA Takashi	Social Security
NOHARA Satoshi	Sustainability in Finance, Macroeconomic Management Policy
NOZAKI Yuko	Applied Microeconomics, Labor Economics
ODAKI Kazuhiko	Human Capital and Productivity, Real Estate and Finance
OGAWA Makoto	Labor Economics, Labor Management, Work-Life Balance, Diversity
OGURO Kazumasa	Public Economics
OIKAWA Keita	Macroeconomics, International Economics, Econometrics, Public Economics, Industrial Organizations
OKADA Yoshimi	Intellectual Property Rights, Knowledge Management, Innovation Policy
OKUDA Takanori	International Political Economy
SAKATA Ichiro	Regional Economies, Regional Cluster, Innovation Policy, Tax System
SATO Hitoshi	International Trade, Economic Growth
SEKIGUCHI Kunio	Disaster Recovery Analysis, Supply Chain Analysis, Trends in Trade, Price Changes

Name	Research Areas	
SHIMIZU Mikiharu	Trade and Investment Policy, International Trade Law, Corporate Turnaround, Social Security Policy, Personal Information Protection Law	
SHIMURA Kazuki	Growth Strategy of SMEs, Capital Policy and Corporate Governance, SME Finance, SME Policy	
SHIRAISHI Shigeaki	Public Policy, International Economics, Service Economy, Energy	
SUEMASA Kenji	Economic Growth, Social Security, Health Economics	
SUGA Chizuru	Corporate Management, Policy and Institutions for Innovation, Cool Japan Strategy, Education and Social Security System	
SUGIYAMA Seiji	Regional Economic and Industrial Policy, Productivity Analysis, Information Policy	
SUMITA Takayuki	Mechanism of Innovation, Intellectual Asset Management, Energy Security	
TAKAMURA Shizuka	Human Resource Management, Organizational Behavior, Work-Life Balance Practices	
TAKEGAMI Shiro	Industry-University Cooperation, Open Innovation, Industry-Medical Cooperation, Regional Industrial Development, Security Export Control	
TAMURA Akihiko	International Political Economy, Global Governance, International Economic Law, Regional Integration (especially EU and East Asian Region), CSR, China	
TANI Midori	Consumer Policy, Environmental Policy	
TANIZAWA Atsushi	International Trade Policy, Negotiation	
TASHIRO Takeshi	Economic Growth, International Finance, Financial Crisis	
TOMIHARA Sayaka	Social Security, Behavioral Economics, Organizational Economics, Trade Policy	
TSUCHIMOTO Ichiro	Competitive Intelligence, Risk Management, Crisis Management, Innovation Policy	
TSUDA Hirokazu	Evidence-based Policymaking, Behavioral Economics, Entrepreneurship, Regional Economies	
TSURUTA Hitoshi	Tariff Policy, International Trade Law, International Trade	
UEDA Keiichiro	Policy and Institutions for Economic Growth	
UEKI Takayuki	Public Economics	
UEMARU Atsuhito	Innovation Policy, Behavioral Economics, Development Economics, Evidence-based Policy	
UENO Toru	SMEs & Regional Economic Policies, Tourism Policy, Entrepreneurship Education	
UNO Yuya	Public Economics	
YAMADA Keigo	Working Style Reform, Human Resource Development, Information Industry Policy, Corporate Strategy, Countermeasures against Climate Change, Energy and Environmental Economics	
YAMADA Masato	Work-Life Balance, Intellectual Property Policy, Countermeasures to the Low Birthrate, Consumer Policy, Regional Economies	
YASHIRO Naomitsu	International Trade, Innovation, Chinese Economy, Macroeconomics	
YOSHIDA Masahiko	Open Innovation, Business Cluster, Innovation Networks for Regional Economies	
YOSHIDA Ryohei	Macroeconomics, Japanese Economy, Monetary Policy, Social Security Policy	
YOSHIYA Hiroyuki	International Economics (Monetary and Currency Stabilization, Economic Development, International Economic Order), Economic Growth, Social Security (Inequality and Distribution Policy), Human Resources, Work Style, Employment System	
Visiting Fellow (VF)		
MENG Jianjun	Development Economics, Industry Development, Environmental Policy	
OKIMOTO Tatsuyoshi	Financial Econometrics, Empirical Finance, Applied Macroeconomics, Econometrics	
YAMAGUCHI Kazuo	Quantitative Methodology (Event-History Models and Models for Categorical Data), Work and Family, Work- Life Balance, Models of Rational/Purposive Social Action, Life Course and Occupational Career, Social Stratification and Social Inequality, Contemporary Japanese Society, Social Network, Social Exchange, Social Diffusion, Epidemiology of Drug Abuse, Longitudinal Analysis of Drug-Use History	

## **Program Directors**

Program Directors (PDs) are assigned to each of the nine research programs to conduct efficient and substantive research activities as a whole via comprehensive research guidance, contributions to policy formation, and cooperation among research programs.

Program Directors		Research Programs
KOBAYASHI Keiichiro	Professor, Faculty of Economics, Keio University Research Director, Canon Institute for Global Studies	Macroeconomy and Low Birthrate/Aging Population
TOMIURA Eiichi	Professor, Faculty of Economics, Hitotsubashi University	International Trade and Investment
HAMAGUCHI Nobuaki	ki Professor, Research Institute for Economics and Business Administration (RIEB), Kobe University Regional Economies	
NAGAOKA Sadao	Professor, Tokyo Keizai University Innovation	
OHASHI Hiroshi	Professor, Faculty of Economics, The University of Tokyo	Industry Frontiers
FUKAO Kyoji	Professor, Institute of Economic Research, Hitotsubashi University	Raising Industrial and Firm Productivity
TSURU Kotaro Professor, Graduate School of Business & Commerce, Keio University		Human Capital
YANO Makoto (Acting Program Director)	President and Chief Research Officer, RIETI	Law and Economy
TAKEDA Haruhito	Professor Emeritus, The University of Tokyo	Policy History and Policy Assessment

(As of the end of March 2018)

## Senior Advisors / Senior Research Advisors

Senior Advisors (SAs) and Senior Research Advisors (SRAs) give cross-sectional, comprehensive advice on RIETI's research activities and operations.

## Senior Advisors

WAKASUGI Ryuhei	Professor, Graduate School of International Studies and Regional Development, University of Niigata Prefecture /
-	Professor Emeritus, Kyoto University / Professor Emeritus, Yokohama National University
YOSHIKAWA Hiroshi	Professor, Faculty of Economics, Rissho University

## Senior Research Advisors

FUKAO Mitsuhiro	Professor, Faculty of Economics, Musashino University
NEZU Risaburo	Former Executive Fellow, Fujitsu Research Institute

(In alphabetical order, as of the end of March 2018)

## Evaluation Framework of Incorporated Administrative Agencies

The Act for Partial Revision of the Act on General Rules for Incorporated Administrative Agencies (Act No. 66 of 2014) came into effect on April 1, 2015, and new objectives and the evaluation structure of incorporated administrative agencies were introduced.

RIETI utilizes the knowledge of following outside experts from the viewpoint of ensuring the effectiveness of evaluations.

KOJO Yoshiko	Professor, Graduate School of Arts and Sciences, The University of Tokyo
KURODA Masahiro	Professor Emeritus, Keio University
OGASAWARA Naoshi	Representative Partner, Avantia GP
ONO Toshihiko	Auditor, Japan Association of Corporate Executives
SUDA Miyako	Special Advisor, The Canon Institute for Global Studies

(In alphabetical order, as of the end of March 2018)

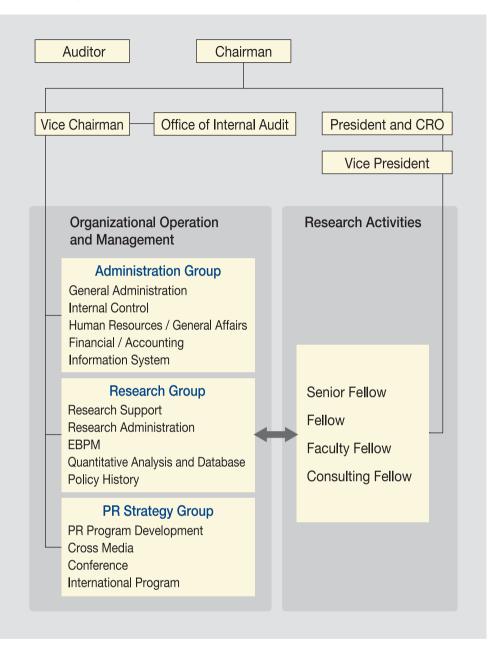
## **External Advisory Committee**

The External Advisory Committee, which consists of external experts at universities and research institutes, etc., verifies research progress and efficiency and considers measures to enhance RIETI's research activities.

Richard E. BALDWIN	Professor, The Graduate Institute of International and Development Studies, Geneva
FUKUI Toshihiko	President, The Canon Institute for Global Studies
Dale W. JORGENSON	Professor, Harvard University
KURODA Masahiro	Professor Emeritus, Keio University
TACHIBANAKI Toshiaki	Professor Emeritus, Kyoto University / Visiting Professor, Kyoto Women's University
YOSHINO Naoyuki	Dean, Asian Development Bank Institute / Professor Emeritus, Keio University

(In alphabetical order, as of the end of March 2018)

## • Organization Chart •





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