Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

	Tuesday, 14 January
8:30–9:00	**Registration**
	Room: Multifunction Hall 3
9:00–9:15	**Welcome remarks**
	Bambang Susantono, Vice President, Knowledge Management and Sustainable Development
	Room: Lecture Theater 2
9:15–9:30	**Workshop overview**
	Yasuyuki Sawada, Chief Economist and Director General, Economic Research and Regional Cooperation Department
	Room: Lecture Theater 2
9:30–11:00	**Paper session**
	Session 1: **Macro Monitoring and Vulnerabilities**
	Moderator: Abdul Abiad
	Room: Multifunction Hall 1
	Session 2: **Impact Evaluation**
	Moderator: Yasuyuki Sawada
	Room: Multifunction Hall 2
	Session 3: **ICT**
	Moderator: Thomas E. Abell
	Room: Multifunction Hall 3
11:00–12:30	**Learning session 1: Purposeful Writing**
	Speaker: Tara Mitchell
	Room: LRC 2
12:30–1:30	**Networking Lunch**
	Room: Multifunction Hall 3
1:30–3:15	**Paper session**
	Session 4: **Growth**
	Moderator: Lei Lei Song
	Room: Multifunction Hall 1
	Session 5: **Infrastructure**
	Moderator: Guntur Sugiyarto
	Room: Multifunction Hall 2
	Session 6: **Regional Cooperation**
	Moderator: Cyn-Young Park
	Room: Multifunction Hall 3
3:15–3:30	*Coffee break*
3:30–5:10	**Paper session**
	Session 7: **Urbanization**
	Moderator: Manoj Sharma
	Room: Multifunction Hall 1

	Session 8: **Banking and Finance**
	Moderator: Junkyu Lee
	Room: Multifunction Hall 2
	Session 9: **Poverty and Social Protection**
	Moderator: Yasuyuki Sawada
	Room: Multifunction Hall 3

	Wednesday, 15 January
9:00–10:45	**Paper session**
	Session 10: **Health**
	Moderator: Susann Roth
	Room: LRC 1
	Session 11: **Jobs** *(9:00 - 11:00)*
	Moderator: Rana Hasan
	Room: LRC 2
	Session 12: **Fiscal/Institution**
	Moderator: Hiranya Mukhopadhyay
	Room: Multifunction Hall 3
9:00–10:30	**Learning session 2: Purposeful Writing**
	Speaker: Tara Mitchell
	Room: Conference Room 7217
11:00–12:15	**Paper session**
	Session 13: **Technology and Innovation**
	Moderator: Abdul Abiad
	Room: LRC 1
	Session 14: **Tourism**
	Moderator: Joseph Ernest Zveglich Jr.
	Room: LRC 2
	Session 15: **Diversification and Firms** *(11:00–12:30)*
	Moderator: Matteo Lanzafame
	Room: Multifunction Hall 3
12:45–1:30	**Lunch Panel**
	Title: Economists at the Frontier
	Moderator: Karen Lane
	Organizer: Yesim Elhan-Kayalar
	Other Panelists: VP Ahmed Muneeb Saeed, Emma Veve, David Daniel Oldfield, and Cahyadi Indrananto
	Room: Lecture Theater 2
2:00–4:00	**Book Launch**
	Title: Asia's Journey to Prosperity: Policy, Market and Technology over 50 years
	Room: Multifunction Hall 1-2
4:00–4:15	**Closing**

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Macro Monitoring and Vulnerabilities**

Presentations:

1. Debt buildup and financial vulnerability: Evidence from the exchange rate markets
   Arief Ramayandi, *Donghyun Park, and Shu Tian*

2. Nowcasting Kazakhstan
   Lilia Aleksanyan *and Madhavi Pundit*

3. Nowcasting with annual data: an application to GDP growth in Pakistan
   Madhavi Pundit, **Irfan Qureshi***, and Arief Ramayandi*

4. ABCD approach to date Indian Business cycles
   Shalini Mittal *and Lei Lei Song*

Session: **Impact Evaluation**

Presentations:

1. Finding out what works – a field experiment on agricultural extension in Timor-Leste
   David Freedman *and Brett Inder*

2. Estimating the Effect of Hefei-Xi'an Railway Project Investment on Tax Revenues
   Naoyuki Yoshino *and Umid Abidhadjaev*

3. Unleashing Development Potential by River Crossings: Evidence Based on Satellite Imagery from Shanghai
   Myoung-jae Lee, ***Yasuyuki Sawada****, and* ***Akiko Terada-Hagiwara***

4. Does Infrastructure Nurture Trust? Evidence from Natural and Artefactual Field Experiments in Rural Communities
   Keitaro Aoyagi, **Yasuyuki Sawada**, and Masahiro Shoji

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **ICT**

Presentations:
1. ADB Ventures: ADB's engagement with digital economy
   Dominic Patrick Mellor

2. ICT, spatial concentration and technology transfer: empirical evidence from Viet Nam
   Trinh Q. Long

3. Comparison of readiness, strategies and opportunities towards Digital Economy in CW Countries
   Seok Yong Yoon

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Growth**

Presentations:

1. Persistent Current Account Imbalances: Are they Good or Bad for Regional and Global Growth?
   John Beirne, *Nuobu Renzhi and Ulrich Volz*

2. An evaluation of effectiveness of low interest rate regime for triggering sustained economic growth
   Mohd Sharib Khan *and Sudipto Bhattacharya*

3. Is Indonesia's Growth Inclusive?
   Priasto Aji *and Yangki Suara*

4. Demography and Growth in Developing Asia
   Matteo Lanzafame

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Infrastructure**

Presentations:

1. Transport Cost and Pricing of Agricultural Products in the Philippines
   Eugenia Co Go

2. An Empirical Analysis of Factors Responsible for the use of Capital Market Instruments in Infrastructure Project Finance
   Vivek Rao

3. The Impacts of Emission Trading Scheme on a Fossil Fuel Abundant Economy: A CGE Assessment for Kazakhstan
   Zhanna Kapsalyamova, **Dina Azhgaliyeva**, *Aidyn Bakdolotov, Chingiz Shuneyev*

4. Nepal's Infrastructure Financing Possibilities
   Anjan Panday

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Regional Cooperation**

Presentations:

1. A Case Study on Economic Corridor Development: China-Pakistan Economic Corridor
    *Aman Mangrio, Dewan Mushtaq, and **Kiyoshi Taniguchi***

2. Assessing the Feasibility of International Monetary Policy Coordination among the Asean-5 + CJK Countries: A Two-Production-Factor DSGE Model
    Eric Alexander Sugandi

3. Impact of facilitative transport infrastructure in Georgia on regional trade
    George Luarsabishvili

4. Trade Impact of Reducing Time and Costs at Borders in the Central Asia Regional Economic Cooperation Region
    Kijin Kim *and Paul Mariano*

Session: **Urbanization**

Presentations:

1. Asian Cities: Spatial Dynamics and Driving Forces
    Yi Jiang

2. Housing Affordability and Adequacy in Cities in Developing Asia
    *Toshiaki Aizawa, **Matthias Helble**, Kwan Ok Lee, Ma. Adelle Gia Arbo*

3. Economic Frameworks and Methodologies for Integrated Urban-Industrial Development:
    The case of the East Coast Economic Corridor and other states in India
    ***Kavita Iyengar** and Atul Sanganeria*

Session: **Banking and Finance**

Presentations:

1. Financial Literacy and Fintech Adoption in Japan
   *Naoyuki Yoshino, **Peter J. Morgan**, and Trinh Q. Long*

2. Assessing the Effectiveness of Banking Sector Nonperforming Loan Resolution Policies and Measures
   *Daekeun Park, **Junkyu Lee, and Peter Rosenkranz***

3. Does access to banks matter to income inequality? Evidence from China
   ***Bihong Huang**, Yuheng Huang, and Guochang Zhao*

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Poverty and Social Protection**

Presentations:

1. Dynamics of Health-Seeking Behavior and Intertemporal Poverty: Evidence from Rural Households in Pakistan
    Ammar Aftab, **Reneli Ann Gloria***, and Rouselle Lavado*

2. Targeting the Poor Through an Enhanced Proxy Means Test Model
    David A. Raitzer *and Dennis Mapa*

3. Impact Evaluation of the Philippine Conditional Cash Transfer Program: Results of the Wave 3 Analysis
    Shamit Chakravarti

4. Intrahousehold Responses to Imbalanced Human Capital Subsidies: Evidence from the Philippine Conditional Cash Transfer Program
    David A. Raitzer *and Odbayar Batmunkh*

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Health**

Presentations:

1. [Using Big Data to Examine the Factors Influencing the Duration of Disbursements in Asian Development Bank Loans and Grants for Health-Related Projects](#)
   *Ammar Aftab and **Rouselle Lavado***

2. [The Health Status of Asia's Elderly and Gender Differences in Access to Health Care](#)
   *Yana van der Meulen Rodgers and **Joseph E. Zveglich, Jr.***

3. [Achieving Urban UHC: Costing evidence-based urban health service packages](#)
   ***Eduardo Banzon**, Brian Chin, and Sonalini Khetraphal*

4. [Estimating Health-Related Productivity Loss: Application of Lost-Wages Approach in Armenia](#)
   ***Ammar Aftab** and Rouselle Lavado*

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Jobs**

Presentations:

1. How to Help Women Get Good Jobs? Evidence from a Skills Development Project in Bangladesh
   Zhigang Li *and Mingqin Wu*

2. Measuring Employability: Impact of Skills Development Program in India
   Kanupriya Gupta *and Chandan Singh*

3. Cities and Jobs: Evidence from Labor Force Surveys from Four Asian Economies
   Glenita Amoranto, *Eugenia Go, Rana Hasan, Yi Jiang*

4. Robot Adoption and the Demise of Routine Jobs: Evidence for Developed and Developing countries
   Elisabetta Gentile, *Sébastien Miroudot, Gaaitzen de Vries, and Konstantin Wacker*

5. Effective or irrelevant? The impact of TVET on employment in the Philippines
   Paul Vandenberg *and Jade Laranjo*

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Fiscal/Institution**

Presentations:

1. Economic Analysis of Fiscal Decentralization in Pakistan
   *Nadia Farooq and **Kiyoshi Taniguchi***

2. Governance and Geography: Measuring the Spatial Spillover of Institutions
   ***Bruno Carrasco** and Anthony Baluga*

3. SDGs, Domestic Resource Mobilization, and Public Policy: Using a Public Policy Lens Drawn on New Institutional Economics
   Gambhir Bhatta

4. SOE Effects on Markets, Competitive Neutrality and Market Distortion Assessment for Sri Lanka
   Eshini Ekanayake

Session: **Technology and Innovation**

Presentations:

1. Urban Agglomeration and Firm Innovation: Evidence from Asia
   Liming Chen, *Rana Hasan, and Yi Jiang*

2. Demographic Change, Technological Advance, and Growth: A Cross-Country Analysis
   Cyn-Young Park, Kwanho Shin, and **Aiko Kikkawa Takenaka**

3. Intellectual Property Protection, Foreign Technology Licensing, and Domestic Innovation in Developing Countries
   Elisabetta Gentile and **Rhea Molato**

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Session: **Tourism**

Presentations:

1. Almaty-Bishkek Economic Corridor Tourism Master Plan
   Kristian Rosbach

2. Tourism Synergy with Employment and Agriculture Value Chain in Lao PDR
   Manisha Pradhananga *and Takashi Yamano*

3. Greater Mekong Subregion Tourism Sector Strategy
   Alfredo Perdiguero, ***Asadullah Sumbal****, and* ***Steven Schipani***

Session: **Diversification and Firms**

Presentations:

1. Using Input-output Links to Measure the Potential for Service-Led Development in Formerly Transition Economies and Central-West Asia
    Valerie Mercer-Blackman *and* ***Joseph Mariasingham***

2. Designing a Small and Medium-Sized Enterprise Development Index – Implications from Selected Southeast Asian Countries
    Shigehiro Shinozaki, *Mike Troilo, Masato Abe, and Phanhpakit Onphanhdala*

3. Latin America's faltering manufacturing competitiveness with Asia: what role for intermediate services?
    Rolando Avendano, *Filippo Bontadini, Nanno Mulder, and Dayna Zaclicever*

4. Financing and growth of start-ups: Exploratory analysis in Five Asian countries
    Aimee Hampel, ***Paul Vandenberg***, *and* ***Matthias Helble***

Nowcasting Kazakhstan

Quarterly GDP statistics in Kazakhstan are released by the national statistical office with a 45-days delay. In this paper we study the flow of rich conjunctural data relevant to assess the state of Kazakhstan's economy before the release of official data. We reconstruct the flow of releases that are most frequently monitored by policymakers, market participants and economic commentators. The paper describes in detail GDP and potential data series to be used in constructing a nowcasting model for Kazakh GDP, analyses variable selection strategies and provides a literature review of existing nowcasting models in Kazakhstan.

Author/s: **Lilia Aleksanyan and Madhavi Pundit**

JEL codes: C32, C53, E37

Nowcasting with annual data: an application to GDP growth in Pakistan

Standard nowcasting frameworks often work with monthly variables to track quarterly variables such as real GDP growth. However, most developing countries track important variables such as real GDP growth at an annual frequency only. These delays imply significant lags in setting policies, without having timely knowledge on current state of the economy, and often without even knowing recent past. To address this concern, we modify a standard dynamic factor model that enables us to represent annual variables as a linear combination of latent monthly indicators that are released more frequently. An application of this framework to Pakistan's macroeconomic data allows us to extract a historical measure of monthly real activity that tracks actual annual GDP growth remarkably well. We evaluate the model by running a pseudo real time forecasting exercise over the period 2000 – 2018 and show that the model-implied GDP nowcast outperforms institutional forecasters, becoming extremely accurate since 2006. The model is shown to be suitable for nowcasting real GDP growth.

Author/s: **Madhavi Pundit, Irfan Qureshi, and Arief Ramayandi**

JEL codes: C38, C53, E37, O11, O47

ABCD approach to date Indian Business cycles

This paper dates business cycles in India since 1996. Using the latest available GDP series based at 2011-12, back-casted using the GDP series based at 2004-05, we apply the HP filter on seasonally adjusted data to extract the cyclical component for the period 1996 Q2 – 2019 Q2. We, then, apply the Bry-Boschan-Quarterly algorithm by Harding and Pagan (2002) to extract the turning points on deviation cycle. Finally, we use the ABCD method by Anas and Ferrara (2004) to filter out peaks and troughs using growth rate information. We check for robustness of our results by using CF and Hamilton filter.

Author/s: **Shalini Mittal and Lei Lei Song**

JEL codes: E, E3, E32

How to Help Women Get Good Jobs? Evidence from a Skills Development Project in Bangladesh

This study examines a skills development project in Bangladesh to provide evidence on how the intervention has reduced gender gap in labor market. This hundred-million-dollar project provides free training to 260,000 people to developed specific skills (e.g. sewing machine operation) in six major industries and help them find jobs. Based on the project database with information on all individual trainees, we find that the project has significantly reduced gender disparity in certification and job placement. Further evidence suggests that the gender gap reduction was not only due to training, but also to the job placement support of the project.

Author/s: **Zhigang Li and Mingqin Wu**

JEL codes: J16, J21, J24

Finding out what works – a field experiment on agricultural extension in Timor-Leste

This paper reports on a field experiment to evaluate different approaches to training smallholder coffee farmers in Timor-Leste. The experiment, which is being implemented in partnership with a multinational coffee trader, will randomly assign up to 4,200 coffee producing households to one of five different training treatments. Implementation began in 2019 and will continue until 2021. By comparing the rate of adoption of improved production techniques by households in the five treatments, the experiment will provide insights into the relative importance of on-farm demonstration, training intensity, gender sensitive approaches, and access to labor-saving technologies.

Author/s: **David Freedman and Brett Inder**

JEL codes: Q16, O13

Estimating the Effect of Hefei-Xi'an Railway Project Investment on Tax Revenues

This preliminary version of the paper shows the way to estimate the impact of railway, highway and high speed railways by using tax data and GDP data. This method is applied to analyze the impact of Hefei-Xi'an Railway Project. Using tax revenues as the outcome indicator, difference-in-difference regression analysis was conducted. Initial results show that impact is positive, but not statistically significant. With more control variables, we hope to improve the statistical significance.

Author/s: **Naoyuki Yoshino and Umid Abidhadjaev**

JEL codes:

Unleashing Development Potential by River Crossings: Evidence Based on Satellite Imagery from Shanghai

It has been said that China, especially its largest city, Shanghai, has achieved the fastest growth around the globe in the last few decades. We quantify overall economic growth and impact of large infrastructure of Shanghai accurately using daytime satellite images covering 1988 to 1995. There are three findings emerged from our analysis. First, using before-and-after analysis, we find the overall economic growth rate of the Shanghai-Pudong area to be 6-9% per year, which is not far from the 9.9% official growth rate of China during 1988-1995. Second, a difference-in-difference analysis shows that the very first major three river-crossings (a tunnel and two bridges) in Shanghai generated the average positive growth effect on Pudong relative to Shanghai, ranging from 0.7% to 2.1% with substantial heterogeneities depending on the proximity to the river-crossings. Pudong regions close to the river-crossings had much higher growth rates than Shanghai regions close to the river. Third, in disentangling the impact of the three river-crossings, we find significant positive impacts of Nanpu bridge in promoting economic growth of the Nanpu vicinity.

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

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

Does Infrastructure Nurture Trust? Evidence from Natural and Artefactual Field Experiments in Rural Communities

Does infrastructure lead to trust, and how does this happen? We approach this question by testing two competing hypotheses: particularized trust formation through repeated social interactions, and generalized trust formation through habits. To do so, we identify the causal relationship between infrastructure access and trust by exploiting the natural experimental situation of a large-scale lottery-based irrigated land settlement program in rural Sri Lanka and laboratory experiment data from an incentivized trust game. Two findings emerged: First, trust among community members monotonically increases with each member's years of access to irrigation, regardless of social relationship; second, the nexus between irrigation access years and trust does not differ between in-group and out-group members, supporting the hypothesis of generalized trust formation. Trust therefore emerges as generalized trust formed by farmers' habit arising from their technological environment set by an artifact, irrigation infrastructure.

Author/s: **Keitaro Aoyagi, Yasuyuki Sawada, and Masahiro Shoji**

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Asian Cities: Spatial Dynamics and Driving Forces

This paper introduces a new city-level panel dataset constructed using satellite nighttime light imagery and grid population data. The dataset contains over 1,500 cities covering 43 Asian and Pacific countries/economies from 1992 to 2016. With the dataset, we perform a variety of analyses for Asia and the Pacific as a whole as well as five individual countries in the region. The exercise produces some novel evidence on several inter-related topics including urbanization status and patterns, relations between urbanization and economic growth, evolution of urban systems, primate cities, testing Zipf's law and Gibrat's law, the drivers of city growth and emergence of city clusters.

Author/s: **Yi Jiang**

JEL codes: R11, R12, O18

Housing Affordability and Adequacy in Cities in Developing Asia

While housing affordability and adequacy is well documented for developed countries, we still lack systematic analyses and cross-city comparisons for developing countries. This paper first comparatively analyzes housing affordability of 211 cities in 27 developing countries located in the Asia-Pacific region. We estimate that the average price-to-income ratio (PIR) is above 15, which indicates that housing is severely unaffordable for the large majority of urban dwellers in developing Asia. The paper then provides an analysis of housing conditions in cities in ten developing countries in the Asia Pacific region. Our main source of data are the Demographic and Health Surveys. We find that only 33.7% of the urban population enjoy adequate housing. Comparing rural and urban areas, the results indicate that urban areas offer significantly better housing conditions. However, when analyzing the distribution of adequate housing across wealth levels, we find that adequate housing is highly unequally distributed in cities.

Author/s: **Toshiaki Aizawa, Matthias Helble, Kwan Ok Lee, Ma. Adelle Gia Arbo**

JEL codes: R21, R30, R31, O18

Economic Frameworks and Methodologies for Integrated Urban-Industrial Development: The case of the East Coast Economic Corridor and other states in India

The analysis for economic corridor development focusses on three complementary components: transport and trade, industrial production clusters, and urban centers that act as markets and source of labor, technology and innovation. Detailed economic analyses was undertaken for each of the four states along India's east coast economic corridor (ECEC) to identify nodes that will drive growth and employment. Comprehensive analyses was also carried out for other states in the country (Rajasthan, Uttar Pradesh, and Assam) to identify drivers of growth and connect to corridors and gateways. The paper compares the methodologies used and the deepening of rigor over time.

Author/s: **Kavita Iyengar and Atul Sanganeria**

JEL codes: C40, L60, O10

ADB Ventures: ADB's engagement with digital economy

Asian Development Bank (ADB) Ventures Facility (the Facility) is a multi-donor trust fund that will contribute towards sustainable development goals (SDGs) by deploying and scaling impactful technologies and business models throughout the developing Asia-Pacific. The Facility will provide technical assistance and make catalytic investments in early-stage private companies to accelerate the deployment of impactful technologies and business models. The Facility fills an operational gap allowing ADB's Private Sector Operations Department (PSOD) to provide funding at all stages of the business life cycle.

Author/s: **Dominic Patrick Mellor**

JEL codes: G24, O16

ICT, spatial concentration and technology transfer: empirical evidence from Viet Nam

This study examines the role of ICT adoption, spatial concentration in technology transfer among Vietnamese firms, using a unique firm-level panel data collected during 2009-2012. Technical transfer through backward linkage and through forward linkage are investigated. The results show that the adoption of ICTs is positively correlated with the likelihood of having technical transfer with both customers (forward linkage) and input suppliers (backward linkage), regardless of whether customers and suppliers are domestically operated firms or foreign firms. With regards to spatial concentration, the empirical evidence shows that the presence of more firms in the same province has a positive correlation with engagement in technology transfer. This result is consistent with the negative relationship between the density of other industry and the likelihood of engagement in technology transfer. However, firms operating in a province with the presence of firms in a highly diverse industry are more likely to have technology transfer.

Author/s: **Trinh Q. Long**

JEL codes: D22, L24, R12

Comparison of Readiness, Strategies and Opportunities Towards Digital Economy in CW Countries

ADB's corporate Strategy 2030 integrates digital technologies in its operations, and support DMC's use of advanced technologies in various development areas. ADB also supports the transformation of DMC's economies into knowledge based digital economy maximizing the benefit of digital technologies for the economic and social development in DMCs. The benefits of the digital revolution will be massive and give opportunities to DMCs to leapfrog their economies into more advanced states within a short period of time and less resources. Digital technologies can reduce the cost, improve the effectiveness in services and development impact in societies. Many DMCs have already developed their own digital development strategies and the implementation are at different stages now. In line with this trend, ADB has been trying to incorporate the topic of digital development into the country partnership strategies as a new supporting area as well as action items in its programs and projects. The session will discuss i) readiness for digital development, ii) digital development strategies, and iii) the opportunities for ADB's potential support in DMCs. The presentation is prepared based on the findings from SDCC (Digital Technology Unit)'s country programming mission on digital technology in selected Central West DMCs (Azerbaijan, Kazakhstan, Kyrgyzstan) during 2018-2019.

Author/s: **Seok Yong Yoon**

JEL codes: L86, K20

Financing and growth of start-ups: Exploratory analysis in Five Asian countries

Asia's middle-income countries are currently attempting to provide a more conducive eco-system for technology startups. The hope is that these startups will drive innovation, support job creation and increase the competitiveness of countries. Yet, there exist few cross-country comparative studies on the design of these policies and their impact. Furthermore, while many studies have analyzed the bottlenecks for start-ups in general, few focus on tech start-ups. Our paper attempts to close both gaps by studying tech startups in four sectors (agritech, clean/greentech, edutech and healthtech) across five countries (Azerbaijan, Cambodia, India, Thailand, and Viet Nam). We consider the challenges that enterprises face, along with the availability of financing and other supports in the startup ecosystem. The analysis is based on interviews with a micro sample of enterprises in each country, along with discussions with incubators, investors and policymakers.

Author/s: **Aimee Hampel, Paul Vandenberg, and Matthias Helble**

JEL codes: L26, O31

Transport Cost and Pricing of Agricultural Products

The Roll-on Roll-off Terminal System (RRTS) brought down maritime transport cost within the Philippines. We use an origin-destination mapped dataset to evaluate how prices in supply and destination markets respond to RRTS access. Results show that on average, price gaps as a proportion of farmgate prices are 18% smaller in province pairs with RRTS. The gap narrowing effect is driven by higher farmgate prices without the corresponding increase in prices in destination markets. Exploiting extreme weather events as sources of positive price shocks, we find that farmers in RRTS supplying provinces enjoy a higher passthrough of price increases, while passthrough to consumer prices are not significantly higher in RRTS provinces compared to unconnected areas. These findings are consistent with RRTS-induced competition in intermediation and shipping services.

Author/s: **Eugenia Co Go**

JEL codes:

An Empirical Analysis of Factors Responsible for the use of Capital Market Instruments in Infrastructure Project Finance

The paper provides an empirical analysis of factors influencing use of capital market instruments for financing infrastructure PPP projects. The findings of the paper contain useful policy guidance as the data provides some evidence to suggests that banks play a role in crowding-out bond finance. This is due to the traditionally close relationships banks enjoy with projects that allows banks an advantage over bonds. Banks typically finance projects at financial close and bonds refinance banks after projects are operational. The findings are in accordance with ADB's experience in promoting use of capital market instruments for financing infrastructure PPP projects. Accordingly, the findings suggest that more than underwriting greenfield risk, MDBs have a role to play in supporting bond holders, through risk mitigation, project appraisal and project structuring as bond holders are less capable than banks in mitigating and absorbing project risk.

Author/s: **Vivek Rao**

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

The Impacts of Emission Trading Scheme on a Fossil Fuel Abundant Economy: A CGE Assessment for Kazakhstan

This study provides an economywide assessment of emissions trading scheme (ETS) using the recursive dynamic computable general equilibrium (CGE) model that we developed for Kazakhstan. Kazakhstan ratified international agreements to reduce CO2 emissions by 15-25% from the level of 1990 by 2030. However, the country experiences obstacles, ETS was suspended from 2016 to 2017 as it met the opposition from the energy and energy-intensive sectors. The results indicate that setting the ETS will reduce GDP by 1.5% by 2030 in Kazakhstan. The results are used to provide recommendations on how ETS can be implemented without dramatically reducing economic growth.

Author/s: **Zhanna Kapsalyamova, Dina Azhgaliyeva, Aidyn Bakdolotov, Chingiz Shuneyev**

JEL codes: Q01, Q43, Q56, Q58

Nepal's Infrastructure Financing Possibilities

Government of Nepal aims to invest about 39% of GDP each year during the 15th Five Year Plan period (FY2020-2024). A substantial portion of this will be spent in creating physical infrastructure. This will require mobilizing various sources, including external financing. With large remittances each year, Nepal could potentially channel some of it to finance its development needs. Initial estimates show that, in the past, remittances have contributed to the gross fixed capital formation. In the second part of the paper, I discuss recent reforms to improve investment environment and take developments in the energy sector to point out additional considerations to mobilize greater financing.

Author/s: **Anjan Panday**

JEL codes: C32, E22, F24, G21-24

A Case Study on Economic Corridor Development: China-Pakistan Economic Corridor

Pakistan has leveraged $27 billion worth investment in energy and transport sectors under the China-Pakistan Economic Corridor (CPEC). While these investments have eased energy shortages and improved economic connectivity, they pose major challenges through loan repayments and profits repatriation. This paper estimates total fiscal and balance of payment impacts of CPEC. It calls for strong policy actions to meet CPEC's foreign currency obligations for safeguarding macroeconomic stability by (i) enhancing competitiveness to boost exports; (ii) broadening tax net and rationalizing incentives; (iii) vigilant structuring of new external liabilities; and (iv) bringing energy distribution sector to full cost recovery.

Author/s: **Aman Mangrio, Dewan Mushtaq, and Kiyoshi Taniguchi**

JEL codes: H54, P45, O18, Q43

Assessing the Feasibility of International Monetary Policy Coordination among the Asean-5 + CJK Countries: A Two-Production-Factor DSGE Model

Using the two-production-factor dynamic stochastic general equilibrium model, this study examined the feasibility of international monetary policy coordination among the ASEAN-5 countries, People' Republic of China, Japan, and the Republic of Korea by comparing each countries' welfare under three interaction regimes: (1) no coordination; (2) bilateral coordination; and (3) multilateral coordination. This study found that coordination improves welfare of the participating countries, where multilateral coordination provides higher welfare than bilateral coordination. It also found that moving from one interaction regime to another regime tend to change intermediate-good-producing firms' responsiveness of pricing decisions and elasticity of substitution between differentiated intermediate goods.

Author/s: **Eric Alexander Sugandi**

JEL codes: F41, F42

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Impact of facilitative transport infrastructure in Georgia on regional trade

The paper discusses Georgia's emerging role as a gateway and regional transport-infrastructure hub, transport corridor and a link between Europe and Asia in the context of its liberal economy and an increasing number of free trade agreements. The analysis covers bilateral trade between Georgia and its key trading partners based on the gravity model which assesses Georgia's potential to act as a regional player facilitating trade flows.

Author/s: **George Luarsabishvili**

JEL codes: F1, R4, O18

Trade Impact of Reducing Time and Costs at Borders in the Central Asia Regional Economic Cooperation Region

Trade facilitation, by reducing trade costs and raising the efficiency of moving goods across borders is integral to international trade. Using novel data on bilateral time and costs measures for trade facilitation in the Central Asia Regional Economic Cooperation (CAREC), this study estimates the trade impact of reducing time and cost at border crossing points within CAREC. It finds that (i) time taken at an importer border is more influential in promoting trade than at the exporter border, and (ii) at an importer's border, time is a more objective measure than cost in determining trade flow changes. The gravity model estimations show that reducing time at the importer border by 10% increases intraregional trade among CAREC countries by 1.41%. However, simulation results show that trade facilitation only at borders may not be the sufficient factor that will lead to broader economic impacts in the CAREC region; rather, holistic approaches at and behind borders are needed.

Author/s: **Kijin Kim and Paul Mariano**

JEL codes: C23, F14, N75, R41

Using Input-output Links to Measure the Potential for Service-Led Development in Formerly Transition Economies and Central-West Asia

Central-west Asian countries have not diversified their economies according to traditional indicators, leading policy analysts to suggest that the objective should be to increase their share of manufacturing employment to levels similar to East Asian countries. This paper uses input-output analysis to develop a better measure of diversification that accounts for global production links and suggests that the key to development for these commodity-exporting economies is 'business and professional services', and explains why. The paper looks at measures of comparative advantage and diversification and concludes that worries of premature deindustrialization are unwarranted if value-added contribution is properly measured.

Author/s: **Valerie Mercer-Blackman and Joseph Mariasingham**

JEL codes: F15, F23, O14

Designing a Small and Medium-Sized Enterprise Development Index – Implications from Selected Southeast Asian Countries

Developing Asian countries have undertaken a number of measures to promote small and medium-sized enterprise (SME) development in the past decades. Although governments' interventions have been initiated on market access, entrepreneurship development, technology adoption, and access to finance regularly and against the financial crisis, constraints that SMEs face have yet to be eased significantly in the most countries. For better capturing structural problems around SMEs, this paper proposes a new cross-country index to numerically measure the level of SME development and access to finance using multivariate analytical methods based on SMEs granular data in select Southeast Asian countries.

Author/s: **Shigehiro Shinozaki, Mike Troilo, Masato Abe, and Phanhpakit Onphanhdala**

JEL codes: F43, G01, G21, M13

Latin America's faltering manufacturing competitiveness with Asia: what role for intermediate services?

Latin America's share in global exports of manufactures stagnated around 5% from 2000 to 2016, which contrasts the performance of developing Asia (which share rose from 23% to 37%). The former region's underperformance is often explained by the overvaluation of its exchange rate during this period due to the growing specialization in natural resources. This paper analyzes another potential explanation of the region's stagnant performance: the insufficient incorporation of domestic and foreign intermediate services as a source of value added. A growing literature shows that a country's manufacturing export performance depends critically on its degree of (business) servicification. We compare Latin America and ASEAN in terms the role of intermediate services in exports of manufactures using international input output tables during the periods 1995-2011 (in SNA 1993) and 2005-2015 (in SNA 2008). Results suggest domestic services value added intensity of manufacturing exports is higher in Latin America, whereas the imported services value added intensity is higher in ASEAN. They also show total domestic services content of manufacturing exports is negatively associated to global exports market shares, whereas total imported services are positively associated. However, some types domestic business services seem to have more incidence on changes global export market shares. The paper concludes with a reflection on services trade policies for the two regions.

Author/s: **Rolando Avendano, Filippo Bontadini, Nanno Mulder, and Dayna Zaclicever**
JEL codes: F14, F63, N50

SOE Effects on Markets, Competitive Neutrality and Market Distortion Assessment for Sri Lanka

This study adopts an analytical framework proposed in the World Bank Group's Markets and Competition and Policy Assessment Tool (MCPAT) to evaluate the distortionary impact SOEs have on market competition for Sri Lanka. Sri Lanka's 54 State Owned Business Enterprises (SOBEs) are assessed under three factors: (1) the SOE occupies a significant market position; (2) the SOE is protected from market competition by regulation or policies; (3) where private sector could provide the goods or services in an efficient manner. The analysis highlights that SOEs are very likely to negatively affect market competition in Sri Lanka. Firstly, they hold a significant market position or even monopoly power. Secondly, a competitive neutrality gap assessment points to distortions in the existing legal and regulatory framework, and its implementation. And thirdly, the country lacks an economic test for government intervention through SOEs in the economy.

Author/s: **Eshini Ekanayake**

JEL codes:

Financial Literacy and Fintech Adoption in Japan

This paper investigates how financial literacy and other factors contributed to adoption of fintech services in Japan, using data from a survey of 25,000 individuals aged from 18 to 79. We constructed a financial literacy index from 25 questions relating to financial decision-making skills and financial knowledge, and analyzed the relationship of this index with usage of electronic money and mobile payment apps and holdings of crypto assets. We find that higher financial literacy is positively associated using fintech services but negatively correlated with holding crypto assets. Those with higher financial literacy also tend to use fintech services more frequently.

Author/s: **Naoyuki Yoshino, Peter J. Morgan, and Trinh Q. Long**

JEL codes: D14, G11, J26

Assessing the Effectiveness of Banking Sector Nonperforming Loan Resolution Policies and Measures

Previous financial crises have demonstrated the long-lasting negative impact nonperforming loans (NPLs) can have on financial stability and the economy, as the effects of elevated NPL levels persist beyond crisis periods. Consequently, the identification of policy options to effectively manage and respond to a buildup in NPLs has gained attention in recent years. Employing a data set comprising macroeconomic and financial variables of 76 economies from 1996-2016, we assess the effectiveness of several NPL resolution measures. We find that not only favorable macroeconomic conditions, but also public Asset Management Companies significantly increase the probability of experiencing a sharp drop in the NPL ratio.

Author/s: **Daekeun Park, Junkyu Lee, and Peter Rosenkranz**

JEL codes: C23, C25, E44, G21, G28, O16

Debt buildup and financial vulnerability: Evidence from the exchange rate markets

This study examines how public and private debt buildups are related to currency depreciation pressures. Using a panel data from 59 economies, we show that currency vulnerability is positively associated with the level of private debt. That is, a currency becomes more vulnerable when private indebtedness is higher. Emerging market currencies are particularly more sensitive to private debt buildups than those of the advanced ones. Public debt levels do not show consistent significant impact on currency pressures across economies but seem to have consistent weakening effects in advanced countries. It also has the tendency to weaken currency during stress periods. This evidence highlights the importance of a comprehensive debt surveillance framework of both public and private debt.

Author/s: **Arief Ramayandi, Donghyun Park, and Shu Tian**

JEL codes: E5, F31, E51

Does access to banks matter to income inequality? Evidence from China

In this paper, we investigate the effect of access to banks on income distribution in China. Using the CGSS data and the database of FBOP of China, we find that overall the China's bank expansion during the past two to three decades is not financially inclusive with the RIF regressions. The results suggest that access to bank has no effect on Gini coefficient and Theild index, however, it has a sizable and statistically significant effect on the 90/10 percentile ratio. Furthermore, we find that the increase in the 90/10 percentile ratio is mainly because of the increase in the 50/10 percentile ratio. That is, the access to bank increases mainly the income inequality in the lower tail of the income distribution. In addition, we also find access to banks have heterogenous effects on income inequality between rural and urban areas, before and after 2000, and across different types of banks.

Author/s: **Bihong Huang, Yuheng Huang, and Guochang Zhao**

JEL codes:

Dynamics of Health-Seeking Behavior and Intertemporal Poverty: Evidence from Rural Households in Pakistan

There is a rich and growing literature on the dynamics of poverty and ill-health, and its consequences to health-seeking behavior in developing countries. But little is known about the dynamics of intertemporal poverty status of households and their health-seeking behavior. Using a three-year matched panel data from the Pakistan Rural Household Panel Survey (2012-2014) covering 19 rural districts of Punjab, Sindh, and Khyber Pakhktunkwa, consumption aggregates deflated using a Paasche price index are generated and used as a welfare measure to identify households that fall in and below the official poverty line. Regression analysis is conducted to examine the interplay between intertemporal poverty status and indicators of household health-seeking behavior such as immunization status of children and visits to health facility during recent illness of household members.

Author/s: **Ammar Aftab, Reneli Ann Gloria, and Rouselle Lavado**

JEL codes: I12, I32

Targeting the Poor Through an Enhanced Proxy Means Test Model

A key challenge for social protection programs is to identify the poor to target, especially when the poor work primarily in the informal economy, and administrative data are not available on income. To solve this problem, proxy means test models are often applied, which predict/approximate income on the basis of a limited subset of household characteristics that can be rapidly enumerated in the field for all potentially eligible households. The models themselves are identified econometrically using detailed income and expenditure survey data, with income or consumption regressed against household variables using ordinary least squares. A key challenge is that the coefficients on are therefore estimated for the population mean rather than the population near the poverty line, and that models overpredict income of the poor. This leads to large exclusion error (missing the poor). Various methods have been used to try to correct for this, but nearly all relate in imbalance toward either exclusion error or inclusion error (falsely categorizing nonpoor as poor). An innovative regression weighting optimized protocol has been developed for the 3rd round of the National Household Targeting System of the Philippines that gives very balanced exclusion and inclusion error. The identified model is being applied in 2020 to determine the eligibility of 16 million households in the Philippines for social protection programs.

Author/s: **David A. Raitzer and Dennis Mapa**

JEL codes:

Impact Evaluation of the Philippine Conditional Cash Transfer Program: Results of the Wave 3 Analysis

The third impact generation evaluation of Pantawid Pamilya, the Philippine Conditional Cash Transfer Program, aims to reassess the program impact on short term and intermediate outcomes on health, education, household welfare and other socio-behavioral domains. The study sampled 10 municipalities per major island cluster (i.e. Luzon, Visayas, and Mindanao), covering a total of 6,775 households across 180 barangays. This includes beneficiaries that were registered from 2008 to 2014, thereby having at least two years of exposure to the program, and it employs nonparametric local regression discontinuity design to analyze program impact. The program is found to increase consumption of beneficiary households, reduce reported hunger, improve some healthcare utilization, increase enrollment in higher grade levels, and improve the grit of children. The program does not lead to dependency, as labor force participation is not reduced, nor is vice good consumption substantially increased. Participation in community activities is increased, as well. At the same time, effects on nutrition are puzzling, as the program is found to significantly reduce height for age and increase the stunting of beneficiary children. A complementary 2500 household follow up of the randomized phase in of the initial program rollout finds opposite effects – that early engagement with the program leads to better nutritional outcomes, rendering the nutrition results a puzzle.

Author/s: **Shamit Chakravarti**

JEL codes:

Intrahousehold Responses to Imbalanced Human Capital Subsidies:
Evidence from the Philippine Conditional Cash Transfer Program

Conditional cash transfers have emerged as a globally accepted means of delivering social protection that encourages long term investment in human capital by poor households. However, conditional cash transfers also have the potential to distort incentives for investing among children if conditionalities are only enforced for a subset of children within participating households. Such an effect can arise because children monitored for compliance have subsidized investment costs for education, which raises the returns to household investment in those children, relative to those who are unmonitored. In such a situation, intrahousehold allocation to maximize returns will divert resources from unmonitored to monitored children. This paper demonstrates such behavior - that overall recent negative nutrition outcomes from the Philippine conditional cash transfer on children of beneficiary households are driven by effects on children who are not eligible for monitoring for educational compliance. Using data from 6775 households in a fuzzy local regression discontinuity design interacted with an additional instrument for child selection for monitoring, it finds that effects on monitoring eligible and ineligible children of beneficiary households are inverses of one another. Parents have significantly higher expectations of monitoring eligible children, and the children show significantly increased school enrollment and improved nutrition relative to nonbeneficiaries. Conversely, ineligible children have negatively affected parental expectations, significantly decreased school enrollment and significantly increased stunting and reduced height for age relative to nonbeneficiaries. Specific program reforms are suggested to equalize program incentives across the children of beneficiary households and enhance program effects.

Author/s: **David Raitzer and Odbayar Batmunkh**
JEL codes:

Using Big Data to Examine the Factors Influencing the Duration of Disbursements in Asian Development Bank Loans and Grants for Health-Related Projects

Over the years Asian Development Bank has actively engaged in providing loans and grants for health-related projects in Asia and the Pacific region. An integral part of any project is the time it takes for the disbursements to be made from the start of the project. Using data from GFIS and LFIS, the study aims to examine the factors that impact the time between the project start date and disbursement date by utilizing a multivariate regression for each project from 1989 onwards with country level fixed effects. Independent variables will include the amount of disbursement, type of financing, and the expenditure category. Results from the study will aid in realizing the focus areas that need work for quicker disbursement, and hence the swift implementation of the future projects.

Author/s: **Ammar Aftab, Rouselle Lavado**

JEL codes: C01, C58, G20

The Health Status of Asia's Elderly and Gender Differences in Access to Health Care

This study investigates factors that may constrain the elderly in Asia from meeting their health care needs, particularly women. Using a subsample of adults ages 60 and above from recent Demographic and Health Surveys for a select group of Asian economies, we test for differences in demographic characteristics and health factors by gender. We then focus solely on those who reported an illness or injury in the previous month and test for gender differences in treatment-seeking behavior. Uncovering such gender differences in health outcomes and access to care is crucial to meet the needs of elderly adults in Asia.

Author/s: **Yana van der Meulen Rodgers and Joseph E. Zveglich, Jr.**

JEL codes: I14, J16, O53

Achieving Urban UHC: Costing evidence-based urban health service packages

Countries in South Asia have one of the highest incidences of catastrophic and impoverishing health expenditures in the region. Using the Disease Control Priorities (DCP3) costing model, we estimate the cost of providing South Asian Urban Package (SAUP), a comprehensive package of 205 interventions covering the entire life span. We estimated the additional cost needed to provide SAUP to cover 80% of the population (the incremental cost), and the second is the total cost for the package for 80% coverage which is the sum total of the current spending and the incremental cost. Results from the study will inform financing gap to pursue universal health coverage in major cities in South Asia.

Author/s: **Eduardo Banzon, Brian Chin, Sonalini Khetraphal**

JEL codes: I10, G22

Estimating Health-Related Productivity Loss: Application of Lost-Wages Approach in Armenia

Decreased productivity due to poor health of the working population or of the non-working dependents is a primary way through which health impacts the economy. An increase in number of sick days, or chronic illnesses leading to long-term weakness could result in decreased productivity. The study utilized annual micro-level Integrated Living Conditions Survey data from 2015 onwards for Armenia to estimate the number of working days missed per year due to poor health, and the respective annual salary of that individual. This is the first of its kind study to estimate the health impact on economy through lost wages for Armenia.

Author/s: **Ammar Aftab, Rouselle Lavado**

JEL codes: I15, I18, I19

Effective or irrelevant? The impact of TVET on employment in the Philippines

The quality of technical and vocational education and training (TVET) varies considerably across the developing world. Some systems provide quality skills training that leads to employment in good-paying jobs. Others suffer from weak teaching and outdated facilities that generate graduates who not highly sought after by employers. We use a specialized data set of workers in the Philippines to test the impact of TVET on employment outcomes in terms of employability (getting a job) and the wage level.

Author/s: **Paul Vandenberg and Jade Laranjo**

JEL codes: I26, J24, J31

Measuring Employability: Impact of Skills Development Program in India

This paper reports on the program implemented to enhance the employability of youth, aged 15-24 years, by imparting market-relevant vocational skills, and foundation skills including English communication and information technology. An 'employability index' was designed as a performance metrics based on five parameters personality/behavior, numerical & analytical ability, English communication, attention to details, and job-specific skills. A cross-sectional quasi-experimental design survey was adopted to carry out the measurement of 'employability' over the period of four years 2016-2019 (including baseline). About 26,000 students from the state of Kerala, southern state of India participated in the survey. The average employability score was estimated to be 69 in 2019, an average improvement of about 41% over the baseline value. The findings show that there has been significant progress in the employability of participating students, year by year, which indicates that the training has been effective in making the students more employable as per industry standards.

Author/s: **Kanupriya Gupta and Chandan Singh**

Cities and Jobs: Evidence from Labor Force Surveys from Four Asian Economies

Using labor force survey data from four Asian economies, we examine how employment and wages vary across rural and urban areas, and across small and large cities within urban areas. Using a concept of natural cities based on satellite images of actual urban footprints of cites, we explore whether the data exhibit patterns consistent with the existence of agglomeration economies. In particular, we examine the following aspects: the pattern of industrial employment; diversity of occupations; labor productivity; and returns to education and experience. Overall, we find that the answers to these questions are in a direction consistent with existence of agglomeration economies.

Author/s: **Glenita Amoranto, Eugenia Go, Rana Hasan, Yi Jiang**

Robot Adoption and the Demise of Routine Jobs: Evidence for Developed and Developing countries

This paper examines the relation between the demand for routine jobs and the adoption of modern industrial robots. We study this relation using a short-run variable cost function approach. We construct a panel data set on robot adoption and detailed occupations by 2-digit manufacturing industries in a sample of developed and developing countries for the period from 2005 to 2015. Our preliminary estimates suggest that robot adoption relates to significant lower demand for routine task-intensive occupations in developed countries, but this relation is not observed in developing countries. Developing countries participate in global value chains, often doing the final assembly activities. Robot adoption in developed countries may substitute for these routine assembly tasks. Robot adoption is observed in precisely those industries where production is also most globally fragmented. We provide a methodological approach that allows to explore the cross-border effects of robot adoption on jobs in global value chains. We empirically implement the approach using global input-output tables.

Author/s: **Elisabetta Gentile, Sébastien Miroudot, Gaaitzen de Vries, and Konstantin Wacker**

JEL codes:

Persistent Current Account Imbalances: Are they Good or Bad for Regional and Global Growth?

This paper examines regional and global growth effects of current account surpluses in Japan, Germany and China, and current account deficits in the US and UK. Controlling for macroeconomic determinants, we use a structural VAR framework to show that surpluses in Germany and Japan transmit positive regional growth effects. The response of global growth is of a similar magnitude for current account shocks in China, Germany and Japan. The extent of this effect is amplified by global value chains and trade in intermediate goods. By contrast, the extra-country growth effects of deficit countries are much lower in magnitude.

Author/s: **John Beirne, Nuobu Renzhi and Ulrich Volz**

JEL codes: F32, F41, F62

An evaluation of effectiveness of low interest rate regime for triggering sustained economic growth

Are monitory measures taken by Reserve Bank of India in current state of economy will revive Indian growth? How other comparable economies have responded in similar situation? Is increasing household debt a warning signal or can be channelized to foster growth Indian has been looking for? This paper aims in finding correlation between various monitory interventions taken by 4 economies and tries to map it for India. Paper also looks at analysis household debt situation and India and try to create framework to be considered for future monitory and fiscal policy formation.

Author/s: **Mohd Sharib Khan and Sudipto Bhattacharya**

JEL codes: E2, E3, E5, E5

Is Indonesia's Growth Inclusive?

Indonesia experienced a strong economic growth for three decades prior to the Asian Financial Crisis. The question whether the economic growth benefited all income groups has been arising among scholars and policymakers. The concept of inclusive growth has emerged as one of a new development agenda at both the national and the international level. Drawing upon the Social Opportunity Function and the Social Mobility Function, we calculate Indonesia's growth inclusiveness on 2010, 2015, and 2018 using the National Socio-Economic Survey (SUSENAS) datasets. We take into account access to education, health services, and basic services such as safe drinking water, sanitation, and also electricity in our model. We also discuss the social mobility curve measured by per capita expenditure. The result shows that Indonesia's strong economic growth is inclusive, since it has also increased access to education, health services and basic services across all income groups. However, the result also shows that the disparity between the western and the eastern regions of Indonesia is still very high.

Author/s: **Priasto Aji and Yangki Suara**

JEL codes: O1, O15

Demography and Growth in Developing Asia

This paper investigates the role played by demographic change as a determinant of growth in Developing Asia, as well as a large panel of advanced and emerging economies. We disentangle the two channels via which population ageing can impact negatively on short- and long-term growth performance: (a) The direct channel, via which ageing leads to slower working-age population and labor force growth; (b) The indirect channel, linking demographic change to productivity growth through its impact on the accumulation of physical and human capital, knowledge and innovation. Moreover, using UN data on demographic projections, we construct long-run growth scenarios for Developing Asia.

Author/s: **Matteo Lanzafame**

JEL codes:

Demographic Change, Technological Advance, and Growth: A Cross-Country Analysis

This paper revisits the impact of population aging on economic growth. Instead of relying on a conventional and single parameter measuring the extent of population aging such as old-dependency ratio, we consider the whole demographic change in age distribution and evaluated the effects on growth. Our empirical analysis suggests that a rise in the share of older population and decline in working-age population lowers economic growth. We also investigate the effect of technological advances on the relation between population aging and economic growth. We examine four plausible proxies of technological advancement: life expectancy, labor productivity, automation, and technology adoption. We find that increasing life expectancy and labor productivity favors old age groups as they likely help older age groups contribute more positively to future growth. More automation also favors old age groups but in a different way. When robot density increases, old age groups become less disadvantageous compared to the young, or that the difference between the most productive age groups and old age groups in their contribution to economic growth is reduced. Last, technological adoption enhances the growth contribution of productive age groups from 30s to 60s when one compares low with high total factor productivity scenarios.

Author/s: **Cyn-Young Park, Kwanho Shin, and Aiko Kikkawa Takenaka**

Economists' Forum
Asian Development Bank
14-15 January 2020
PROGRAM

Urban Agglomeration and Firm Innovation: Evidence from Asia

This paper presents evidence on the effects of urban agglomeration on firm innovation. It uses a unique dataset that consistently defines city boundaries and identifies firms' innovation activities across 25 developing countries in Asia. We find substantial gains from increases in city population in firms' propensity to undertake process and product innovation as well as R&D activities. These gains remain even after concerns regarding endogeneity are addressed using historical population data as instruments. In addition, we present evidence that agglomeration effects occur through the knowledge spillover channel, specifically through the presence of a top university in a given city and through firms' efforts in R&D. These findings confirm the existence and significance of urban economies of scale in augmenting the knowledge flows that generate innovation.

Author/s: **Liming Chen, Rana Hasan, and Yi Jiang**

JEL codes: O3, R11, O1

Tax Administration and Innovation: Evidence from Firm-level Data

This paper studies whether the quality of tax administration has an impact on innovation. Our key hypothesis is that firms constrained by tax administration issues would have fewer resources to spend on innovation inputs such as R&D and therefore innovate less. To tackle this research question, we use World Bank Enterprise Survey (WBES) data, which contains firm-level information over the period 2007 – 2019. Tax administration is measured using 5 explanatory variables including tax inspection and frequency, tax bribes, tax constraints and tax administration constraints and innovation is based on product and process innovation, on product novelty and R&D spending.

Author/s: **Irfan A. Qureshi and Donghyun Park**

JEL codes: O1, O3, O5

Intellectual Property Protection, Foreign Technology Licensing, and Domestic Innovation in Developing Countries

This paper examines whether stronger protection of intellectual property (IP) rights encourages innovation in developing countries. First, we perform a probit analysis of a representative sample of firms operating in 81 developing economies and find that tighter IP protection is associated with a statistically significant increase in foreign technology licensing only for large firms, and that foreign ownership is a strong determinant of technology licensing status independent of IP protection. Next, we conduct a bivariate probit analysis on a sample of firms operating in 41 developing economies to study the simultaneous effect of IP protection on licensing and innovation. We find that the impact of IP protection on innovation is contingent on the existing level of IP protection.

Author/s: **Elisabetta Gentile and Rhea Molato**

JEL codes:

Almaty-Bishkek Economic Corridor Tourism Master Plan

The mountain range between Almaty and lake Issyk-Kul has great potential to attract international tourists. Developing this mountain region can spur connected winter sport investments such as ski resorts. Also, linking it with summer tourism opportunities around the lake would reduce seasonality and investment risks of tourism flows. A tourism master plan for the Almaty-Bishkek Economic Corridor was developed to capture these benefits.

Author/s: **Kristian Rosbach**

JEL codes: R12, L83, Z30, Z31, Z32, Z38

Tourism Synergy with Employment and Agriculture Value Chain in Lao PDR

This paper presents results of a tourism enterprise survey conducted in 2019 in four locations of Lao PDR: Vientiane Capital, Vang Vieng, Luang Prabang, and Champasak. The survey estimates the overall employment generation in the accommodation and food sectors and identifies potential areas for training and skills development. The survey also sheds light into the strength of linkages between tourism and agriculture industry by asking questions related to food demand and sourcing, with a focus on organic produce.

Author/s: **Manisha Pradhananga and Takashi Yamano**

JEL codes: J24, Z3, Q13

Greater Mekong Subregion Tourism Sector Strategy

Tourism is growing rapidly in the Greater Mekong Subregion (GMS) and contributes substantially to economic growth, employment, and regional integration. However, tourist arrivals and benefits are mainly concentrated in gateway destinations. Recognizing that high tourism intensity can degrade the environment and undermine inclusive and sustainable growth, the GMS countries are jointly implementing a regional tourism sector strategy to address these challenges.

Author/s: **Alfredo Perdiguero, Asadullah Sumbal, and Steven Schipani**

JEL codes: J24, Z3, Q13

Economic Analysis of Fiscal Decentralization in Pakistan

This paper assesses the economic impact of fiscal decentralization in Pakistan. The time-series samples during 1982-2018 were divided between pre and post periods of 7th National Finance Commission (NFC) Award of 2009. The economic impacts were separated into growth, education, and health (proxied as life expectancy). Results found that there was positive long run relationship across the variables. While total effect from composite decentralization has produced positive impact on economic growth, the post 7th NFC period had lower growth. In conclusion, total impact of fiscal decentralization brought higher economic growth at a lower rate.

Author/s: **Nadia Farooq and Kiyoshi Taniguchi**

JEL codes: O23, O11, E65

Governance and Geography: Measuring the Spatial Spillover of Institutions

This study is part of a broader research agenda that reviews the conundrum of why despite comparatively average governance indicators, Asian economies have outperformed their peers in other regions. We investigate the determinants of governance – using the worldwide governance indicators - and the empirical evidence for two-way causality between economic development and governance. Based on the hypothesis that everything is related to everything else, but near things are more related than distant things, we assess the geographical determinant or spatial spillover of governance quality on neighboring countries, or countries located in the same region. We employ a family of spatial econometric models which measure spatial autocorrelation of observations through the spatial autoregressive (SAR) specification to demonstrate that it is in the political regime dimension of governance where countries exhibit high spatial dependence. The findings show clear policy implications in terms of targeting improvements in the functioning of the bureaucracy.

Author/s: **Bruno Carrasco and Anthony Baluga**

JEL codes: H00, H30, O10, O38, C13, C51, E60

SDGs, Domestic Resource Mobilization, and Public Policy: Using a Public Policy Lens Drawn on New Institutional Economics

To achieve the Sustainable Development Goals, governments seek greater resources through domestic resource mobilization. Particular focus is on fiscal consolidation measures which cut losses and minimize inefficiencies in the public sector. The paper will draw from concepts in public policy and New Institutional Economics to examine these issues. The anchor of the paper is an analytical construct which stipulates that incomplete information leads to information asymmetry (ie, [$II \rightarrow IA$]). This dictates the scope of government intervention in the economy; it also negates the underlying assumption of perfect information in classical economics. The argument is that imperfect information results in inefficient institutions.

Author/s: **Gambhir Bhatta**

JEL codes: E02, E61, E62, H26, H61, H77, H83, L38

Economists at the Frontier

VP Ahmed Muneeb Saeed

David Daniel Oldfield

Moderator

Panelists

Yesim Elhan-Kayalar

Cahyadi Indrananto

Karen Lane

Emma Veve