## Economists' Forum Asian Development Bank 14-15 January 2019 PROGRAM

Monday, 14 January		Tuesday, 15 January	
8:30–9:00	Registration	9:00-10:	40 Paper session
9:00–9:20	Welcome remarks Bambang Susantono, Vice President, Knowledge Management and Sustainable Development <i>Room</i> : Lecture Theater 2		Session 7: <u>Growth</u> Chair: Jesus Felipe <i>Room</i> : Multifunction Hall 2
9:20-10:20	Workshop overview and lecture session 1		Session 8: Macrofinance
	<i>Title</i> : One ADB and Knowledge Work Speaker: Yasuyuki Sawada, Chief Economist and Director General, ERCD <i>Room</i> : Lecture Theater 2		Chair: Abdul Abiad Room: Multifunction Hall 3
		10:40-11	
10:20–10:40	Coffee break	11:00-12	2:15 Paper session Session 9: Productivity
10:40-12:20	Paper session Session 1: Education and Human Capital	Chair: Rana Hasan Room: Multifunction Hall 2 Session 10: <u>Big data</u>	
	Chair: Lei Lei Song Room: Multifunction Hall 2		Session 10: Big data
	Session 2: Impact Evaluation		Chair. Naoyuki Yoshino Room: Multifunction Hall 3
	Chair. Edimon Ginting	40.45 4.	
	Room: Multifunction Hall 3	12:15–1:45 <u>Lunch Panel with President Takehiko Nakao</u> <i>Title:</i> Knowledge in Strategy 2030 – The Role of Research <i>Moderator:</i> Karen Lane	
12:20-1:20	Exhibition session and Lunch Title: Avenues for Publication		
	Room: Multifunction Hall 3	Other Panelists:	
1:20-2:20	Lecture session 2	Naoyuki Yoshino Lyaziza Sabyrova	
	<i>Title:</i> Causality, Randomized Experiment, and Regression Discontinuity: Theory and Practice		Madhavi Pundit
	Speaker: Hyuncheol Bryant Kim, Assistant Professor, Cornell University		Room: Lecture Theater 2
		2:00-3:0	
	Chair: Yasuyuki Sawada Room: Lecture Theater 2		<i>Title:</i> Difference in Differences: Basics <i>Speaker:</i> Myoung-jae Lee, Professor, Korea University
2:20-4:00	Paper session		<i>Chair:</i> Yasuyuki Sawada <i>Room:</i> Lecture Theater 2
	Session 3: Trade		
	Chair. Cyn-Young Park Room: Multifunction Hall 2	3:00–3:1	5 <b>Closing remarks</b> Yasuyuki Sawada
	Session 4: Manufacturing in Southeast Asia (SERD sponsored)	2.45 4.2	
	Chair: Alfredo Perdiguero Room: Multifunction Hall 3	3:15–4:3	U Conee break and Networking
4:00-4:15	Coffee break		
4:15-5:30	Paper session		
	Session 5: Infrastructure		
	Chair: Peter Morgan Room: Multifunction Hall 2		
	Session 6: Technology		
	Chair: Aimee Hampel-Milagrosa Room: Multifunction Hall 3		

## PROGRAM

## Session: Education and Human Capital

Presentations:

- 1. <u>Evaluating the Impact of Remittances on Human Capital Investment in the Kyrgyz Republic</u> *Aiko Kikkawa Takenaka and Xin Gao*
- 2. <u>Underemployment in the Philippines</u> Jesus Felipe, Gemma Estrada, Donna Bajaro, and Yasuyuki Sawada
- 3. Long-Term Effects of the Female Secondary Stipend and Assistance Program in Bangladesh: Four Rounds of Longitudinal Follow-Ups Ryotaro Hayashi, Shahidur Rahman Khandker, Hussain Akhterus Samad, and Nobuhiko Fuwa
- 4. <u>Determinants and Impacts of Financial Literacy in the Lao PDR</u> Peter Morgan and Long Q. Trinh

## PROGRAM

Session: Impact Evaluation

Presentations:

- Long-term Impact Evaluation of ADB-financed Road Projects in the People's Republic of China: 1992-2013 Jules Hugot
- 2. <u>Estimating Effect of River Crossing on Economic Growth with Satellite Imagery on Land Usage</u> *Akiko Terada-Hagiwara, Myoung-jae Lee, and Yasuyuki Sawada*
- 3. <u>Hefei-Xi'an Railway Project (2006)</u> Naoyuki Yoshino and Umid Abidhadjaev
- 4. <u>Quantitative Assessment of Implementation Capacity of Executing Agencies</u> *Keerthi Kumar Challa*

## PROGRAM

Session: Trade

Presentations:

- 1. <u>Export Prospects of Georgia</u> George Luarsabishvili
- 2. <u>The Impact of Increased Import Competition from the People's Republic of China on Income Inequality</u> and Household Welfare in Viet Nam Matthias Helble, T. T. Le, and T. Q. Long
- 3. <u>Unleashing the Potential of Trade in Services in Nepal</u> Manbar Singh Khadka and Rudra Suwal
- 4. <u>Breaking Away from Icebreakers: The Effect of Melting Distances on Trade and Welfare</u> *Jules Hugot and Camilo Umana Dajud*
- 5. <u>Trade and Investment in Services</u> Fahad H. Khan

## PROGRAM

# Session: Manufacturing in ASEAN

Presentations:

- 1. <u>"Re-industrializing" Indonesia: Understanding Constraints to Firm Growth in the Manufacturing Sector</u> Sameer Khatiwada
- 2. <u>Technological Transformation in Manufacturing Sector</u> *Emma Allen*
- 3. Innovation and Manufacturing Sector Thiam Ng
- 4. <u>Policy Direction of Manufacturing Sector in Malaysia</u> *Kwang Jo Jeong*
- 5. <u>How Technologies Affecting Manufacturing</u> *Rattanatay Luanglatbandith*
- 6. Effects of New Technologies on the Manufacturing Sector Poullang Doung

## PROGRAM

Session: Infrastructure

- 1. <u>Potential Impact of Rural Roads Upgrading Evidence from an Investment Program of ADB in India</u> *Zhigang Li and Chen Chen*
- 2. <u>Analysis of Economic Impact of Improved Connectivity in Nepal</u> Tadateru Hayashi, Sanchita Basu Das, Manbar S. Khadka, and Anthony Baluga
- 3. Land Trust and Infrastructure Investment Naoyuki Yoshino and Saumik Paul

## PROGRAM

Session: Technology

- 1. <u>New Technology and Emerging Occupations: Evidence from Asia</u> Sameer Khatiwada and Kim Maceda Veloso
- 2. <u>Technology and Innovation: Evidence from World Bank's Enterprise Surveys</u> Sameer Khatiwada and Mia Arao
- 3. <u>E-commerce and Entrepreneurship in the People's Republic of China</u> Bihong Huang, Mohamed Shaban, Quanyun Song, and Yu Wu

## PROGRAM

Session: Growth

- 1. <u>Drivers of the Quality of Growth in Asia: An Empirical Analysis</u> Shikha Jha, Michael Timbang, Emmanuel Alano, Pilipinas Quising, and Radtasiri Wachirapunyanon
- 2. <u>What Will it Take for India to Grow at 7-8 Percent a Year?</u> <u>Scenarios for the Sectoral Composition of Output and Employment Growth from 2017/18 to 2031/32</u> *Rana Hasan, Utsav Kumar, Rhea Molato, Erik Jan Eleazar, and Abhijit Sen Gupta*
- 3. <u>The Spillover Effects of Turkey's Slowdown on Central and West Asia</u> *Lilia Aleksanyan*

## PROGRAM

Session: Macrofinance

Presentations:

- 1. <u>The Influence of US Dollar Funding Conditions on Asian Financial Markets</u> Peter C. Rosenkranz, Junkyu Lee, and Hoang Pham
- 2. <u>The Impact of US Tax Policies on Sectoral Foreign Direct Investment to Asia</u> Valerie Mercer-Blackman and Shiela Camingue-Romance
- 3. <u>Detecting Explosive Housing Prices in Cities in Asia</u> Arief Ramayandi, Xuehui Han, and Madhavi Pundit
- 4. Income Inequality and Macroeconomic Instability Irfan A. Qureshi

## PROGRAM

Session: Productivity

Presentations:

- 1. <u>Developing a Productivity and Competitiveness Framework for Pakistan</u> *Aimee Hampel-Milagrosa, Manzoor Ahmad, and Kiyoshi Taniguchi*
- 2. <u>Why Generating Productive Jobs Essential for Reducing Poverty in India: Evidence from Indian</u> <u>Regions</u> *Abhijit Sen Gupta, Vishal More, and Kanupriya Gupta*
- 3. <u>Investment in Research and Development for Basmati Rice in Pakistan</u> *Kiyoshi Taniguchi, Noriko Sato, and Sahibzada Mansoor Ali*

## PROGRAM

Session: Big Data

- 1. <u>Enhancing Small Area Poverty Estimates Using Satellite Imagery</u> Art Martinez, Katrina Miradora, and Jan Arvin Lapuz
- 2. <u>Measuring Rice Yield from Space: The Case of Thai Binh Province, Viet Nam</u> Kaiyu Guan, Ngo The Hien, Zhan Li, and Lakshman Nagraj Rao
- 3. <u>Disaster Aid Targeting and Self-Reporting Bias: Natural Experimental Evidence from the Philippines</u> *Yuki Higuchi, Nobuhiko Fuwa, Kei Kajisa, Takahiro Sato, and Yasuyuki Sawada*

#### PROGRAM

## Evaluating the Impact of Remittances on Human Capital Investment in the Kyrgyz Republic

Remittances from overseas can encourage human capital investment and improve educational outcomes in developing countries. Empirical studies, however, have shown mixed evidence at best. We use a 5-year panel dataset that tracks 3,000 households and 8,000 individuals in all seven regions of the Kyrgyz Republic to examine the impact of remittances on the human capital formation of the school age children. After correcting for potential selection bias and other endogeneities by employing instrumental variables, we find that remittances have a negative impact on human capital investment and educational achievement. Both educational expenditure and school attendance rate are lower for households that receive a higher amount of remittances. We find that the negative effects can be at least partially attributed to the increased expenditure on durable goods and extended hours of child labor on farm work as a compensation for missing adult labor.

# Author/s: Aiko Kikkawa Takenaka and Xin Gao

JEL codes: F22, F24, O15, I22

#### PROGRAM

# **Underemployment in the Philippines**

Why do about 6.5 million Filipino workers (16.1% of those employed) declare themselves as underemployed (i.e., they claim that they would like to work additional hours)? This study uses a multinomial logit model to determine the probability that a worker will be underemployed given his/her personal characteristics and the nature of his/her employment (i.e., type of work and sector). The study analyzes the differences in the determinants of: (i) being visibly underemployed versus being invisibly underemployed; (ii) being underemployed with additional jobs outside the primary occupation versus being underemployed without additional jobs; and (iii) being underemployed and actually searching for additional jobs versus being underemployed and not searching for additional jobs. Not surprisingly, results indicate that the main determinant of whether an individual will be underemployed or not is his/her earnings. Other factors such as region, education, type of work, and sector are likewise found to be important determinants. Second, the study also finds substantial gaps in average earnings and work hours between the visibly and invisibly underemployed. Third, while the underemployed individuals declared that they wanted to have additional hours of work, only around 60% actually searched for jobs in 2015.

# Author/s: Jesus Felipe, Gemma Estrada, Donna Bajaro, and Yasuyuki Sawada

JEL codes: J4, J21, J31, J68

#### PROGRAM

# Long-Term Effects of the Female Secondary Stipend and Assistance Program in Bangladesh: Four Rounds of Longitudinal Follow-Ups

This paper estimated the long-term effects of the female secondary stipend and assistance program (FSSAP) in Bangladesh started in 1994. The Government of Bangladesh introduced FSSAP with the support of development partners, including ADB, with a view to increase female secondary school enrollment and completion as well as female age at marriage. With four rounds of longitudinal survey data in 1991/92, 1998/99, 2011/12 and 2017/18, the difference-in-difference and instrumental variable regression estimates suggested that FSSAP improved education outcomes in short run, including boys' education outcomes through sibling effects. In long-term, FSSAP was successful in delaying marriage with positive fertility outcomes.

## Author/s: Ryotaro Hayashi, Shahidur Rahman Khandker, Hussain Akhterus Samad, and Nobuhiko Fuwa

JEL codes: A20, I24, J12, J16

#### PROGRAM

# Determinants and Impacts of Financial Literacy in the Lao PDR

We conducted the OECD/INFE survey of financial literacy in a relatively low-income Asian economy—the Lao PDR—and analyzed the determinants of financial literacy and the effects of financial literacy on other behavior. We also compare these results with those of our earlier study of financial literacy in Cambodia and Viet Nam. This study of the Lao PDR extends our research in the CLMV region, and the survey was broadened to include more variables that could be used as effective instrumental variables for financial literacy to deal with possible endogeneity problems. We find that financial literacy contributes both to formal savings and to financial inclusion, supporting arguments for providing financial education.

Author/s: Peter Morgan and Long Q. Trinh

*JEL codes:* D14, G11, J26

#### PROGRAM

# Long-term Impact Evaluation of ADB-financed Road Projects in the People's Republic of China: 1992-2013

This article assesses the long-term impacts of the investments in road construction and upgrading carried out by the Asian Development Bank (ADB) in the People's Republic of China (PRC), between 1992 and 2012. Specifically, this article estimates the impact of ADB road projects on the intensity and spatial distribution of economic activity over time. The empirical strategy addresses several potential sources of endogeneity to establish the causal impact of roads on development at the local level. The analysis relies on observations of treatment—the presence of ADB-financed roads opened in any prior year—and outcome: economic activity assessed using Night Time Luminosity (NTL). Both outcome and explanatory variables are observed at a very granular level, for cells of 1 km x 1 km, 5 km x 5 km and 10 km x 10 km. Overall, ADB-financed roads have increased economic activity by XX% in PRC. Road projects have also affected the spatial distribution of economic activity, by increasing the concentration of economic activity along major roads, [and even decreasing it for locations further than XX% km from roads].

Author/s: Jules Hugot

JEL codes: H4, O1, R4

#### PROGRAM

## Estimating Effect of River Crossing on Economic Growth with Satellite Imagery on Land Usage

Measuring economic growth requires data collection, which could be demanding for under-developed countries/regions. A relatively inexpensive way of gauging economic growth is using light based on satellite image data, which has been popular in economics. This paper examines whether reasonable estimates for economic growth and for effects of river crossings on economic growth can be obtained using satellite images on land use types such as "built-up" and "barren". Our data come from the Shanghai-Pudong region around Huangpu river during 1988-2000, and our treatments are different river-crossings such as tunnels and bridges. We find that certain image types are more amenable to estimating economic growth or estimating effects of river crossings on the local economy's growth stage. Focusing on one of the bridges named "Nanpu", we find that the Nanpu bridge increased built-up areas of the region closer to the bridge than to the other river crossings by 10-26% per year, and reduced barren areas by 14-30% per year.

Author/s: Akiko Terada-Hagiwara, Myoung-jae Lee, and Yasuyuki Sawada

JEL codes: O18, O22, C31, R11, R41

## PROGRAM

# Hefei-Xi'an Railway Project (2006)

This paper examines the effects of a railway construction on economic activities using district level data, such as fiscal revenue and employment. Our focus is on He'fei-Xian railway in People's Republic of China, which began its operation in 2004.

## Author/s: Naoyuki Yoshino and Umid Abidhadjaev

JEL codes: H54, O11, O23, R11

#### PROGRAM

## **Quantitative Assessment of Implementation Capacity of Executing Agencies**

This paper examines the need and proposes a methodology for quantitative assessment of Implementation capacity of Executing Agencies based on the implementation track record and project implementation capacity of key individuals within the agency. Development finance across sectors in emerging economies often necessitates working with public sector institutions/agencies apart from the principal borrower. These agencies are the front end of development work and play a pivotal role in ensuring timely delivery of projects without any cost overruns. The project implementation capacity of these agencies is thus-very important for ensuring the delivery of the intended outcomes to society at large.

Author/s: Keerthi Kumar Challa

JEL codes: O29

## PROGRAM

# **Export Prospects of Georgia**

Georgia's relatively high investments and very low savings over the years have led to substantial external imbalances, underlying Georgia's weak export base. The Government of Georgia has been actively supporting various international initiatives aimed at improving connectivity and facilitating trade flows through Georgia. Georgia has committed to an ambitious reform agenda to align many of its systems and standards with those of the EU in the medium term. The paper analyzes how, in the context of Georgia's trade regimes, trade developments and prospects, the structure of Georgia's exports has been evolving, in terms of the composition of exports and the destination markets under recently concluded free trade agreements.

Author/s: George Luarsabishvili

JEL codes: F1, F19

## PROGRAM

# The Impact of Increased Import Competition from the People's Republic of China on Income Inequality and Household Welfare in Viet Nam

We examine how the surge of imports from the PRC to Viet Nam from 2000 to 2014 affected income inequality in Viet Nam. Using household level data from the Viet Nam Household Living Standard Survey and combining it with measures of trade exposure, we find that increased imports led to a fall in inequality. To better understand the relative gains and losses across income groups, we apply a quantile regression approach. Our results indicate that increased imports were more often positively correlated with household income for households located in the lower quantiles. In contrast, for households in the upper quantiles the correlation is either negative or less pronounced.

Author/s: Matthias Helble, T. T. Le, and T. Q. Long

JEL codes: F1, D63

#### PROGRAM

## Unleashing the Potential of Trade in Services in Nepal

Landlocked-ness and mountainous terrain have historically impeded the promotion of merchandise trade in Nepal. Lack of competitiveness, in par with international goods, emanating from structural bottlenecks and policy inconsistencies has further held back merchandise exports. Consequently, Nepal's merchandise trade deficit as a share of GDP has substantially ballooned. Growth in services sector, on the other hand, has been better than the growth in merchandise export. But because of infrastructural, institutional, legal and procedural barriers, the services trade in Nepal has yet to achieve its full potential. Landlocked and least developed countries like Nepal can bridge their trade deficit via export diversification in services sector. This paper sheds light on the current state and prospects of Nepal's services trade and suggests sector-specific policy recommendations.

Author/s: Manbar Singh Khadka and Rudra Suwal

JEL codes: F10, F15, L60, L80, Z32

#### PROGRAM

## Breaking Away from Icebreakers: The Effect of Melting Distances on Trade and Welfare

This article assesses the effect of the opening of Arctic shipping routes on world trade patterns and welfare. We begin by computing shortest bilateral maritime distances with and without Arctic routes. Then, we predict trade flows by combining counterfactual distances with distance elasticities of trade estimated using historical episodes that also affected maritime distances. Our general equilibrium exercise extends beyond by using a structural gravity model that allows trade reallocation across country pairs. As a result, all country pairs are now affected by the opening of Arctic routes, including those for which bilateral distance remains unchanged. In our preferred estimation, world trade is predicted to increase by 0.32% and welfare by 0.02%. The positive effects concentrate in Europe and Northeast Asia, while minor losses affect countries in the Caribbean, West Africa, the Mediterranean and the Indian Ocean.

Author/s: Jules Hugot and Camilo Umana Dajud

*JEL codes:* F14, F15

## PROGRAM

# **Trade and Investment in Services**

Trade in services has been growing rapidly in recent years. Increasing cross-border investment activity has historically contributed to the internationalization of services, primarily via the spread of manufacturing firms in search of new markets or export platforms. Given an enabling environment, services-enhancing FDI can lead to not only the growth of the services sector but also expansion of goods trade, and ultimately, to economic growth and job creation. However, significant barriers to FDI in the service sector still remains in the region. This paper examines the link between FDI in services and trade, and offers policy conclusions for promoting growth and tradability of the services sector through investments.

Author/s: Fahad H. Khan JEL codes: F10, F14, F15, F21, F23, G28, O14

#### PROGRAM

## "Re-industrializing" Indonesia: Understanding Constraints to Firm Growth in the Manufacturing Sector

Re-industrializing Indonesia rests upon the revival of the manufacturing sector. Using a panel consisting of 390 manufacturing firms from the World Bank Enterprise Surveys (WBES), we examine the barriers that hold back manufacturing in Indonesia and shed light on the extent to which business environment constraints limit growth of manufacturing firms. We also explore variations in the effect of constraints by firm characteristics, such as size, age, ownership, trade orientation, and technological intensity. The analysis provides the necessary foundation for the design of a new industrial policy for modern Indonesia.

## Author/s: Sameer Khatiwada

*JEL codes:* D22, L60, L25, O53

## PROGRAM

Technological Transformation in Manufacturing Sector

Author/s: Emma Allen

JEL codes:

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## PROGRAM

# **Innovation and Manufacturing Sector**

Singapore has been at the forefront of transitioning its manufacturing sector to the Fourth Industrial Revolution. These new technologies represent an opportunity to further transform the manufacturing sector in Singapore. At the same time, Singapore is facing high worker costs and an aging population. Greater automation in the economy can be appealing to help alleviate some of the labor constraint in the manufacturing sector and reduce the need to bring in additional workers from abroad. The paper examines the policies that the Singaporean government is implementing to support the transitioning and transformation of the manufacturing sector.

Author/s: Thiam Ng JEL codes: O10, O14, O25, O33, O53

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## PROGRAM

# Policy Direction of Manufacturing Sector in Malaysia

This paper analyzes current situation of Malaysia's manufacturing sector using various data including time series dataset and evaluate the effects of adopting high level technologies in 4th industrial revolution on subsectors of manufacturing. Based on the analysis, this paper suggests relevant policy recommendations to enhance and leapfrog Malaysia's manufacturing sector as an important engine of economic growth.

Author/s: Kwang Jo Jeong JEL codes: O10, O14, O25, O33, O53

## PROGRAM

# How Technologies Affecting Manufacturing

This paper gives a picture of the role of the manufacturing sector in the Lao economy, the government policy towards industrial modernization and the government's industry and manufacturing development plan, the use of new technologies, and factors constraining the use of 4.0 technologies in Lao PDR. Through the cases studies, the paper examines the state of adoption of technologies in the garment manufacturing and agro-processing industries, and finally gives policy recommendations to enable the growth of manufacturing industry and the adoption of new technologies.

Author/s: Rattanatay Luanglatbandith

JEL codes: O10, O14, O25, O33, O53

## PROGRAM

# Effects of New Technologies on the Manufacturing Sector

This case study provides an overview of the Cambodian manufacturing sector, and existing supporting policies. It looks into potential effects of Fourth Industrial Revolution on different manufacturing subsectors and identifies key constraints to take advantage of the advanced technologies. The study suggests relevant policy recommendations to address those main barriers to adoption of new manufacturing technologies.

Author/s: Poullang Doung

JEL codes:

#### PROGRAM

## Potential Impact of Rural Roads Upgrading – Evidence from an Investment Program of ADB in India

This report summarizes potential socio-economic impact of rural roads investment based on the survey of an ADB project in India. The survey was conducted in 2018, covering 2,000 villages across Madhya Pradesh. Major findings are (i) rural roads upgrading may significantly reduce transport time, especially in rainy season; (ii) the impact of rural roads on poverty reduction is potentially significant, and much of the impact may be through indirect channels (e.g. access to education); (iii) the effectiveness of rural road projects can be further enhanced by complementary investments (e.g. skills development program).

Author/s: Zhigang Li and Chen Chen

JEL codes: 001, R42, Q10

## PROGRAM

# Analysis of Economic Impact of Improved Connectivity in Nepal

The proposed study will simulate economic impact of improved connectivity using the Geographical Simulation Model developed by the Institute of Developing Economies (IDE-GSM). The IDE-GSM is a computable spatial general equilibrium model based on the economic geography. The IDE-GSM uses subnational level economic dataset of 18 Asian countries including Nepal, India and People's Republic of China (PRC) and connectivity routes of road, railway, shipping and air. Proposed simulation scenarios include development of railway links from India and PRC, development of inland water link from India, in addition to general improvement of cross-border transport infrastructure and custom process at the borders.

# Author/s: Tadateru Hayashi, Sanchita Basu Das, Manbar S. Khadka, and Anthony Baluga

JEL codes: C31, C68, F12, F17, F62, L91

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## PROGRAM

# Land Trust and Infrastructure Investment

Infrastructure needs are very large in Asia, but the lack of financing is a major barrier in many developing Asian countries. One difficulty is land acquisition. Land trusts are one way to reduce the costs of land acquisition and shorten construction time. If infrastructure such as roads, railways and high ways are constructed, this can contribute to regional development of MSMEs and startup firms, which will help to mitigate income disparities and contribute regional economic growth. This paper critically examines the potential for using land trust schemes in Asia for infrastructure development.

Author/s: Naoyuki Yoshino and Saumik Paul

JEL codes: Q15, R14

## PROGRAM

# New Technology and Emerging Occupations: Evidence from Asia

The creation of new types of work is argued to be among the ways that the displacement effects of technology in labor markets are counterbalanced. This paper contributes to the discussion on new types of work by identifying new job titles and analyzing employment trends in "emerging occupations" in developing Asian countries. Comparisons of occupation lists provide evidence that most new job titles are ICT-related professions. Analysis of microdata further show that emerging occupations pay relatively higher wages than non-emerging occupations, and that urban-based, tertiary-educated, male workers in the services sectors have relatively better chances of accessing them.

# Author/s: Sameer Khatiwada and Kim Maceda Veloso

JEL codes: J21, J23, J24, O14, O33

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## PROGRAM

# Technology and Innovation: Evidence from World Bank's Enterprise Surveys

Innovation or the introduction of new or significantly improved products or processes can result to large productivity gains at the firm and economy-level. However, little is known about the nature of innovation activities and the process by which firms in developing Asia foster innovation. In this paper, we look at firm-level innovation activities such as R&D and technology use and explore variations by industry, firm characteristics and region. We also explore the nature of innovation in developing countries and potential issues to the measurement of innovation.

Author/s: Sameer Khatiwada and Mia Arao

JEL codes: 032, 053

## PROGRAM

# E-commerce and Entrepreneurship in the People's Republic of China

This paper studies the variations of e-commerce development across Chinese counties and its impact on entrepreneurship in both rural and urban areas. We find that households in counties with higher levels of e-commerce are more likely to start their own businesses. Moreover, e-commerce development induces sectoral change of household entrepreneurship. It increases the startups in the manufacturing and wholesale sectors, but reduces the entrepreneurship in the retail, hotel, and catering sectors. In addition, the e-commerce of household entrepreneurship by alleviating the financial constraints and moderates the reliance of household entrepreneurship on social networks. The effect is more noteworthy in rural areas than in urban areas.

# Author/s: Bihong Huang, Mohamed Shaban, Quanyun Song, and Yu Wu

*JEL codes:* L81, L26, O18
#### PROGRAM

#### Drivers of the Quality of Growth in Asia: An Empirical Analysis

This paper will investigate the factors that drive the quality of growth using a new benchmark, the Inclusive Green Growth Index. We argue that good governance and strong institutions enable a higher quality of growth by promoting sound economic policies which can encourage investments in the economic, social, and environmental dimensions of the index. Using panel regressions, we attempt to investigate this relationship while controlling for other potential drivers such as macroeconomic stability, availability of infrastructure; information and communications technology; overall financial development; press freedom, personal rights and choice, security and safety etc. The analysis will cover the period 1998 to 2016 to examine the relationship in developing Asia in comparison with other developing regions such as Latin America, Middle-East and North Africa and Sub-Saharan Africa. Panel regressions will also be used for countries in developing Asia to get further policy insight.

## Author/s: Shikha Jha, Michael Timbang, Emmanuel Alano, Pilipinas Quising, and Radtasiri Wachirapunyanon

*JEL codes:* I31, O43, O44

#### PROGRAM

#### What Will it Take for India to Grow at 7-8 Percent a Year? Scenarios for the Sectoral Composition of Output and Employment Growth from 2017/18 to 2031/32

After three decades of economic growth at rates of 2-3 percent, India's growth began to pick up in the 1980s. GDP growth averaged 8.5% annually from 2005 to 2010 but moderated to 6.8% during 2011-2015. From a policy perspective, a key question is what it will take for India to grow at 7-8 percent a year. Using a simple growth decomposition exercise, this paper shows that improving productivity in the agriculture and manufacturing sectors, and raising the employment generating capacity of sectors such as manufacturing sector will be key for achieving 7%-8% and inclusive growth. Services sector will continue to play a crucial role to play in India's quest for high and inclusive growth. The pertinent question from a policy perspective is what can be done to improve the performance of agriculture and manufacturing.

#### Author/s: Rana Hasan, Utsav Kumar, Rhea Molato, Erik Jan Eleazar, and Abhijit Sen Gupta

*JEL codes:* J21, J24, O40, O53

#### PROGRAM

#### The Spillover Effects of Turkey's Slowdown on Central and West Asia

How would Central and West Asia be affected if Turkey's economy were to take a sharp downturn? Turkey has recently come under severe market pressure. Turkey's growth is expected to slow sharply in 2018 and 2019, as the weaker lira, higher borrowing costs, and elevated uncertainty weigh on domestic demand. This paper analyses the nature and magnitude of spillovers from the Turkish lira crisis to the economies of Central and West Asia. We study the importance of Turkey's influence on these economies, documenting trade and financial linkages over the last decade and quantifying spillover effects in a vector auto regression (VAR) setting. The deceleration of economic activity in Turkey will result in negative spillovers on some countries in Central and West Asia, notably Georgia, Azerbaijan and Tajikistan.

Author/s: Lilia Aleksanyan

*JEL codes:* E66, C32, E32, F42

#### PROGRAM

#### The Influence of US Dollar Funding Conditions on Asian Financial Markets

Twenty years after the Asian Financial Crisis, Asia's continued high reliance on US dollar-denominated funding has significant implications for the transmission of global financial conditions to domestic financial and macroeconomic conditions. Given limited domestic capital market-based financing solutions, the concentration of foreign borrowing in a single currency can leave the region's financial systems vulnerable to external shocks through unexpected changes in foreign currency liquidity conditions and related capital flow reversals. Assessing the exchange rate as a possible transmission channel, empirical evidence illustrates how changes in bilateral US dollar exchange rates can have a significant impact on sovereign credit risk premiums.

#### Author/s: Peter C. Rosenkranz, Junkyu Lee, and Hoang Pham

JEL codes: F15, F31, G12, G15, F62, F65

#### PROGRAM

#### The Impact of US Tax policies on Sectoral Foreign Direct Investment to Asia

How sensitive is inward foreign direct investment (FDI) from the US to Asia to changes in its corporate tax rate? This is a relevant given the sweeping US tax bill effective in 2018, which provided incentives for US corporations abroad to repatriate profits. Using panel data at the country/sector level, we find that the effects are quite different across sectors, and that controlling for other factors such as market size, costs, openness and the business environment, the corporate income tax rate differential is generally not significant, except for the business services sector, and no effect on GVC-related FDI to Asia.

#### Author/s: Valerie Mercer-Blackman and Shiela Camingue-Romance

JEL codes: F21, H3, H25

#### PROGRAM

#### **Detecting Explosive Housing Prices in Cities in Asia**

Many Asian economies have seen house prices continuously rising in recent years. Based on city level data on price to rent ratio, this paper uses a date stamping approach to detect explosive price patterns in 8 economies – Hong Kong, China; Indonesia, Malaysia, PRC, Republic of Korea, Singapore, Taipei, China; and Thailand – since 2000. The macroeconomic factors that may drive the observed spikes in house prices are then determined. Rising output gap, rural to urban migration, increase in credit to housing, accommodative monetary conditions and more recently, capital flow surges all contribute to sharp increases.

#### Author/s: Arief Ramayandi, Xuehui Han, and Madhavi Pundit

JEL codes: E31, G12, R21, C5, E6

#### PROGRAM

#### Income Inequality and Macroeconomic Instability

This study examines the relationship between macroeconomic instability, as measured by the variance of inflation and output, and income inequality for a panel of 63 advanced and emerging market countries over the period 1990 to 2014. After controlling for a number of factors that affect inequality, including financial and institutional development, our results highlight a positive relationship between inflation variance and inequality. We find that this relationship does not exist in the most developed countries. Instead, our results are stronger in underdeveloped and moderately developed countries. Volatility in output at business cycle or in growth-cycle frequency does not affect income inequality for any set of countries. We show that developing countries who target inflation are insulated from the regressive effect of inflation volatility. From the point of view of achieving an even income distribution, inflation targeting may be consistent with better equity and efficiency outcomes.

#### Author/s: Irfan A. Qureshi

JEL codes:

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#### PROGRAM

#### Developing a Productivity and Competitiveness Framework for Pakistan

This paper develops a four-level productivity and competitiveness framework for Pakistan. The framework categorizes several key elements affecting the country's productivity into four levels namely; Endowments, Policy Inputs, Essential conditions and Mandate. Building upon the framework, the paper analyzes sources of productivity in Pakistan and evaluates reasons behind slowing productivity dynamics and the country's decreasing of international competitiveness. Policy implications point to a need to focus on supporting domestic productivity first, before focusing on increasing international competitiveness.

#### Author/s: Aimee Hampel-Milagrosa, Manzoor Ahmad, and Kiyoshi Taniguchi

*JEL codes:* E24, J24, O43

#### PROGRAM

## Why Generating Productive Jobs Essential for Reducing Poverty in India: Evidence from Indian Regions

We investigate the pattern of India's growth, and its implications for poverty reduction. We focus on the role played by generation of productive employment opportunities in reducing poverty. The paper analyzes these issues at a granular level by focusing on 9 major sectors of the economy and analyzing at a sub-state level, as the large Indian states mask significant heterogeneity. We decompose productivity growth into sectoral productivity growth, productivity increases arising from workers moving into high productivity sectors and from workers moving to sectors experiencing productivity growth. While improving sectoral productivity is important for poverty reduction, there is a significantly stronger link between shift of workers into sectors witnessing productivity growth and poverty reduction. Thus, generating jobs in sectors witnessing productivity growth is vital to accelerate poverty reduction.

#### Author/s: Abhijit Sen Gupta, Vishal More, and Kanupriya Gupta

JEL codes: I32, J24, J62, R11

#### PROGRAM

#### Investment in Research and Development for Basmati Rice in Pakistan

Basmati rice is Pakistan's most celebrated export commodity. After years of growth, Pakistan's production and export of basmati has slipped and is on a downward trend. The absence of a strong research and development institutional structure makes it extremely difficult for the sector to prepare for new challenges. Extra funding for basmati can be easily channeled from the levy that is being collected from its export or through government development funds. The bigger challenge is to change the embedded mindset that fails to connect research and development properly with production and commercialization of basmati rice.

Author/s: Kiyoshi Taniguchi, Noriko Sato, and Sahibzada Mansoor Ali JEL codes: Q16, Q17, O13

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#### PROGRAM

#### Enhancing Small Area Poverty Estimates Using Satellite Imagery

Spatial poverty maps are commonly used as inputs when designing poverty intervention programs. Poverty maps are derived by combining household survey and census data using small area estimation techniques. The use of innovative data sources such as satellite imagery shows promise in validating small area poverty estimates and addressing some of the limitations of conventional household and census data. This study outlines a computational framework to enhance small area poverty estimates using Philippine data as a case study.

#### Author/s: Art Martinez, Katrina Miradora, and Jan Arvin Lapuz

JEL codes: D31, I32, O15

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#### PROGRAM

#### Measuring Rice Yield from Space: The Case of Thai Binh Province, Viet Nam

Despite a growing interest in using satellite data to estimate paddy rice yield in Southeast Asia, significant cloud coverage has led to a scarcity of usable optical data for such analysis. In this paper, we study the feasibility of using two alternative sources of satellite data—(i) surface reflectance fusion data which integrates Landsat and Moderate Resolution Imaging Spectroradiometer (MODIS) images, and (ii) L-band radar backscatter data from the Advanced Land Observing Satellite 2 (ALOS-2) PALSAR-2 sensors—to circumvent the cloud cover problem and estimate yield in Thai Binh Province, Viet Nam during the second growing season of 2015. Our findings indicate that although Landsat– MODIS fusion data are not necessarily beneficial for paddy rice mapping when compared with only using Landsat data, fusion data allows us to estimate the peak value of various vegetation indexes and derive the best empirical relationship between these indexes and yield data from the field. We also find that the L-band radar data not only has a lower performance in paddy rice mapping when compared with optical data, but also contributes little to rice yield estimation.

#### Author/s: Kaiyu Guan, Ngo The Hien, Zhan Li, and Lakshman Nagraj Rao

JEL codes: C40, O13, Q18

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#### PROGRAM

#### Disaster Aid Targeting and Self-Reporting Bias: Natural Experimental Evidence from the Philippines

Aid from local government can play a critical role as a risk-coping device in a post-disaster situation if recipients are properly targeted. Combining (i) satellite images (objective information on flood damage), (ii) administrative records (objective information on aid receipt), and (iii) sui generis survey data (self-reported information on damage and aid receipt) from a substantial flood event in the Philippines, we analyze accuracy of disaster aid targeting and self-reporting bias in the flood damage and the aid receipt. We find that the damage is over-reported while the aid receipt is under-reported, and thus, an estimated targeting accuracy based on self-reported information is substantially downward-biased.

# Author/s: Yuki Higuchi, Nobuhiko Fuwa, Kei Kajisa, Takahiro Sato, and Yasuyuki Sawada JEL codes:

#### Economists' Forum Asian Development Bank 14-15 January 2019 PROGRAM

### Knowledge in Strategy 2030 – The Role of Research

### **Panelists**



Takehiko Nakao



Naoyuki Yoshino

Moderator



Karen Lane



Lyaziza Sabyrova



Madhavi Pundit