

Comparative Analysis of Enterprise Data

2009 Conference
Tokyo, Japan
October 2-4, 2009



Program of **Comparative Analysis of Enterprise Data**

2009 Conference

Tokyo, Japan

October 2-4, 2009

Cover Photo: Yoshihiro Makino

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Words of Welcome

The Local Committee and the Executive Committee of the Comparative Analysis of Enterprise Data (CAED) warmly welcome you to Tokyo as participants of the CAED 2009 Conference.

Through participating at CAED Conferences held in Europe and the United States in the past ten years, we, Asian economists, have realized that there is a huge opportunity for studying Asian economies using enterprise micro data. We have also been impressed by the fact that in Europe and the United States, access to enterprise micro data for academic use is much more organized than in Asian countries, and statisticians, economists and econometricians in Europe and the United States continue to collaborate in improving analytical tools, data access, and data quality. Stimulated by these discoveries, the Global COE Program “Research Unit for Statistical and Empirical Analysis in Social Sciences (Hi-Stat)” at Hitotsubashi University, together with the Research Institute of Economy, Trade and Industry (RIETI) decided to organize this first CAED Conference to be held in Asia. I hope that this opportunity will stimulate research based on enterprise micro data and will contribute to improving the conditions for academic use of such data in Asia and elsewhere.

Following submissions of papers in response to our call for papers, the Scientific Committee of the CAED Conference has accepted 121 papers, including papers for a poster session. The program also offers 15 organized sessions and one policy oriented symposium. Sessions and the symposium will cover a wide range of subjects, such as industry dynamics, firm performance, worker outcomes, and data access and quality, and a wide variety of regions around the world. The social program includes two evening receptions and a Tokyo tour and boat cruise.

I would like to thank all the institutions involved with the organization of this Conference as well as the sponsors (Nihon University College of Economics; Gakushuin University Research Institute of Economics and Management; Global COE Program, “Raising Market Quality-Integrated Design of Market Infrastructure,” Keio University and Kyoto Institute of Economics; Economic Research Institute for ASEAN and East Asia (ERIA); Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University; and Institute of Economic Research, Hitotsubashi University) for their generous support.

I hope that you have a productive time and enjoy your stay in Japan!

Kyoji Fukao

Co-Chair, CAED 2009 Conference

Professor, Institute of Economic Research, Hitotsubashi University

About CAED

Ten years ago, an economist leafing through the major professional journals would have been hard-pressed to find many articles using firm-level data. Particularly unusual were studies using comprehensive panel data on all enterprises in a single economy, and still rarer, practically unknown, were analyses of such data for multiple countries. One of the most important developments in economic research over the last decade is the growing analysis of such databases. The new data provide the opportunity for revisiting many of the classic empirical questions in economics, this time with data at the appropriate level of aggregation - the business that is the decision-making unit. The data also permit and stimulate the analysis of many new questions that economists could not even dream of addressing with previous data resources. Together, the data and accompanying research agendas are transforming much of economics and public policy analysis.

The aim of the conference is to promote scientific research using enterprise micro data. The conference is a unique meeting point for producers and users of these data, such as statisticians, economists and econometricians, but also an opportunity for policymakers to get acquainted with the newest research results and policy implications in this rapidly expanding field.

Committees

Executive Committee

Mark Doms, Federal Reserve Bank of San Francisco (Co-Chair)
Kyoji Fukao, Institute of Economic Research, Hitotsubashi University (Co-Chair)
Eric Bartelsman, Vrije Universiteit, Amsterdam
Stefan Bender, IAB
John S. Earle, Upjohn Institute and CEU
Tor Eriksson, Aarhus School of Business
Mery Hallward-Driemeier, The World Bank
John Haltiwanger, University of Maryland
Jonathan Haskel, Queen Mary University of London
Ron Jarmin, U.S. Census Bureau
Shawn Klimek, U.S. Census Bureau
Francis Kramarz, INSEE
Seppo Laaksonen, University of Helsinki and Statistics Finland
Julia Lane, NORC/University of Chicago
Kazuyuki Motohashi, The University of Tokyo
Carmen Pages-Serra, Inter-American Development Bank
Stefano Scarpetta, OECD

Scientific Committee

Eric Bartelsman, Vrije Universiteit, Amsterdam
Stefan Bender, Institute for Employment Research, IAB
Mark Doms, Federal Reserve Bank of San Francisco
Richard Fabling, Reserve Bank of New Zealand
Kyoji Fukao, Institute of Economic Research, Hitotsubashi University
Jonathan Haskel, Imperial College Business School, London
Ryo Kambayashi, Institute of Economic Research, Hitotsubashi University
Daiji Kawaguchi, Hitotsubashi University
Kozo Kiyota, Yokohama National University
Shawn Klimek, U.S. Census Bureau
Mika Maliranta, The Research Institute of the Finnish Economy
Tsutomu Miyagawa, Gakushuin University
Kazuyuki Motohashi, The University of Tokyo
Makoto Nirei, Institute of Innovation Research, Hitotsubashi University

Local Committee for the 9th conference

Sanghoon Ahn, Korea Development Institute

Kyoji Fukao, Institute of Economic Research, Hitotsubashi University (Co-Chair)

Ryo Kambayashi, Institute of Economic Research, Hitotsubashi University

Daiji Kawaguchi, Hitotsubashi University

Kozo Kiyota, Yokohama National University

Toshiyuki Matsuura, Keio Economic Observatory, Keio University

Tsutomu Miyagawa, Gakushuin University

Kazuyuki Motohashi, The University of Tokyo

Makoto Nirei, Institute of Innovation Research, Hitotsubashi University

Hyeog Ug Kwon, Nihon University

Sponsors



Global COE Program, “Research Unit for Statistical and Empirical Analysis in Social Sciences (Hi-Stat),” Hitotsubashi University



Research Institute of Economy, Trade and Industry (RIETI)



Nihon University College of Economics



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Global COE Program, “Raising Market Quality-Integrated Design of Market Infrastructure,” Keio University and Kyoto Institute of Economics



Economic Research Institute for ASEAN and East Asia (ERIA)

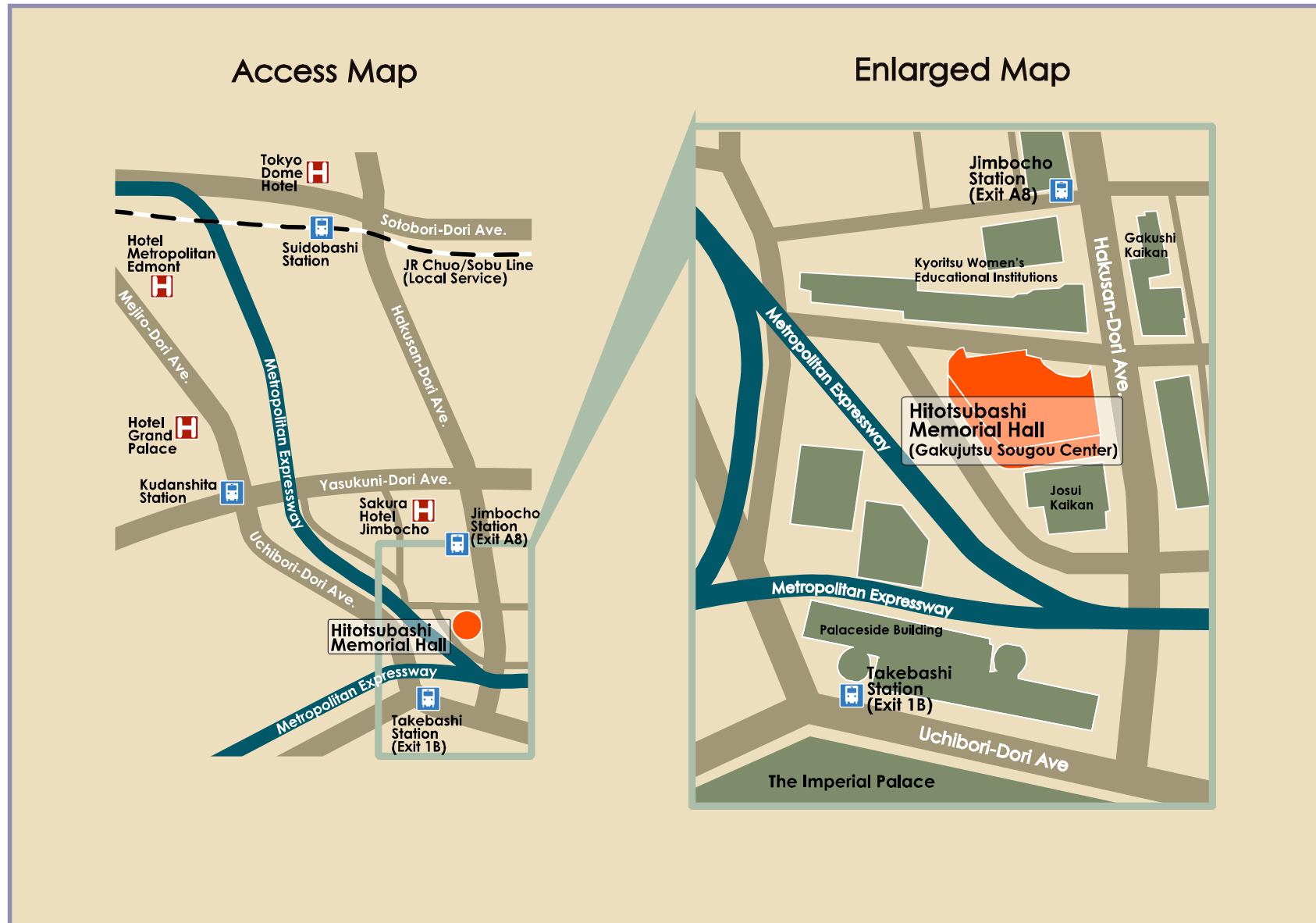


Center for Economic Institutions, Institute of Economic Research, Hitotsubashi University



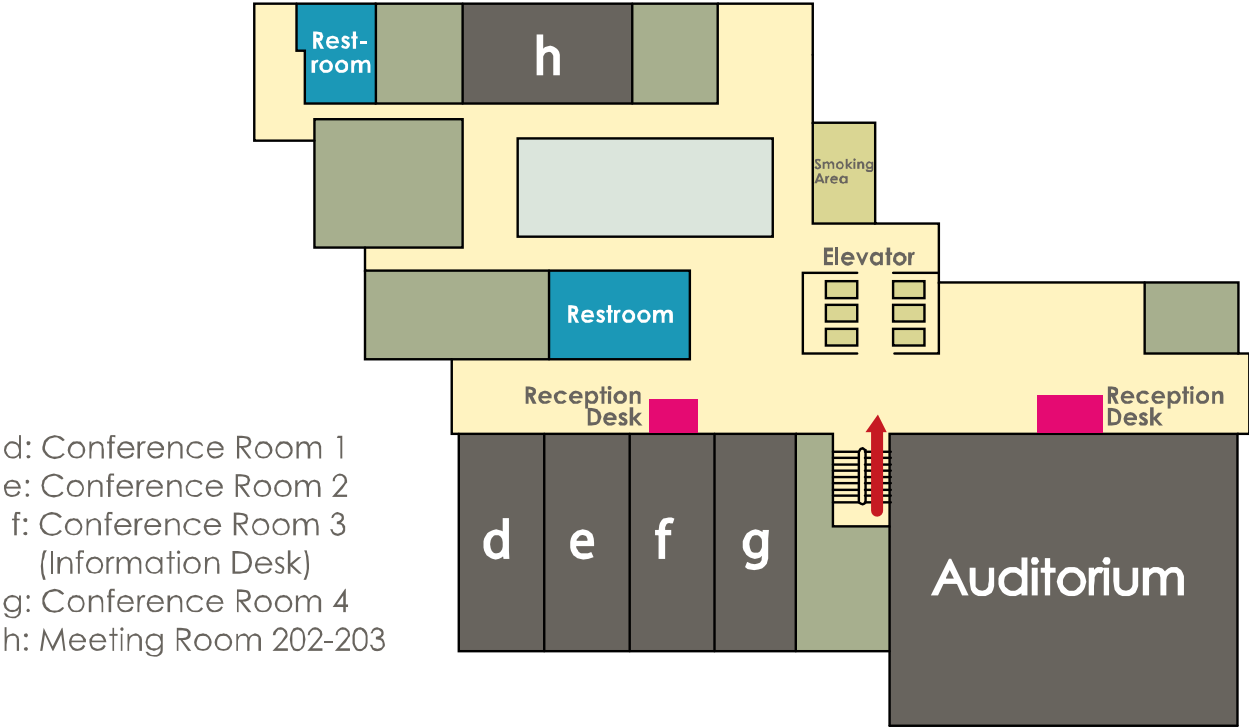
Institute of Economic Research, Hitotsubashi University

Map

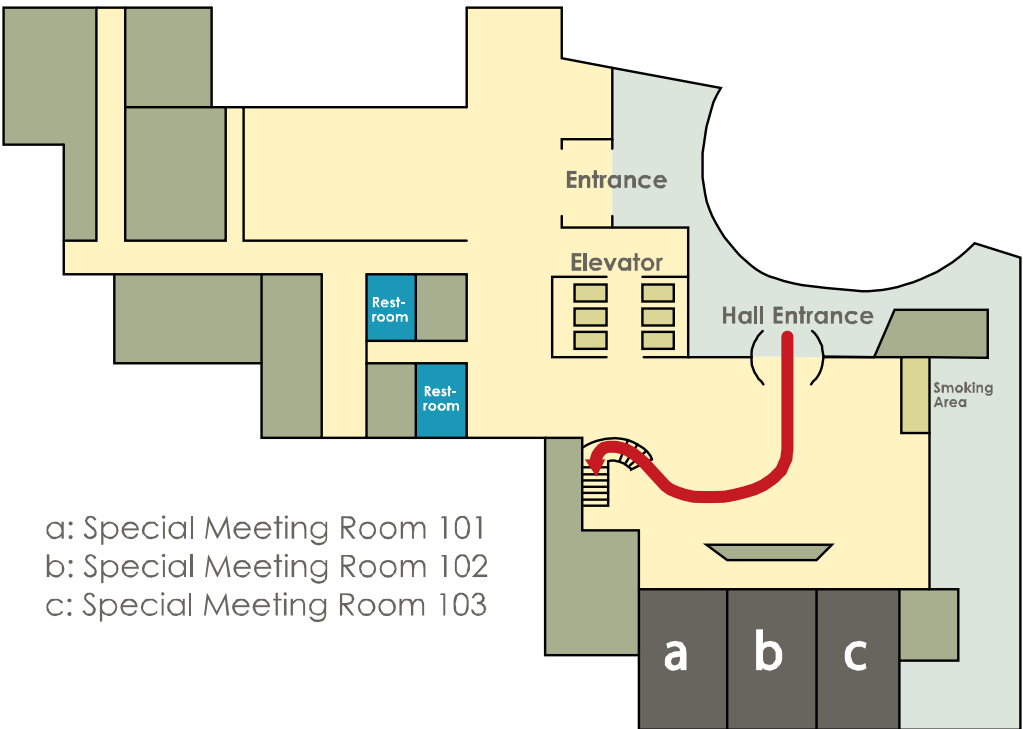


Floor Plan

2nd Floor

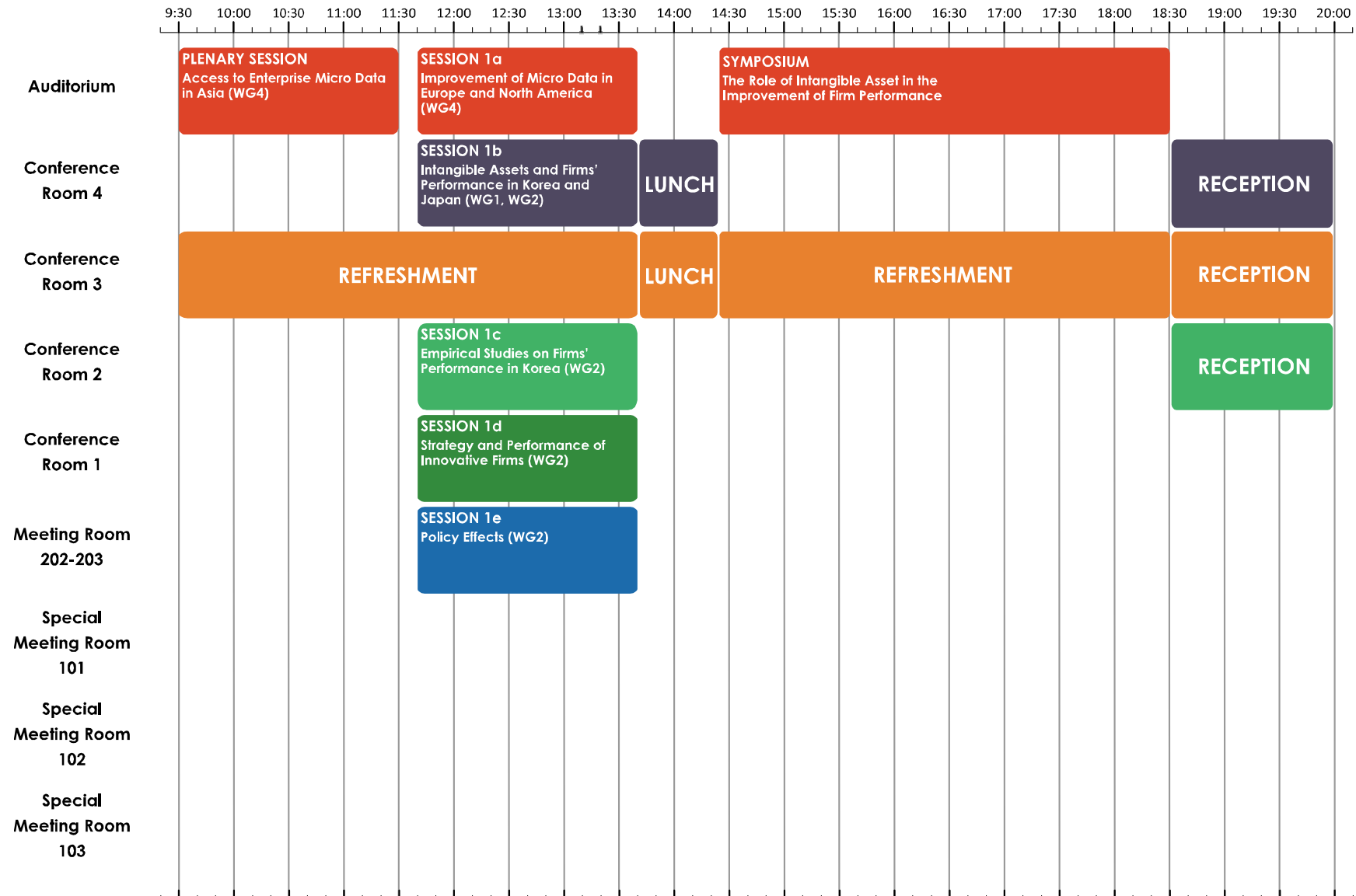


1st Floor

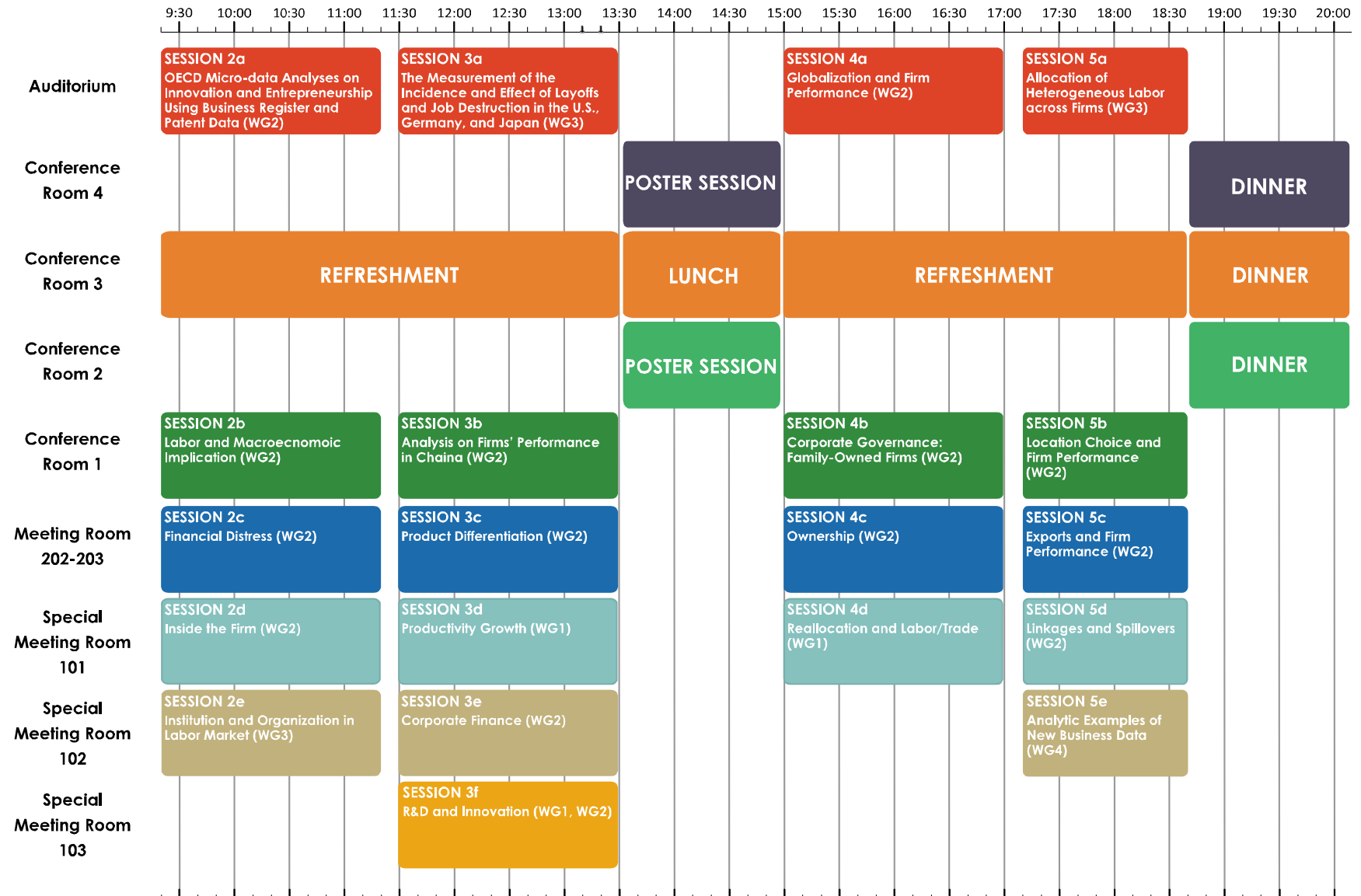


Timetable

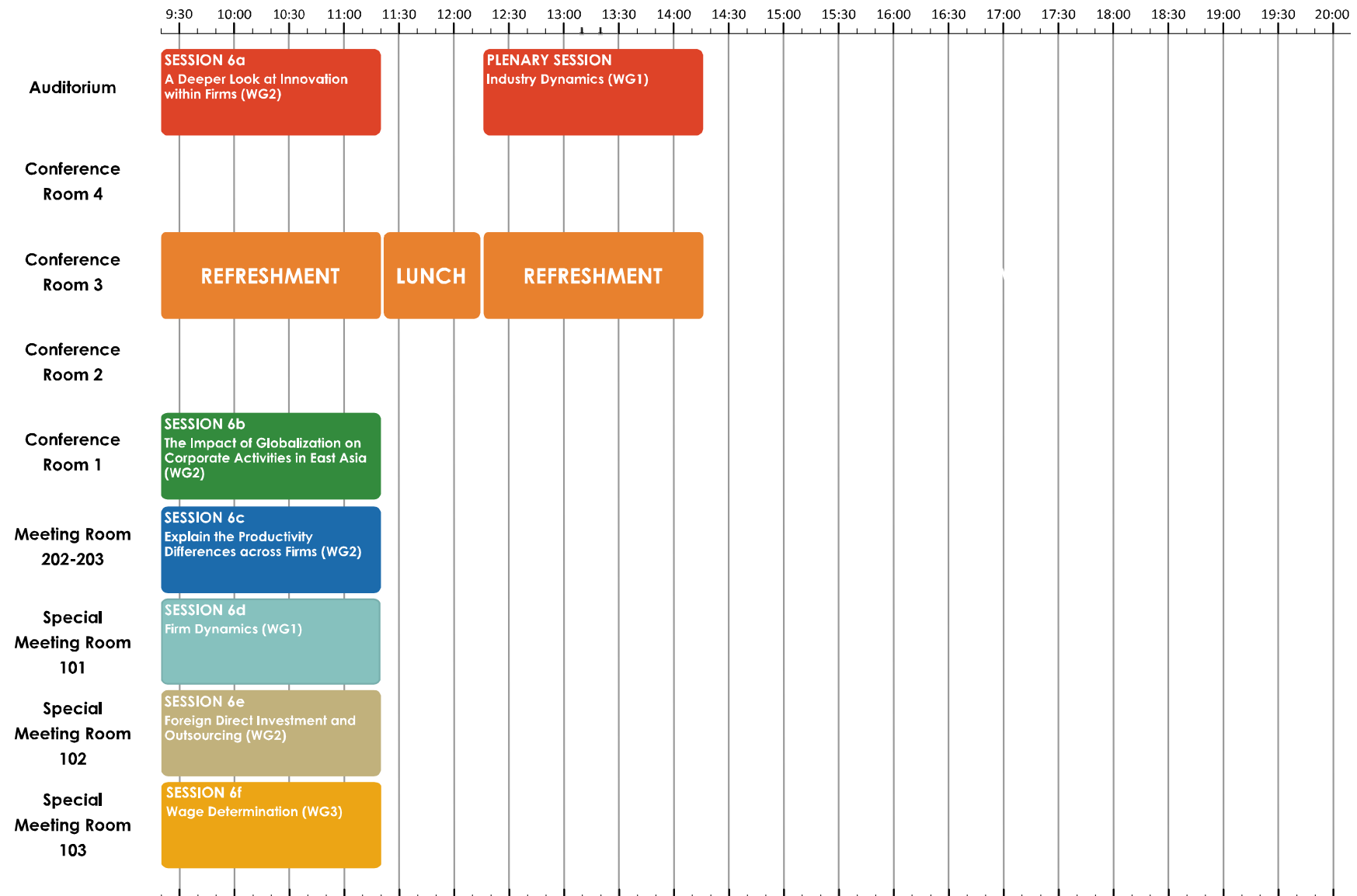
Friday, October 2



Saturday, October 3



Sunday, October 4



Program

Comparative Analysis of Enterprise Data

2009 Conference

as of September 9, 2009, Subject to Change

October 2-4, 2009

Hitotsubashi Memorial Hall, Tokyo, Japan

Thursday, October 1

19:00-21:30 **Welcome Dinner (for invited speakers)**

Banquet Room, Tokyo Dome Hotel (1-3-61 Koraku, Bunkyo-ku, Tokyo)

Friday, October 2

9:00-9:20 **REGISTRATION**

Auditorium

9:20-9:30 **OPENING REMARKS**

Kyoji Fukao, Hitotsubashi University

Auditorium

9:30-11:30 **PLENARY SESSION**

Access to Enterprise Micro Data in Asia (WG4*)

Chair: Takeshi Hiromatsu, Institute of Information Security

Japan

Japanese Microdata Use Environment and Future Issues:

Considerations from a Comparison of Japan, the United States, and Britain

Akira Kawai, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Shigeru Hirota, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Tomohiko Inui, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Korea

Paper title: TBA

Sanghoon Ahn, Korea Development Institute

China

The Transformation of the Chinese Statistical System and Its Micro-data Foundation

*WG refers to the Working Group for this session.

WG1: Industry Dynamics; WG2: Firm Performance; WG3: Worker Outcomes; WG4: Data Access and Quality

Harry Wu, Hitotsubashi University

ASEAN

Firm- and Plant-level Analysis of Multinationals in Southeast Asia: The Perils of Balancing Panels

Eric Ramstetter, The International Centre for the Study of East Asian Development and Kyushu University

New Zealand

A Rough Guide to New Zealand's Longitudinal Business Database

Richard Fabling, Reserve Bank of New Zealand

Conference Room 3

11:30-11:40 Coffee Break

11:40-13:40 SESSION 1

Auditorium

SESSION 1a: Improvement of Micro Data Access in Europe and North America (WG4)

Chair: Julia Lane, the University of Chicago

US

Papert title: TBA

Ron Jarmin, U.S. Census Bureau

Germany

The RDC of the Federal Employment Agency as a Part of the German RDC Movement

Stefan Bender, Institute for Employment Research (IAB)

England

Designing a National Model for Data Access

Felix Ritchie, UK Office for National Statistics

Canada

Lessons in Establishing and Operating a Research Data Centre Network: The Canadian Experience

Chuck Humphrey, University of Alberta

Conference Room 4

SESSION 1b: Intangible Assets and Firms' Performance in Korea and Japan (WG1, WG2)

Chair: Keun Lee

Management Practices and Firm Performance in Japanese and Korean Firms - An Empirical Study Using Interview Survey

Keun Lee, Seoul National University

Tsutomu Miyagawa, Gakushuin University

Shigesaburo Kabe, Japan Center for Economic Research

Junhyup Lee, Seoul National University

Hyoungjin Kim, Seoul National University

YoungGak Kim, Hitotsubashi University

Kazuma Edamura, Institute of Intellectual Property

Evaluation and Estimation of the Impact of Organizational Technology on Productivity of Korean Firms and Sectors

Jisun Lim, Seoul National University

Elias Sanidas, University of Wollongong

Keun Lee, Seoul National University

Types of Corporate Innovation System and Innovation Performance in Korea - Transformation Strategy for the Better Types of CIS in the ICT Service Sector

Junhyup Lee, Seoul National University

Mergers, Innovation, and Productivity: Evidence from Japanese Manufacturing Firms

Kaoru Hosono, Gakushuin University

Miho Takizawa, Toyo University

Kotaro Tsuru, Research Institute of Economy, Trade and Industry (RIETI)

Conference Room 2

SESSION 1c: Empirical Studies on Firms' Performance in Korea (WG2)

Chair: Hak K. Pyo

Firm Survival and Growth under Different Technological Regimes, Industry Life Cycles and Internal Resources

Jeong-Dong Lee, Seoul National University

Jeong-Sook Han, Seoul National University

Almas Heshmati, Seoul National University

Determinants of R&D Cooperation in Small and Medium-Sized Enterprises

Hyunbae Chun, Sogang University

Sung-Bae Mun, Korea Information Society Development Institute

The Diversification Effect on Firm-level Productivity in Korea

Jungsoo Park, Sogang University

**Dynamic Performance and Structural Change of Korean Firms after the Financial Crisis:
Evidence from Survey of Business Structure and Activities (2005-2007)**

Hak K. Pyo, Center for National Competitiveness; Seoul National University

Keun Hee Rhee, Korea Productivity Center

Conference Room 1

SESSION 1d: Strategy and Performance of Innovative Firms (WG2)

Chair: Sadao Nagaoka

Product Innovation and Survival in a High-Tech Industry

Roberto Fontana, University of Pavia and Bocconi University

Lionel Nesta, OFCE-DRIC

Determinants of Research Partnership Formation by Japanese High-tech Startups

Hiroyuki Okamuro, Hitotsubashi University

Yuji Honjo, Chuo University

Masatoshi Kato, Hitotsubashi University

Entry and Growth Performance of Biotech Firms in Japan

Yuji Honjo, Chuo University

Kenta Nakamura, Kobe University

Sadao Nagaoka, Hitotsubashi University

Tax Incentives and R&D Activity: Firm-Level Evidence from Taiwan

Chia-Hui Huang, Aletheia University

Chih-Hai Yang, National Central University, Taiwan

Meeting Room 202-203

SESSION 1e: Policy Effects (WG2)

Chair: Tetsuji Okazaki

Plant-Level Responses to Antidumping Duties: Evidence from U.S. Manufacturers

Justin Pierce, Center for Economic Studies, U.S. Census Bureau

Climate Change Policy and Innovation

Ralf Martin, Centre for Economic Performance, London School of Economics

Ulrich Wagner, Universidad Carlos III de Madrid

Import Competition and Innovation at the Plant Level: Evidence from Mexico

Kensuke Teshima, Columbia University

Industrial Policy Cuts Two Ways: Evidence from Cotton Spinning Firms in Japan, 1956-1964

Kozo Kiyota, Yokohama National University

Tetsuji Okazaki, The University of Tokyo

Conference Room 3 and 4

13:40-14:25 Lunch

Auditorium

14:25-18:30 SYMPOSIUM

The Role of Intangible Asset in the Improvement of Firm Performance

Co-organized by Research Institute of Economy, Trade and Industry (RIETI) and

Hitotsubashi University Global COE Program (G-COE Hi-Stat)

14:25-14:30 OPENING REMARKS

Sadao Nagaoka, RIETI and Hitotsubashi University

14:25-16:35 KEYNOTE SPEECHES

Chair: Kyoji Fukao, RIETI and Hitotsubashi University

14:30-15:00 KEYNOTE SPEECH 1

What Can We Learn by Analyzing Business Location Using Establishment and Firm Data?

Ron Jarmin, U.S. Census Bureau

15:00-15:30 KEYNOTE SPEECH 2

The Black Box of Intangible Capital: Wanted! Data from Deep within Firms

Carol Corrado, The Conference Board

15:30-16:00 KEYNOTE SPEECH 3

Macro and Micro Perspectives on the Role of Intangible Investment

Tsutomu Miyagawa, RIETI and Gakushuin University

16:00-16:20 Q&A

16:20-16:35 Coffee Break

16:35-18:25 PANEL DISCUSSION

What Kind of Management Practice Will Fit Globalization and Innovation?

Moderator: Tsutomu Miyagawa, RIETI and Gakushuin University

Panelists:

Eric Bartelsman, Free University (Vrije Universiteit), Amsterdam

Keun Lee, Seoul National University

Kiyohiko G. Nishimura, Bank of Japan

Yukihiro Okawa, Service Productivity & Innovation for Growth and Japan Productivity Center

Yoshiaki Tojo, Information Services Industry Division, Commerce and Information Policy Bureau, METI

18:25-18:30 CLOSING REMARKS

Kozo Oikawa, RIETI

Conference Room 2, 3, and 4

18:30-20:00 RECEPTION

Saturday, October 3

9:00-9:20 REGISTRATION

9:20-11:20 SESSION 2

Auditorium

SESSION 2a: OECD Micro-data Analyses on Innovation and Entrepreneurship Using Business Register and Patent Data (WG2)

Chair: Kazuyuki Motohashi

The Innovative Activity of Firms over Their Life Cycle: Evidence from French Micro-Data

Claire Lelarge, OECD DSTI/EAS and CREST-INSEE

The Patenting and Trademark Activities of U.S. Firms

Shawn Klimek, Center for Economic Studies and U.S. Census Bureau

C.J. Krizan, Center for Economic Studies and U.S. Census Bureau

An Analysis of the Innovative Activity of Entrepreneurial and Young Firms in the UK

Christian Helmers, Wolfson College, University of Oxford

Mark Rogers, Harris Manchester College, University of Oxford and Aston University

Innovation and Firm Growth: A First Look at Linkage Data of Japanese Patent and Enterprise Census

Kazuyuki Motohashi, The University of Tokyo and RIETI

Conference Room 1

SESSION 2b: Labor and Macroeconomic Implication (WG2)

Chair: Eric J. Bartelsman

Globalization, Creative Destruction, and Labor Share Change: Evidence on the Determinants and Mechanisms from Longitudinal Plant-Level Data

Petri Böckerman, Labour Institute for Economic Research

Mika Maliranta, The Research Institute of the Finnish Economy

Who Creates Jobs? Small vs Large vs Young

John Haltiwanger, University of Maryland

Ron Jarmin, U.S. Census Bureau

Javier Miranda, U.S. Census Bureau

Rent-sharing, Hold-up, and Wages: Evidence from Matched Panel Data

David Card, UC Berkeley and NBER

Francesco Devicienti, University of Torino

Agata Maida, LABORatorio Revelli, Collegio Carlo Alberto

Forecasting Aggregate Productivity Using Information from Firm-Level Data

Eric J. Bartelsman, Vrije Universiteit Amsterdam, Tinbergen Institute, and IZA Bonn

Zoltán Wolf, Vrije Universiteit Amsterdam and Tinbergen Institute

Meeting Room 202-203

SESSION 2c: Financial Distress (WG2)

Chair: Patrick Musso

Age Effects, Leverage and Firm Growth

Kim P. Huynh, Indiana University

Robert J. Petrunia, Lakehead University

Are Service Firms Affected by Exchange Rate Movements?

Jen Baggs, University of Victoria

Eugene Beaulieu, University of Calgary

Loretta Fung, University of Alberta and National Tsing Hua University

Productivity Growth and Competition across the Asian Financial Crisis: Evidence from Korean Manufacturing Firms

Chulwoo Baek, Hitotsubashi University and KISTEP

YoungGak Kim, Hitotsubashi University

Hyeog Ug Kwon, Nihon University and RIETI

Financial Constraints and Firm Export Behavior

Flora Bellone, University of Nice-Sophia Antipolis

Patrick Musso, University of Savoie

Lionel Nesta, OFCE-DRIC

Stefano Schiavo, University of Trento, Department of Economics, and OFCE-DRIC

Special Meeting Room 101

SESSION 2d: Inside the Firm (WG2)

Chair: Shigeru Asaba, Gakushuin University

Academic Entrepreneur's Human Capital Depreciation

Kathrin Müller, Centre for European Economic Research (ZEW), Mannheim

The CSP-CFP Missing Link: Complementarity between Environmental, Social and Governance Practices?

Sandra Cavaco, LEM, Université Paris II Panthéon Assas

Patricia Crifo, Ecole Polytechnique and UHA

The Effects of Human Resource Management Practices on Firm Productivity: Evidence from Finland

Derek C. Jones, Hamilton College

Panu Kalmi, Helsinki School of Economics

Takao Kato, Colgate University

Mikko Mäkinen, Helsinki School of Economics

Special Meeting Room 102

SESSION 2e: Institution and Organization in Labor Market (WG3)

Chair: Tomi Kyrrä

Manufacturing Plants' Use of Temporary Workers: An Analysis Using Census Micro Data

Yukako Ono, Federal Reserve Bank of Chicago

Daniel Sullivan, Federal Reserve Bank of Chicago

Organizational Change, Polarization and Gender

Christian Dustmann, UCL, CEPR, IFS and IZA

Marco Hafner, IAB

Uta Schönberg, UCL, IAB and IZA

The Screening Function of Certification- Evidence from the Freshmen Labor Market

Long-Hwa Chen, Aletheia University, Taiwan and Aarhus University, Denmark

Tor Eriksson, Aarhus School of Business, Aarhus University

Institutional Rules, Labour Demand and Disability Programme Participation

Ossi Korkeamäki, Government Institute for Economic Research (VATT), Finland

Tomi Kyrrä, Government Institute for Economic Research (VATT), Finland

Conference Room 3

11:20-11:30 Coffee Break

11:30-13:30 SESSION 3

Auditorium

SESSION 3a: The Measurement of the Incidence and Effect of Layoffs and Job Destruction in the U.S., Germany, and Japan (WG3)

Chair: Stefan Bender, Institute for Employment Research (IAB)

How Important is Endogenous Mobility for Measuring Employer and Employee Heterogeneity?

John M. Abowd, Cornell University

Kevin McKinney, U.S. Census Bureau

Ian Schmutte, Cornell University and U.S. Census Bureau

The Historical Behavior of Worker Flows and Job Vacancies

Steven J. Davis, University of Chicago and NBER

R. Jason Faberman, Federal Reserve Bank of Philadelphia

John C. Haltiwanger, University of Maryland and NBER

Trends in Worker Displacement Penalties in Japan: 1991-2005

Michael Bognanno, Temple University

Ryo Kambayashi, Hitotsubashi University

Long-Term Earnings Losses due to Mass Layoffs During the 1982 Recession: An Analysis Using U.S. Administrative Data from 1974 to 2004

Till von Wachter, Columbia University, NBER, and CEPR

Jae Song, Social Security Administration

Joyce Manchester, Congressional Budget Office

Conference Room 1

SESSION 3b: Analysis on Firms' Performance in China (WG2)

Chair: Tomohiko Inui, Statistics Commission Office, Minister's Secretariat, Cabinet Office

The Malmquist Index Regression Equations as a Dynamic System

Jinghai Zheng, Norwegian Institute of International Affairs and Gothenburg University, Sweden

Corporate Governance, Productivity and Firm Value

Jian Chen, The University of Greenwich

Absorptive Capacity and the Benefits from Global Reservoirs of Knowledge: Evidence from Linked China-OECD Data

Xiaolan Fu, University of Oxford

Yundan Gong, University of Aston

Exports, Productivity, and Credit Constraints: A Firm-Level Empirical Investigation for China

Zhiyuan Li, University of California, Davis

Miaojie Yu, China Center for Economic Research, Peking University

Meeting Room 202-203

SESSION 3c: Product Differentiation (WG2)

Chair: Tsutomu Miyagawa

Productivity, Returns to Scale and Product Differentiation in the Retail Trade Industry: An Empirical Analysis Using Japanese Firm-level Data

Atsuyuki Kato, RIETI

Quality Sorting and Trade: Firm-Level Evidence for French Wine

Matthieu Crozet, CEPII

Multi-Product Firms and Price Behavior in Danish Manufacturing

Valérie Smeets, Aarhus University

Frédéric Warzynski, Aarhus University

Product Switching and Firm Performance in Japan

Atsushi Kawakami, Gakushuin University

Tsutomu Miyagawa, Gakushuin University and RIETI

Special Meeting Room 101

SESSION 3d: Productivity Growth (WG1)

Chair: Mika Maliranta

Explaining Reallocation's Apparent Negative Contribution to Growth in Deregulation-Era Developing Countries

Mitsukuni Nishida, Johns Hopkins University

Amil Petrin, University of Minnesota, Twin Cities and NBER

Resource Reallocation and Zombie Lending in Japan's 1990s

Hyeog Ug Kwon, Nihon University and RIETI

Futoshi Narita, University of Minnesota

Machiko Narita, University of Minnesota

Firm Turnover and Productivity Growth

Loretta Fung, University of Alberta and National Tsing Hua University

Alice Nakamura, School of Business, University of Alberta

Masao Nakamura, University of British Columbia

In Search of an Ideal Method for Analyzing Micro-Level Dynamics of a Great Productivity Leap

Mika Maliranta, The Research Institute of the Finnish Economy (ETLA)

Special Meeting Room 102

SESSION 3e: Corporate Finance (WG2)

Chair: Tsutomu Watanabe, Hitotsubashi University

Foreign Bank Entry and Credit Allocation in Emerging Markets

Hans Degryse, CentER, Tilburg University

Olena Havrylchyk, CEPII

Emilia Jurzyk, International Monetary Fund

Sylwester Kozak, National Bank of Poland

Discussant: Kaoru Hosono, Gakushuin University

Do Banks Have Private Information? Bank Screening and Ex-Post Firm Performance

Kaoru Hosono, Gakushuin University

Peng Xu, Hosei University

Discussant: Satoshi Koibuchi, Chiba University of Commerce

From Soft and Hard-Nosed Bankers - Bank Lending Strategies and the Survival of Financial Distressed Firms

Daniel Höwer, Centre for European Economic Research (ZEW), Mannheim

Discussant: Wako Watanabe, Keio University

Is Private Equity Investor Good or Evil?

Oleg Badunenko, DIW–Berlin

Nataliya Barasinska, DIW–Berlin
Dorothea Schäfer, DIW–Berlin
Discussant: Peng Xu, Hosei University

Special Meeting Room 103

SESSION 3f: R&D and Innovation (WG1, WG2)

Chair: Kazuyuki Motohashi

Drivers of International R&D to Asian Economies

Anja Schmiele, Centre for European Economic Research (ZEW), Mannheim
Axel Mangelsdorf, Berlin University of Technology

Endogenous Firm Heterogeneity, ICT and R&D Incentives

Daniel Cerquera, Centre for European Economic Research (ZEW), Mannheim
G. J. Klein, Centre for European Economic Research (ZEW), Mannheim

Bargaining in Technology Markets: An Empirical Study of Biotechnology Alliances

Shinya Kinukawa, Komazawa University
Kazuyuki Motohashi, The University of Tokyo

Conference Room 3

13:30-15:00 Lunch

Conference Room 2 and 4

13:30-15:00 POSTER SESSION

ACCEPTED PAPERS (by working group; in order of submission)

WG1

An Investigation of Firm Heterogeneity in the Constraints to Development and Growth in Pakistan

Sajjad Moghal, Small & Medium Enterprise Development Authority in Lahore, Pakistan
Wade D. Pfau, National Graduate Institute for Policy Studies

Problems of Women Entrepreneurs in Coimbatore

Govindasamy Jayammal, Nirmala College for Women

Turbulence Underneath the Big Calm: The Microeconomics Underlying the Flat Trends Italian Manufacturing Productivity

Giovanni Dosi, LEM, Scuola Superiore Sant'Anna, Pisa
Marco Grazzi, LEM, Scuola Superiore Sant'Anna, Pisa

Chiara Tomasi, LEM, Scuola Superiore Sant'Anna, Pisa

Alessandro Zeli, ISTAT, Roma

Product and Process Innovations in Subcontracting: Empirical Evidence from the French “Sillon Aplin”

Rachel Bocquet, IREGE, University of Savoie

Productivity Dispersion and its Determinants: The Role of Import Penetration

Daniela Maggioni, Università Politecnica delle Marche

Industry Evolution in the U.K. Consulting Sector

Andrea Mina, University of Cambridge

Bruce Tether, Imperial College London

Karl Wennberg, Imperial College London

Strategic Alliance in Science-Based Industry: An Event Study Analysis of Organic Light Emission Diode Industry in Japan

Tamane Ozeki, The University of Tokyo

Koichiro Okamura, Japan Science and Technology Agency

WG2

Exit and Entry Behavior as a Business Portfolio Management

Tatsuya Kikutani, Kyoto University

Takashi Saito, Waseda University

How Do Firms Organize Trade? Evidence from Ghana

Jens Krüger, The Kiel Institute for the World Economy

What Makes a High-Growth Firm in Spain? A Probit Analysis Using Firm-Level Data

Paloma Lopez-Garcia, Bank of Spain

Sergio Puente, Bank of Spain

Employment Generation by Small Producers in Spain

Paloma Lopez-Garcia, Bank of Spain

Sergio Puente, Bank of Spain

Angel Luis Gomez, Bank of Spain

Large Firms and Soft Budget Constraints for Transition Economies

Tomoe Moore, Brunel University

Short-Time Compensation and Establishment Survival: An Empirical Analysis with French Data

Oana Calavrezo, LEO and CEE

Richard Duhautois, CEE-TEPP, University of Paris-Est-Marne-la-Vallée and Crest

Emmanuelle Walkowiak, University of Paris12 - ERUDITE and CEE

Agglomeration or Selection? The Case of the Japanese Silk-Reeling Industry in 1909-1916

Yutaka Arimoto, The University of Tokyo

Kentaro Nakajima, Tohoku University

Tetsuji Okazaki, The University of Tokyo

Exporting and Productivity: The Impact of Destination Characteristics on Learning Effects

Richard Fabling, Reserve Bank of New Zealand

Lynda Sanderson, Reserve Bank of New Zealand

Measuring the Efficiency of Pharmaceutical Firms in India: An Application of Data Envelopment Analysis and Tobit Estimation

Ishita Ganguli Tripathy, Indian Institute of Technology Delhi

Surendra S. Yadav, Indian Institute of Technology Delhi

Seema Sharma, Indian Institute of Technology Delhi

The Significance of Business Ownership and Governance: Contribution and Profitability of Family Businesses in Finland

Kalevi Tourunen, Haaga-Helia University of Applied Sciences

Seppo Laaksonen, University of Helsinki

Evolution of Firm Dynamics: With Minimal Assumptions

Kim P. Huynh, Indiana University

David T. Jacho-Chávez, Indiana University

Robert J. Petrunia, Lakehead University

Marcel C. Voia, Carleton University

A Stochastic Frontier Analysis on Firm-level Total Factor Productivity and Technical Efficiency in Korea

Sunyoung Jung, Seoul National University

Hak K. Pyo, Seoul National University

Behavior of Firms in Macedonia, Montenegro and Slovenia after Disintegration of Former Yugoslavia

Janez Prašnikar, University of Ljubljana

Polona Domadenik, University of Ljubljana

Matjaž Koman, University of Ljubljana

WG3

Sources of Wage Growth and Returns to Job Tenure: An Empirical Analysis on Young Workers in Italy

Michele Battisti, Simon Fraser University

Performance Aspirations and Entrepreneurial Exit

Karl Wennberg, Imperial College London

Do Firms Train Older Workers When They Change? Evidence from a French Linked Employer-Employee Survey

Nathalie Greenan, Centre d'études de l'emploi and TEPP

Mathieu Narcy, Centre d'études de l'emploi and TEPP

Stéphane Robin, Université de Strasbourg, and Centre d'études de l'emploi

Evaluation Interviews and Organisational Changes

Marc-Arthur Diaye, ENSAI, Centre d'Etudes de l'Emploi

Nathalie Greenan, Centre d'études de l'emploi and TEPP

Julie Rosaz, GATE – University of Lyon

Hiring of Older Employees and Changes in Early-Retirement Policy

Pekka Ilmakunnas, Helsinki School of Economics and HECER

Seija Ilmakunnas, Government Institute for Economic Research (VATT)

Worker Flows, Job Flows and Firm Wage Policies: Analysing the Case of France

Richard Duhautois, CEE-TEPP, Université Paris-Est Marne-la-Vallée and Crest

Fabrice Gilles, Universités de Lille, EQUIPPE, and CEE

Héloïse Petit, CEE and CES-Université Paris I Panthéon-Sorbonne

15:00-17:00 SESSION 4

Auditorium

Session 4a: Globalization and Firm Performance (WG2)

Chair: Kozo Kiyota, Yokohama National University

The Nature and Characteristics of Production Networks in East Asia: Evidences from Micro/Panel Data Analyses

Fukunari Kimura, Keio University and Economic Research Institute for ASEAN and East Asia (ERIA)

Firm Dynamics, Job Turnover and Wage Distributions in an Open Economy

A. Kerem Cosar, Pennsylvania State University

Nezih Guner, Universidad Carlos III de Madrid

James Tybout, Pennsylvania State University and NBER

The Role of Multinationals in Japanese Productivity Decline

Richard Kneller, University of Nottingham

Tomohiko Inui, Economic and Social Research Institute, Cabinet Office and Nihon University

Toshiyuki Matsuura, Keio University
Danny McGowan, GEP, University of Nottingham

Multi-product Firms and Trade Liberalization

Peter K. Schott, Yale University and NBER
Andrew Bernard, Tuck School of Business at Dartmouth and NBER
Stephen Redding, London School of Economics, Yale University, and NBER

Conference Room 1

SESSION 4b: Corporate Governance: Family-Owned Firms (WG2)

Chair: Yupana Wiwattanakantang, Hitotsubashi University

Founder Succession and Accounting Properties

Joseph Fan, The Chinese University of Hong Kong
TJ Wong, The Chinese University of Hong Kong
Tianyu Zhang, The City University of Hong Kong

Investment and Productivity of Family Firms: An Analysis of Japanese Firms from 1962-2000

Vikas Mehrotra, University of Alberta
Kyoji Fukao, Hitotsubashi University
Jung Wook Shim, Hitotsubashi University
Kim YoungGak, Hitotsubashi University
Yupana Wiwattanakantang, Hitotsubashi University

The Value of Political Network

Morten Bennedsen, Copenhagen Business School and INSEAD

Meeting Room 202-203

SESSION 4c: Ownership (WG2)

Chair: Mamoru Nagano

Foreign Acquisition, Wages and Productivity

Roger Bandick, Aarhus School of Business, Denmark

President Turnover and Product Market Competition: Empirical Evidence from Japanese Manufacturing Firms

Yessica C. Y. Chung, JICA Research Institute

The Impact of a Firm's Ownership Structure on Risk Taking- Evidence from Foreign Direct Investment Decisions

Marie-Ann Betschinger, State University - Higher School of Economics, Moscow

Islamic Finance and the Theory of Capital Structure

Mamoru Nagano, Nagoya City University

Special Meeting Room 101

SESSION 4d: Reallocation and Labor/Trade (WG1)

Chair: Laura Hering

Trade, Reallocations and Productivity: A Bridge between Theory and Data in Öresund

Anders Akerman, Stockholm University

The Contribution of Labor Reallocation to Aggregate Productivity Growth: Evidence from Canada, France and the United States

Benoit Dostie, HEC Montréal

Ali Fakhri, HEC Montréal

Lars Vilhuber, Cornell University

The Heterogeneity of the Impact of Investing Abroad: Evidence from Matched Japanese Firms

Laura Hering, University of Paris 1 and CREST

Tomohiko Inui, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Sandra Poncet, University of Paris 11 and CEPII

Conference Room 3

17:00-17:10 Coffee Break

17:10-18:40 SESSION 5

Auditorium

SESSION 5a: Allocation of Heterogeneous Labor across Firms (WG3)

Chair: Daiji Kawaguchi, Hitotsubashi University

Wage Structure, Skill Composition, and the Effects of FDI: Evidence from a Linked Panel in Hungary, 1986-2005

John Sutherland Earle, Upjohn Institute for Employment Research and Central European University

Álmos Telegdy, Central European University and Institute of Economics of the Hungarian Academy of Sciences

Gabor Antal, Central European University and Institute of Economics of the Hungarian Academy of Sciences

Neighbors and Co-workers: The Importance of Residential Labor Market Networks

Judith K. Hellerstein, University of Maryland and NBER

Melissa McInerney, College of William and Mary and U.S. Census Bureau

David Neumark, University of California, Irvine and NBER

Job Mobility and Wage Dynamics

Dean Hyslop, Statistics New Zealand and Victoria University of Wellington, NZ

David C Maré, Statistics New Zealand and Motu

Conference Room 1

SESSION 5b: Location Choice and Firm Performance (WG2)

Chair: Yosuke Takeda

Where Do Multinationals Locate Service and Manufacturing Activities in Europe and Why?

Loriane Py, University Paris 1

Fabrice Hatem, UNCTAD and Normandy School of Management

Do More Productive Firms Locate New Factories in More Productive Locations? - An Empirical Analysis Based on Panel Data of Japan's *Census of Manufactures*

Kyoji Fukao, Hitotsubashi University and RIETI

YoungGak Kim, JSPS and Hitotsubashi University

Hyeog Ug Kwon, Nihon University and RIETI

Technological Externalities and Economic Distance: A Case of the Japanese Automobile Suppliers

Yosuke Takeda, Sophia University

Ichihiko Uchida, Aichi University

Meeting Room 202-203

SESSION 5c: Exports and Firm Performance (WG2)

Chair: Richard Fabling

Sorting in Exporting Markets Selection: Evidence from China

Luhang Wang, University of Toronto

Firm Heterogeneity and Ricardian Trade: The Impact of Domestic Competition on Export Performance

Matilde Bombardini, The University of British Columbia, CIFAR, NBER, and RCEA

Christopher J. Kurz, Federal Reserve Board of Governors

Peter M. Morrow, University of Toronto

Over the Hedge? Exporters' Optimal and Selective Hedging Choices

Richard Fabling, Reserve Bank of New Zealand and Motu Economic and Public Policy Research

Arthur Grimes, Motu Economic and Public Policy Research and University of Waikato

Special Meeting Room 101

SESSION 5d: Linkages and Spillovers (WG2)

Chair: Toshiyuki Matsuura, Keio University

Knowledge Spillovers and Spatial Concentration of High Skill-Intensive Production: The Chilean Case

Hisamitsu Saito, Obihiro University of Agriculture and Veterinary Medicine

Munisamy Gopinath, Oregon State University

Local Export Spillovers in France

Pamina Koenig, University Paris West & Paris School of Economics

Florian Mayneris, Paris School of Economics

Sandra Poncet, University of Paris 11 and CEPII

Linked versus Non-linked Firms in Innovation: The Effects of Economies of Network in Agglomeration in East Asia

Tomohiro Machikita, Institute of Developing Economies (IDE-JETRO)

Yasushi Ueki, Institute of Developing Economies, Bangkok Research Center

Special Meeting Room 102

SESSION 5e: Analytic Examples of New Business Data (WG4)

Chair: Keiko Ito

The Extent of Collective Bargaining and Workplace Representation: Transitions between States and their Determinants. A Comparative Analysis of Great Britain and Germany

John Addison, University of South Carolina

Employee Flows to Improve Measures of Job Creation and Destruction and of Firm Dynamics. The case of Belgium

Karen Geurts, Higher Institute of Labour Studies (HIVA), Belgium

Monique Ramioul, Higher Institute of Labour Studies (HIVA), Belgium

Peter Vets, Belgian National Social Security Office

Vertical Intra-Industry Trade, Unit Values of Commodities, and Factor Contents: An Empirical Analysis Based on Micro-Data of the *Census of Manufactures*

Kyoji Fukao, Hitotsubashi University

Keiko Ito, Senshu University
Hyeog Ug Kwon, Nihon University

Conference Room 2, 3, and 4

18:40-20:10 Dinner

Sunday, October 4

9:00-9:20 REGISTRATION

9:20-11:20 SESSION 6

Auditorium

SESSION 6a: A Deeper Look at Innovation within Firms (WG2)

Chair: Julia Lane

How “Open” is Innovation in the US and Japan?: Evidence from the RIETI-Georgia Tech inventor survey

John P. Walsh, Georgia Institute of Technology

Sadao Nagaoka, Hitotsubashi University

Using Cyber-enabled Transaction Data to Study Productivity and Innovation in Organizations

Carol Corrado, The Conference Board

Julia Lane, The National Science Foundation and the University of Chicago

Studying Innovation in Businesses: New Research Possibilities

Nicholas Greenia, U.S. Internal Revenue Service

Kaye Husbands Fealing, University of Minnesota

Julia Lane, The National Science Foundation and the University of Chicago

Conference Room 1

SESSION 6b: The Impact of Globalization on Corporate Activities in East Asia (WG2)

Chair: Fukunari Kimura

Gains from Fragmentation at Firm Level: Evidence from Japanese Multinationals in East Asia

Kazunobu Hayakawa, Inter-disciplinary Studies Center, Institute of Developing Economies

Fukunari Kimura, Keio University and Economic Research Institute for ASEAN and East Asia (ERIA)

Toshiyuki Matsuura, Keio University

Learning-by-exporting in Korean Manufacturing: A Plant-level Analysis

Chin Hee Hahn, Korea Development Institute, Korea
Chang-Gyun Park, Chung-Ang University, Korea

Foreign Presence Spillovers and Firms' Export Response: Evidence from Indonesian Manufacturing

Dionisius Narjoko, ERIA, Indonesia

Vertical and Horizontal FDI Technology Spillovers: Evidence from Thai Manufacturing

Archanun Kohpaiboon, Thammasat University, Thailand

Meeting Room 202-203

SESSION 6c: Explain the Productivity Differences across Firms (WG2)

Chair: Jonathan Haskel

Does Input Quality Drive Measured Differences in Firm Productivity?

Jeremy T. Fox, University of Chicago and NBER

Valérie Smeets, Aarhus School of Business, University of Aarhus

The Persistence of Differences in Productivity, Wages, Skill Mixes and Profits Between Firms in a Rapidly Changing Environment

Katsuya Takii, Osaka University

How Does Intangible Investment Affect International Productivity Comparisons? Evidence from the US and UK

Carol Corrado, The Conference Board

Jonathan Haskel, Imperial College London; CeRiBA, CEPR, and IZA

Charles Hulten, University of Maryland and NBER

Special Meeting Room 101

SESSION 6d: Firm Dynamics (WG1)

Chair: Makoto Nirei

Reallocation, Selection, and the Sources of Earnings Growth in Cities

R. Jason Faberman, Federal Reserve Bank of Philadelphia

Matthew Freedman, ILR School, Cornell University

Firm Survival and the Evolution of Market Structure: The Case of the Japanese Motorcycle Industry

Masatoshi Kato, Hitotsubashi University

Do Public Benefits Have an Impact on New Firms' Survival? An Empirical Study on French Data

Désiage Lionel, Université de Paris-Est Marne-la-Vallée

Richard Duhautois, Centre d'études de l'emploi (CEE)

Dominique Redor, Université de Paris-Est Marne-la-Vallée

Detecting Endogenous Effects by Aggregate Distributions: A Case of Lumpy Investments

Chaoqun Lai, Utah State University

Makoto Nirei, Hitotsubashi University

Special Meeting Room 102

SESSION 6e: Foreign Direct Investment and Outsourcing (WG2)

Chair: Wilko Letterie

How Does FDI Affect Performance at Home? An Activity-level Analysis for Japanese Electrical Machinery and Electronics Firms

Toshiyuki Matsuura, Keio University and RIETI

Kazuyuki Motohashi, The University of Tokyo and RIETI

Kazunobu Hayakawa, Institute of Developing Economies and RIETI

Productivity Effects of Business Process Outsourcing (BPO): A Firm-level Investigation Based on Panel Data

Jörg Ohnemus, Centre for European Economic Research (ZEW), Mannheim

Global Fixed Capital Investment by Multinational Firms

René Belderbos, Maastricht University and UNU-MERIT

Kyoji Fukao, Hitotsubashi University

Keiko Ito, Senshu University

Wilko Letterie, Maastricht University

Special Meeting Room 103

SESSION 6f: Wage Determination (WG3)

Chair: Sebastian Buhai

Competition and Gender-skill-differentials in Earnings and Productivity: Evidence from China's Industrial Sector

Johanna Rickne, Uppsala University

The Relative Income Hypothesis With and Without Self-reported Reference Wages

Adrián de la Garza, Yale University

Giovanni Mastrobuoni, Collegio Carlo Alberto

Atsushi Sannabe, Kyoto University
Katsunori Yamada, Osaka University

Wage and Productivity Differentials in Japan: The Role of Labor Market Mechanisms

Donatella Gatti, CEPN-Paris 13, PSE, CEPREMAP and IZA
Ryo Kambayashi, Hitotsubashi University
Sébastien Lechevalier, EHESS, Paris

Returns to Tenure or Seniority?

Sebastian Buhai, Aarhus University
Miguel Portela, University of Minho
Coen Teulings, CPB Netherlands Bureau for Economic Analysis, University of Amsterdam
Aico van Vuuren, Free University Amsterdam

Conference Room 3

11:20-12:15 Lunch

Auditorium

12:15-14:15 PLENARY SESSION: Industry Dynamics (WG1)
Chair: Makoto Nirei, Hitotsubashi University

Economic Environment and Endogenous Innovation Choices (provisional title)

Eric Bartelsman, Free University (Vrije Universiteit), Amsterdam

Credit within the Firm

Luigi Guiso, European University Institute and EIEF
Luigi Pistaferri, Stanford University and SIEPR
Fabiano Schivardi, University of Cagliari and EIEF

Paper title: TBA

Kazuyuki Motohashi, The University of Tokyo

Auditorium

14:15-14:25 CLOSING REMARKS
Kyoji Fukao, Hitotsubashi University

14:50-21:00 SOCIAL EVENT

Abstracts

as of September 8, 2009

PLENARY SESSION, Access to Enterprise Micro Data in Asia (WG4*)

Japan

Japanese Microdata Use Environment and Future Issues:

Considerations from a Comparison of Japan, the United States, and Britain

Akira Kawai, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Shigeru Hirota, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Tomohiko Inui, Statistics Commission Office, Minister's Secretariat, Cabinet Office

For most of the post-war period, Japan's administration of statistics was governed by the framework provided by the Statistics Act from 1947 (hereafter referred to as the Old Statistics Act). Various problems have arisen, however, in which the statistics cannot respond to changes in social and economic situations, including a secondary use of various kinds of microdata. To help solve these problems, the New Statistics Act was enacted in 2007, has been entirely enforced since April 2009 and, among other things, provides for a substantial revision of the system of secondary data use.

An important element of this is a change in the basic philosophy underlying the legal framework from "statistics for the purpose of administration" to "statistics as an information resource for society." Ensuring the "usefulness" of public statistics is most stressed as the fundamental viewpoint, and regulations concerning the use of statistics, such as provisions for secondary use, were incorporated in the Act. To start with, the system of approval by the Minister of Internal Affairs and Communications for secondary data use was abolished. Instead, secondary data use can now be directly approved by the survey implementer and procedures have been simplified, so in the new system secondary data use now is considerably easier. Moreover, the New Statistics Act now allows for the provision of anonymized data and for custom tabulations for the purpose of academic research and higher education.

As a prerequisite for the promotion of secondary data use regulations with regard to users were also introduced. Other than the traditional duty of confidentiality, regulations concerning the appropriate management of questionnaire information and penal regulations for abuse of confidentiality were newly established.

In this way, the secondary use system in the New Statistics Act has been implemented as something that brings Japan in line with systems for accessing microdata like those found in the various countries of Europe and in the United States.

Korea

Paper Title: TBA

Sanghoon Ahn, Korea Development Institute

*WG refers to the Working Group for this session.

WG1: Industry Dynamics; WG2: Firm Performance; WG3: Worker Outcomes; WG4: Data Access and Quality

*China***The Transformation of the Chinese Statistical System and Its Micro-data Foundation**

Harry Wu, Hitotsubashi University

This survey article briefly reviews the important changes and developments of the Chinese modern statistical system since its establishment in the early 1930s. However, its main focus is the period of the People's Republic covering the major transformations of the Chinese system of national accounts (CSNA) and changes of its micro data foundations against the background of institutional changes and policy regime shifts over time. It first reviews the statistical regulations and laws that govern 1) data classification, coverage, collection and report, 2) the design of economic survey and census as well as their implementation and data collection, and 3) the use of the statistics that are generated by the system. It then discusses the system that produces the basic statistics using the micro-data collected from regular reports, surveys and censuses. Finally, it discusses the main problems of the system and likely channels through which academics and researchers may access to the Chinese micro data.

Since the Chinese statistical system has been tightly controlled by the state and closed to the public, and its legal development has been very slow, the information available for our survey is rather limited and perhaps inaccurate. The main purpose of this study is to invite ideas and comments from researchers, academics, as well as the statisticians and officials of the Chinese statistical authority in order to improve our understanding of the micro-data foundation of the Chinese statistical system.

*ASEAN***Firm- and Plant-level Analysis of Multinationals in Southeast Asia: The Perils of Balancing Panels**

Eric Ramstetter, The International Centre for the Study of East Asian Development and Kyushu University

This paper describes the roles of multinational corporations (MNCs) in Southeast Asia and at the same time pays close attention the characteristics of the firm- and plant-level data that can facilitate such analysis. It also describes how these data have been used to facilitate more rigorous analysis specific issues such as productivity differentials and spillovers. The primary focus is on the manufacturing sectors of Indonesia, Malaysia, Thailand, and Vietnam, because access to the micro-data facilitates relatively detailed analysis for these four economies. The paper also presents published information from similar data for Singapore, as well as what little this author knows about the data and literature on the Philippines. The potential for analysis of balanced panels to omit large portions of the manufacturing sectors in this dynamic region is a major concern of this paper because some of the most interesting economic stories come from firms or plants that cease operation, startup new operations, or totally change operations through mergers and acquisitions.

*New Zealand***A rough guide to New Zealand's Longitudinal Business Database**

Richard Fabling, Reserve Bank of New Zealand

Statistics New Zealand's prototype Longitudinal Business Database represents a rich resource for understanding the behaviour of New Zealand firms. In this paper we describe the elements of the database, access protocols for researchers, and potential future developments in the linking and availability of business data in New Zealand.

SESSION 1

SESSION 1a: Improvement of Micro Data Access in Europe and North America (WG4)

US

Paper Title: TBA

Ron Jarmin, U.S. Census Bureau

Germany

The RDC of the Federal Employment Agency as a Part of the German RDC Movement

Stefan Bender, Institute for Employment Research (IAB)

The German Research Data Center (RDC) movement has made a significant improvement to the data and services available to researchers over the past few years. The services of the RDCs are widely used, empirical findings lead to refereed publications and the state of research in rendering microdata anonymous has made great leaps. Many policy decisions are now planned and evaluated on the basis of data originating from the RDC. Germany has gone from the bottom of Europe's league with regard to the use of individual data to an innovative provider of new ideas, such as linked employer-employee datasets or a democratic data access for Non-German researchers.

The topics of the presentation will describe the German development over the last years and will give an overview,

- which data the RDC of the Federal Employment Agency (BA) at the Institute for Employment Research (IAB) offers to researcher,
- how the access to the data is organized and
- what future developments (RDC in RDC approach, imputation and combined/integrated data) in the next years will happen.

England

Designing a national model for data access

Felix Ritchie, UK Office for National Statistics

Access to detailed confidential microdata, often from official sources, is acknowledged to be one of the main difficulties constraining the development of much industrial and labour economics. Recent developments across the world have improved access for some countries considerably, but progress is still patchy. Some of this delay is due to fear of the new; concerns over risk; worries over cost or feasibility; or just simply how to choose between a myriad of different

solutions.

This paper considers the development of access to confidential microdata using the UK as an example. The UK Office for National Statistics has developed a coherent framework for providing data: everything from internet access to secure labs can be considered within the same framework. The aim is to achieve a balance of cost, access and detail through a finite set of options, enabling both flexibility and economies of scale.

A central role is played by the ONS's remote access facility. This is due to be complemented in 2009 by an academic equivalent. This raises questions about the relevant level of scale for these operations, and the paper reports on a cost-benefit analysis carried out to try out ascertain both the value of remote access systems and efficient alternative methods of operation.

Canada

Lessons in Establishing and Operating a Research Data Centre Network: The Canadian experience

Chuck Humphrey, University of Alberta

Beginning in 1996, a fixed-cost agreement between Statistics Canada and the post-secondary sector in Canada lowered the access barrier to anonymised microdata produced by Canada's national statistical agency for many of its household surveys and population censuses, dating back to 1971. This programme, known as the Data Liberation Initiative (DLI), opened access to standard data products, i.e., anonymised microdata, aggregate databases and spatial data but excluded data from surveys for which anonymised microdata were not produced. In particular, several valuable longitudinal surveys started in the 1990's were not available to researchers. A joint-study between Statistics Canada and the Social Sciences and Humanities Research Council in 1998 recommended establishing a handful of data enclaves with strict access rules to provide access to the confidential data from these longitudinal surveys. Implementing this proposal resulted in the Canadian Research Data Centre Network, which started in 2000. This paper discusses key lessons learned over the past decade in funding and operating a data enclave network. Unlike the DLI, which has low costs for data access, a Research Data Centre (RDC) requires a substantial annual investment by participating institutions. To confront these inhibitive costs, a national financing package was established to lessen the costs to universities. Several lessons about financing RDCs are discussed from the Canadian experience. Initially, Statistics Canada required each RDC to operate within a closed local area network, prohibiting the establishment of a national infrastructure connecting these services. More recently, funding has been secured to link all RDCs into a network through secure lightpath technology running over Canada's optical high-speed research network. Lessons about the operation of individual RDCs and the emergence of a true network are also addressed. Finally, lessons about the management of the data within the RDC network are reviewed, including the need for newer metadata technology.

SESSION 1b: Intangible Assets and Firms' Performance in Korea and Japan (WG1, WG2)

Management Practices and Firm Performance in Japanese and Korean Firms - An Empirical Study Using Interview Survey

Keun Lee, Seoul National University

Tsutomu Miyagawa, Gakushuin University

Shigesaburo Kabe, Japan Center for Economic Research

Junhyup Lee, Seoul National University

Hyoungjin Kim, Seoul National University

YoungGak Kim, Hitotsubashi University

Kazuma Edamura, Institute of Intellectual Property

To compare management practices between Japanese and Korean firms, we conducted interview surveys on organizational and human resource management based on Bloom and Van Reenen (2007). The average management scores resulting from the interview surveys in Japanese firms were higher than in Korean firms. The gap in the scores between Japan and Korea can be explained by more conservative human resource management practices in Korean small and medium sized firms. We regressed some indicators representing management practices on firm performance. Estimation results suggest that in Japan, organizational reform plays a role in improving firm performance, while management practices shown in the interview scores do not affect firm performance directly. In Korea, the measure obtained by factor analysis reflecting human resource management improves firm performance in the whole samples. In addition, the average score as well as the measure obtained by factor analysis affects firm performance in the Korean manufacturing sector.

Evaluation and estimation of the impact of organizational technology on productivity of Korean firms and sectors

Jisun Lim, Seoul National University

Elias Sanidas, University of Wollongong

Keun Lee, Seoul National University

It is a well known fact that technology innovation is a key element of economic growth. However, researchers usually dismiss the organizational part of technology innovation and emphasize only the technical part of technology innovation. Technology innovation includes not only technical innovation but also organizational innovation as well.

The just-in-time and quality control (JIT/QC) process is one of the most influential organizational innovations which has been widely used in various industries and many countries. Therefore, it is worthwhile to examine economic growth in terms of this organizational innovation. Sanidas (2004, 2005, 2006) already studied the relationship between organizational innovation and economic growth using both Japan and USA cases.

However, Korea has not been studied yet and is worthy to study for the following two reasons. First, Korea is still a developing country unlike USA and Japan. It can give us different results coming from different industrial or cultural backgrounds. Second, Korea has achieved a very high economic growth in a very short period of time. All this should present a very good case for reaching some explicit and direct conclusions for the usefulness and importance of JIT/QC in a fast developing country such as Korea.

This study uses the same methodology as per Sanidas (2004, 2005). Accordingly, the inventory to sales ratio will be used as a well justified proxy for JIT/QC implementation on sectors and we will regress this proxy on Korean sectoral

TFP (Total Factor Productivity). Nevertheless, we use the KIS data base which is firm level data and not sectoral level data directly since it contains financial statements, having many critical variables for our study; this data base contains all Korean firms listed on KOSDAQ (Korean stock market). So, we use firm level analysis and do the sectoral level analysis by grouping these firms according to their industrial codes.

We expect that the JIT/QC organizational innovation has a significant impact on changes in productivity of Korean firms and sectors. Furthermore, using firm level panel data, we can be more confident with the hypothesis than previous research.

Types of Corporate innovation system and Innovation Performance in Korea - Transformation Strategy for the Better Types of CIS in the ICT Service Sector

Junhyup Lee, Seoul National University

Based on the Innovation System Approach, this paper established a Corporate Innovation System in Korea. Using latent class analysis with the Workplace Panel Data 2005 provided by Korea Labor Institute, we induced four types of CIS in Korea: the High-involvement type CIS, the R&D type CIS, the HI+R&D type CIS, and the Low Developed CIS. A workplace belongs to the HI type CIS was having highly developed innovation-related institutions such as work system, motivation system, vocational education and training system, and labor relations simultaneously. A workplace pertains to the R&D type CIS was engaging in R&D investment without establishing innovation-related institutions; this characteristic is directly oppose to that of the HI type CIS. A workplace belongs to the HI+R&D type CIS was establishing a virtuous circle including well designed innovation-related institutions and R&D investment; this characteristic is directly oppose to that of the Low Developed CIS.

This paper examined the relationship between types of CIS and innovation performances – product/service innovation, employees-leading innovation, patent application, and labor productivity. The result was that the innovation performance of the HI+R&D type CIS was dramatically high; the performances of the HI type CIS and the R&D type CIS following it; and the Low Developed CIS showed significantly poor performance. This pattern was always discovered in all the cases of innovation performance. In addition, the HI type CIS was superior to the R&D type CIS in case of product/service innovation and the employees-leading innovation; while the R&D type CIS had advantages of the patent application and labor productivity.

This paper concluded that the main obstruction of systemic transformation from the HI type CIS to the HI+R&D type CIS is the sectoral differences of characteristics; meanwhile, the main hindrance of transformation from the R&D type CIS to the HI+R&D type CIS is poorly developed corporate culture.

Mergers, Innovation, and Productivity: Evidence from Japanese Manufacturing Firms

Kaoru Hosono, Gakushuin University

Miho Takizawa, Toyo University

Kotaro Tsuru, Research Institute of Economy, Trade and Industry (RIETI)

We investigate the impact of merger on innovation and efficiency using a micro dataset of Japanese manufacturing

firms including unlisted firms during the period of 1995-1999. We find that the acquirer's total factor productivity (TFP) decreases immediately after mergers and does not significantly recover to the pre-merger level within three years after mergers. We also find that the R&D intensity does not significantly change after mergers despite a significant increase in the debt-to-asset ratio. Our results suggest that the costs of business integration are large and persistent.

To take into considering large integration costs, we also analyze the post-merger performance from one year after mergers, finding no significant increase in TFP or R&D intensity up to three years after mergers.

Given the heterogeneity of mergers, we analyze the post-merger performance by classifying merger types. We find that the recovery of TFP after mergers is significant for mergers across different industries or within the same business group, suggesting that a synergy effect works well and integration costs are small for those types of mergers.

SESSION 1c: Empirical Studies on Firms' Performance in Korea (WG2)

Firm Survival and Growth under Different Technological Regimes, Industry Life Cycles and Internal Resources

Jeong-Dong Lee, Seoul National University

Jeong-Sook Han, Seoul National University

Almas Heshmati, Seoul National University

This study aims to prove the function of nurture -- internal competition assets -- and nature -- industrial environment factors -- on the growth and survival of Korean manufacturing firms, based on the plant-level data. Resource-Based View is used to extract the internal competition resources, and the concepts from the theories of Technological Regime and Industry Life Cycle are used to examine industrial environmental factors. The former shows the industry-wise technological differences, and the latter determines the time variant level of industrial maturity in a given industry. Plant-level panel data are analyzed from all plants with five or more employees in 460 manufacturing industries at the KSIC (Korean Standard Industry Code) five-digit level from 1994 to 2002, approximately 835,000 observations from 290,000 firms. In the empirical results, firm's growth was affected by only the internal competition assets (nurture), whereas, firm's survival was influenced by both the internal competition assets (nurture) and the industrial environment (nature). In other words, growth of the firm was not pre-determined by ecological environment, but determined by the firm's acquired abilities. However, although the possibility of firm's survival was limited by firm's external conditions, it could be enhanced by the efforts of the firm. In addition, the stylized fact, that growing firms survive longer, on the correlation between growth and survival of the firm was proved in the Korean economy. By the means of expansion of firm's growth and extension of firm's survival, government should lead firms to acquire further internal resources in order to reduce unnecessary social costs. The increase of the firm's investment and R&D activities can contribute to enhancing the growth and survival of the firm.

Determinants of R&D Cooperation in Small and Medium-Sized Enterprises

Hyunbae Chun, Sogang University

Sung-Bae Mun, Korea Information Society Development Institute

We explore the determinants of R&D cooperation in small and medium-sized enterprises (SMEs). Using firm-level data from the 2002 Korean Innovation Survey, we find that incoming spillovers of knowledge has a significant and positive impact on SMEs' R&D cooperation. In particular, the effect of knowledge spillovers on R&D cooperation is much larger for smaller firms. Despite the importance of external knowledge for SMEs, the estimation results also suggest that SMEs may have a disadvantage in establishing external R&D linkages due to their absolute size limitation.

The Diversification Effect on Firm-level Productivity in Korea

Jungsoo Park, Sogang University

Dynamic Performance and Structural Change of Korean Firms after the Financial Crisis: Evidence from Survey of Business Structure and Activities (2005-2007)

Hak K. Pyo, Center for National Competitiveness; Seoul National University

Keun Hee Rhee, Korea Productivity Center

This paper introduces *Survey of Business Structure and Activities* conducted by National Statistical Office in Korea during the period of 2005-2007 and analyzes Korean firms' activities after the financial crisis of 1997-1998. Korean firms are found to have increased their R&D and managerial innovation from e-business. The higher transparency of technologies of the industry to which the firm belongs is, the higher the effect of a firm's catch-up with advanced firms. Korean firms have also increased their global networking and outsourcing activities. These findings are in accord with the Japanese firms' recent activities observed in Japan's *Basic Survey of Business Structure and Activities*.

SESSION 1d: Strategy and Performance of Innovative Firms (WG2)

Product Innovation and Survival in a High-Tech Industry

Roberto Fontana, University of Pavia and Bocconi University

Lionel Nesta, OFCE-DRIC

We investigate the relationship between product innovation and firm survival for a sample of 121 firms in a high-tech industry. We find that location near the technological frontier is an important determinant of firm survival. Firms that are located near the frontier are also more likely to be acquired than to exit by liquidation if they cannot survive as free-standing enterprises. This suggests that product location in the technology space acts as a signal of firm quality. Greater R&D efforts increase the probability of surviving; in the event that the firm does exit, however, its R&D efforts do not significantly influence whether it exits via acquisition or exits via liquidation.

Determinants of Research Partnership Formation by Japanese High-tech Startups

Hiroyuki Okamuro, Hitotsubashi University

Yuji Honjo, Chuo University

Masatoshi Kato, Hitotsubashi University

Small businesses have been regarded as important players of innovation since the seminal work by Acs and Audretsch (1990). Recently, special attention has been paid to startups as the sources of regional innovation and productivity (Audretsch et al. 2006, Acs and Armington 2006, Van Stel 2006). However, it is not easy for small startups that have very limited business resources and experiences to be successful in innovation. Therefore, network formation especially for cooperative R&D with external firms and organizations is an important strategy for startups in order to obtain complementary resources, share costs and risks, and improve innovative performance through synergy effects. This study explores the determinants of research partnership formation by Japanese high-tech startups. Using a sample from an original survey conducted in 2008, we examine the effects of founder-, firm-, and industry-specific characteristics on the formation of research partnership. In particular, we examine how these effects vary between the types of research partners.

Our findings indicate that founder-specific characteristics, such as educational background, academic affiliation and prior innovation output, are fairly important in determining the formation of research partnership with universities or public research institutes. As for research partnership with business partners, we find that founders' work experience and prior innovation output are significant determinants. These results suggest that Japanese high-tech startups, whose founders possess sufficient research capabilities and can signal it to potential partners, are more likely to conduct cooperative R&D. With respect to firm-specific characteristics, on the other hand, the findings indicate that independent startups, compared to subsidiaries or affiliated firms, are more likely to cooperate on R&D with universities or public institutes. Unlike previous studies, however, it is found that other firm-specific characteristics, including startup size and R&D intensity, have no significant effects on research partnership, regardless of the types of research partners. Furthermore, we provide evidence that industry factors affect the formation of research partnership by high-tech startups.

Entry and Growth Performance of Biotech Firms in Japan

Yuji Honjo, Chuo University

Kenta Nakamura, Kobe University

Sadao Nagaoka, Hitotsubashi University

This paper analyzes the growth performance of Japanese biotech firms since the time of their entry, based on the new original survey covering 309 firms. Major findings are (1) Biotech firms are strongly science-based. University or national research laboratories are the sources of their core technologies in more than half of the cases and around 40% of their managers have doctoral degrees. (2) A considerable number of firms spend more R&D than their sales. They have strong demand for accessing capital market in order to finance R&D with high risk. (3) A firm with patents and with early involvement of venture capital tends to grow significantly faster.

Tax Incentives and R&D Activity: Firm-Level Evidence from Taiwan

Chia-Hui Huang, Aletheia University

Chih-Hai Yang, National Central University, Taiwan

This paper investigates the effect of tax incentives on R&D activities of Taiwanese manufacturing firms. In specifically, we examine the potential differences in R&D-enhancing effect between R&D tax credits users and non-users as well as high-tech and non-high-tech firms. Utilizing a firm-level panel dataset during 2000 and 2005, empirical results obtained by propensity score matching show that R&D tax credit users appear to have a 93.53% higher R&D expenditure and 14.47% higher R&D growth than non-users, on average. The R&D-enhancing effect of R&D tax credits is found to be particularly relevant to R&D activity of non-high-tech firms. Moreover, we employ generalized method of moment (GMM) of panel fixed model to control for the endogeneity of R&D tax credits in determining R&D expenditure. Various estimates based on the entire sample and high-tech-firms are quite similar that there is a significantly R&D-enhancing effect of R&D tax credits. This result suggests that the R&D preferential policy has induced more R&D expenditure devoted by firms in Taiwan. In specifically, the effect of R&D tax credits is much greater for high-tech firms than their corresponding non-high-tech firms. While the existence of R&D-enhancing effect brought on by tax incentives is intuitive, the estimates can provide insightful implications for the R&D tax policy.

SESSION 1e: Policy Effects (WG2)**Plant-Level Responses to Antidumping Duties: Evidence from U.S. Manufacturers**

Justin Pierce, Center for Economic Studies, U.S. Census Bureau

This paper describes the effects of a temporary increase in tariffs on the performance and behavior of U.S. manufacturers. Using antidumping duties as an example of temporary protection, I compare the responses of protected manufacturers to those predicted by models of trade with heterogeneous firms. Apparent increases in revenue productivity associated with temporary protection are primarily due to increases in prices and mark-ups, as physical productivity falls among protected plants. Moreover, antidumping duties slow the reallocation of resources from less productive to more productive uses by reducing product-switching behavior among protected plants.

Climate change policy and innovation

Ralf Martin, Centre for Economic Performance, London School of Economics

Ulrich Wagner, Universidad Carlos III de Madrid

We examine innovative activity of businesses in the UK following the introduction of the Climate Change Levy (CCL) and Climate Change Agreements (CCA) in 2001. This is facilitated by the CEP AMAPAT database, a new data resource that links European Patent Office patent data with business performance data. The CCL is an energy tax (differentiated by fuel type) levied on all businesses except those entering a Climate Change Agreement (CCA) who can claim a large discount from the tax. In return they have to accept firm specific targets on energy efficiency or total energy consumption which are set in negotiations with the government, the sector associations and the firm. We find CCA firms have a higher propensity to patent than non-CCA firms. However, when taking into account fixed differences

between firms that pre-date the introduction of the CCL and CCA, we find that in-response to the CCL and CCA introduction CCA firms had a decline in patenting relative to non CCA firms. We interpret this as evidence that the market based tax incentive imposed on firms by the CCL gives them stronger incentives to engage in innovative activity than the negotiated targets. We also document for the first time major trends across time and countries of a wide range of climate change related (CCR) patenting. This suggests that CCR patenting has increased in recent years and that Japan is leading in this area among the G5 economies.

Import Competition and Innovation at the Plant Level: Evidence from Mexico

Kensuke Teshima, Columbia University

A key idea in the literature on trade and growth is that trade liberalization may affect plants' innovative activities through increased competition. Theoretical predictions remain ambiguous, however, and it has been difficult to investigate this relationship empirically because R&D expenditure data is rarely available at the plant level. This paper takes the advantage of a newly constructed combination of Mexican plant-level datasets to examine the extent to which tariff changes lead to changes in R&D through increased competition. The combined dataset has two unique features: it contains (1) the amount of R&D on product innovation and on process innovation, and (2) the trade-classification categories of plants' outputs and inputs, which allows me to construct plant-level tariff changes and to control for industry time effects. The degree of tariff reduction is not correlated with initial plant characteristics, suggesting that the tariff reduction is exogenous for plants. The key finding is that the reduction of tariffs of the goods produced by Mexican plants induced those plants to increase total R&D. This suggests that trade liberalization stimulates plants' innovative activities through increased competition. I also find that the pattern would not be discernable using the measures of plant behavior and trade exposure available in typical plant-level datasets - measured total factor productivity and industry-level average tariffs. Additional results using process R&D and product R&D expenditure information suggest that trade liberalization affects plants' capability through the effects of competition on plants' incentives to increase cost efficiency rather than through the effects on incentives to create new products or to upgrade quality.

Industrial Policy Cuts Two Ways: Evidence from Cotton Spinning Firms in Japan, 1956-1964

Kozo Kiyota, Yokohama National University

Tetsuji Okazaki, The University of Tokyo

A number of studies have revealed that the effect of industrial policy on productivity growth is negative. Is this because industrial policy fails to control the activities of firms, or because it can effectively control them? This paper attempts to answer these questions, using firm-level data from the cotton spinning industry in Japan for the period 1956-64. It has been determined that industrial policy cut two ways during this period. Industrial policy effectively controlled the output of cotton spinning firms, which contributed to the establishment of a stable market structure during the period. On the flip side, such policy constrained the reallocation of resources from less productive large firms to more productive small firms. Combined with the negative productivity growth in large firms during this period, industrial policy resulted in negative industry productivity growth.

SESSION 2**SESSION 2a: OECD Micro-data Analyses on Innovation and Entrepreneurship Using Business Register and Patent Data (WG2)****The Innovative Activity of Firms over Their Life Cycle: Evidence from French Micro-Data**

Claire Lelarge, OECD DSTI/EAS and CREST-INSEE

In this paper, we provide descriptive evidence about the innovative behaviour of firms over their life cycle. We first provide novel descriptive statistics about the age description of French patenting firms in the main high-tech industries. Then, we analyze the patenting propensities of firms across age bands, and specifically try to assess the magnitude of potential financing constraints at various stages of the firms' life cycle. Last, we provide evidence that the characteristics and more precisely the technical content of the innovations introduced by firms evolve when ageing.

The Patenting and Trademark Activities of U.S. Firms

Shawn Klimek, Center for Economic Studies and U.S. Census Bureau

C.J. Krizan, Center for Economic Studies and U.S. Census Bureau

The innovative activities of firms are of great interest to both economists and policy makers, since firm innovation is generally seen as a path to increased firm productivity and growth. Many of the surveys used to publish aggregate statistics on innovation, such as R&D and Community Innovation Surveys (CIS), focus on relatively small samples and are skewed towards large firms. These data generally aren't suitable for looking at innovation by young and/or small businesses. This paper focuses on two measures of innovation – patenting and trademarks. The innovation data is publicly available from the U.S. Patent and Trade Office and matched to the Census Bureau's confidential micro data in the Business Register and Longitudinal Business Database (LBD) using names and addresses. By using the universe of firms, we can look at the entire size and age distributions of firms using the long time series of the LBD (1976-2007). Using additional data from the non-employer business register, we can also examine the formation of the firm prior to the hiring of the first employee. The most novel aspect of this paper is the addition of trademarks into the analysis. Patenting activity is concentrated the manufacturing sector, but trademarks and service marks are a form of innovative activity service sector firms are engaged in. Using both of these measures will allow a more comprehensive analysis of the innovative activities of these small and young firms.

An Analysis of the Innovative Activity of Entrepreneurial and Young Firms in the UK

Christian Helmers, Wolfson College, University of Oxford

Mark Rogers, Harris Manchester College, University of Oxford and Aston University

This paper provides an overview of a new database that uses intellectual property data to track the innovative activity of firms in the UK. The paper looks at the extent and nature of patenting activity, focusing on micro firms and SMEs. Over the period 2000 to 2007, SME patenting has increased whereas large firm patenting has fallen and micro firm patenting has been roughly constant. Most micro and SMEs patent while relatively young (aged ten or less) and this tendency is becoming more pronounced over time. The paper provides some preliminary analysis on micro firms and SMEs that

become high growth firms (defined as having greater than 20% growth per annum). Overall, 28.0% of young micro and SMEs achieve high growth (over 2002 to 2007). In comparison, 29.4% of young micro or SMEs that patent achieve high growth. This difference is much greater for firms in the high-tech industries.

Innovation and Firm Growth: A First Look at Linkage Data of Japanese Patent and Enterprise Census

Kazuyuki Motohashi, The University of Tokyo and RIETI

This paper illustrates the structure of patenting activity for Japanese firms by using the linkage data of JPO patent (IIP patent database) and the Establishment and Enterprise Census by Japanese Statistical Bureau. The linkage dataset in 2004 shows that only 81,440 (1.42%) of 5,728,492 establishments apply patents. Patenting activities can be found not only in manufacturing sector, but a substantial number of patents are applied by whole sale retail and services firms. Patenting firms are larger than non patenting ones in employment size, and it is found that continuously patenting firms grow faster than those which apply patents periodically.

SESSION 2b: Labor and Macroeconomic Implication (WG2)

Globalization, creative destruction, and labor share change: Evidence on the determinants and mechanisms from longitudinal plant-level data

Petri Böckerman, Labour Institute for Economic Research

Mika Maliranta, The Research Institute of the Finnish Economy

We examine the sources and micro-level mechanisms of the changes in the labor share of value added. We link the micro-level dynamics of the labor share change with that of productivity and wage growth. Using a useful variant of the decomposition method we make a distinction between the change in the average plant and the micro-level restructuring. With Finnish plant-level data covering three decades we show that micro-level restructuring is the link between the declining labor share and increasing productivity in 12 manufacturing industries of four regions, and that increased international trade is a factor underlying those shifts.

Who Creates Jobs? Small vs Large vs Young

John Haltiwanger, University of Maryland

Ron Jarmin, U.S. Census Bureau

Javier Miranda, U.S. Census Bureau

What is the role of small firms in job creation? Starting with the work of David Birch (e.g. 1979, 1981) there's been a long, sometimes heated, debate on the role of firm size in employment growth. The central thesis of Birch's research was that small firms are the most important source of job creation in the U.S. economy. Birch's influential work also attracted considerable criticism from the academic community. Brown, Hamilton and Medoff (1990) emphasize that the number of jobs created by an employer is not the only thing that matters and Davis, Haltiwanger and Schuh (1996a) criticize the calculation used by Birch and argue that they are subject to a regression to the mean fallacy. While

skepticism in the academic community remains, the policy community seems to have concluded that firm growth is negatively related to firm size. That is small firms grow faster than larger firms and are more important as a source of job creation.

The focus on firm size differences in recent decades ignores for the most part the role firm age plays in explaining these patterns. This is largely a result of the lack of available data. In this paper, we provide a more nuanced perspective on the debate by introducing firm age as a key variable in the analysis. In particular we use new data from the Census Bureau's newly released Business Dynamics Statistics and the Longitudinal Business Database (LBD) to explore these issues. The BDS is a public use longitudinal file that tracks job and establishment flows by characteristics not typically found in similar databases including firm age and firm size (Haltiwanger, Jarmin and Miranda, 2008). The file is constructed from the Census Bureau's Longitudinal Business Database (LBD) and covers all business establishments in the U.S. private non-farm economy that file payroll taxes. The file begins in 1976 and currently runs through 2005.2 The BDS and the LBD are ideal datasets to explore these issues given universal coverage of all firms and establishments in the non-farm private sector in the U.S. over a long period of time. The close to thirty-year continuous coverage and the ability to identify establishments that belong to the same firm allows us to attach detailed firm age codes to all establishments in the LBD.

Using this rich new database, we explore the many issues regarding the role of firm size and growth that have been at the core of the ongoing debate (such as the role of regression to the mean). We find that the relationship between firm size and employment growth is sensitive to these issues. However, our main finding is that once we control for firm age there is not a systematic relationship between firm size and growth. We show that this is because most business startups as well as most young businesses are small. Put differently, our findings highlight the important role of business startups and young businesses in U.S. job creation. Business startups contribute substantially to both gross and net job creation. In addition, we find an "up or out" dynamic of young (and small businesses). That is business startups that survive grow faster on average than more-established companies. However, because new ventures also have higher mortality rates than older companies, they also have higher rates of job loss. Our data shows young firms are dynamic engines of job growth in the U.S. economy but this effect is short lived on average. Once firms survive past the age of 2 annual net job creation rates appear to settle down and are not much higher than those for the oldest firms. These findings imply that it is critical to control for and understand the role of firm age in U.S. job creation.

Rent-sharing, Hold-up, and Wages: Evidence from Matched Panel Data

David Card, UC Berkeley and NBER

Francesco Devicienti, University of Torino

Agata Maida, LABORatorio Revelli, Collegio Carlo Alberto

A variety of bargaining models predict that more profitable firms pay higher wages, particularly in the presence of unions. Existing empirical studies have confirmed this prediction, although there is still some debate about whether the correlation between wages and profits is actually caused by rent sharing, or by other factors. A closely related literature suggests that bargaining over rents reduces the incentive for investment, since once capital is installed it becomes a source of quasi-rent, and some of the return is captured by workers. This "hold-up" phenomenon is thought to have contributed to the decline of unionized firms in the US and other countries with decentralized collective bargaining. In

this paper we use a rich longitudinal dataset from the Veneto region of Italy that combines Social Security earnings records for 1.5 million workers with detailed balance sheet data for over 30,000 firms to measure the degree of rent sharing and test for potential hold-up problems. Our main empirical models include worker-firm match effects that allow us to abstract from permanent differences in productivity across workers, firms, and job matches. We also compare OLS and instrumental variables specifications that use sales of firms in the same industry in other regions of the country to instrument value-added per worker. We find consistent evidence of a modest degree of rentsharing, with a “Lester range” of variation in wages between profitable and unprofitable firms of about 15-20%. On the other hand we find no evidence of hold-up: firm-level bargaining in Italy appears to split the rents after fully accounting for the cost of capital. The absence of holdup concerns is confirmed by a reduced-form analysis of the effects of capital investment on future wages.

Forecasting Aggregate Productivity Using Information from Firm-Level Data

Eric J. Bartelsman, Vrije Universiteit Amsterdam, Tinbergen Institute, and IZA Bonn

Zoltán Wolf, Vrije Universiteit Amsterdam and Tinbergen Institute

This paper contributes to the productivity literature by using results from firm-level productivity studies to improve forecasts of macro-level productivity growth. The paper employs current research methods on estimating firm-level productivity to build times-series components that capture the joint dynamics of the firm-level productivity and size distributions. The main question of the paper is to assess whether the micro-aggregated components of productivity – the so-called productivity decompositions – add useful information to improve the performance of macro-level productivity forecasts.

The theoretical links between firm-level decisions and the interactions between firms and customers in a market have not been well modelled, and the sources of firm-level heterogeneity and the triggers of resource reallocation have not yet been explored in a comprehensive manner. Some early work attempts to provide explanations of how firm-level productivity interacts with resource allocation to determine aggregate growth. This modelling does not yet provide a framework for using the full information in firm-level data for macro-level forecasting. Nevertheless, they provide the intuition for using micro-aggregated representations of the underlying relationships among size, productivity, firms’ decisions, market selection and such to aid in macro forecasting.

The literature on decomposing aggregate productivity growth has grown extensively over the past few years and indicates that there are many ways to define or modify the decompositions. Our primary objective is to improve forecasts of aggregate productivity growth using disaggregated information and not to favor one method of decomposition over another. To this end, we work with two standard decompositions.

Our firm-level dataset, provided by Statistics Netherlands, consists of a large yearly panel of Dutch manufacturing firms over 1978-2004. Our aggregate datasource is the EUKLEMS database. There have been two EUKLEMS releases so far. We used the one that was published in March 2008. The files contain 62 variables, including basic data and growth accounting variables. The datafiles are structured to follow an industry classification list which corresponds with the NACE list.

The paper explores various specifications of decompositions and various forecasting experiments. The result from these horse-races is that micro-aggregated components improve simple aggregate total factor productivity forecasts. While the results are mixed for richer forecasting specifications, the paper shows, using Bayesian model averaging techniques (BMA), that the forecasts using micro-level information were always better than the macro alternative.

SESSION 2c: Financial Distress (WG2)

Age Effects, Leverage and Firm Growth

Kim P. Huynh, Indiana University

Robert J. Petrunia, Lakehead University

Recent theories of firm dynamics emphasize the role of financial variables as determinants of firm growth. Empirically examining these relationships has been difficult, since there is a lack of financial data on the small, young, and private firms. Using a unique administrative data set, this paper considers the growth of new firms in Canadian manufacturing from a financial perspective. We find that financial factors, such as leverage and initial financial size, impact growth rates for new firms. Further, the inclusion of leverage has little impact on the economic significance of the conditional age and size relationships with firm growth.

Are Service Firms Affected by Exchange Rate Movements?

Jen Baggs, University of Victoria

Eugene Beaulieu, University of Calgary

Loretta Fung, University of Alberta and National Tsing Hua University

There is a growing literature addressing the effects of exchange rate movements on manufacturing firms, but little similar analysis concerning firms in the service sector. As the service sector is the largest component of the Canadian economy and services are becoming increasingly tradable, the implication of international economy on service sector firms is an important, yet rarely explored, research question. This paper addresses the question by analyzing the effects of industry specific real exchange rate movements on the profitability, survival and sales of Canadian service sector firms. Using rich firm-level data that covers the universe of incorporated firms in Canada and service trade data, our empirical results show that real appreciations of the Canadian dollar reduce firm probability of survival, sales and profitability while depreciations have the opposite effect (a separate abstract on firm-level data is attached). In addition, the negative effect of real currency appreciations on firm survival is less pronounced for more productive firms. Our findings suggest a significant exchange rate effect on service firms similar to that found for manufacturing firms in earlier studies by Baggs and Brander (2006) and Baggs, Beaulieu and Fung (2009). When comparing the economic magnitude of the exchange rate effects on service sector firms to the effects on manufacturing firms, we find that, when facing an identical movement of the value of the Canadian dollar from the highest to the lowest level, service sector firms experience smaller increase in profit and sales but larger increase in probability of survival as compared to manufacturing firms.

Productivity Growth and Competition across the Asian Financial Crisis: Evidence from Korean Manufacturing Firms

Chulwoo Baek, Hitotsubashi University and KISTEP

YoungGak Kim, Hitotsubashi University

Hyeog Ug Kwon, Nihon University and RIETI

Using firm level data during 1985-2005, we measured the TFP of Korean manufacturing sector and identified determinants of the TFP growth rate. Given that various institutions for fair competition were introduced in 1988, investigating the difference of the TFP trends before and after the Asian financial crisis is meaningful. With the massive unbalanced panel data, we examined quantitatively whether or not the comprehensive structural reforms have the effect on the Korean economy in terms of productivity.

The data used in this research are financial statements obtained from KIS (Korea Information Service). These cover statutory audit firms and registered firms as well as listed firms in KOSPI and KOSDAQ from 1985 to 2005. Given that statutory audit firms and registration firms are smaller and less competent than listed firms in KOSPI and KOSDAQ and their proportion in the sample amounts to 74.5%, the data used in this paper is expected to lessen the sample bias than previous literatures which only focused on listed firms. When the coverage of the data used here is compared with the Business Survey by National Statistical Office which covers the whole firms with fifty or more employees, the data used here account for more than 70% of employees, sales and tangible asset, thus the data used in this research has the representativeness to some extent.

It is shown that the TFP growth rate in the period 1985-1992 is negligible, 0.5% per annum, thus the TFP is not the main source of economy growth during this period. However, after steep decline in 1998, the TFP bounced back rapidly with 3.1% growth rate per annum in the period 1999-2005, which implies that the paradigm of economy growth has changes inputs-driven into TFP driven growth. When the TFP growth is decomposed, it is revealed that the output reallocation effect as well as within effect are main sources of the TFP growth. With regard to the determinants of the TFP growth rate, the reinforcement of competition after the Asian financial crisis contributed to the TFP growth rate, justifying introduction of various institutions for fair competition during the crisis. When industries are classified into sub industries by technology intensity, it can be said that the TFP growth has been driven by high technology and medium-high technology, and in high technology industry, the reinforcement of competition during post-crisis period and R&D intensity affected the TFP growth rate positively and significantly.

Financial Constraints and Firm Export Behavior

Flora Bellone, University of Nice-Sophia Antipolis

Patrick Musso, University of Savoie

Lionel Nesta, OFCE-DRIC

Stefano Schiavo, University of Trento, Department of Economics, and OFCE-DRIC

The paper analyzes the link between financial constraints and firm export behavior. Our main finding is that firms enjoying better financial health are more likely to become exporters. The result contrasts with the previous empirical literature which found evidence that export participation improves firm financial health, but not that export starters

display any *ex-ante* financial advantage.

On the contrary, we find that financial constraints act as a barrier to export participation. Better access to external financial resources increases the probability to start exporting and also shortens the time before firms decide to serve foreign customers.

This finding has important policy implications as it suggests that, in presence of financial markets imperfections, public intervention can be called for to help efficient but financially constrained firms to overcome the sunk entry costs into export markets and expand their activities abroad.

SESSION 2d: Inside the Firm (WG2)

Academic Entrepreneur's Human Capital Depreciation

Kathrin Müller, Centre for European Economic Research (ZEW), Mannheim

Human capital is known to be one of the most important predictors of a person's earnings. With regard to entrepreneurial success, founders' human capital is an important determinant of firm's employment growth as well. This paper investigates if the depreciation of a founder's academic knowledge affects a start-up's employment growth. The depreciation of academic knowledge is investigated by quantifying the effect of the time period which elapses after the founder has left university until the start-up is founded on firm's employment growth. Using quantile regressions, human capital depreciation is found to be of crucial importance for both ordinary academic start-ups and academic spin-offs, the founders of the latter suffering even more from human capital depreciation.

The CSP-CFP missing link: complementarity between environmental, social and governance practices?

Sandra Cavaco, LEM, Université Paris II Panthéon Assas

Patricia Crifo, Ecole Polytechnique and UHA

This article analyzes the relationship between corporate social performance or responsibility (CSP or CSR) and corporate financial performance (CFP) by proposing a theoretical analysis and an econometric study on European data using a matched micro-economic dataset of extra-financial ratings and economic and financial performance indicators over the 1998-2008 period.

The empirical link between corporate social performance and corporate financial performance has received considerable attention for 35 years but no consensus has yet emerged (see for instance Margolis, Elfenbein and Walsh, 2007). We consider here that this absence of consensus suggests that it could be a specific combination of relatively complementary practices that would lead to superior firm performance. To examine how such a complementarity between extra-financial factors (environmental, social, governance etc.) may affect corporate financial performance, we develop a theoretical model and test its main predictions on a European matched dataset.

Our theoretical analysis shows that the complementarity among CSR practices may raise firm performance under some

conditions, and the extra-financial rating process may affect negatively the incentives to invest in CSR and firm performance. In our empirical analysis, we then analyze how the ratings on extra-financial factors and the complementarity among these ratings affect firm performance. In our database, the extra-financial variables are derived from the scores and ratings of the European extra-financial rating agency Vigeo over 6 domains (human rights, human resources, environment, customers and suppliers, community involvement and corporate governance) and up to 40 criteria. The financial variables are derived from the standardized annual accounts (balance sheets, financial ratios, etc.) of the Orbis database. Using the generalized method of moments technique (see Blundell and Bond, 1998), we analyze the dynamic impact of complementary ESG policies on firm performance and which CSR factors tend to be complementary inputs in raising firm performance.

The Effects of Human Resource Management Practices on Firm Productivity: Preliminary Evidence from Finland

Derek C. Jones, Hamilton College

Panu Kalmi, Helsinki School of Economics

Takao Kato, Colgate University

Mikko Mäkinen, Helsinki School of Economics

The central aim of this paper is to present the first empirical evidence on the nature and effects of human resource practices (HRM) in the Finnish manufacturing sector. Especially, we examine the effects of employee involvement (EI) and financial participation (FP) practices on firm productivity. In the analysis, we use a new survey data set on a range of HRM practices during 2002-2005 that is broader than in most studies and that include several components in the indices of EI and FP practices. The survey includes data on HRM practices and employee participation of 398 firms, which is 38% of the firms in the population. Thus, our data are based on a representative random sample of the manufacturing firms in Finland who had 50 or more employees in 2005. An important feature of the survey data set is that it can be linked to data on firms' financial statements. Together these combined data constitute an unusual panel that allows us to analyze the effects on firm productivity of HRM practices separately and in combination in for the population of the Finnish manufacturing firms.

Based on our preliminary production function estimates we find that firm productivity: (i) is enhanced by some individual practices, notably decision-making consultative committees and profit sharing schemes, but other individual practices have no statistically significant effects; (ii) is positively associated with indices of EI or FP practices considered alone; (iii) is positively combinations of FP and EI; (iv) is positively associated with ICT and foreign ownership.

SESSION 2e: Institution and Organization in Labor Market (WG3)

Manufacturing Plants' Use of Temporary Workers: An Analysis Using Census Micro Data

Yukako Ono, Federal Reserve Bank of Chicago

Daniel Sullivan, Federal Reserve Bank of Chicago

Using plant-level data from the Plant Capacity Utilization (PCU) Survey, we examine how manufacturing plants' use of temporary workers is associated with the nature of their output fluctuations and other plant characteristics. We find that plants tend to hire temporary workers when their output can be expected to fall, a result consistent with the notion that firms use temporary workers to reduce costs associated with dismissing permanent employees. In addition, we find that plants whose future output levels are subject to greater uncertainty tend to use more temporary workers. We also examine the effects of wage and benefit levels for permanent workers, unionization rates, turnover rates, seasonal factors, and plant size and age on the use of temporary workers; based on our results, we discuss various views of why firms use temporary workers.

Organizational Change, Polarization and Gender

Christian Dustmann, UCL, CEPR, IFS and IZA

Marco Hafner, IAB

Uta Schönberg, UCL, IAB and IZA

Over the past two decades, the German economy was characterized by polarization of work: occupations in the middle of the wage distribution have lost in terms of employment relative to occupations located at the bottom and middle of the wage distribution. At the same time, wages of women have increased faster than those of men, in particular at the middle of the wage distribution. Similar patterns can be observed in other countries, such as the United States. The paper argues that the polarization of work and the relative wage gains of women concentrated at the middle of the wage distribution are two sides of the same coin and driven by technological and organizational change.

We first show that a model of comparative advantage (Roy Model) in which workers are endowed with skills in non-routine manual tasks, in routine tasks and non-routine interactive and analytical tasks can account for these patterns, if the following assumptions hold:

- (a) Technological and organizational change reduces the demand for routine tasks and increases the demand for non-routine interactive and analytical tasks.
- (b) Non-routine manual tasks and non-routine interactive and analytical tasks are predominantly located at the bottom and top of the wage distribution, respectively, while routine tasks can be mostly found at the middle of the wage distribution.
- (c) Men have a comparative advantage at routine tasks.

We provide new empirical support for assumptions (b) and (c) using individual-level data on task usage and wages from the German Qualification and Career Survey. Based on a unique linked employer-employee data set, we show that firms which have undergone more organizational change (such as the introduction of team work or the flattening of hierarchies) increase their demand for non-routine interactive tasks and decrease their demand for routine tasks by more than firms that have not introduced such changes. This is consistent with assumption (a). We provide direct empirical support for the consequences- i.e. the polarization of work and the relative gain of women concentrated at the middle of the wage distribution- of these assumptions, as predicted by our model.

The Screening Function of Certification- Evidence from the Freshmen Labor Market

Long-Hwa Chen, Aletheia University, Taiwan and Aarhus University, Denmark

Tor Eriksson, Aarhus School of Business, Aarhus University

Institutional rules, labour demand and disability programme participation

Ossi Korkeamäki, Government Institute for Economic Research (VATT), Finland

Tomi Kyyrä, Government Institute for Economic Research (VATT), Finland

We use matched employer-employee data from Finland to model transitions out of work into sick leave and disability retirement. To identify the role of institutional factors we exploit a law change that made the medical requirements for disability pension eligibility tougher for a certain group, as well as partially experience-rated employer contributions that vary with the firm size. We find evidence that employers exploit disability retirement as a way of adjusting their workforce at times when dismissals are difficult to justify. We also show that the transition rate to disability retirement depends on the stringency of medical screening and the degree of experience rating applied to the employer.

SESSION 3**SESSION 3a: The Measurement of the Incidence and Effect of Layoffs and Job Destruction in the U.S., Germany, and Japan (WG3)****How Important is Endogenous Mobility for Measuring Employer and Employee Heterogeneity?**

John M. Abowd, Cornell University

Kevin McKinney, U.S. Census Bureau

Ian Schmutte, Cornell University and U.S. Census Bureau

We study the effects of endogenous mobility on the linear decomposition of log wage rates into observable, personal, and employer heterogeneity. Endogenous mobility is modeled using the adjacency matrix from the realized mobility network, which is identical to the moment matrix used in the estimation of the realized individual and employer effects. Statistical techniques from random bipartite graph models are used to estimate the bias to estimated heterogeneity, and functions of the heterogeneity. The model is applied to US longitudinally linked employer - employee data.

The Historical Behavior of Worker Flows and Job Vacancies

Steven J. Davis, University of Chicago and NBER

R. Jason Faberman, Federal Reserve Bank of Philadelphia

John C. Haltiwanger, University of Maryland and NBER

We construct quarterly measures of hires, separations, and vacancies back to 1990 for the U.S. private sector and back to 1972 for the manufacturing sector. We use the new measures to explore three issues. First, we compare the cyclical

behavior of our vacancy measures to widely used proxies for vacancies based on an index of newspaper help-wanted advertisements. Second, we investigate the cyclical behavior of hires and separations, with particular attention to their behavior around recessions. Third, we examine the cyclicity of layoffs, quits and other separations. The second and third issues are closely related to recent debates about the relative importance of hiring rates and job loss rates in cyclical unemployment dynamics.

We construct our new time series using establishment data from the Job Openings and Labor Turnover Survey (JOLTS) and the Business Employment Dynamics (BED) program of the Bureau of Labor Statistics and the Longitudinal Research Database (LRD) of the Census Bureau. The JOLTS data yield estimates of hires, quits, layoffs, and vacancies as functions of establishment-level growth rates and other characteristics. The BED and LRD provide us with historical data for the distribution of establishment-level growth rates at a quarterly frequency. Our baseline empirical exercise generates a longer time-series of aggregate worker flows by estimating the time-invariant worker flow-growth relations from the JOLTS data and interacting them with the quarterly growth rate distributions that we derive from the BED and LRD data. The new, longer time series on worker flows and vacancies allow us to observe their behavior over several recessions and to shed new light on cyclical dynamics in U.S. labor markets.

Trends in Worker Displacement Penalties in Japan: 1991-2005

Michael Bognanno, Temple University

Ryo Kambayashi, Hitotsubashi University

We examine the period from 1991 to 2005 to document the effects of a changing Japanese labor market on trends in the cost of job change. Given the strong returns to seniority in Japan, it was not surprising that older workers had larger job change penalties than younger workers. During this period, job change penalties and the extent to which they were age related grew, a finding not seen in U.S. data. Evidence is also found of a diminishing specificity in human capital in industry for job changers in the Japanese labor market. While penalties from changing industries were diminishing, career change penalties grew.

Long-Term Earnings Losses due to Mass Layoffs During the 1982 Recession: An Analysis Using U.S.

Administrative Data from 1974 to 2004

Till von Wachter, Columbia University, NBER, and CEPR

Jae Song, Social Security Administration

Joyce Manchester, Congressional Budget Office

This paper uses longitudinal data from Social Security records covering up to 30 years of earnings to present the first national estimates of the long-term cost of job displacements during the 1982 recession. We use a new longitudinal data set containing firm size to isolate workers who separate from their stable job during a sudden mass-layoff. When we compare the workers displaced from their jobs to similar non-displaced workers, we find large immediate losses in annual earnings of 30%. After 15 to 20 years, these losses are still 20% and thus represent a significant setback in workers' life-time resources. Our estimates are robust to alternative specifications including industry-year or firm-year effects, also hold for workers with weak prior job attachment, and are strong and long-lasting for all age- and

industry-groups we study. They are still large and permanent, albeit somewhat smaller, for workers displaced at the peak of the late 1980s recovery. Our estimates confirm the larger range of estimates from previous studies based on single U.S. states and selected samples of workers.

SESSION 3b: Analysis on Firms' Performance in China (WG2)

The Malmquist Index Regression Equations as a Dynamic System

Jinghai Zheng, Norwegian Institute of International Affairs and Gothenburg University, Sweden

This article demonstrates that the popular DEA-based Malmquist productivity indexes when used in regression analysis the set of linear equations involved can be treated as a system. With reference to the special structure of the knowledge production function, the regression equations can be further specified as a dynamic system. The properties of the Malmquist Index regression equations provide rich microstructures for the relationship between productivity growth, productivity growth components, and the determinants of productivity growth. Knowledge of these structures will be very helpful in applied work. A feasible scheme for linearizing the system is proposed to help interpret empirical results and facilitate efficient econometric estimations.

Corporate Governance, productivity and firm value

Jian Chen, The University of Greenwich

Most of the previous studies on the relation between corporate governance and firm value are based on agency theories and don't explain what exact changes happen within a firm with different patterns of ownership structures. This study investigates the relationship between corporate governance, productivity and firm value, based on the arguments that sound corporate governance leads to higher productivity, which results in higher market values in firms. We first estimate the total productivity factors by using Cobb-Douglas function, and then explain the TFP with ownership structure as corporate governance proxies. We find that the ownership structure only partially explains the TFP. The third step is to use Sobel-Goodman mediation methods to test the bridging function of productivity between corporate governance and firm value in order to see whether productivity is the internal factor. Our initial results cannot confirm the mediating function of productivity. The significance of the study is to initiate the understanding of micro-process of corporate governance in determining the firm value.

Absorptive Capacity and the Benefits from Global Reservoirs of Knowledge: Evidence from Linked China-OECD Data

Xiaolan Fu, University of Oxford

Yundan Gong, University of Aston

This paper investigates the role of absorptive capacity in the diffusion of global technology with sector and firm heterogeneity. We construct the FDI-intensity weighted global R&D stock for each industry and link it to a Chinese firm level panel data of 52600 firms over the 2001-2005 period. We employ non-parametric frontier analysis to explore how

absorptive capacity affects technical change and catch-up in the presence of global knowledge spillovers. We find that in developing countries R&D activities in individual firms serve as an effective source of absorptive capability. The contribution of absorptive capacity varies according to the type of FDI and the extent of openness. In industries of greater presence of FDI from industrialized countries, firms with greater absorptive capacity are more likely to have major technical change that pushes up the technology frontier. It also contributes to the catch-up in follower firms by assimilation of relative superior technological knowledge spilled over through Ethnic FDI.

Exports, Productivity, and Credit Constraints: A Firm-Level Empirical Investigation for China

Zhiyuan Li, University of California, Davis

Miaojie Yu, China Center for Economic Research, Peking University

Recent Melitz-type (2003) intra-industry heterogenous trade models argue that a firm's productivity has significant effects on the firm's exports. This paper examines how a firm's credit constraints as well as its productivity affect its export decisions. We imbed the firm's credit constraints into a Melitz-type general-equilibrium model by endogenizing the probability of the success of firm-specific projects. We show that, all else equal, it is easier for firms to enter the export market if (1) the probability of the success of their project is higher and consequently they have easier access to external finance from financial intermediaries; or (2) they have alternative sources, other than from financial intermediaries, to obtain funds. We test these theoretical hypotheses using firm-level data from Chinese manufacturing industries and find strong evidence supporting the predictions of the model.

SESSION 3c: Product Differentiation (WG2)

Productivity, Returns to Scale and Product Differentiation in the Retail Trade Industry: An Empirical Analysis Using Japanese Firm-level Data

Atsuyuki Kato, RIETI

This paper examines productivity and returns to scale under the assumption of monopolistic competition using Japanese firm-level data. Although differentiating products (services) is considered important in firms' strategies and productivity growth, it has not been sufficiently investigated in previous studies. In this paper, we study this issue in two retail trade industries, department stores and supermarkets, applying the model of Melitz (2000). Our results indicate that the retail trade industries possibly follow increasing returns to scale if we consider the effects of product differentiation. In addition, product differentiation has a positive effect on firms' revenue. Thus, policy measures that promote economies of scale and product differentiation should contribute to further growth in these industries. In addition, the results indicate that the regulatory reform of the retail trade industry in 2000 made a positive contribution.

Quality sorting and trade: Firm-level evidence for French wine

Matthieu Crozet, CEPII

Since firm-level data on trade have become available, researchers have documented overwhelming evidence of dramatic

differences in export performance. Most firms do not export; the few that do tend to export relatively small shares of their output and export to only a handful of destinations (see for instance Bernard et al. 2007, and Mayer and Ottaviano 2007). Only the highest performing firms export substantial amounts to large sets of destinations. While the fact of performance differences is well-established, the source of this heterogeneity remains unclear. Theoretical papers following the seminal work of Melitz (2003) mainly assume that the sorting of firms into export markets depends upon individual productivity draws. However, casual observation suggests that product quality differences are important in many industries. Presence and performance in foreign markets could therefore be driven by quality sorting, productivity sorting, or a combination of the two.

This paper studies the exports of Champagne producers, where firm-destination export flows can be matched to firm quality ratings from wine guides, like Parker's. Firm-level regressions illustrate how directly measured quality affects the prices firms charge, the set of countries to which they export, and the amounts they export to each country. We show that high quality producers export to more markets, charge higher prices, and sell more in each market. More attractive markets are served by exporters that, on average, make lower rated Champagne. Market attractiveness has a weakly negative effect on prices and a strongly positive effect on quantities, confirming that quality sorting is important for the Champagne industry. Since our model and estimation methods were not tailored for application to this industry, we believe they can be usefully applied in other settings.

Multi-Product Firms and Price Behavior in Danish Manufacturing

Valérie Smeets, Aarhus University

Frédéric Warzynski, Aarhus University

In this paper, we document and use a rich product-firm-level dataset providing both revenue and quantities for a large panel of Danish manufacturing firms over the period 1998-2005 to better understand the evolution of prices. We start from a macro-perspective linking prices to firm specific variables such as product level market share or total output, controlling for product fixed effect. We then look at the effect of variables such as TFP and size. In line with Foster, Haltiwanger and Syverson (2008), we find that prices are positively related to TFPR (total factor productivity using revenue deflated by a producer price index as output measure) but negatively related to TFPQ (total factor productivity using quantities instead of revenue as a measure of output, or deflated with firm specific deflator for multi-product firms). We also find that prices are on average negatively correlated with firm size. However, once we run the regression by product, we also find that the relationship is negative for homogenous goods but positive for differentiated goods, as suggested by Kugler and Verhoogen (2008). Altogether, the paper contributes to the debate regarding the endogeneity of prices and the consequences for the proper measurement of productivity. We also discuss how we adapt our analysis to the multi-product nature of production for most firms in our sample and relate it to the recent theoretical literature (Bernard et al., 2008; Mayer, Melitz and Ottaviano, 2009; Nocke and Yeaple, 2009; Eckel and Neary, 2009).

Product Switching and Firm Performance in Japan

Atsushi Kawakami, Gakushuin University

Tsutomu Miyagawa, Gakushuin University and RIETI

Following Bernard, Redding and Schott (2009), we investigate product switching behavior in Japanese manufacturing firms. Using firm-commodity level database in *Census of Manufactures*, we find that product adding accounts for 21.4% and product dropping accounts for 21.7% in all manufacturing shipments in 2000. The results in probit estimations show that productivity and relative firm scale promote product switching, although high fixed costs depress it. When we examine the effects of product switching on firm performance, only product dropping through the restructuring contributes to the improvement firm performance such as growth in output, employment, labor productivity or TFP in the short run. However, the product switching improves firm performance in the long run.

SESSION 3d: Productivity Growth (WG1)

Explaining Reallocation's Apparent Negative Contribution to Growth in Deregulation-Era Developing Countries

Mitsukuni Nishida, Johns Hopkins University

Amil Petrin, University of Minnesota, Twin Cities and NBER

We investigate the findings in several recent studies using plant-level data that report negative growth in the reallocation component of aggregate labor productivity growth. This empirical finding is counter to almost all theoretical models of aggregate productivity growth, where inputs reallocate on average from lower-value to higher-value activities. We attempt to solve this puzzle for two countries in South America, Chile and Colombia. We cannot explain the puzzle away by conditioning productivity growth on two types of labor and capital instead of just one labor type. We do find that the puzzle disappears when we define aggregate productivity growth in terms of its impact on aggregate final demand. By this definition, labor reallocation contributes positively to economic growth in most years. We explore other possible reasons for the negative covariance between labor inputs and measured productivity growth.

Resource Reallocation and Zombie Lending in Japan's 1990s

Hyeog Ug Kwon, Nihon University and RIETI

Futoshi Narita, University of Minnesota

Machiko Narita, University of Minnesota

We investigate the efficiency of resource reallocation in Japan during the 1990s, a decade of economic recession, by measuring aggregate productivity growth (APG) using a plant-level data set of manufacturers from 1981-2000. We find that resource reallocation contributed negatively to APG, mainly due to inefficient labor reallocation. A possible reason for the inefficient labor reallocation is misdirected (or zombie) bank lending to failing plants. To quantify its impact, we develop a model with plant-level heterogeneity, calibrate it based on the results of plant-level productivity estimation, and conduct a counterfactual exercise. The results show that zombie lending would result in the loss of 37% of the actual decline in APG due to inefficient labor reallocation in Japan's 1990s.

Firm Turnover and Productivity Growth

Loretta Fung, University of Alberta and National Tsing Hua University

Alice Nakamura, School of Business, University of Alberta

Masao Nakamura, University of British Columbia

Firm turnover has been considered as one of the main means of economic change. Specifically, aggregate productivity growth can be decomposed into productivity growth of continuing firms and resource reallocation among firms (resulting from firm entry and exit or from the expansion/contraction of continuing firms). In the micro-level research on firm productivity and the contribution of firms in different turnover status to aggregate productivity growth, there are two important fundamental tasks: measuring firm output and productivity and assessing the contribution of entrants and exits to productivity growth. This paper addresses these two questions by investigating the behavior of traditional, revenue-based and quantity-based productivity measures proposed by Foster, Haltiwanger and Syverson (2008) and by comparing the outcomes of productivity decomposition using Foster, Haltiwanger, and Krizan (2001) method (FHK) to the outcomes using Diewert and Fox's (2009) method (DF).

Contrast to the previous research on output measures that focus on homogeneous goods, we particularly explore a case of differentiated goods where quality may vary across firms. In the empirical analysis, we use the data on Taiwanese electronics firms. The firm-level data are extracted from the Industry, Commerce, and Service Census: Manufacturing Sector from 1986, 1991, and 1996. This census is conducted every five years by the Directorate General of Budget, Accounting, and Statistics, Executive Yuan, Taiwan. The comprehensive coverage of firms makes it possible to trace firm turnover status by matching firm identification numbers over census years. The data set includes information on the number of employees, wages and salaries, materials, energy, fixed assets, subcontracting activity, revenue, domestic sales and exports. Firm productivity is constructed by using multilateral index number approach with output being measured by traditional output (revenue deflated by industry price index), (imputed) physical output, and (imputed) revenue output.

Most of our results are consistent with Foster, Haltiwanger and Syverson's (2008) findings that the three productivity measures are highly correlated, entrants charges a lower price causing the contribution of entry to aggregate productivity growth being underestimated when revenue-based productivity measure is used. However, we find that productivity growth rate is lower when quantity-based productivity measure is used. This result indicates that in the case of differentiated goods, product quality may play a role in productivity growth. In addition, when comparing the results of productivity decomposition using the FHK approach to those of using the DF approach, we find that the contribution of net entry to aggregate productivity growth is significantly smaller when the DF method is used.

In search of an ideal method for analyzing micro-level dynamics of a great productivity leap

Mika Maliranta, The Research Institute of the Finnish Economy (ETLA)

This paper has two aims; 1) to understand the micro-level mechanisms of a great productivity leap in Finnish manufacturing industries since 1980s and 2) find a method best suited for such analysis. Four alternatives are analytically and empirically evaluated by a use of a plant-level panel covering years 1975-2007. The paper has three main contributions. First, as for measuring the static Olley-Pakes decomposition, a regression approach is proposed, which gives standard error estimates for the covariance component and allows controlling for the other factors of the firm productivity. Second, as for a dynamic analysis, a preferable method with several theoretical and empirical

advantages is proposed. It gives an unbiased view on the role of entries and exits as well as the reallocation between staying firms in industry productivity growth. The firm (or plant) component indicates the rate at which the productivity of an average input increases over time when it stays in the same production unit. The method is partly related to a dynamic Olley-Pakes decomposition recently proposed by Melitz and Polanec (2009). Third, the acceleration of productivity growth in Finnish manufacturing industries is found to be almost totally attributed to the intensified micro-level restructuring. For the purpose of evaluating the decomposition methods, a number of robustness checks have been made with alternative data sets, size thresholds, time-windows and output measures.

SESSION 3e: Corporate Finance (WG2)

Foreign bank entry and credit allocation in emerging markets

Hans Degryse, CentER, Tilburg University

Olena Havrylchyk, CEPII

Emilia Jurzyk, International Monetary Fund

Sylwester Kozak, National Bank of Poland

We employ a unique data set containing bank-specific information to explore how foreign bank entry determines credit allocation in emerging markets. We investigate the impact of the mode of foreign entry – greenfield and takeover – on banks' portfolio allocation to borrowers with different degrees of informational transparency, as well as by maturities and currencies. The impact of foreign entry on credit allocation may stem from the superior performance of foreign entrants ("*performance hypothesis*"), or reflect borrower informational capture ("*portfolio composition hypothesis*"). Our results are broadly in line with the theoretical models underpinning the portfolio composition hypothesis, showing that borrower informational capture determines bank credit allocation. In particular, we find that foreign banks that enter via greenfield investment devote a higher share of their portfolios to transparent borrowers, lend more at shorter maturity and in foreign currency. We find few differences between the portfolio composition of takeover and domestic private banks. We also document that there is a significant convergence over time between foreign and domestic banks in terms of groups of borrowers they lend to, while there is no convergence in terms of maturity and currency. Finally, we do not find any impact of bank ownership and mode of entry on lending rates.

Do Banks Have Private Information? Bank Screening and Ex-Post Firm Performance

Kaoru Hosono, Gakushuin University

Peng Xu, Hosei University

This paper examines whether commercial banks screen loan applications based on private information on firms' future profitability, and consequently how banks' ex-ante private information and screening decisions affect firms' ex-post profitability. Using a dataset of banks' loan application screenings and the ex-post firm performance for SMEs, we obtained strong evidences suggesting that banks' ex-ante private information was related to firms' ex-post performance. We found this relationship to be especially strong for small, mature firms, which supports the relationship-lending hypothesis.

From Soft and Hard-Nosed Bankers - Bank Lending Strategies and the Survival of Financial Distressed Firms

Daniel Höwer, Centre for European Economic Research (ZEW), Mannheim

Do private banks act as hard-nosed bankers when firms get financially distressed compared to public banks? It is widely acknowledged that state guarantees give public banks a competitive advantage. Public banks have the mandate to support regional economy and their lending strategy can be seen as somehow fixed financing firms as long as economically reasonable. Private banks are free to choose their lending strategy. They might adopt a credible strategy that liquidates firms early in financial distress. Firms self select according their risk and private banks' risk portfolio improves. If so, financially distressed firms financed by private banks should show a higher probability of exiting the market.

For German firms in the period 2000-2005, I find that the probability leaving the market after financial distress is higher for firms financed by private banks. Private banks seem to be less likely to audit firms in distressed situations or at least adopt stricter rules. While there is a broad discussion about public banks in the literature because of governmental influences, the effects of different lending strategies are even larger for cooperative banks.

Is Private Equity Investor Good or Evil?

Oleg Badunenko, DIW–Berlin

Nataliya Barasinska, DIW–Berlin

Dorothea Schäfer, DIW–Berlin

The paper investigates the motives of activity (entry and exit) of Private Equity (PE) investors in European companies. Investment of a PE firm is not viewed unambiguously. First, it is claimed that PE investment is made for the sake of seeking short-term gains by taking control and utilizing the company's resources. Second, a PE firm invests because of prior identification of chances to add value to the company. We attempt to resolve these two conflicting conjectures. We use the Bureau van Dijk's Amadeus database of very large, large and medium-sized European companies. Our major results can be summarized as follows. First, PE firms are less willing to enter the firm if there is already a blocking majority, and they are more likely to leave the firm if control cannot be overtaken. Second, less mature firms are less able to lure a PE firm to invest, thus indicating a safe strategy of PE investors. Third, we do not find empirical evidence that a PE investor comes in to strip a firm of its equity. On the other hand, PE investors are likely to leave the company if it deteriorates in terms of returns and cash. Finally, when comparing the activity of PE and other financial investors, we find essential differences in choosing the field and environment of activity.

SESSION 3f: R&D and Innovation (WG1, WG2)

Drivers of International R&D to Asian Economies

Anja Schmiele, Centre for European Economic Research (ZEW), Mannheim

Axel Mangelsdorf, Berlin University of Technology

This paper aims to examine the incentives of companies from industrialized countries to conduct R&D in developing Asian economies. By analyzing the relationship between previous international R&D activities in Asia and the sales of innovative products in Asia, we investigate whether companies follow ‘knowledge augmenting’ or ‘knowledge exploiting’ strategies. Since our results show a positive relationship between these activities only in developing Asia, we conclude that those firms follow a knowledge exploiting strategy and are attracted by market opportunities. Further, we find that companies require a certain experience before they conduct R&D activities in Asia. The more R&D units a company has outside its home market, the more likely the company is to locate a R&D unit in Asia. However, going to Asia is not just a phenomenon of large multinational companies. The analysis is based on a dataset about the innovation behaviour of German firms, the Mannheim Innovation Panel. We retrieve a sample of about 739 international innovating firms.

Endogenous Firm Heterogeneity, ICT and R&D Incentives

Daniel Cerquera, Centre for European Economic Research (ZEW), Mannheim

G. J. Klein, Centre for European Economic Research (ZEW), Mannheim

Firm heterogeneity explains the productivity driven selection mechanism that determines aggregate productivity growth within industries (i.e. creative destruction). This paper empirically demonstrates that ICT has a robust impact on firm heterogeneity only when ICT is used intensively and jointly with specific ICT applications. Moreover, ICT induced heterogeneity exhibits a significant and positive, albeit small, effect on the decision to invest in R&D personnel, suggesting a relevant role of ICT in the process of creative destruction. The results are shown to be robust to different empirical strategies that semiparametrically account for endogenous regressors and censored dependent variables.

Bargaining in Technology Markets: An Empirical Study of Biotechnology Alliances

Shinya Kinukawa, Komazawa University

Kazuyuki Motohashi, The University of Tokyo

The division of innovative labor between biotechnology and pharmaceutical companies has become essential in pharmaceutical research since the first successful biotechnology products reached the market in the early 1990s. A well-functioning market of knowledge assets is now indispensable for health care innovation. However, if either sellers or buyers of biotechnologies have too large bargaining power, the efficiency of the technology market could decrease. When sellers have too large bargaining power, it could cause the “anti-commons.” If buyers have too large bargaining power and thus strong control rights in the research project, it could cause inefficiency in research performance.

We empirically analyze the distribution of bargaining power at biotechnology markets between sellers (mainly biotechnology companies) and buyers (mainly pharmaceutical companies) by estimating the price increase and decrease due to bargaining by sellers and buyers. The data is taken from RDNA database of Deloitte Recap, a company specializing in the biotechnology industry since 1988. Using the data of contract price and technological characteristics (fields and stages of traded technologies) of 1516 alliance agreements from January 1990 to September 2008, we first estimate the two-tier stochastic frontier model proposed by Polachek and Yoon (1987). Then, using estimated parameters and the equations derived by Kumbhakar and Permet (2008), we calculate the conditional expectations of

the price increase and decrease due to bargaining by the seller and buyer for individual alliance agreements.

We also examine the factors that could be related to sellers and buyers' bargaining power: the characteristics of each individual alliance agreement and the parties. For the characteristics of the alliance agreement, we use RDNA's twenty-six types of alliances. For characteristics of each party, we include sellers and buyers' (i) regions (US, Europe, Japan, others), (ii) types (pharmaceutical, biotechnology, others), and (iii) whether public or not. We also include year dummies. The relationship between these factors and the estimated conditional expectations of the price increase and decrease due to bargaining are analyzed using OLS.

The results show that on average, the decrease of price due to buyer's bargaining power is larger than the increase of price due to seller's bargaining power, although the latter has been increasing since 1990, after controlling types of alliances and each party's characteristics. It is conjectured that pharmaceutical companies' bargaining power has been larger than biotechnology companies but that biotechnology companies' bargaining power over pharmaceutical companies has been improving over the past decades.

For the relationship between the effects of bargaining on contract price and each party's characteristics, we found that US sellers, which are mostly biotechnology companies, tend to increase the contract price larger than other regions' sellers do. It is conjectured that US biotechnology companies may have less financial constraints possibly because US stock markets are better suited for high-tech industries compared to other country's markets.

POSTER SESSION

(by working group; in order of paper submission)

WG1

An Investigation of Firm Heterogeneity in the Constraints to Development and Growth in Pakistan

Sajjad Moghal, Small & Medium Enterprise Development Authority in Lahore, Pakistan

Wade D. Pfau, National Graduate Institute for Policy Studies

This study considers the importance of firm characteristics in explaining the degree of business constraints facing Pakistani firms in the Investment Climate Survey. We quantify how firms with differing characteristics experience particular problems. After controlling for other factors, the largest differences in responses to business constraints occurs among firms that vary by manufacturing industry, and among firms operating under different ownership structures or selling in different markets. In some cases, firm size and firm location also play an important role. The age of the firm generally does not lead to significant differences. These results are important, because they will guide policymakers to develop more specific approaches to fostering the investment climate, which better account for the heterogeneity of firms.

Problems of Women Entrepreneurs in Coimbatore

Govindasamy Jayammal, Nirmala College for Women

For women, entrepreneurship is a journey from poverty to prosperity, total dependence to equality, agricultural labour to entrepreneurs in industry and in service sectors and finally, as opportunity entrepreneurs. It has almost reached a stage where it is more suitable a profession than getting employed in public /private organizations which have their own limitations. Thus the women's journey mirrors the transformation of the nation from low to high-income countries. The economic status of the women is now accepted as an indicator of a stage of development and therefore it becomes imperative for the government to frame policies enhancing the rights, roles and opportunities of women, for their betterment in particular and society in general.

The present research study has been conducted to study the problems of women entrepreneurs with special reference to some selected units in Coimbatore District of the state of Tamil Nadu .The main objective of the study has been to understand the socioeconomic back-ground of women entrepreneurs, and their problems in running their enterprises efficiently and profitably.

All most all the women entrepreneurs irrespective of their education ,age, married and the unmarried, caste, religion, type of organizations, ownership type, experience, amount of capital investment , fixed assets have ranked the problem of finance as first in order followed by the problem relating to sales, competition from other sellers, purchase of raw materials, technical problems and labour related problems.

Turbulence underneath the big calm: The microeconomics underlying the flat trends Italian manufacturing productivity

Giovanni Dosi, LEM, Scuola Superiore Sant'Anna, Pisa

Marco Grazzi, LEM, Scuola Superiore Sant'Anna, Pisa

Chiara Tomasi, LEM, Scuola Superiore Sant'Anna, Pisa

Alessandro Zeli, ISTAT, Roma

Italy ranked last in terms of manufacturing productivity growth according to OECD estimates over the last decade (OECD, 2008) with a flat, if not declining, trend. In this work we investigate the underlying firm-level dynamics of enterprises on the grounds of a database developed by the Italian Statistical Office (ISTAT), Micro.3, covering the period 1989-2004 and containing information on more than 100,000 firms.

Over the period not only the indicators of central tendency of the distribution of labour productivities have not significantly changed, but also that the whole sectoral distributions have remained relatively stable over time, with their support not shrinking and possibly widening over time. This is even more surprising if one takes into consideration the "Euro" shock that occurred during the period of investigation. The event, which can be considered equivalent to trade liberalization with perfectly fixed exchange rates, could have been expected to foster the process of market share reallocation between firms in every industry and, as a result, contribute to shrink of the support of the distribution of productivity. On the contrary we observe that inter-decile differences in productivity have been increasing. Further, heterogeneous firms' characteristics (i.e. export activity and innovativeness) appear to have contributed to boost such intra-industry differences. Given such wide heterogeneities we resort to quantile regressions to identify the impact of a set of regressors at different levels of the conditional distribution of labor productivity.

Product and Process Innovations in Subcontracting: Empirical Evidence from the French “Sillon Aplin”

Rachel Bocquet, IREGÉ, University of Savoie

This paper investigates the role that the type of subcontracting relationships (collaborative outsourcing versus traditional subcontracting) can have on a subcontractor's ability to innovate in process and product. In order to measure the “full” impact of subcontracting relationships on innovation, we make the distinction between process and product innovations, taking into account their possible interaction. The empirical test is based on 93 small firms operating in “pure subcontracting industries” meaning that their turnover is carried out minimum 80% in this field (Sessi, 2006). Using a bivariate probit model, we have made several advances. Firstly, in line with previous empirical studies, we give evidence that process and product innovations are not independent choices. Secondly, the test confirms the positive impact of collaborative outsourcing agreement on the subcontractor's probability to innovate whatever the type of innovation. Finally, the results show that process and product innovations are reinforced by different inter-organizational practices and tools as well as distinct absorptive capabilities. This suggests important implications for subcontractors' competitive position.

Productivity Dispersion and its Determinants: The Role of Import Penetration

Daniela Maggioni, Università Politecnica delle Marche

The paper, making use of a large dataset for Italy, confirms the existence in the same sector of a great disparity in firm productivity. We shed some light on this evidence working both at sector and firm level. First, we try to explain the determinants of the sectoral productivity dispersion investigating the role of the international involvement, the ICT adoption and the domestic competitive context. The technology diffusion doesn't seem to affect the within-sector heterogeneity, while we show a significant relationship with the domestic competition and the import penetration from low and medium income countries. The increase in trade flows with non-developed partners is a quite recent fact in the Italian economic system that contributes to shape the industry dynamics. Then, building on these findings, we turn our attention on the firm and we look at the potential heterogeneous firm responses to the exposure to emergent countries. Our results suggest that this tougher competition has negative effects on firm efficiency, more deleterious effects for more productive firms close to the frontier, and, in this regard, it helps to close the productivity gaps across firms.

Industry Evolution in the U.K. Consulting Sector

Andrea Mina, University of Cambridge

Bruce Tether, Imperial College London

Karl Wennberg, Imperial College London

Following the viewpoint of Adam Smith about services as inherently unproductive, economists and other social scientists were generally uninterested in the role of services. Research into service industries have begun exploring services and of particular interest to researchers in the last decade has been the explosive growth of Knowledge-intensive business services. In this project we present a detailed longitudinal investigation of the UK engineering and design consulting sectors, an hitherto underinvestigated part of the service sector but one that has been

leading in industry transformation. Despite their growing economic significance, our understanding of Professional Service Firms remains under-explored. The need to develop understanding of these activities has become all the more pressing with the crisis in the financial sector, and the low likelihood that manufacturing will grow substantially in real terms.

We study the UK engineering and design consultancy sector over an extended period of time using a unique multi-level database assembled from the New Civil Engineer magazine's survey of the industry since 1979. The database includes about 250 firms and detailed information including their size, proportion of engineering staff, activities by discipline and region, plus financial information such as fees and profits. We combine this with aggregate industry level data from the UK Office for National Statistics. Our project entails both an exploratory empirical analysis with aggregate sectoral descriptions, entry and exit rates among firms, as well as life-tables for each firm showing the birth, expansion, and exit of firms. Our data includes unique measures of engineering staff and project work within these firms to account for the interrelations between 'contractor' firms (usually smaller) and larger project leading firms. With these analyses we hope to shed light on an important yet under-researched economic sector, and to present a number of empirical and theoretical contributions to research on industry evolution.

Strategic Alliance in Science-Based Industry: An Event Study Analysis of Organic Light Emission Diode Industry in Japan

Tamane Ozeki, The University of Tokyo

Koichiro Okamura, Japan Science and Technology Agency

Strategic alliances have increasingly been used in recent years as innovation activities require the knowledge and technologies from a wide range of industries. They are expected to accelerate firms' R&D activities through mechanisms such as combination of complementary partners' assets or internalization of knowledge spillovers. This study empirically analyzes the alliance activities in the organic light emission diode (OLED) industry in Japan between 1999 and 2008 to study the roles of strategic alliances in science-based industry.

OLED is an organic semiconductor that is based on chemistry and semiconductor technologies, of which R&D requires a wide range of knowledge and technologies from basic sciences to engineering technologies such as semiconductor technologies or industrial chemistry, which makes a room for alliances among firms, universities and other organizations for the commercialization of the technology.

This study uses the event-study methodology to empirically examine the role of factors such as the type and characteristics of alliances, market and/or products that alliances focus on, or firms' experience in alliances. The basic idea of the event-study analysis is that the impact of an event (alliance formation in this study) is assessed with the abnormal return attributable to the focused event by taking the difference between a firm's stock price in stock market on the event date and its stock price estimated through the extrapolating from stock prices prior to the event.

The results show that the strategic alliances in OLED industry are, overall, perceived positively in the stock market. As for the technological factors influencing strategic alliances, the R&D collaboration focusing on technologically-sophisticated products such as large-sized flat panel display or light fixture, which have higher risks and

uncertainties, are highly valued in the stock market while the R&D collaboration itself or alliances in the product sector are perceived negatively, for example.

WG2

Exit and Entry Behavior as a Business Portfolio Management

Tatsuya Kikutani, Kyoto University

Takashi Saito, Waseda University

This paper analyzes the business portfolio restructuring of the Japanese diversified company in the period from 1995 to 2003 when the Japanese economy fell into the depression and turned to recovery. In order to shed light on the characteristic behavior for realignment of corporate business segments known as ‘selection and focusing’, we employ two kinds of indicators, *input relevance* and *marketing relevance* which express the relationship between the core business and the business entered into or exited from. For analyzing the business portfolio, we used a firm-level panel dataset, the *Basic Survey of Japanese Business Structure and Activities* complimented by the data of Input/Output Table. Our findings can be summarized as follows.

First, many firms not only exit from existing businesses but also enter into new businesses at the same time. Second, a firm with higher growth rate of the core business tends to exit from other segments and less likely enter into new businesses. Moreover, a firm with more risky core business tends to enter new businesses and less likely exit from other segments. Third, the firm exits from the business that is far from its core business and entries to the business that is closely related to it in the sense of *input relevance* and *marketing relevance*. Then, whether such type of business restructuring has an effect on improving the firm’s performance? Finally, we confirm that such relevancies are positively correlated to the firm’s ROA or ROE.

In conclusion, our analysis suggests that many Japanese firms sought to strengthen a set of businesses around the core business by implementing strategic business realignment that combines both offensive and defensive measures instead of single-mindedly pursuing consolidation. This can be seen as the real picture of the ‘selection and focusing’ strategy.

How do firms organize trade? Evidence from Ghana

Jens Krüger, The Kiel Institute for the World Economy

The literature on firm heterogeneity in international trade posits that only the most productive firms become exporters (Melitz 2003). However, empirical findings suggest that also firms that are not highly productive export. This paper investigates empirically how firms organize their export trade. If selling directly, sunk costs of foreign market entry are arguably very high, so only productive firms can achieve this (Schroeder et al. 2003). Low productivity firms, by contrast, may prefer to export through trading companies, which involves lower sunk costs. Using a firm level panel data set of Ghanaian firms we investigate the relationship between firm productivity and the use of export intermediaries. Our estimation results take simultaneity problems into account and reveal that indeed low productivity firms tend to export through intermediaries.

What makes a high-growth firm in Spain? A probit analysis using firm-level data

Paloma Lopez-Garcia, Bank of Spain

Sergio Puente, Bank of Spain

Many studies have established that a small number of firms, known as fast-growth firms or Gazelles, create most of the new jobs. In spite of the importance of this topic from a policy-point of view, most of those studies are descriptive and limited to a comparison of the characteristics of the high-growth group with respect to a control group of firms. This paper, on the other hand, performs a multivariate analysis of the determinants of the fast growth of Spanish firms controlling for the possible endogeneity of some variables. We use for that purpose a firm-level database with information for about 200,000 Spanish firms per year between 1996 and 2003. We find that being a start-up increases the probability of fast growth by more than 30pp, conditioned on having survived over the period. Firms with initial higher relative wages and debt ratio, up to a certain point, also experience higher chances of fast growth. Hence, as it was established elsewhere, better access to finance and to human capital are key to increase the number and growth of Gazelles. We also find that high-growth firm sustain their expansion with relatively more debt and fixed-term contracts than the rest of the firms in the sample.

Employment generation by small producers in Spain

Paloma Lopez-Garcia, Bank of Spain

Sergio Puente, Bank of Spain

Angel Luis Gomez, Bank of Spain

Despite the relevance in terms of policy, we still know little in Spain about where and by whom jobs are created, and how that is affecting the size distribution of firms. The main innovation of this paper is to use a rich database that overcomes the problems encountered by other firm-level studies to shed some light on the employment generation of small firms in Spain. We find that small firms contribute to employment disproportionately across all sectors of the economy although the difference between their employment and job creation share is largest in the manufacturing sector. The job creators in that sector are both new and established firms whereas only new small firms outperform their larger counterparts in the service sector. The large annual job creation of the small firm size class is shifting the firm size distribution towards the very small production units, although not uniformly across industries of different technology intensity.

Large Firms and Soft Budget Constraints for Transition Economies

Tomoe Moore, Brunel University

Soft budget constraints (SBCs) are broadly defined as the circumstance where government will rescue loss-making firms to guarantee their survival in the form of direct or indirect injection of credit. Corporate finance in the former socialist economies of Central and Eastern Europe was, in general, characterised by the syndrome of SBCs, thereby resources to be often used for inefficient investment. In the European Union (EU), the new member states were party to a series of new institutional arrangements, including the removal of SBCs. This article empirically examines the impact

of SBCs on investment for large firms in six new EU member states using the panel data at firm level over the sample period of 1995 to 2006. We develop the Tobin's Q and Euler investment models from the profit maximization problem. Due to a potential correlation between regressors and error terms, the investment model is likely to suffer from endogeneity problems. To address this issue, the Generalized Method of Moments techniques are applied for estimation. The key estimation results are as follows. There appears to be a clear indication of the existence of SBCs in determining investment in the Czech Republic and Poland, whereas for Hungary and the Baltic countries, the operation of SBCs seems to be weak. When the investment model is extended by control variables, it is found that entry to the EU and financial development are likely to reduce the prevalence of SBCs, and that the current on-going integration with the EU and the promotion of financial deepening would enhance and improve the efficient allocation of resources.

Short-Time Compensation and Establishment Survival: An Empirical Analysis with French Data

Oana Calavrezo, LEO and CEE

Richard Duhautois, CEE-TEPP, University of Paris-Est-Marne-la-Vallée and Crest

Emmanuelle Walkowiak, University of Paris12 - ERUDITE and CEE

According to the law, the short-time compensation (STC) program aims at avoiding redundancies in case of short-term downturns. In a previous study, Calavrezo, Duhautois and Walkowiak (2009) show that STC seems to be a warning sign for redundancies. Even if it does not protect from layoffs, STC could preserve establishment's survival. In this paper, we study the efficiency of the STC device by analyzing the relationship between STC and establishment survival between 2000 and 2005. The STC recourse is not randomly distributed among French establishments; this implies a selection bias problem. In order to control for this bias, we merge six data sets and we test the relationship between STC and establishment survival with propensity score matching techniques. Our results show that, on average, establishments which use STC exit more intensely the market the year after than those which do not use the program.

Agglomeration or Selection? The Case of the Japanese Silk-Reeling Industry in 1909-1916

Yutaka Arimoto, The University of Tokyo

Kentaro Nakajima, Tohoku University

Tetsuji Okazaki, The University of Tokyo

Plants in clusters are often more productive than those located in non-clusters. This has been explained by agglomeration effects that improve productivities of all plants in a region. However, recent theoretical development of trade and spatial economic theories with heterogeneous firms has shed light on another channel of productivity improvement in clusters, "selection effects". This paper uses plant-level data on the Japanese silk reeling industry in 1909-1916 and distinguishes between these two effects based on a nested model of selection and agglomeration. We identify the selection effect by using the fact that the two effects have different implications on the distribution of plant-level productivity of the two effects. We confirmed that plants in clusters were indeed more productive. At the same time, we found that the widths of distribution of plant productivity in clusters were narrower and more severely truncated than those in non-clusters. Moreover, we found that productivity distribution does not shift rightwards. Our results imply that the plant-selection effect was the sources of the higher plant-level productivity in silk-reeling clusters in this period.

Exporting and productivity: The impact of destination characteristics on learning effects

Richard Fabling, Reserve Bank of New Zealand

Lynda Sanderson, Reserve Bank of New Zealand

We examine the effect of export market entry on firm performance, including productivity. Our novel contribution to the literature is the treatment of export status as an incremental process, in which firms may export to one or more markets and each of these markets provides additional potential for learning to occur. Using propensity-score matching techniques on the population of New Zealand manufacturing exporters, we test whether entry into additional markets imparts new performance-enhancing knowledge. Focussing on new markets provides several benefits. Most importantly, since we match on firms' export history as well as their current characteristics, we reduce the problem of selection on unobservables (such as managerial preferences) which would confound a causal interpretation. This formulation provides a more stringent test of performance improvements from entry, as well as a much larger number of entry events on which to test our model. Finally, by splitting our sample according to characteristics of destination countries (specifically, per capita income), we are able to test whether potential performance improvements from exporting are dependent on the foreign market involved.

Measuring the Efficiency of Pharmaceutical Firms in India: An Application of Data Envelopment Analysis and Tobit Estimation

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Surendra S. Yadav, Indian Institute of Technology Delhi

Seema Sharma, Indian Institute of Technology Delhi

The pharmaceutical industry of India has been identified as one of the main drivers of India's recent high export-led growth and an employment generator possessing enormous positive externalities. This paper examines the levels and determinants of efficiency of firms of this vital sector of the Indian economy by using firm-level data. For this purpose, a two stage data envelopment analysis has been used.

In the first stage, technical efficiency analysis of 90 sample firms has been undertaken. One output, viz. sales of the sample firms for the years 2001-02 to 2007-08, and three inputs; viz. (i) Raw material cost; (ii) Cost of salaries and wages; and (iii) Cost of advertising and marketing; have been considered. In the second stage, the efficiency scores obtained from the first stage are regressed on external environmental factors like the age of the firms, export of goods, import of capital goods, profit rate, R&D intensity, ownership, patent regime and foreign direct investment using a censored regression model, viz. Tobit model.

The efficiency analysis reveals that during the period of the study the performance of a large number of sample firms was sub-optimal, ranging between 68% and 78%. Almost throughout the study period, the average efficiency of the R&D-intensive firms is higher than that of non-R&D firms and the difference between the two is statistically significant. The Malmquist Productivity Index indicates that the total factor productivity of the sample firms has remained at the same level during the period of study. The important determinants of pharmaceutical firms' efficiency are the new

patent regime, export of goods, presence of foreign direct investment, the profitability of firms and R&D intensity.

The Significance of Business Ownership and Governance: Contribution and Profitability of Family Businesses in Finland

Kalevi Tourunen, Haaga-Helia University of Applied Sciences

Seppo Laaksonen, University of Helsinki

It has been argued that the contribution of family businesses to national economies is considerable on a world-wide basis. The estimates of the contribution of family businesses to total production and employment vary internationally between 35 and 60 per cent (Astrachan & Shanker, 2003; IFERA, 2003). The variation depends on the country, indicator, calculation method and the definition of what constitutes a family business. However, the exact extent of the impact of family businesses has remained unknown. One reason for this uncertainty is the fact that there are neither official statistics nor representative data available of family businesses at the national economic level. The Family Entrepreneurship Working Group set up by the Ministry of Trade and Industry of Finland made a proposal in 2006 for a definition of a family firm to help researchers find out the number and size of family enterprises and to analyze their industrial structure and significance for the Finnish economy. This study is based on that proposal.

First we estimate the contribution of all family businesses to the Finnish economy based on our population level data of middle-sized and large-sized firms and evaluation made of the significance of small-sized family businesses. Then we concentrate on profitability comparisons between family and non family firms. The data of this study covers the years 2000-2005 and it has been built in co-operation with Statistics Finland. For the first time there is a population level income statement and balance sheet data of family businesses available in focused size groups. All middle-sized and large-sized family businesses were screened from the annual statistics of the Finnish business register and then identified by family ownership. Finally the modified register statistics was linked with the income statement and balance sheet statistics of the same firms.

According to the results 46 per cent of Finnish middle-sized companies and 30 per cent of large-sized companies are family businesses. Typically family businesses are smaller by size than non family or widely held businesses. Only 20 per cent of the 150 largest Finnish companies are family businesses. Almost all of the middle-sized and large-sized family businesses operate in manufacturing, construction, trade, transportation, communication and business services. In these industries middle-sized family businesses contributed 41 % and large-sized family businesses 16 % to the total net sales of the corresponding size group. The personnel figures were 49 % and 22 % respectively. Results linked with estimates regarding ownership and control of small-sized businesses indicate that family businesses as a total contributed some 21–25 per cent to total production and 26–30 per cent to employment in Finland in 2005.

Family business definition and views of the family influence on firm performance offer background for the model on which our profitability comparisons are based. Multiple regression analysis showed that first generation middle- and large-sized family businesses were slightly more profitable than other businesses including family firms that had completed one or more generation transfers. Additionally we found that publicly held Finnish family firms financially outperformed their non family counterparts.

Evolution of Firm Dynamics: With Minimal Assumptions

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David T. Jacho-Chávez, Indiana University

Robert J. Petrunia, Lakehead University

Marcel C. Voia, Carleton University

This paper investigates the evolution of firm distributions for entrant manufacturing firms in Canada using nonparametric methods. These nonparametric methods allow a flexible method based on functional principal components or dynamic densities to characterize how these densities evolve over time. This method is applied to a novel administrative firm-level database from Statistics Canada to investigate the evolution of the 1985 and 1989 cohorts of new entrants. We find that firm leverage (debt-to-asset ratio) distributions have persistent deviations from the initial distributions and boot-strap test statistics suggest that the distributions are different across all time periods. Firm size and labour productivity have transitory deviations and some of the distributions are the same across all time periods. Univariate finite mixture and stochastic dominance tests are used to conduct pair-wise comparisons as robustness measures. We find that these static pair-wise comparisons confirm the dynamic evolution of these densities. This method illustrates the efficacy of functional principal components to analyze firm distributions.

A Stochastic Frontier Analysis on Firm-level Total Factor Productivity and Technical Efficiency in Korea

Sunyoung Jung, Seoul National University

Hak K. Pyo, Seoul National University

The conventional index number approach to the analysis of total factor productivity cannot distinguish between a shift of production function (technical progress) and a movement along a production function (technical efficiency). This paper attempts to separate technical efficiency from the productivity measurement using the econometric approach based on the stochastic frontier production models. This study will be limited to the models that take firms' heterogeneity into account because most of the available panel data consist of a large cross-section and relatively short time series. To the extent that firms' production is characterized by heterogeneous production conditions, estimation techniques that do not account for unobserved heterogeneity lead to biased efficiency estimates. The sources of total factor productivity growth are decomposed into technical progress, the changes in technical efficiency, the changes in allocative efficiency, and the scale effects by using the estimated parameters in the stochastic-frontier production models. The paper also analyzes observable characteristics of the firms which have affected their levels of technical inefficiency. We consider both heterogeneity and heteroscedasticity explicitly in the models and discuss scaling in the context of the stochastic frontier model with various specific interesting restrictions. For the firms in the ICT and finance service industries, the determinants of technical efficiency are estimated by considering the characteristics of firms, such as firm age, foreign-capital share, and R&D investment.

Behavior of Firms in Macedonia, Montenegro and Slovenia after Disintegration of Former Yugoslavia

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Polona Domadenik, University of Ljubljana

Matjaž Koman, University of Ljubljana

We investigate the changes in the behaviour of firms in three small open economies, Macedonia, Montenegro and Slovenia, that arose after the dissolution of former Yugoslavia. A common characteristic of all these new countries is that the transformation of social ownership was one of the key policies of transition to a market economy.

Our analysis is based on the modified Prašnikar et al. (1994) bargaining model which includes the institutional changes and development in new countries. The model allows us to compare the behaviour of state owned firms to other segments of firms, such as domestically or foreign privatized firms and de-novo private firms.

The results for Slovenia in early transition period (1991-1995) reveal that bargaining between wages and employment was present in average firm, with internally privatised firms exhibited less bargaining than externally privatised firms. In the period after privatisation took place (1996-2000), according to our results the average privatized firm behave according to Ward-Domar-Vanek model. When comparing firms with different prevalent owners we found that state owned firms most likely exhibited bargaining behaviour, while in the case of internal owners the emphasis was put on wages.

The results for Macedonia in the period after privatization (1994-1999) show that average firm was still behaving according to Ward-Domar-Vanek model. There was no difference between firms that chose internal or external privatisation method. However in the period of ownership concentration (2000-2007) an average firm exhibited »in between« behaviour when setting employment and wages and indicating clear bargaining behaviour. Bargaining behaviour is evident especially in the case of external owners, while firms with internal ownership (managers) exhibited profit maximising behaviour when setting employment level. When comparing majority state and private owned companies, the results show that majority state owned firms behave like Ward-Domar-Vanek firm, while private owned firms are moving toward profit maximizing. Interestingly foreign owned firms exhibited clear bargaining behaviour, while firms with domestic ownership behaved more like profit maximising firms

In Montenegro in the period of 1998-2000 we basically observe two different behaviours. On one hand the average firm exhibit bargaining behaviour (especially when we eliminate time dimension). Bargaining was evident in majority private and non-private owned firms. However, if we include time dimension, the average firm moved on the left from the Ward-Domar-Vanek model equilibrium, indicating the very difficult position of Montenegro firms in the period under study (Nato bombing of Yugoslavia). In the period of ownership concentration (2004-2007) our results show that privatised Montenegro firms tend to gravitate to bargaining model. On the other hand, de-novo firms behave more like profit maximising firms.

WG3

Sources of Wage Growth and Returns to Job Tenure: An empirical analysis on young workers in Italy

Michele Battisti, Simon Fraser University

This paper develops a simple model of the labour market with search frictions, and where job duration is endogenous. It allows us to distinguish the relative importance of different categories of human capital: general, sector-specific and

match-specific. The model delivers testable predictions regarding how returns to experience and job tenure can shed light on the relative importance of these different categories of human capital. We also discuss the policy implications of these predictions, with respect to the predicted effects of job destruction and to the impact of job mobility on earnings, along different sectors and thus with different institutions determining wages.

We then test the main implications of the model by estimating the returns to experience and job tenure using an empirical model that estimates wages and job duration simultaneously, using a technique similar to Lillard (1999) and to Dostie (2005). This accounts for the potential endogeneity of seniority in wage determination. In order to investigate nonlinearities in the effects of labour market experience and of job tenure on wages and job duration, the estimated returns to experience and tenure are specified via piecewise linear splines. The empirical model also includes characteristics of the firm as controls, as well as person and match random effects.

The application uses the WHIP (Work Histories Italian Panel) dataset. This is a panel dataset comprising a random sample of the population of Italian workers in the private and public sector, including self-employed workers. It is based on social security records, for the years 1985-1999. The dataset contains information about the firms where the sample of workers is employed during the period. In particular, it includes firm age, size, sector (from which information on the prevailing level of bargaining can be constructed), and geographic location. It comprehends information about jobs, e.g. type of contract, occupation, maternity and sick leaves. Unemployment spells and unemployment benefits are also recorded. All information on duration and dates are very precisely reported, and much research has been devoted by the Istituto Revelli of Turin into coding firms in an economic sense. These data have not been used for this research purpose to this date. The case of Italy is of particular interest to an international audience, given that within the sample analysed here a sharp decline in unionisation and in the role of collective bargaining has occurred, together with increased labour market exibility and short-term employment.

We present result for the duration and earnings equations, and test the hypothesis that seniority is exogenous by testing correlation of person and match random effects in the wage equations and in the hazard model for employment duration. We easily reject the null hypothesis of exogeneity, due to correlation of the match random effect across hazard and wage equations. Effects of experience, firm size and sector, and job tenure on job duration and wages are discussed. The rst two years on the job are associated with a two percent yearly wage increase. The returns to tenure are very small afterwards.

Looking at different sectors and different occupations, preliminary results seem very informative for the role of centralised bargaining for both wages and job duration. In Italy, higher exibility seems to have resulted in low wage growth within a job, and shorter job durations. Further analyses will further investigate the effects on lower job security on unemployment and the role of unemployment for skills deterioration, probability of employment and wage growth. The role of occupation and economic sector will also be further analysed.

Performance Aspirations and Entrepreneurial Exit

Karl Wennberg, Imperial College London

Socio-Economic models view aspiration levels as firm-constructs used to set goals based on their past performance and

the performance of comparable firms (e.g. Simon, 1955). Research in psychology and organizational behavior conceptualizes aspiration levels as individual constructs shaped in comparison with a peer group (e.g. Greve, 2003; Festinger, 1949). This study aims to integrate these literatures by showing how the economic decisions of founder-manager entrepreneurs are determined by their economic performance relative to a level of aspiration shaped in interaction with similar others – individuals with comparable social background and education. Detailed matched employee-employer data are used to test the theory on a population of Swedish entrepreneurs. The results indicate that a individual-level aspirations strongly influences entrepreneurs' decision to liquidate their firms in ways differentially from how it affects the decision to sell their firms, highlighting the role of aspiration levels as an decision making heuristic guiding the strategic economic decisions of entrepreneurs. The results are robust toward attempts to address unobserved heterogeneity.

Do firms train older workers when they change? Evidence from a French linked employer-employee survey

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Mathieu Narcy, Centre d'études de l'emploi and TEPP

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The aim of this paper is to investigate whether the impact of firms' technical and organisational changes on their employees' incidence of training varies with the age of the workers. In the context of an increase of the employment rate of older workers, it is important to check if technical and organisational changes stimulate further training for older workers because it gives incentives to stay in the job. To do this, we use 2006 COI survey which is the most recent French matched employer-employee data set on firms' organisational changes and computerization.

The econometric strategy consists in estimating for several types of training measured at the employee level (training in computer skills, training for supervisory role; training for client dealings...), the influence of the different employer and employee level variables of changes. In order to handle endogeneity of each variable of changes, we estimate bipoibit models. Moreover, contrary to existing studies, the year on which training incidence is observed is known. Consequently, we can precisely investigate whether employees have or not received training during the period where the technical and organisational changes have taken place within the firm.

Three main conclusions can be drawn from the preliminary obtained results. First, the positive relationship between changes and further training incidence is greater when the employee-level variables of changes are considered rather than those from the employer-level survey. Second, technical and organisational changes influence positively the further training incidence of employees of 30 years old and more with solely weak differences between the age classes [30,45] and [46,59]. Consequently, the changes do not seem to penalise older workers concerning their probability of further training. Third, the relationship between changes and incidence of training is very weak among the younger workers highlighting the influence of their formal qualification.

Evaluation Interviews and Organisational Changes

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Nathalie Greenan, Centre d'études de l'emploi and TEPP

Julie Rosaz, GATE – University of Lyon

Evaluation interviews or formal appraisal systems are a usual employer practice in OCDE countries. In a first section of the paper, we analyse the determinants of performance appraisals in France with a focus on organisational changes. We benchmark our results obtained with employee level data against the ones obtained by Brown and Heywood (2005) using Australian establishment data from the Australian Workplace Industrial Relations Survey (AWIRS, 1995) and by Addison and Belfield (2008) using British establishment data from the Workplace Employment Relations Survey (WERS, 2004). We take into account employee level and employer level determinants and introduce two types of organisational change indicators: one based on answers given by employers and another one based on employee declarations. Moreover we distinguish between workers with or without management or supervisory responsibility and between team workers and individual workers. The results show that the determinants of evaluation interviews in France are similar to the ones observed in the UK and Australia, with one exception. The proportion of workers on fixed term contract at the establishment is positively correlated with the use of formal appraisal systems in UK whereas workers with fixed term contracts are less frequently evaluated in France (the correlation is not significant in Australian establishments). We also observe major differences in determinants depending on the management or supervisory role of the employee and/or on his involvement in team work. In France, like in UK or Australia, organisational change positively affects the incidence of evaluation interviews. Furthermore, employee level measures of change have a stronger influence than employer level ones.

In a second section of the paper, we study the use of formal appraisal systems as a management tool in contexts of changes at the workplace. We start from a theoretical framework where evaluation interviews are used by employers to generate signals directed toward employees. Is the signal sent to employees different in a context of change? In the C.O.I survey, four employee outcomes of evaluation interviews are considered: wages, training opportunities, promotion and other outcomes. The employee declarations about consequences of evaluation interviews are indications of the type of signal received: about expected effort, expected skill obsolescence, expected mobility or other type of signal like fairness criterion. We use a multivariate probit model to explain simultaneously the non exclusive different consequences of evaluation interviews. Our preliminary results show that changes measured at the employee level increase all types of perceived consequences. However results are stronger for employees working in team. We also note differences among the types of changes that are measured. Technological changes have no consequences for employees with management or supervisory responsibilities while the reverse is true for organisational changes: they have no consequences on employee with no management or supervisory responsibilities. We find no impact of employer level measures of change in ICT uses or in uses of management tools, on the employees' perception of the consequences of evaluation interviews. But the employer dummy variable indicating a major organisational change from the point of view of management increases the perception of the consequences of evaluation interviews for employees with management or supervisory responsibilities.

Hiring of Older Employees and Changes in Early-Retirement Policy

Pekka Ilmakunnas, Helsinki School of Economics and HECER

Seija Ilmakunnas, Government Institute for Economic Research (VATT)

We analyse the determinants of hiring of older employees and examine how policy changes have affected the hiring behaviour of firms. We use linked employer-employee data from Finland in the period 1990-2004. This allows us to identify at the plant level employees in different age groups that have been hired during the last two years, and employees who have exited the plants. We form two measures of age-related hiring rates, relative share of old hires and old hires in relation to the stock of old employees. In descriptive analysis we examine trends in these rates and corresponding exit rates, as well as the plant-level segregation of age-related hiring. Over time the relative share of old hires has been lower than the stock of old employees, but their trends are rather similar, whereas the exit share of the old has varied much more. The hiring of older employees has become somewhat less segregated. Regression analysis shows that larger firms are more likely to hire older employees, but their hiring rates are lower. We have evaluated a reform in the eligibility of unemployment related early-exit channel i.e., increasing the lower age limit for this channel. This policy reform reduced the ease of downsizing the older work force, but at the same it also reduced the costs related to redundancies in this relevant age group. Our difference-in-differences results show some evidence for increased incentive to hire workers who were in an age group that was no longer eligible for the scheme in question. This age group also experienced a decline in the exit rate, especially in larger firms.

Worker flows, job flows and firm wage policies: Analysing the case of France

Richard Duhautois, CEE-TEPP, Université Paris-Est Marne-la-Vallée and Crest

Fabrice Gilles, Universités de Lille, EQUIPPE, and CEE

Héloïse Petit, CEE and CES-Université Paris I Panthéon-Sorbonne

This paper questions the influence of firms' wage policy on worker flows and job flows using an employee-employer dataset combining administrative sources (DADS, DMMO) and surveys (FICUS, EMMO) on firms and employees in France over the period 2002-2005.

Regarding the definition of wage policy, we first consider the wage levels and estimate a wage premium for each establishment. The wage premium is defined as the difference between within-plant observed average wage and within-plant predicted average wage (given plant level characteristics such as size, industry, age, share of different types of workers...). Such wage premium reflects the way in which the wages actually paid in an establishment differ from what would be expected given its characteristics. Such premiums are estimated with classic OLS models (yearly and pooled) and with fixed effect panel data models. A first result is the stability of such premiums over the four year period.

The firm's wage policy is further put in relation with its job flows and worker flows through the churning rate (difference between worker flows and job flows). This constitutes a measure of "excess" turnover. Such two steps analysis (defining a wage level/dispersion premium and connecting it to mobility patterns) is first developed at the establishment level and further replicated for different skill groups. Following Barth and Dale-Olsen (1999) and Dale-Olsen (2006), we find that there is a negative link between the wage premium and the churning rate at the establishment level. We also show that the result holds for each skill group separately.

SESSION 4

Session 4a: Globalization and Firm Performance (WG2)

The Nature and Characteristics of Production Networks in East Asia: Evidences from Micro/Panel Data Analyses

Fukunari Kimura, Keio University and Economic Research Institute for ASEAN and East Asia (ERIA)

Production networks in East Asia, particularly extended by machinery industries, have presented unprecedented development with their significance in economies in the region, their geographical extension, and their sophistication in combining intra-firm and arm's length transactions. In particular, the fragmentation of production activities together with the formation of industrial agglomerations in developing countries is a novel phenomenon that would lead to an East Asian model of economic development. Starting from a brief review of our conceptual framework based on the fragmentation theory and new economic geography as well as an empirical overview with international trade statistics, the paper presents a survey on empirical evidences that have been established by previous micro-data analyses and discusses a list of empirical issues that future studies should pursue. Topics include (i) the selection of exporters and investors in both developed and developing countries, (ii) corporate organizational structure and product switching/specialization with foreign direct investment and outsourcing, (iii) spatial design of production networks in combination with intra-firm and arm's length transactions, (iv) resource reallocation/expansion in developed countries, (v) technology transfers and spillovers from multinationals to local firms in less developed countries, and (vi) links with policies on industrial promotion and economic integration.

Firm Dynamics, Job Turnover and Wage Distributions in an Open Economy

A. Kerem Cosar, Pennsylvania State University

Nezih Guner, Universidad Carlos III de Madrid

James Tybout, Pennsylvania State University and NBER

As Latin American countries have become more open, their job turnover rates have risen, their informal sectors have become larger, and their wage distributions have become less equal. We develop a dynamic general equilibrium trade model that explains these phenomena. The model combines standard search frictions in labor markets with heterogeneous firms that experience ongoing productivity shocks. Each period, firms decide whether to exit or continue producing. Those firms that remain active choose their export volumes and adjust their employment levels through vacancy postings or lay-offs.

Openness matters in our model because it makes profits more sensitive to productivity shocks, as Rodrik (1997) argued. Thus when trade barriers are low, firms drawing negative shocks shed labor relatively rapidly (and perhaps exit), while firms drawing positive shocks acquire new workers relatively rapidly. Further, since openness decreases the rents of the former and increases the rents of the latter, it spreads the wage distribution. After fitting this model to Colombian micro data on establishments and households, we isolate the effects of trade frictions on labor market outcomes using counter-factual simulations. Preliminary results suggest that the mechanisms highlighted by our model can be important.

The Role of Multinationals in Japanese Productivity Decline

Richard Kneller, University of Nottingham

Tomohiko Inui, Economic and Social Research Institute, Cabinet Office and Nihon University

Toshiyuki Matsuura, Keio University

Danny McGowan, GEP, University of Nottingham

During the 1980s and 1990s, Japanese manufacturers began to relocate production from sites in Japan to low-wage East Asian countries such as China, Malaysia and Thailand. Imports of manufacturing goods increased substantially over the same period. This rapid rise in imports, and the quickening spread of globalization, has led to concerns among policymakers that the closure of some firms and plants. The media portray foreign multinationals as closing down productive Japanese plants and relocating them elsewhere in Asia. We find that this is not the case. Equally, the plants that are closed are below average productivity and the exit component contributes a very small fraction to productivity growth (using both the GR and FHK methods). In short, plant exit has not been the reason for Japan's low productivity growth in the 1990s. Instead a lack of productivity growth within plants is identified as being the main cause.

Multi-product Firms and Trade Liberalization

Peter K. Schott, Yale University and NBER

Andrew Bernard, Tuck School of Business at Dartmouth and NBER

Stephen Redding, London School of Economics, Yale University, and NBER

This paper develops a general equilibrium model of international trade that features selection across firms, products and countries. Firms' export decisions depend on a combination of firm "productivity" and firm-product-country "consumer tastes", both of which are stochastic and unknown prior to the payment of a sunk cost of entry. Higher-productivity firms export a wider range of products to a larger set of countries than lower-productivity firms. Trade liberalization induces endogenous reallocations of resources that foster productivity growth both within and across firms. Empirically, we find key implications of the model to be consistent with U.S. trade data.

SESSION 4b: Corporate Governance: Family-Owned Firms (WG2)

Founder Succession and Accounting Properties

Joseph Fan, The Chinese University of Hong Kong

TJ Wong, The Chinese University of Hong Kong

Tianyu Zhang, The City University of Hong Kong

Using a sample of 231 entrepreneurial firm successions in Hong Kong, Singapore, and Taiwan, we find that firms' unsigned discretionary accruals decrease while timely loss recognition increases subsequent to successions, suggesting a shift in accounting toward a less insider-based system. We argue that the change in accounting properties is due to the loss of specialized assets in the succession process, such as the entrepreneur's reputation and political/social networks, inducing the firm to adapt to market-based rather than relationship-based contracting. Moreover, we find that the extent

of the shift in accounting is larger in founder successions than in subsequent (non-founder) successions, as the dissipation of specialized assets is greatest in founder successions.

Investment and Productivity of Family Firms: An Analysis of Japanese Firms from 1962-2000

Vikas Mehrotra, University of Alberta

Kyoji Fukao, Hitotsubashi University

Jung Wook Shim, Hitotsubashi University

Kim YoungGak, Hitotsubashi University

Yupana Wiwattanakantang, Hitotsubashi University

A surprisingly large fraction of Japanese listed firms are controlled by founders and their heirs. We use a panel dataset containing substantially all firms listed on the four largest exchanges in Japan between 1949 and 1970, and estimate total factor productivity for these firms conditional on their ownership and control structure. In particular, we are interested in examining if founders, and their designated heirs, possess special qualities that manifest in higher TFP numbers. We find that both founders and their heirs display higher TFP relative to non-family firms. In particular, during the bubble period of the late 1980s, we find that the capital investment-TFP link is strongest for founders and their heirs vis-à-vis non-family firms.

The Value of Political Network

Morten Bennedsen, Copenhagen Business School and INSEAD

SESSION 4c: Ownership (WG2)

Foreign Acquisition, Wages and Productivity

Roger Bandick, Aarhus School of Business, Denmark

This paper studies the effect of foreign acquisition on wages and total factor productivity (TFP) in the years following a takeover by using unique detailed firm-level data for Sweden for the period 1993-2002. The paper takes particular account of the potential endogeneity of the acquisition decision (for example due to “cherry picking”) by implementing an instrumental variable approach and propensity score matching with difference-in-difference estimation technique. Moreover, in line with recent literature on firm heterogeneity in international trade, this paper allows for the acquisition effect to differ depending on whether the targeted firms were domestic multinational or non-multinationals before the foreign takeover. This paper also allows for the acquisition effect to differ depending on whether the acquisition is horizontal or vertical. The result shows that foreign acquisition has no effects on overall, skilled or less-skilled wage growth neither in targeted Swedish MNEs nor in targeted Swedish non-MNEs and neither if the acquisition was motivated by vertical or horizontal motives. However, the results indicate that both targeted Swedish MNEs and non-MNEs have better growth in TFP after vertical foreign acquisition only but no such impact from horizontal foreign

acquisition.

President Turnover and Product Market Competition: Empirical Evidence from Japanese Manufacturing Firms

Yessica C. Y. Chung, JICA Research Institute

This study uses Japanese data to examine the competition effect on managerial incentive contract, which is measured by president turnover and turnover patterns. The findings obtained in empirical analyses are consistent with the assertion that there are distinct differences between the rate of president turnover, and turnover patterns in competitive markets and concentrated markets. More detailed, the rate of president turnover is greater in competitive market than in less competitive market. Moreover, firms in competitive markets are more likely to take disciplinary action to remove their presidents than firms in concentrated markets. The presence of a dominant firm in the industry also enhances the probability of disciplinary president turnover. Consequently, these findings are consistent with Schmidt's argument that the competition causes a threat of firm's liquidation and therefore reduces managerial shirk, suggesting that presidents face different contracts between competitive markets and concentrated markets.

The impact of a firm's ownership structure on risk taking - evidence from foreign direct investment decisions

Marie-Ann Betschinger, State University - Higher School of Economics, Moscow

This paper analyses the relationship between the risk involved in foreign direct investment projects and the ownership structure of a company. Following literature in corporate governance on ownership effects the ownership structure of a company should play a non-negligible role for corporate risk taking. This should be rendered evident in the risk involved in a firm's foreign expansion policy via foreign direct investments (FDI). Controlling for other determinants of FDI and risk-taking on the firm & industry level, the objective of the paper is to find evidence for the fact that concentrated blockholdings by outsiders force management to become risk takers. Effects for bank ownership are singled out. By merging two databases on Japanese listed firms and their foreign affiliates in a parent firm-country panel from 1990-2004, the paper adds to the literature on ownership structure effects and foreign direct investment.

Islamic Finance and the Theory of Capital Structure

Mamoru Nagano, Nagoya City University

This paper empirically investigates firms using Islamic finance in Malaysia and Middle East countries. The comparative analysis of Islamic finance and non-Islamic finance users resulted in three major implications. First, Islamic bond issuers preferentially choose the Islamic bond issuance prior to bank borrowing and other external financing tools. Second, Islamic bond issuance is not related to the issuer's internal funds, while Islamic bank borrowing is significantly influenced by the magnitude of a firm's internal funds. These results suggest that Islamic bond issuers do not always choose to issue bonds based on information cost, but Islamic bank borrowers always do. Third, the Islamic bond issuance contributes to an increase in the issuer's stock returns and total factor productivity. This empirical result suggests that Islamic bond issuance is preferred because of this unique benefit which standard external financing does not have.

SESSION 4d: Reallocation and Labor/Trade (WG1)**Trade, Reallocations and Productivity: A Bridge between Theory and Data in Öresund**

Anders Akerman, Stockholm University

The paper estimates the causal effect of trade liberalisation on aggregate productivity through mechanisms related to firm selection. The construction of a bridge in 2000 across the Öresund Strait linking the Danish capital Copenhagen with Malmö, Sweden's third largest city, provided a natural experiment with which to analyse this effect. A difference-in-difference methodology is applied using both geographic and sectoral variation in how much the bridge affected export patterns and productivity. Firms based in Malmö raise exports to Denmark substantially, mostly by firms selecting into exporting, and the aggregate productivity in Malmö increases. I find that almost all of Malmö's productivity growth is due to the reallocation of production from less productive to more productive firms. When decomposing the productivity gain, I find that these efficiency gains come mostly from the exit of the least productive firms but also from firms with an above-average productivity that start to export and therefore expand their output share. The two largest sectors in Malmö are wholesale trade and manufacturing. Exports by the wholesale sector in Malmö are strongly affected by the bridge whereas those of manufacturing are not. The productivity effects are also the strongest in the wholesale sector.

The contribution of labor reallocation to aggregate productivity growth: Evidence from Canada, France and the United States

Benoit Dostie, HEC Montréal

Ali Fakih, HEC Montréal

Lars Vilhuber, Cornell University

In this article, we assess the variation in the contribution of labor reallocation to aggregate productivity growth across several countries (US, Canada, France), by estimating a Lentz-Mortensen (2008) model for each country. Results are also compared to those obtained using alternative productivity decomposition methods proposed by Baily, Hulten and Campbell (1992) and by Griliches and Regev (1995).

Preliminary results for Canada indicate that firm dynamics explain 33% of aggregate productivity growth while innovation within firm explains an additional 38%. These results indicate that the continual process by which labor is allocated to growing or new firms explains more than 75% of productivity growth. Results for France and the US are pending. If labor reallocation is found to explain a larger fraction of aggregate productivity growth in the U.S. than in France, this would corroborate similar evidence, for instance by Bartelsman, Scarpetta and Schivardi (2005) who find that firm size at entry is lower in the U.S. than in Europe, but subsequent productivity growth for these firms is faster in the U.S. than Europe.

Our findings are of relevance to public policy. On the one hand, if innovation within firms is the more important driver of productivity, policies that increase incentives related to R&D are likely to be the best way to increase productivity

growth. However, if labor reallocation is the dominant factor, policies that emphasize flexibility and dynamism in a well-functioning labor market have the scope to be important drivers for productivity. Finally, if most productivity growth is coming from new firms, policies that encourage and promote entrepreneurship are likely to have the highest productivity gains.

The Heterogeneity of the Impact of Investing Abroad: Evidence from Matched Japanese Firms

Laura Hering, University of Paris 1 and CREST

Tomohiko Inui, Statistics Commission Office, Minister's Secretariat, Cabinet Office

Sandra Poncet, University of Paris 11 and CEPII

In the present paper we analyze the effects of investing abroad using firm-level data for Japan for the period 1994-2004. We adopt propensity score matching techniques in combination with a difference-in-differences (DID) estimator to evaluate the causal effect of establishing a foreign affiliate on a set of domestic outcome variables of interest. We focus on firms that switch from being a purely domestic firm to being a multinational firm.

Our identification strategy of switching firms, i.e. Japanese firms investing for the first time abroad between 1995 and 2003, relies on the confrontation of information coming from two different data sets: the basic survey on Overseas Business Activities conducted annually by the Ministry of Economy, Trade and Industry (METI) and the basic survey of Japanese Business Structure and Activities (BSBSA). The basic survey on Overseas Business Activities provides yearly data on more than 27,000 Japanese investments in operation between 1995-2004 containing information on the starting date, sector, the country of location and other details of the nature and objective of the investment. The data set also allows the attribution of affiliates to their parent firm via a parent identification code. We use the information on when the operation started to identify affiliates (and their related parent firms) that appear to become multinationals after 1994.

Our final data set then combines information on manufacturing and non-manufacturing internationalizing Japanese firms with characteristics of their subsidiaries and allows us to investigate the heterogeneity of the effect of moving abroad on employment, investment, productivity and trade performance. This data set thus allows to contribute to the literature since until today while much is known about parent firms characteristics (Greenaway D. and R. Kneller, 2007), little is known about characteristics of subsidiaries in international economics literature. Our data set gives us new interesting insight into characteristics of the affiliates and their relation with the parent firms that will help us to identify investment strategies of the Japanese firms and the according impact on the parent firm.

Whereas preliminary results at the aggregated level are in line with existing literature (Hijzen et. al 2007), suggesting that Japanese outward FDI has limited effects on domestic employment and the performance of internationalizing firms on average, we see that results differ significantly depending on the sector (manufacturing versus non manufacturing), country of location and the FDI type (vertical or horizontal).

We find horizontal FDI more likely to spur productivity growth but at the expenses of export performance. Fears of job losses associated with production relocation are rejected on average but results strongly vary depending on the country of destination.

Japanese manufacturers that established a foreign affiliate in rich countries (especially North America) enjoyed significant white collar employment creation. Although horizontal FDI seems to create TFP gains on average, increase in productivity for vertical FDI is only witnessed in low income countries. Fears of “Hollowing out” effects seem to be justified in the case of relocation to low income countries, for which a contraction of employment and investment is observed.

SESSION 5

SESSION 5a: Allocation of Heterogeneous Labor across Firms (WG3)

Wage Structure, Skill Composition, and the Effects of FDI: Evidence from a Linked Panel in Hungary, 1986-2005

John Sutherland Earle, Upjohn Institute for Employment Research and Central European University

Álmos Telegdy, Central European University and Institute of Economics of the Hungarian Academy of Sciences

Gabor Antal, Central European University and Institute of Economics of the Hungarian Academy of Sciences

This paper analyzes the effects of foreign ownership on wage structure and employment composition using a linked employer-employee panel in Hungary. The data set follows workers and firms from 1986, when any foreign presence in corporations was prohibited, until 2005, the year after EU accession. Hungary has experienced an unusual volume of foreign investment, and the data contain a large number of foreign-owned firms and more foreign acquisitions and divestitures than in previous studies. Firm and worker fixed effects, random trend models, and matching are applied to control for ownership selection. Point estimates are highly sensitive to specification, but in all cases the results point to positive effects of foreign ownership on both wage levels and wage differentials within firms. Foreign firms select different types of employees, in terms of observed and unobserved skills, and they pay a higher price per skill unit. The results also show that inadequate treatment of selection effects – at both the firm and the worker level – may severely bias the estimates of the wage effects of foreign ownership.

Neighbors and Co-workers: The Importance of Residential Labor Market Networks

Judith K. Hellerstein, University of Maryland and NBER

Melissa McInerney, College of William and Mary and U.S. Census Bureau

David Neumark, University of California, Irvine and NBER

We specify and implement a test for the importance of network effects in determining the establishments at which people work, using recently-constructed matched employer-employee data at the establishment level. We explicitly measure the importance of network effects for groups broken out by race, ethnicity, and various measures of skill, for networks generated by residential proximity. The evidence indicates that these types of labor market networks play an important role in hiring, more so for minorities and the less-skilled, especially among Hispanics, and that these networks appear to be race-based.

Job Mobility and Wage Dynamics

Dean Hyslop, Statistics New Zealand and Victoria University of Wellington, NZ

David C Maré, Statistics New Zealand and Motu

Matched employer-employee data research has found that workers' wages are affected by the characteristics of the firms they work in, and that higher skilled workers tend to be employed by higher paying firms. This paper examines the contribution of workers' job mobility to their wage dynamics. We focus on the possible trade-off between moving to a better paying firm and losing a firm-tenure specific component of earnings, and examine what types of workers benefit from changing firms, rather than staying with their existing employer.

Our analysis provides four main findings. First, although the raw earnings gains to jobmovers and stayers are about the same, we find that, after controlling for observable differences, job-movers have about 1.3 percent lower annual earnings growth than nonmovers. Second, we estimate that job-movers gain 0.3 percent per year on average from moving to higher paying firms, but lose 1.6 percent in transitory earnings associated with changing jobs. The gains from moving to better firms are larger for both younger and new entrant workers, while the transitory earnings losses are smaller. We interpret these findings as being due to an earnings growth trade-off for workers between moving to a higher paying firm and losing their tenure-related earnings at their existing firm.

Third, we estimate that, on average, workers gain (almost) all of the change in firm earnings premiums when they change jobs. However, such gains are not equally shared by all workers. In particular, our estimates suggest that it is the higher ability workers (as measured by the estimated worker earnings premiums) whose earnings gain (or lose) the most from moving to a firm with higher (or lower) earnings premiums.

Finally, we find that workers' earnings also benefit on average from a change in the average earnings of their co-workers. Controlling for other factors, we estimate that a 1 standard deviation change in the estimated average peer earnings is associated with about 0.25 percent change in a worker's earnings on average.

SESSION 5b: Location Choice and Firm Performance (WG2)**Where Do Multinationals Locate Service and Manufacturing Activities in Europe and Why?**

Loriane Py, University Paris 1

Fabrice Hatem, UNCTAD and Normandy School of Management

The recent surge of FDI in services has the potential to increase the exposure of high educated workers to international competition. This tends to reinforce fears about offshoring, especially in Europe, where Western countries are increasingly concerned about the possible disappearance of their service and manufacturing industries. In this paper we try to quantify the threat of offshoring by investigating 14 000 location choices in Europe of multinational firms originating from 91 countries over the period 2002-2006. A first descriptive analysis reveals differences in the location of manufacturing and services in Europe. We then try to explain these patterns by comparing location determinants, first at the sectoral level (to compare the service with the manufacturing sector), and second at the functional level (by distinguishing production, headquarters, R&D, distribution, commercial offices, service provision and call centers). Sectoral results indicate that most developed economies remain relatively sheltered from international competition.

While the location of both the manufacturing and the services sector is very sensitive to market size and to cultural proximity, skilled abundant economies are more attractive for FDI in services. These findings are confirmed by the analysis at the functional level. In contrast to the location of production units, the location of services functions is more driven by market access and skilled resources than by cost considerations. In particular, skilled labor resources are an important determinant for the location of skilled intensive activities such as headquarters or service supply whereas this is not the case for the location of call centers. Hence the results suggest that in Europe, high income and skilled abundant countries tend to specialize in services. However, this trend is less clear for low skilled and easily offshorable activities.

Do More Productive Firms Locate New Factories in More Productive Locations? - An Empirical Analysis Based on Panel Data of Japan's *Census of Manufactures*

Kyoji Fukao, Hitotsubashi University and RIETI

YoungGak Kim, JSPS and Hitotsubashi University

Hyeog Ug Kwon, Nihon University and RIETI

Using a Melitz-style model of heterogeneous firms, Baldwin and Okubo (2006) recently presented a theoretical model in which self-sorting occurs and productive factories choose to locate in productive areas. Their result suggests that firm-specific factors and regional factors affect each other through the endogeneity of location decisions. There are few empirical studies on this issue using a large sample. Against this background, our aim is to examine this issue using factory-level panel data of Japan's *Census of Manufactures*. First, we estimate how much of the differences in factories' TFP levels can be explained by firm effects and by location effects. The estimation results show that both effects have a significant impact on the productivity level of the factory, and that the firm effect is more important as a determinant of factories' TFP level than the location effect. We also find a statistically significant negative correlation. As the final step, we investigate what causes this relationship. One potential explanation is that more productive firms may tend to set up new factories in less productive locations such as rural areas, where factor prices such as land prices and wage rates are usually low, in order to benefit from low factor prices. To examine this, we estimate a conditional-logit model of location choice. The results indicate that more productive firms indeed tend to set up new factories in low-productivity locations, which is consistent with our hypothesis.

Technological Externalities and Economic Distance: A Case of the Japanese Automobile Suppliers

Yosuke Takeda, Sophia University

Ichihito Uchida, Aichi University

This paper in the spirit of Marshall(1920) raise a question of how economic distance affects the firms' productivities, focusing upon roles of idea in sharing technological knowledge or information between firms. In order to quantify the degree of knowledge spillover or information sharing, we take production function approach. Assuming core-periphery structure around automobile assemblies surrounded with auto-parts suppliers, we estimate plant-level production functions of the Japanese auto-parts suppliers, where productivity function depends upon economic distance measuring information sharing with both geographic plant location and membership of technological cooperation associations. We take econometric issues of cross-sectional dependence of productivities and a simultaneity problem between inputs,

applying methods to the standard OLS and GMM estimators. Positive technological externalities (i.e. agglomeration effects) are seen in general or for independent plants, the fact which is robust to specifications of the production functions. Agglomeration effects are rarely observed for relation-specific or cooperative plants. Some of them cost the auto-parts plants substantial negative externalities. Once a simultaneity problem is econometrically considered, instead of increasing returns, decreasing returns to scale emerge in cases of total materials. Agglomeration, if any, could be brought about not by increasing returns to scale, but by productivities spillover among proximate suppliers around automobile assemblies.

SESSION 5c: Exports and Firm Performance (WG2)

Sorting in Exporting Markets Selection: Evidence from China

Luhang Wang, University of Toronto

This paper is motivated by concerns about what China has been exporting to the world and whether quality upgrade has happened along with the tremendous export growth, especially following the entry into WTO in the December of 2001. The major difficulty in investigating quality upgrade is that product quality is rarely observed. This paper tries to infer a firms' ability of producing higher quality products from the markets to which the firm chooses to ship its products, utilizing the fact that consumers on different markets have different degrees of sensitivity towards quality relative to price. A second dimension of heterogeneity is introduced to the heterogeneous firms trade models initiated by Melitz (2003) in a specific way to illustrate the sorting of firms more capable of improving quality into more quality sensitive markets. The model also predicts that trade liberalization provides firms incentives to carry out quality-improving investment and enter more quality sensitive markets.

The search for empirical evidence of quality upgrade takes two steps. The first step uses exporting data from China's customs to estimate the quality adjusted price elasticity of each market. The endogeneity problem is addressed by utilizing the panel structure of the data, controlling firm product and market product fixed effects and using the local wage of production location as a cost shifter to instrument price. The second step uses a matched sample of the customs data and firms annual survey data to estimate an entry model. The key interest is to see whether firms more capable of producing quality are more likely to export to quality sensitive markets, whether there is a shift towards more quality sensitive markets after the entry into WTO and whether there is any correlation between entry into more quality sensitive markets and investments.

Firm Heterogeneity and Ricardian Trade: The Impact of Domestic Competition on Export Performance

Matilde Bombardini, The University of British Columbia, CIFAR, NBER, and RCEA

Christopher J. Kurz, Federal Reserve Board of Governors

Peter M. Morrow, University of Toronto

High productivity promotes exports at both the sector and firm level. This is the primary prediction of models of Ricardian comparative advantage and firm heterogeneity, respectively. We integrate these two models to investigate how sector-level productivity affects firms' export performance. Using data for Chilean and Colombian plants, we find that, conditioning on own-plant productivity, sector-level productivity *reduces* the propensity to export and the volume

of exports. This contradicts the canonical model of firm heterogeneity. We rationalize the evidence through a model with sector-specific factors of production. Productive sectors bid up the return to their specific factor making firms less likely to cover the fixed costs of exporting. We find evidence of this mechanism looking at sector-level relative wages and relative productivity.

Over the hedge? Exporters' optimal and selective hedging Choices

Richard Fabling, Reserve Bank of New Zealand and Motu Economic and Public Policy Research

Arthur Grimes, Motu Economic and Public Policy Research and University of Waikato

How do exporting firms manage currency exposures? We examine this issue at the firm level using comprehensive data from the prototype Longitudinal Business Database recently developed by Statistics New Zealand. We use these data to test both optimal and selective hedging theories. Optimal hedging theory hypothesises that firms' hedging choices depend on the probability and cost of financial distress, underinvestment risks, scale, managerial risk aversion, information asymmetry, governance, ownership structures and tax rules. Recent literature suggests that some firms vary hedging positions relative to their optimal position in a selective attempt to 'beat the market'. We examine whether hedging behaviour is consistent with hypotheses derived from optimal hedging theories, and test whether hedging positions change (possibly sub-optimally) when the NZD/AUD is perceived to be 'high' or 'low' relative to an historical average. Optimal and selective hedging theories are both supported by the data. Estimation is over July 2000 to March 2007 (monthly) – a period during which the NZD/AUD varied substantially, making this a particularly pertinent period to test exporters' currency risk management practices.

SESSION 5d: Linkages and Spillovers (WG2)

Knowledge Spillovers and Spatial Concentration of High Skill-Intensive Production: The Chilean Case

Hisamitsu Saito, Obihiro University of Agriculture and Veterinary Medicine

Munisamy Gopinath, Oregon State University

Knowledge spillovers are an important source of economic growth. This study identifies a mechanism through which knowledge spillovers occur among plants in the Chilean manufacturing industry. A plant-level production function is estimated with the absorptive-capacity hypothesis, i.e. employment of skilled workers is a key channel through which knowledge is transmitted across plants. Results show that a plant's productivity increases with its skill intensity, which is measured by the share of skilled workers in total employment. We also find that a plant's skill intensity is positively correlated with its capital stock, raw productivity, regional knowledge stock and regional population. Our results suggest that an increase in regional knowledge stock is the most effective policy to improve a plant's productivity. However, policies which encourage a plant to employ high skill-intensive production also enhance its productivity.

Local Export Spillovers in France

Pamina Koenig, University Paris West & Paris School of Economics

Florian Mayneris, Paris School of Economics

Sandra Poncet, University of Paris 11 and CEPII

This paper investigates the presence of local export spillovers on both the extensive (the decision to start exporting) and the intensive (the export volume) margins of trade, using data on French individual export flows, at the product-level and by destination country, between 1998 and 2003. We investigate whether the individual decision to start exporting and exported volume are influenced by the presence of nearby product and/or destination specific exporters, using a gravity-type equation estimated at the firm-level. Spillovers are considered at a fine geographical level corresponding to employment areas (348 in France).

We control for the new economic geography-type selection of firms into agglomerated areas, and for the local price effects of firms agglomeration. Results show evidence of the presence of export spillovers on the export decision but not on the exported volume. We interpret this as a first evidence of export spillovers acting through the fixed rather than the variable cost. Spillovers on the decision to start exporting are stronger when specific, by product and destination, and are not significant when considered on all products-all destinations. Moreover, export spillovers exhibit a spatial decay within France: the effect of other exporting firms on the export decision is stronger within employment areas and declines with distance.

Linked versus Non-linked Firms in Innovation: The Effects of Economies of Network in Agglomeration in East Asia

Tomohiro Machikita, Institute of Developing Economies (IDE-JETRO)

Yasushi Ueki, Institute of Developing Economies, Bangkok Research Center

This paper proposes a new mechanism linking innovation and network in developing economies to detect explicit production and information linkages and investigates the testable implications of these linkages using survey data gathered from manufacturing firms in the Indonesia, Thailand, Philippines, and Vietnam. Linkages with local firms, foreign firms, and public organizations play a role in reducing the search costs of finding new suppliers and customers. We found that firms with more information linkages tend to innovate more, have a higher probability of introducing new goods, introducing new goods to new markets using new technologies, and finding new partners located in remote areas. We also found that firms that dispatched engineers to customers achieved more innovations than firms that did not. These findings support the hypothesis that production linkages and face - to - face communication encourage product and process innovation.

SESSION 5c: Analytic Examples of New Business Data (WG4)

The Extent of Collective Bargaining and Workplace Representation: Transitions between States and their Determinants. A Comparative Analysis of Great Britain and Germany

John Addison, University of South Carolina

Industrial relations are in flux in all nations. That said, comparatively little is known of the changing pattern of the institutions of collective bargaining and worker representation and in particular movements between these states. This

paper maps changes in these institutions within and across workplaces and explores their determinants in two nations: Britain and Germany. The contemporary British situation is the better known of the two with the publication of the 2004 Workplace Employment Relations Survey (WERS). Yet even if the major institutional changes since 1998 have been charted by Kersley et al. (2006), use of the panel component of the WERS to investigate these developments has been comparatively neglected to date. We remedy this deficit and model some of the more interesting status changes using a mix of baseline regressors and differencing models. The German situation has been marked by fairly dramatic falls in union membership and to a lesser extent in both collective bargaining and works council coverage (Addison, Schnabel, and Wagner, 2007). Yet much less is known about the role of compositional and behavioral factors in this process while an intriguing feature of the German system is the seemingly high degree of switching between collective bargaining states if not works councils through time. This switching provides the unsettled backdrop to increased effort on the part of researchers to capture the effects of collective bargaining on wages.

The demise of collective bargaining and union density in Britain is well-documented. However, virtually all the analyses are based on repeat cross-sectional data (Brown et al., 2009). We adopt a different approach which uses panel data for 1998-2004 focusing on behavioral change within workplaces. We consider the incidence and determinants of switches in unionization status (collective bargaining and union density) and in the incidence of joint consultative committees. We find more evidence of switching within workplaces than might have been anticipated; for example, 22 percent of private sector workplaces with multi-employer collective bargaining in 1998 had left multi-employer agreements by 2004.

In Germany, while there is evidence of considerable switching into and out of sectoral collective agreements – the dominant form of wage determination in that country – there is uncertainty about the actual degree of switching and the reason for it (e.g. sectoral collective agreements have increasingly made provision for opening clauses allowing derogations from the wage or other terms of the master agreement). Further, there is also evidence of switching in and out of firm-level agreements. These two-way movements are much less commonly experienced in the case of the works council institution. It follows that there is a more pressing need in the German case to focus on the descriptives as it were, and to outline the dynamics behind the changes in the frequency of the institutions of collective bargaining and worker representation. In this endeavor, we also propose to identify the extent of worker representation in bodies analogous to works councils exploiting a question first contained in the 2003 IAB Betriebspanel to address continuing allegations of a widening representation gap in Germany. As in the British case, we shall seek to examine the determinants of switching behavior. The wider perspective is the extent to changes in status assist out understanding of the determinants of wages either through simple selection effects or via time-specific shocks.

Employee flows to improve measures of job creation and destruction and of firm dynamics. The case of Belgium

Karen Geurts, Higher Institute of Labour Studies (HIVA), Belgium

Monique Ramioul, Higher Institute of Labour Studies (HIVA), Belgium

Peter Vets, Belgian National Social Security Office

This paper presents a method for improved estimation of measures of firm dynamics and job creation and destruction. We use employee flow information to re-establish broken links between records of the same firm. Employee flows are also used to identify relationships between firms in case of mergers, take-overs, split-offs, and other forms of

restructuring. The method is developed on the basis of a linked employer-employee data set covering all private employment in Belgium in 2003-2007.

The employee flow approach results in a substantial quality improvement of the measures discussed. First, it leads to a significant reduction of the upward bias in statistics of firm dynamics and job reallocation. In the period of observation, we find that 35 to 50 per cent of total entries and exits of firms with at least 10 employees does not coincide with the real opening or closing of a firm. Overall job creation and destruction levels are revised downwards by 14.5 and 16.6 per cent respectively. Second, correcting for employee flows strongly reduces annual variation in estimated measures, especially at the sectoral level. After adjustment, strong annual fluctuations are considerably flattened, revealing more regular patterns of firm and employment dynamics.

Vertical Intra-Industry Trade, Unit Values of Commodities, and Factor Contents: An Empirical Analysis Based on Micro-Data of the *Census of Manufactures*

Kyoji Fukao, Hitotsubashi University

Keiko Ito, Senshu University

Hyeog Ug Kwon, Nihon University

Recent studies on intra-industry trade (IIT) have brought to light rapid increases in vertical IIT, i.e., intra-industry trade where goods are differentiated by quality. Based on the fact that developed economies tend to export commodities at higher prices than developing economies, scholars have constructed theoretical models in which developed economies export physical and human capital-intensive products of high-quality and import unskilled labor-intensive products of low quality from developing economies. Such ideas are founded on the assumption that commodities with higher prices are of higher quality and more physical and human capital-intensive. Consequently, empirical studies have typically used information on the unit value of commodities as a proxy for product quality. However, most of previous studies take the positive relationships between commodity prices and factor intensities as given. Yet, there are no studies that have empirically examined the relationship between unit values of commodities and their factor contents at factory level.

Against this background, in this study, using micro data of the Japan's *Census of Manufactures* and comparing the factor inputs of factories producing the same goods, we estimate the relationship between the unit values of gross output and factor contents and test whether factories that produce goods with a higher unit value tend to input more skilled labor and capital stock services. As a first step, we examine the relationship between the unit value of commodities and the capital-labor ratio or the skilled-labor intensity using the detailed commodity-level data. There is a significant positive correlation between the unit value and the capital-labor ratio or the skilled-labor intensity for some commodities. Then, we connect the information on commodity-level factor intensities with Japan's trade statistics and thereby calculate the factor contents of trade. Through this methodology, the factor contents of trade can be measured taking account of the increasing importance of IIT.

SESSION 6

SESSION 6a: A Deeper Look at Innovation within Firms (WG2)

How “Open” is Innovation in the US and Japan?: Evidence from the RIETI-Georgia Tech inventor survey

John P. Walsh, Georgia Institute of Technology

Sadao Nagaoka, Hitotsubashi University

While individual inventors are key to technological progress, it is becoming increasingly necessary for inventors and their firms to exploit information and capabilities outside the firm in order to combine one's own resources with resources from the external environment. To better understand the collaborative process in inventions, we collected detailed information on a sample of triadic patents, focusing on the invention process, sources of ideas, and collaboration (the RIETI-Georgia Tech inventor survey), with over 1900 responses from the US and over 3600 responses from Japan. Our results suggest that in both countries, just over 10% of inventions involved an external co-inventor and about 30% involved external (non-co-inventor) collaborators (with the rate of collaboration somewhat higher in Japan). Cross-organizational co-inventions increase as firm size declines, especially in Japan. In both countries, vertical collaborations (both co-inventions and other collaborations) with users and suppliers were the most common. The most important knowledge sources were similar in the two countries: patents, customers, publications, and information from other parts of the firm, although their relative rankings varied somewhat. In particular, patent literature is a relatively more important information source in Japan and scientific literature is relatively more important in the US. Since our evidence suggest that inventors see literature globally, such difference does not seem to be driven by the difference of the disclosed literature (for an example, more early patent disclosure in Japan) as suggested by earlier literature but by that of the incentive and capability of the inventors. While in both countries most R&D funding is provided internally, venture capital and government funding play a greater role in the US than in Japan, with venture capital funds especially important for the smallest US firms. On the other hand, industry funding plays a greater role for university researchers' inventions in Japan. There is some evidence that “open innovation” through collaborations enhances not only the technical significance of the invention, but also the probability of its commercialization through, for an example, vertical collaboration facilitating better matches between the needs of customers or the capabilities of suppliers.

Using Cyber-enabled Transaction Data to Study Productivity and Innovation in Organizations

Carol Corrado, The Conference Board

Julia Lane, The National Science Foundation and the University of Chicago

This paper draws on recent research in a wide variety of disciplines to identify the key elements necessary to build an empirical infrastructure that will advance research on one of the key building blocks of science and innovation policy: organizations. We argue that cyber-tools and new data will permit researchers to examine the innovation process – both successes and failures – and explore business performance and business dynamics at the level of the appropriate economic entity.

We develop a roadmap that outlines how the new data can be developed, from harvesting the web to direct observation from deep within companies. The paper identifies a set of research questions and an approach whose pursuit could be

used to develop a national research data infrastructure for the study of innovation and organizational performance. One key element of the approach is to identify and study innovation processes within organizations by collecting data on inputs and outcomes of innovation projects (or initiatives) within organizations. Another is the collection of representative data by business function/processes across firms, a proven statistical and economic approach (Sturgeon et al. 2006, Brown 2008, Lewin et al 2008).

Finally, we argue that the work to develop new data from deep within firms should involve the participation of computer and information scientists. Opportunities for quasi experimental approaches to data collection, and noninvasive techniques to harvest data from within firms (i.e., auto-populating of researcher databases) need to be explored. More generally, the bringing together of scientists to consider business microdata privacy/access and data collection from organizations is itself significant, with potential for creating opportunities in a broad range of applications.

Studying Innovation in Businesses: New Research Possibilities

Nicholas Greenia, U.S. Internal Revenue Service

Kaye Husbands Fealing, University of Minnesota

Julia Lane, The National Science Foundation and the University of Chicago

The rapid pace of globalization and technological change has created demand for more and better analysis to answer key policy questions about the role of businesses in innovation. This demand was codified into law in the America COMPETES Act as well as the American Recovery and Reinvestment Act. However, existing business datasets are not adequate to create an empirically based foundation for policy decisions. This paper argues that the existing tax data infrastructure could be used in a number of ways to respond to the national imperative. It describes the legal framework within which such a response could take place, and outlines the organizational features that would be required to establish an IRS/researcher partnership. It concludes with a discussion of the role for the research policy community.

SESSION 6b: The Impact of Globalization on Corporate Activities in East Asia (WG2)

Gains from Fragmentation at Firm Level: Evidence from Japanese Multinationals in East Asia

Kazunobu Hayakawa, Inter-disciplinary Studies Center, Institute of Developing Economies

Fukunari Kimura, Keio University and Economic Research Institute for ASEAN and East Asia (ERIA)

Toshiyuki Matsuura, Keio University

The unprecedented development of production networks in East Asia has been investigated, both theoretically and empirically, employing the conceptual framework of fragmentation theory and its extensions. However, the benefits of production fragmentation at the firm level, particularly benefits deriving from different location advantages, have never been directly measured empirically. This paper presents the very first attempt, to the authors' knowledge, to empirically capture the benefits of fragmentation. Specifically, using Japanese firm-level data, we find that the larger the gap in the capital-labor ratios between fragmenting firms' home and overseas activities, the more greatly their cost efficiency improves.

Learning-by-exporting in Korean Manufacturing: A Plant-level Analysis

Chin Hee Hahn, Korea Development Institute, Korea

Chang-Gyun Park, Chung-Ang University, Korea

The paper analyzes whether firms that start exporting become more productive utilizing recently developed sample matching procedures to control the problems from self-selection into the export market. We use plant level panel data on Korean manufacturing sector from 1990 to 1998. We find clear and robust empirical evidence in favor of the learning-by-exporting effect; total factor productivity differentials between exporters and their domestic counterparts arises and widens during several years after export market entry. We also find that the effect is more pronounced for firms that have higher skill-intensity, higher share of exports in production, and are small in size. Overall, the evidence suggests that exporting is one important channel through which domestic firms acquire accesses to advanced knowledge and better technology. Also, the stronger learning-by-doing effect for firms with higher skill-intensity seems to support the view that “absorptive capacity” matters to receive knowledge spillovers from exporting activity.

Foreign Presence Spillovers and Firms’ Export Response: Evidence from Indonesian Manufacturing

Dionisius Narjoko, ERIA, Indonesia

This paper examines the existence of spillovers associated with the presence of multinationals (MNEs) on a firm’s decision to export, and on export intensity. It utilizes data of the Indonesian manufacturing for the census year 1996 and 2006. Channels through which MNEs can affect other firms’ export behavior are considered and tested. The econometric analysis suggests that the contribution of MNEs in increasing technological knowledge raises the likelihood that domestic firms will enter the export market, and improves export performance. The analysis finds weak evidence to support for the hypothesis that competition, created by the operation of MNEs, facilitates entry into export markets. Further analysis however shows that the impact of competition depends on the level of productivity of the domestic firms. In particular, the more productive firms are suggested to have been able to benefit more than the less productive ones. The overall analysis suggests that given the mixed evidence, policies to promote MNEs are still worth pursuing. The most obvious justification comes from the positive impact of the increased pooled of technological knowledge. Other than this, strengthening trade facilitation seems to be a proposition, given the finding that many of new domestic exporters seem to have constrained in increasing their exports.

Vertical and Horizontal FDI Technology Spillovers: Evidence from Thai Manufacturing

Archanun Kohpaiboon, Thammasat University, Thailand

This paper examines Foreign Direct Investment (FDI) spillover, using an unbalanced panel data set of the manufacturing survey of Thailand during the period 2001-03. In this paper, not only are both horizontal and vertical FDI technology spillovers examined, but the former is also assumed to vary across industries. The key hypothesis is that horizontal FDI spillovers depend on the trade policy regime as well as the absorptive capability of locally owned plants.

Our panel data econometric analysis highlights the important role of the trade policy regime as a conditional gain of horizontal FDI spillovers. In particular, positive horizontal FDI spillovers are found only in an industry operating in a relatively liberal environment. Interestingly, imposing an assumption of identical horizontal FDI spillovers across industry could result in biased estimates of vertical FDI spillovers. The key policy inference highlights the relative importance of the trade policy regime in harnessing the gain from foreign presence. Liberalizing the foreign investment regime thus has to go hand in hand with liberalizing the trade policy to gain FDI technology spillovers. Our finding here gives a warning not to overemphasize the role of linkages. It is the quality rather than magnitude of linkages that should be used a proxy of the magnitude of vertical FDI spillovers.

SESSION 6c: Explain the Productivity Differences across Firms (WG2)

Does Input Quality Drive Measured Differences in Firm Productivity?

Jeremy T. Fox, University of Chicago and NBER

Valérie Smeets, Aarhus School of Business, University of Aarhus

Firms in the same industry can differ in measured productivity by multiples of 3. Griliches (1957) suggests one explanation: the quality of inputs differs across firms. We add labor-market-history variables such as experience and firm and industry tenure, as well as general-human-capital measures such as schooling and sex. We also use the wage bill. We show adding human-capital variables and the wage bill explains only a small portion of productivity dispersion: accounting for input quality decreases the ratio of the 90th to 10th productivity quantiles from 3.74 to 3.36 across six Danish manufacturing industries. The productivity dispersion decrease is roughly of the same order of magnitude as some competitive effects found in the literature, but input-quality measures do not explain most productivity dispersion, despite economically large coefficient estimates.

The Persistence of Differences in Productivity, Wages, Skill Mixes and Profits Between Firms in a Rapidly Changing Environment

Katsuya Takii, Osaka University

In this paper, we construct a dynamic assignment model that can provide a unified explanation of persistent differences in productivity, wages, skill mixes and profits between firms in a changing and uncertain environment. Large expected organization capital (firm-specific knowledge) attracts skilled workers, who help to accumulate organization capital. Accumulated large organization capital, in turn, confirms high expectations. This positive feedback brings about persistent differences in these variables even in a changing and uncertain environment. From this feedback mechanism, we identify two sources of persistence: the heterogeneity of skills and the difficulty of measuring organization capital.

To examine the quantitative importance of the two sources, we estimate parameters and simulate the model. Because it is perceived organization capital that attracts skilled workers who help to accumulate organization capital, the effect of the perceived value on persistence provides information about the role of assignment in persistence in our framework. Exploiting this information, we differentiate two sources of persistence — positive assortative assignment and noisy information — from others by using an industry annual dataset from COMPUSTAT covering 1970 to 2004. COMPUSTAT provides data on an unbalanced panel of publicly traded firms in the US. It contains information from

balance sheets, and information on incomes, cash flows and financial variables. The value added per worker and the average wage rate are constructed for each firm and each year.

The estimated parameters are all significant and their signs are consistent with theoretical predictions. By using the estimated parameters, we simulate not only the autocorrelations of relative productivity, relative wages and expected relative profits per worker, but also the correlation between relative productivity and relative wages; note that, in this paper, “relative” refers to the logarithm of each value relative to industry and year averages. All simulated autocorrelations replicate the observed autocorrelations quite well. The model is also able to explain the observed high correlations between relative productivity and relative wages. That is, our model can quantitatively account for the stylized facts of interest.

We use our model to conduct two counterfactual experiments. They show that if there were no skill difference between workers and, therefore, if there were no assignment problem, firms’ relative advantages (disadvantages) would almost disappear in about five years. In addition, the correlation between relative productivity and relative wages would diminish substantially, while even if output perfectly predicted the level of organization capital, there is only a minor influence on variables’ persistence and the correlation between relative productivity and relative wages. These exercises consistently suggest that a positive assignment mechanism accounts for a large part of the observed persistence of variables. The difficulty of estimating organization capital plays only an auxiliary role.

In order to check the robustness of our results, we are currently extending our research into two directions. Firstly, we are extending the model to allowing fixed effects that may still exist without the proposed mechanism. It permits us to separate the proposed mechanism from other reasons captured by the fixed effect. Secondly, we are reexamining the same model by using the micro data of the Basic Survey of Japanese Business Structure and Activities by the Ministry of Economy, Trade and Industry from 1995 to 2005. It covers all the enterprises with 50 employees or more and greater than 30 million yen capitalization that are engaged in mining, manufacturing, wholesale and retail, or restaurant activities. Hence, we can examine how differences in countries and the coverage of firms influence the importance of proposed mechanism.

How Does Intangible Investment Affect International Productivity Comparisons? Evidence from the US and UK

Carol Corrado, The Conference Board

Jonathan Haskel, Imperial College London; CeRiBA, CEPR, and IZA

Charles Hulten, University of Maryland and NBER

This paper draws together two literatures. First, since at least the work of Nakamura (1999) and Corrado, Hulten and Sichel (2005, 6) there has been considerable interest in intangible asset investment and the information therein on investment, innovation and growth. Important results from these macro studies are that including intangible spending as investment raises GDP and changes the sources of growth.

Second, at the same time, there has been considerable interest in comparative labour productivity behaviour, with endless heart searching in the US about the apparent disappearance of US productivity leadership and in the UK about the failure of UK productivity to mimic US levels. In the light of the concerns of this literature, the inclusion of

intangibles is a key one: if GDP levels change then the relative pattern of productivity potentially changes and if the sources of productivity change then this might shed a different light on the proximate causes of different relative performance.

This paper incorporates intangibles into National Accounts in the US and UK using the same methods and compares productivity, capital (both tangible and intangible) and total factor productivity levels between. We present results with and without the inclusion of intangibles to highlight the difference they make. We also look at comparative intangible investment across the countries and the within-country growth record with and without intangibles.

To the best of our knowledge, this is the first paper to make a levels comparison with intangibles. Work by Hao, Manole and Van Ark (2008) has compared within-country growth due to intangibles for a range of EU countries, but has not looked at the comparison of productivity levels.

Whilst this work is macro based, we believe it would be of interest to CAED participants for the following reasons. First, it is comparative which the call for papers mentions. Second, many of the macro measures are based on micro data of interest to CAED researchers, such as occupational data of managers and designers. Third, there has been discussion at previous CAED conferences on intangibles.

At time of writing our results are very preliminary, subject to change and should not be quoted. They are as follows.

1. Without intangibles, value added per hour worked in the UK has been catching up that in the US, to a gap of around 50 log points in 2000 (i.e. $\ln(V/L)_{US} - \ln(V/L)_{UK} = 0.50$; the magnitude of the gap depends crucially on the PPPs chosen as we demonstrate, here we use Groningen PPPs; if we use PPPs used by other papers in the literature we get very similar gaps.)
2. With intangibles, GDP in both countries rises. Our main result here is that it rises by about the same in both countries, so that the gap and changes in it, look very much the same as the no intangibles case.
3. The TFP gap however does change. Without intangibles, there is a gap TFP gap of about 44 log points. But incorporating intangibles reduces that gap to about 34 log points. So accounting for intangibles is informative, at least to some extent, about the proximate causes of the productivity gap.
4. The extra information from intangibles reveals that tangible or software capital does not explain much of the productivity gap either with or without intangibles, since the UK has more or less caught up to the US in tangible and software capital per hour work. But the US employs more intangible capital in the form of innovative property and economic competencies per hour worked, reflecting in particular, leadership in scientific R&D and organisational capital.

SESSION 6d: Firm Dynamics (WG1)

Reallocation, Selection, and the Sources of Earnings Growth in Cities

R. Jason Faberman, Federal Reserve Bank of Philadelphia

Matthew Freedman, ILR School, Cornell University

Recent research has explored the interaction of urban agglomeration with dynamic processes such as worker sorting and

firm selection. To quantify the importance of these processes relative to potential location-specific benefits that occur purely within establishments, we explore their contribution to the variation in earnings growth across metropolitan areas. We use a decomposition methodology from the industrial organization literature often used to quantify the sources of productivity growth within an industry. The methodology allows us to quantify the importance of earnings growth that occurs purely within establishments relative to growth that results from compositional changes in accounting for variations in aggregate earnings growth across cities. We use a panel of administrative data of all establishments within U.S. metropolitan areas. Preliminary evidence suggests that worker reallocation and the selection out of low-growth establishments accounts for a sizeable portion of earnings growth within a metropolitan area, but variations across areas are mostly due to differences within establishments and relative growth differences of their entrants.

Firm Survival and the Evolution of Market Structure: The Case of the Japanese Motorcycle Industry

Masatoshi Kato, Hitotsubashi University

This paper explores firm survival and the evolution of market structure in the Japanese motorcycle industry during 1946–1965. In the post-war era, the number of firms grew rapidly and peaked in 1953 at 200, and then declined sharply for the first 20 years. As a consequence, only four firms survived, and the industry evolved to be an oligopoly. To address what caused the shakeout of firms, we examine the determinants of firm survival. It is found that firms which made early entry and had previous experience in motor vehicle manufacturing tend to survive longer. It is also found that offering high-quality products, broadening product-line, and avoiding product-line overlap from rivals played significant roles in the survival of firms.

Do Public Benefits Have an Impact on New Firms' Survival? An Empirical Study on French Data

Désiré Lionel, Université de Paris-Est Marne-la-Vallée

Richard Duhautois, Centre d'études de l'emploi (CEE)

Dominique Redor, Université de Paris-Est Marne-la-Vallée

This paper deals with the impact of public benefits on new firms' probability to survive. We provide evidence on the determinants of firm survival using a rich database combining administrative data and an entrepreneurs survey providing individual characteristics. We implement a duration model controlling for endogeneity. We show that public benefits allow firms to survive. Small firms tend to survive more than larger ones. We find that firms innovating in new products are more likely to survive than others. Entrepreneurs' professional background and previous vocational training also allow firms to survive.

Detecting endogenous effects by aggregate distributions: A case of lumpy investments

Chaoqun Lai, Utah State University

Makoto Nirei, Hitotsubashi University

This paper studies the effect of strategic complementarity among firms' lumpy investments on the fluctuations of aggregate investments. We investigate an extensive panel data set on Italian manufacturing firms. We first show that the

fluctuations of fraction of firms that experience large investment rates in a region-year follow a double-exponential distribution. We then estimate the degree of the strategic complementarity within a region directly by estimating the firm's decision on lumpy investments. We propose a simple sectoral model which is capable of generating the double-exponential distribution for the aggregate fluctuations that arise from the strategic complementarity among firms' lumpy investments. We argue that the shape and magnitude of the aggregate fluctuations observed in the data are consistent with the degree of strategic complementarity estimated at the micro-level in the same data.

SESSION 6e: Foreign Direct Investment and Outsourcing (WG2)

How Does FDI Affect Performance at Home? An Activity-level Analysis for Japanese Electrical Machinery and Electronics Firms

Toshiyuki Matsuura, Keio University and RIETI

Kazuyuki Motohashi, The University of Tokyo and RIETI

Kazunobu Hayakawa, Institute of Developing Economies and RIETI

Focusing on firms from the electrical machinery and electronics industry, this paper investigates the impact of foreign direct investment (FDI) on home productivity using activity-level data rather than, as most previous studies have done, firm-level data. Distinguishing between horizontal and vertical FDI (HFDI and VFDDI), it is argued that VFDDI changes the activities that firms are engaged in at home after the relocation of production, altering firms' production function. This means that a direct comparison of productivity at the firm-level before and after the relocation of production is inappropriate. Instead, in order to assess the impact of FDI on home productivity, it is necessary to use activity-level data. Doing so, we obtain results that are consistent with theoretical predictions: HFDI does not necessarily have a significant positive effect on home productivity in activities that parallel those conducted by affiliates abroad. On the other hand, VFDDI significantly enhances productivity in activities that have an input-output relationship with the activity relocated abroad.

Productivity Effects of Business Process Outsourcing (BPO): A Firm-level Investigation Based on Panel Data

Jörg Ohnemus, Centre for European Economic Research (ZEW), Mannheim

This paper analyses the impact of business process outsourcing (BPO) on firm productivity based on a comprehensive German firm-level panel data set covering manufacturing and service industries. The growing importance of service inputs into the production process is undisputed. Firms increasingly decide to go to the market and buy all or at least parts of selected services they need from external service providers. This is especially true for services which rely to great extent on new information and communication technologies. Doing so, outsourcing firms can concentrate on their core competencies. Additionally, they benefit from the expertise of the external service provider. Finally, external vendors are able to provide services at lower price because of scale effects. By estimating a production function using a system-generalised method of moments (system-GMM) estimation procedure, I show that BPO has a positive and highly significant impact on firm-level productivity in both manufacturing and service industries.

Global Fixed Capital Investment by Multinational Firms

René Belderbos, Maastricht University and UNU-MERIT

Kyoji Fukao, Hitotsubashi University

Keiko Ito, Senshu University

Wilko Letterie, Maastricht University

We develop and test a simple model of the simultaneous determination of gross fixed capital formation by multinational firms in home and host countries. We treat multinational firms as multi-product firms, which have monopoly power over all the products they make, choosing an optimal investment location for each product variant. We test the predictions of the model on a unique dataset covering 1620 fixed capital investment decisions by Japanese multinationals firms in the manufacturing sector. We find that the rate of investment is not only determined by factors affecting the return on investment in a country (e.g. effective demand and wages), but also by wage levels in other countries in which the firm operates manufacturing affiliates. Firms facing global liquidity constraints show systematically lower investment ratios, suggesting that financing constraints are another source of interaction between investments.

SESSION 6f: Wage Determination (WG3)**Competition and Gender-skill-differentials in Earnings and Productivity: Evidence from China's Industrial Sector**

Johanna Rickne, Uppsala University

This paper compares wages and welfare benefits of gender-skill groups of employees with the productivity they generate to assess earnings discrimination in the Chinese industrial sector. Using firm-level data for 2004 and 2005, I find that unskilled women receive wages that exceed their productivity contributions, while the opposite is found for skilled women. Larger gaps between earnings and productivities of employee groups within SOEs and COEs than within HKMT- and foreign-invested firms is interpreted as support for a negative correlation between competition and discrimination. Finally, enterprise-provided welfare is found not to contribute to polarization of industrial earnings along gender-skill lines.

The Relative Income Hypothesis With and Without Self-reported Reference Wages

Adrián de la Garza, Yale University

Giovanni Mastrobuoni, Collegio Carlo Alberto

Atsushi Sannabe, Kyoto University

Katsunori Yamada, Osaka University

Based on self-reported reference wages of Japanese union workers we provide new insights on the relative income hypothesis. The availability of a direct measure of peers' wages overcomes one of main limitations of previous empirical tests of the relative income hypothesis, i.e. the subjectivity of the definition of reference group. Our data allows us to study the relationship between happiness and reference wages using the following measures of reference

group wages: i) based on predicted individual wages; ii) based on cell averages from internal, as well as, iii) external data; iv) based on colleagues' average wage; and compare the results based on these proxies with the results based on the "true", self-reported, reference wage. We show that the proxies that have been used in the literature do not introduce a simple classical measurement error and that the bias can go in both directions. We propose a simple IV strategy when the elicited reference wage is not available that does not solve the bias but at least delivers an upper-bound of the true effect. We also deal with the possible endogeneity of self-reported reference wage due to an underlying pessimism that is correlated with life and job satisfaction.

Wage and Productivity Differentials in Japan: The Role of Labor Market Mechanisms

Donatella Gatti, CEPN-Paris 13, PSE, CEPREMAP and IZA

Ryo Kambayashi, Hitotsubashi University

Sébastien Lechevalier, EHESS, Paris

Two stylized facts characterized Japan during the Lost Decade (1992-2005): rising wage inequalities and increasing productivity differentials at the firm level. Surprisingly, these two facts have never been connected in the literature. This paper tries to fill the gap by proposing an explanation, which focuses on labor market mechanisms. We first build an efficiency wage model with two types of firms that are distinguished by their job security scheme and associated incentive mechanisms. We show that a similar negative productivity shock at the aggregate level leads to different firms' reactions: the model predicts an increasing effort from the workers in the firms 1, which resort to efficiency wage mechanism. It leads to increasing productivity and wage differentials, and to a rise of the share of firms 1. Then, we test this model on Japanese micro data. For the first time, we match the Basic Survey on Wage Structure and the Employment Trend Survey for the year 2005. The matched worker-firm dataset we get allows us to confirm the existence of efficiency wages mechanisms on average. Second, we divide our sample of firms into two groups by using the unknown regime switching regression à la Dickens and Lang (1985), and we then find that the primary sector can be characterized by efficiency wage, whereas the secondary cannot. Then, we simulate the evolution of the share of the primary sector and find that it substantially increased between 1981 and 2005, in conformity with the predictions of our model.

Returns to Tenure or Seniority?

Sebastian Buhai, Aarhus University

Miguel Portela, University of Minho

Coen Teulings, CPB Netherlands Bureau for Economic Analysis, University of Amsterdam

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This study documents two empirical regularities, using matched employer-employee data for Denmark and Portugal. First, workers who are hired last are the first to leave the firm (Last In, First Out; LIFO). Second, workers' wages rise with seniority (= a worker's tenure relative to the tenure of her colleagues). We seek to explain these regularities by developing a dynamic model of the firm with stochastic product demand and irreversible specific investments. There is wage bargaining between a worker and its firm. Separations (quits or layoffs) obey the LIFO rule and bargaining is efficient (a zero surplus at the moment of separation). The LIFO rule provides a stronger bargaining position for senior

workers, leading to a return to seniority in wages.

PLENARY SESSION

Industry Dynamics (WG1)

Economic Environment and Endogenous Innovation Choices (provisional title)

Eric Bartelsman, Free University (Vrije Universiteit), Amsterdam

Credit within the Firm

Luigi Guiso, European University Institute and EIEF

Luigi Pistaferri, Stanford University and SIEPR

Fabiano Schivardi, University of Cagliari and EIEF

We exploit time variation in the degree of development of local credit markets and matched workers-firm data with workers histories to assess the role of the firm as an internal loans market. By tilting the workers wage-tenure profile around their tenure-productivity profile the firm can generate borrowing flows from workers to the firm (when the earnings profile is steeper than the productivity profile) or vice versa from the firm to the workers (when the earnings profile is flatter) thus compensating for the imperfect functioning of the loans market. We find that firms located in less financially developed areas offer wages that are lower at the beginning of tenure and higher at the end than those offered by firms in more financially developed markets, which helps firms finance their operations by raising funds from workers. This effect does not reflect unobserved local factors that systematically affect wage tenure profiles, since we control for local market effects and only exploit variation time variation in the degree of local financial development induced by effects of exogenous liberalization. The credit generated by implicit lending within the firm is economically important and can be as large as 30% of bank lending. Implicit contracts help more those firms that have a problematic access to the loans market and funds come more from workers with a stronger willingness to lend. Consistent with credit market imperfections opening a trade opportunity within the firm we find that the internal rate of return of implicit loans lies between the rate at which workers savings are remunerated and the rate firms pay on their loans from banks.

Paper title: TBA

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Social Event

Tokyo Tour and Boat Cruise

October 4, 2009

Post-Conference Program

for CAED 2009



Program	
14:50	Depart by coach from Hitotsubashi Memorial Hall.
15:20	Arrive at Edo Tokyo Museum . The museum displays the history and culture of Tokyo since the late 16 th century, when Shogun Tokugawa Ieyasu built "Edo" (renamed "Tokyo" in the Meiji Era).
16:40	Continue to Asakusa by bus
17:10	Sightseeing at Asakusa's Senso-ji Temple , the oldest and most-visited Buddhist temple in Tokyo in the heart of the old downtown, including half an hour of free time to look around by yourself. Walk through Nakamise Street by the temple lined with traditional souvenir shops.
18:35	Continue to cruise boat pier by coach (at Asakusabashi).
19:05-21:35	Yakatabune boat cruise (Japanese casual dinner cruise). Enjoy a pleasure cruising down the Sumida River and Tokyo Bay with breathtaking night views of Tokyo with a variety of Japanese dishes.
21:35	End of Yakatabune cruise. Return to Tokyo Dome Hotel (JR Suidobashi station), Hotel Metropolitan Edmont, and Toshi Center Hotel by coach.

Participation Fee: 20,000 (yen/person)

Included: Dinner on the *Yakatabune* (Japanese traditional sightseeing boat) cruise, transportation during the tour, admission fee for the Edo Tokyo Museum, and English speaking guide.

Registration and payment: The number of participants is limited to 80 persons. Online registration will start on June 25. Please register for this event by August 20, 2009. Spouses and partners are also welcome to attend at the same price but please send an e-mail to CAED2009Tokyo@ier.hit-u.ac.jp for their registration. Participants are requested to pay in cash at the conference registration counter. Payment by credit card unfortunately cannot be accepted.

Note:

- Food Options:** The standard dinner course consists of a wide variety of Japanese dishes, including tempura (deep-fried fish, seafood and vegetables), sashimi (raw fish), and meat. We will prepare three dinner options for various needs. Please inform us which option you prefer.
Option 1: Standard menu (meat, fish, and seafood are included).
Option 2: No raw fish (meat and cooked fish and seafood are included).
Option 3: Vegetarian (no meat, fish, or seafood).
Please note that since a number of dishes will be served on a large plate to be shared, you will be seated with persons with the same dinner option.
- Dress Code:** No strict dress code is applied. The cruise dinner is very casual.
- Cancellation:**

Date of Cancellation	Cancellation Charges
Before Sep. 4	No charge
Between Sep. 5 - Sep. 27	10% (2,000 yen will be collected at the conference registration counter)
Between Sep. 28 - Oct. 1	30% (6,000 yen will be collected at the conference registration counter)
After Oct. 2	100% (20,000 yen will be collected at the conference registration counter)

- We will go on the river cruise if a minimum of 45 participants sign up. In case this number is not reached, the program may be subject to change.

Memo

CAED 2009 Tokyo, Japan

Organized by

Global COE Program,
"Research Unit for Statistical and Empirical Analysis in Social Sciences (Hi-Stat),"
Hitotsubashi University

Research Institute of Economy, Trade and Industry (RIETI)