2018 THE WORLD BANK GROUP ASIA COMPETITIVENESS INSTITUTE ANNUAL CONFERENCE ON "INFRASTRUCTURE DEVELOPMENT, WELFARE SPENDING AND BUDGET SUSTAINABILITY"

Jointly organized by
The World Bank Group, with
Asia Competitiveness Institute
at Lee Kuan Yew School of Public Policy,
National University of Singapore

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Lee Kuan Yew School of Public Policy,
National University of Singapore

2018 Annual Conference Proceeding

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In 2019, ACI was ranked 12th globally, 2nd in Asia, and 1st in Singapore amongst 94 think tanks worldwide under the "Best University Affiliated Think Tank" category by the Think Tanks and Civil Societies Program at the University of Pennsylvania, USA.

About ACI

The Asia Competitiveness Institute (ACI) was established in August 2006 as a Research Centre at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS). It aims to build the intellectual leadership and network for understanding and developing competitiveness in the Asia region. ACI seeks to contribute to the enhancement of inclusive growth, living standards, and institutional governance through competitiveness research on sub-national economies in Asia. It identifies mitigating issues and challenges for potential public policy interventions through close collaboration with regional governments, business corporations, policy think-tanks, and academics. ACI's three key research pillars include (I) Sub-national economies level competitiveness analysis and city-level liveability analysis; (II) Firm-level competitiveness analysis in 16 Asia economies; and (III) Singapore's long-term growth strategies and public policy analysis.

ACI's value propositions may be encapsulated in its acronym:

Analytical inputs to initiate policies for policy-makers and business leaders in Asia

Capacity building to enable others through improvement in productivity and efficiency

Intellectual leadership to create pragmatic models of competitiveness and inclusive growth

The institute's core research competencies can also be encapsulated in this acronym describing our evidence-based assessments conducted on public policies for ASEAN in the context of the rise of China and India.

Vision and Mission

- ACI's over-arching vision is to build up its research credibility with policy impact, contributing as a professional, world-class think-tank.
- ACI's mission is to establish our niche as a leading policy think-tank by identifying competitiveness trends, opportunities, and challenges, as well as promoting competition and synergizing complementarities amongst Asian economies and business corporations.
- ACI endeavours to articulate sound recommendations, entice discourse, and shape agenda in the arena of public policy amongst Asian governments.
- ACI undertakes evidence-based analysis of public policy issues and decisions, in order to provide assessment of their effectiveness as well as economic and societal impact.

Research Initiatives and Collaborations

- I. Identify trends of competitiveness and policy analysis on trade and investment of ASEAN, within the regional context of competition and complementarities with China and India.
- II. Identify competitive strengths and conduct policy analysis on Singapore within the context of regional economies with international benchmarking.
- III. We are regularly releasing three indices on liveability ranking including 64 Global Cities, 100 Greater China Cities, and 17 Shandong Cities.
- IV. We have established an Ease of Doing Business (EDB) Index on Attractiveness to Investors, Business Friendliness, and Competitive Policies for 21 sub-national economies of India and 33 sub-national economies of Indonesia.
- V. We have signed Memoranda of Understanding (MoU) with The World Bank (2015), Enterprise Singapore formally known as SPRING Singapore (2014) and European Central Bank (2014). The MoU between The World Bank and National University of Singapore, coordinated through ACI, was signed in 2016.
- VI. We have signed MoUs with various institutions in Greater China economies, including Institute of Economics at Shanghai Academy of Social Sciences (2019), Institute of World Economics at Shanghai Academy of Social Sciences (2016), Chongqing Municipal People's Government (2015), China Institute for Reform and Development, Haikou (2015), Counsellors' Office of the People's Government of Guangdong Province (LOI, 2014), and Chung-Hua Institution for Economic Research, Taiwan (2015).

- VII. We have signed MoUs with seven Chief Ministers' Offices in Uttarakhand (2019), Andhra Pradesh (2018, 2017 & 2015), Bihar (2015), Chhattisgarh (2015), Madhya Pradesh (2015), Odisha (2015), and Punjab (2015).
- VIII. We have signed a MoU with Committee for Acceleration of Priority Infrastructure Delivery at Coordinating Ministry for Economic Affairs, Indonesia (2016), Indonesia Investment Coordinating Board (2014), Indonesian Agency for Agricultural Research and Development at Ministry of Agriculture (2014), Indonesian President's Delivery Unit for Developing Monitoring and Oversight (2013), and Employer's Association of Indonesia (2013).
- IX. We have signed MoUs with Asian think-tanks and institutions, including Institute of Economic Growth, India (2018), Vietnam Chamber of Commerce and Industry, Vietnam (2016), Centre for Strategic and International Studies, Indonesia (2015), Institute of Strategic & International Studies, Malaysia (2015), Philippine Institute for Development Studies, the Philippines (2015), Thailand Development Research Institute, Thailand (2015), and Central Institute for Economic Management, Vietnam (2015).

About ACI's Research Pillars

ACI has consciously engaged in economic research that has significant relevance to Singapore and the Asian region. Over the years, ACI has focused on our expertise in quantitative competitiveness analysis and simulation, spinning off volumes of research output in the applications of our methodology and regional insight. At this stage, ACI has identified three core research pillars that will guide and define its research efforts moving forward. The three research pillars are as follows:

Pillar I. Sub-national Economies Competitiveness Analysis

ACI engages in systematic and methodical competitiveness analyses of the sub-national economies by using an evidence-based, empirical approach involving a comprehensive list of relevant indicators, which are categorised under multiple layers called the 'environments'. A number of our projects, including competitiveness analyses of Greater China, ASEAN-10, India, and Indonesia, as well as other thematic research projects, were conducted by adopting this common methodology, with potential variations in the specific environments and indicators. ACI's competitiveness analysis of Asian economies goes beyond the usual ranking to offer constructive policy recommendations on how individual member states can improve their rankings vis-à-vis their sub-national or regional peers through the application of the 'what-if' simulation, which provides the projected improvements of each state's ranking whereby the bottom one-fifth of its indicators are enhanced.

Pillar II. Micro-based Firm Level Competitiveness Analysis

Micro-based firm level competitiveness analysis is ACI's second research pillar that has been developed in view of the intrinsic importance of firm-level competitiveness in terms of productivity, efficiency, and governance. In the context of globalisation, mobility of economic activities, and blurring of borders, an understanding of the determinants and dynamics of firm-level competitiveness is paramount, in order for policy makers to adjust and prepare their industries for an increasingly competitive economic landscape. To this end, ACI has partnered with the European Central Bank to carry out research in this area, possessing a solid foundation in firm-level productivity research in the form of European Competitiveness Network database and methodology. ACI envisaged the expansion of Competitiveness Research Network (CompNet) into Asia, thereby pioneering the Asia's CompNet in encompassing 16 economies in Asia.

Pillar III. Singapore's Long-term Economic Growth Strategies and Public Policies Analysis

The third and imminent research pillar focuses on Singapore's long-term economic growth strategies in the context of changing circumstances, future trends, and emerging opportunities for Singapore in the decades ahead. In particular, ACI will take on the task of critically examining Singapore's public policy strengths and areas of improvement by assessing policy successes of the past, identifying new issues to address and the current policy gaps, through a systematic and evidence-based research inquiry using quantitative methodology and empirical data, leveraging on our network of policy experts.

Founding Patron and International Advisory Panel

Founding Patron Mr George Yeo

Visiting Scholar, Lee Kuan Yew School of Public Policy, National University

of Singapore & Former Minister of Foreign Affairs, Singapore

International Advisory Panel

Co-Chairs: Professor Michael Porter (2006-2010)

Bishop William Lawrence University Professor

Ms Marjorie Yang (2006-2012)

Chairman, Esquel Group

Members: Professor Kishore Mahbubani

Former Dean, Lee Kuan Yew School of Public Policy, National University of Singapore

Dr Kuntoro Mangkusubroto

Former Head, President's Delivery Unit for Developing Monitoring and Oversight

(UKP4), Indonesia

Mr Narayana Murthy

Former Chairman, Infosys Technologies Limited

Mr Philip Yeo

Former Chairman, Enterprise Singapore

Mr Loh Khum Yean

Permanent Secretary, Ministry of Trade and Industry

Ms Yong Ying-I

Permanent Secretary, Public Service Division

Professor Chan Kam Leung Alan

Former Dean, College of Humanities, Arts and Social Sciences,

Nanyang Technological University

Asia Competitiveness Institute

Co-Directors: Associate Professor Tan Khee Giap (2011 till now)

Professor Tan Kong Yam (2011 till now)

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Summary of 2018 The World Bank Group - Asia Competitiveness Institute Annual Conference on "Infrastructure Development, Welfare Spending and Budget Sustainability"

As burgeoning economies around the world continue to develop, it is imperative that policymakers in these governments have programs in place directed at improving the welfare of their more vulnerable constituents. However, they must also ensure that welfare spending does not strain the budget to the point that it is fiscally unsustainable. Some investments, such as those in infrastructure, can serve to improve the well-being of a country's residents while also bolstering its economic competitiveness. Nonetheless, a delicate balance should be reached between welfare spending and budget sustainability.

In this context, the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS) and the World Bank Group had jointly co-hosted the 2018 Annual World Bank Group - ACI Competitiveness Conference on "Welfare Spending and Budget Sustainability" at the Oei Tiong Ham Building, National University of Singapore, on 26-27 November 2018. Among those in attendance were high-level policymakers, scholars, and members from international agencies and participants from the private sector. The conference provided the ACI research team with a platform to discuss their latest empirical findings with policy implications. The program of the conference consisted of plenary and topical sessions, coupled with keynote addresses by high-level participants from the public and private sector.

The conference began with Welcome Remarks from Associate Professor Tan Khee Giap, Co-Director, ACI-LKYSPP, NUS, and Ms Fatouma Toure Ibrahima, Operations Adviser, Singapore Infrastructure and Urban Development Hub, The World Bank Group. Associate Professor Tan welcomed distinguished guests from Singapore and abroad and briefly touched on the key research pillars that ACI conducts. Following his welcome remarks, Ms Ibrahima recounted the importance of collaboration, knowledge, and innovation in infrastructure spending and reiterating the World Bank Group's twin goals of reducing poverty and sharing prosperity.

After the Welcome Remarks, the **Guest of Honour, Dr Bambang Brodjonegoro**, Minister for National Development Planning Agency, Republic of Indonesia and **Ms Fatouma Toure Ibrahima**, witnessed the official launch of six books by the ACI-LKYSPP.

Following the book launch, the Guest of Honour, **Dr Bambang Brodjonegoro**, Minister for National Development Planning Agency, Republic of Indonesia, gave the Opening Remarks on the subject of "Infrastructure Financing and Development in Asia" by outlining the unique challenges that an archipelagic country such as Indonesia faces in developing infrastructure for economic and social connectivity. Dr Bambang then proceeded to describe the different government schemes in which the private sector can partner in infrastructure investment initiatives.

The Minister's Opening Remarks was followed by a plenary session on the annual update to the competitiveness rankings and simulation studies on the ASEAN economies as well as the welfare spending and budget sustainability analysis pertaining to seven ASEAN nations as well as the OECD economies.

The Conference Luncheon Talk was delivered by **Dr Ir. Wahyu Utomo**, Deputy Minister for Infrastructure & Regional Development, Coordinating Ministry for Economic Affairs, Republic of Indonesia, on the theme objectives of "Special Economic Zones for Economic Development". Dr Wahyu stressed that Indonesia's special economic zones (SEZs) are instrumental in diversifying the nation's economy. He moved on to mention that the current Indonesian government has plans to create seven new industrial SEZs and three new tourism-based SEZs. He concluded the luncheon talk by discussing both fiscal and non-fiscal incentives for investing in these newly developed SEZs.

The rest of the conference for the day consisted of plenary sessions on the competitiveness rankings, welfare spending and budget sustainability analyses on subnational economies of China, Indonesia, and India.

The second day of the conference began with Welcome Remarks by **Associate Professor Tan Khee Giap**, Co-Director, ACI-LKYSPP, NUS and he briefly introduced to participants the keynote speakers of the day.

After the welcome remarks, the first keynote address was delivered by **Mr Henry Kwek**, Member of Parliament and Member of the Government Parliamentary Committee for Trade and Finance, Singapore, who spoken on "Singapore as an Asia Infrastructure Hub". Mr Kwek's discussed the advantages of using Singapore as a centre for infrastructure evaluation, investment and financing.

The second keynote address was given by **Professor Zheng Yongnian**, Director of the East Asian Institute, NUS, on the "US-China Trade War". Professor Zheng suggested that, given the domestic situation in both countries, the trade war was inevitable and is expected to drag on for the foreseeable future. He also added elaborated on how the trade war would affect China and its Asian neighbours.

Following Professor Zheng's keynote address, **Dr Manoj Panda**, Director of the Institute of Economic Growth, India, delivered the third keynote address on "India as an Emerging Regional Economic Power". Dr Panda outlined the challenges that India faced in the past in diversifying and developing its economy. Nonetheless, he concluded that India is in a prime position to play a leadership role in the economic integration and connectivity of the region.

After the keynote addresses, there were plenary sessions on ranking the cost of living of expatriates and ordinary residents in world's major 105 cities and on ACI's Global Liveable and Smart Cities Index (GLSCI).

The plenary sessions were followed by a Conference Luncheon Talk presented by **Dr Thia Jang Ping**, Principal Economist, Strategy, Policy and Budget Department, Asian Infrastructure Investment Bank, on "Infrastructure Development: Evaluation, Financing and Sustainability". Dr Thia emphasised the key role that infrastructure plays in the economic development of a country but added that big projects will require financing from many different sources. He also elaborated on macroeconomic issues that will potentially result in stresses and crises for the economy.

Following Dr Thia's luncheon talk, **Professor Tan Kong Yam**, Co-Director of ACI-LKYSPP, NUS, brought the conference to a close by delivering the Closing Remarks on the way forward for future research agenda. Professor Tan commended the keynote speakers for their meaningful contributions to the conference and thanked the audience for attending.

Conference Welcome Remarks I

Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS

Good morning,

Minister Dr Bambang Brodjonegoro, Minister for National Planning in Indonesia, Ms Fatouma, Adviser to the World Bank Group, to all foreign speakers from China, India, Indonesia, Malaysia, and the United Kingdom who had travelled a long way, to all distinguished government officials, members of APINDO and academics from the 34 Indonesian provinces, Assalamualaikum, good morning and a warm welcome to Singapore!

We are very honoured that so many of you continued to participate in this ACI annual economic competitiveness conference. The conference theme this year is on infrastructure development. This is a very important topic for our region because we urgently need to revamp our infrastructure. I am also very happy that we are able to share with you today the fruits of our research effort put in over the one year period, which we would include them in the ACI books for the sub-national economies of China, India, Indonesian and the ASEAN-10.

I am also aware that many of you are in Singapore for the first time, and I wish that you will spend your leisure time here to explore Singapore a little bit more. We also hope that you enjoy the visit to this beautiful old National University of Singapore (NUS) campus of which the Lee Kuan Yew School and the law school are located. This old campus used to be the Raffles College where our late Minister Mentor Lee Kuan Yew was a student. The King George Medical College was also located here where Prime Minister of Malaysia, Dr Mahathir and his wife graduated from here too. In fact, this Bukit Timah old campus is a heritage building for Singapore, and most of the building structure that you see here today were built by the British colonial government. The NUS new campus is located in Clementi, and if you are interested we can also bring you to the new campus too.

We are also happy to report to you that the international ranking of NUS has since improved to the eleventh position worldwide in 2018. Once again I would likely to warmly welcome you to the Lee Kuan Yew School of Public Policy and to Singapore. I wish you a fruitful conference ahead!

Conference Welcome Remarks 2



Ms Fatouma Toure Ibrahima
Operations Adviser,
Singapore Infrastructure and Urban Development Hub, The World Bank Group

Good morning,

Minister Bambang Brodjonegoro, Minister of National Development Planning of Indonesia

Representatives of APINDO,

Ladies and gentlemen,

Let me start by thanking Professor Tan for giving me the opportunity to be here once again. When we started participating in these conferences, there were few rows, and now looking at the back of the room, there are no empty seats.

Last year, I focused my presentation mainly on infrastructure and infrastructure finance. I shared with the audience the World Bank's mission to reduce poverty and share prosperity, as well as how infrastructure is at the foundation of the work that we do. In that context, we see infrastructure in connection to people - when we build roads or support countries distribute water and energy, we see people at the end of the process. I think you would agree with me that service delivery is becoming more and more challenging as we face issues like climate change, natural disasters, and displaced populations. So, today's seminar is another opportunity to follow-up on these issues in terms of collaboration, knowledge, and innovation.

Innovation, collaboration, and knowledge give hope and support results. In that context, I would like to take the opportunity to highlight our strong collaboration with Singapore on infrastructure and urban development. The recent signature of an MoU between the World Bank Group and Infrastructure Asia is good evidence of this rich collaboration. Since we are all familiar with the foundation of the World Bank-Singapore collaboration, I won't go into it again. However, I would like to stress the importance of knowledge collaboration as Singapore provides the platform to gather, manage, and share knowledge and know-how.

The Singapore experience in infrastructure and urban development is widely recognized and shared with countries around the world.

In sharing that experience, we often insist on the fact that the financial resources that any one partner would bring to the table to support a particular agenda will not be sufficient. Therefore, we must help countries bring the private sector into the equation. Today, World Bank Group, through its various institutions, is trying to Maximizing Finance for Development (MFD) and systematically help countries maximize their development resources by drawing on private financing and sustainable private sector solutions.

Given the good representation of participants from Indonesia, I would like to mention that Indonesia is one of the first countries where we piloted InfraSAPs (Infrastructure Assessment Programs). The program uses a Cascade approach - a policy and a project-level decision-making framework - to determine where private sector solutions can be leveraged to optimize the use of scarce public resources. We ask first whether a project can be delivered through sustainable private sector solutions while limiting public liabilities and, if not, whether WBG's support (public finance option) for an improved investment environment or risk mitigation can help achieve such solutions while upholding environmental, social, fiscal, and governance standards.

To maximize finance for development, we should engage with other partners to create a framework for conversations with government clients and among other development partners to collaborate, innovate, and create knowledge.

We will therefore continue to collaborate with the Singapore ecosystem. I wish you all the best in this fruitful seminar.

I would like to thank ACI again for this opportunity.

Thank you.

Launch of Six Books by Asia Competitiveness Institute



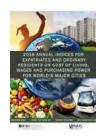














List of publications launched, from left to right:

• "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Trade in Value-Added of ASEAN Economies"

Authors: Dr Tan Khee Giap, Mr Tan Kway Guan, Ms Melissa Poh Wei Le & Ms Doris Liew Wan Yin

• "2018 Impact Estimation of Exchange Rates on Exports and Annual Update of Competitiveness Analysis for 34 Greater China Economies"

Authors: Dr Tan Khee Giap, Dr Zhang Xuyao & Mr Mao Ke

• "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Exports from Sub-National Economies of India"

Authors: Dr Tan Khee Giap, Dr Sasidaran Gopalan & Ms Jigyasa Sharma

• "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Exports from Sub-National Economies of Indonesia"

Authors: Dr Tan Khee Giap, Dr Tan Kong Yam, Ms Nursyahida Binte Ahmad & Ms Diamanta Vania Lavi

• "2018 Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities"

Authors: Dr Tan Khee Giap, Mr Isaac Tan Yang En, Dr Zhang Yanjiang & Mr Sky Chua Jun Jie

• "2018 Global Liveable and Smart Cities Index: Ranking Analysis, Simulation and Policy Evaluation"
Authors: Dr Tan Khee Giap, Mr Lim Tao Oei, Dr Zhang Yanjiang & Mr Isaac Tan Yang En

Conference Opening Remarks



Dr Bambang Brodjonegoro
Minister, National Development Planning Agency (BAPPENAS), Indonesia

His Excellency Mr Heng Swee Keat, Singapore's Minister of Finance;

His Excellency Mr Lim Guan Eng, Malaysia's Minister for Finance;

Mr Tan Khee Giap, Associate Professor of Lee Kuan Yew School of Public Policy, National University of Singapore;

Distinguished Guests, Ladies and Gentlemen.

Good morning to you all,

I am honored to be here with such a distinguished gathering of dignitaries from various organizations and institutions at this conference. I want to express my appreciation for the organizer and committees for hosting the 2018 World Bank – Asia Competitiveness Institute (ACI) Annual Conference. I believe through this conference, we would be able to share experiences, best practices and information regarding the landscape of infrastructure financing and development globally in general, particularly in Asia.

The total investment required for infrastructure development across Asia Pacific is massive. Its estimated value is US\$ 26.2 trillion for the period of 15 years, from 2016 to 2030. The investment comprises of multiple sectors, in which augmentation of power plant infrastructure for electrification sits as the highest priority, with 56% (US\$ 14.7 trillion) of the allocated investment. Next is followed by transportation sector that amounts to engage in connectivity purposes with 32% (US \$8.4 trillion) of the total infrastructure investment.

The same case is applied to Indonesia as well. We always focus in building the future of Indonesia and infrastructure is the pavement to grow Indonesia onto the next level. We are committed to build and support the initiatives by improving connectivity and mobility within regions to achieve equitable development. The

set targets include, but not limited to, 1,000 km toll roads, 7 hubs and 24 ports for seaport development, the "10 New Balis" as integrated tourism area, and 15 new airports for international hub developed by building 15 new airports.

However, such ambitious targets can only be achieved through collaborative participation from all stakeholders. Indonesia has funding gap to fulfil the needs of our infrastructure development, the government has sets ambitious target towards infrastructure financing. The total value of infrastructure investment required throughout 2014-2019 is USD 359.2 billion. From that amount, only 41% can be relied from the government funding due to budget limitation, whereas the remaining 59% is derived from the private sectors.

To advocate and improve the investment climate in Indonesia, the Government is providing incentives through policies and regulations. For example, the tax holiday with potential of 20 years tax exemption for projects that are considered as strategic projects for Indonesia's economy, as well as 4 years import duty exemption of production necessities such as machines, goods, and raw materials, for companies that use locally-produced machines, in minimum of 30%. These policies and regulations shall help stimulate foreign investor towards investing in Indonesia.

The aspect of infrastructure financing in Indonesia has taken a creative approach to address the challenging condition of funding gap, where the government combines state budget and private sector funds to accelerate the development of infrastructure in Indonesia. The role of Public-Private Partnerships (PPP) and Non-Government Budget Investment Financing (PINA) are indispensable to ensure the successes of implementing our infrastructure projects. The sheer distinction between PPP and PINA lies in the funding scheme of the projects, in which PINA is focused on more defined IRR financially-viable projects.

PPP program in Indonesia covers nineteen sectors for infrastructure development that classified in the connectivity, urban, and social infrastructures as well as offers government guarantee for improving investor appetite toward PPP scheme. Furthermore, we had established PPP Joint Office in Jakarta that consist of 6 Institutions and I State-Owned Enterprise. This PPP Joint Office acts as a 'one-stop service' for PPP, as well as to offer government guarantee for improving investor appetite towards PPP scheme in Indonesia.

PPP scheme entails the overall cycle of infrastructure projects, from planning where preliminary study is conducted, to preparation stage involving development of business cases towards transaction stage where project is tendered and expected to reach financial close before being constructed and become operational.

As to date, there have been 13 projects in the stage of construction and operation worth of USD 8.9 billion that obtained its financing through solicited PPP scheme. All these projects are part of National Strategic Projects that comprises of toll road development, energy, telecommunication, and water supply projects. A special example of the success story is the commencement of Umbulan Water Supply construction, which has been planned since the Dutch Colonial era, that is currently being built.

Under the unsolicited PPP scheme, 2 toll roads projects listed as part of National Strategic Projects have reached financial close and currently in the stage of construction.

The Non-Government Budget Investment Financing (PINA) is a facilitation scheme aimed to accelerate the financial close of national's infrastructure projects, which is fully supported by the government. The three main functions of PINA entails:

- I. Facilitation function: matchmaking between potential investor and investee/project owner that fit the project readiness criteria, strategizing financial structure for infrastructure projects, and finalizing towards financial closing stage;
- 2. Pipelining function: preparing the infrastructure project based on the project readiness criteria and accommodating potential investors with national projects as per their fitted investment mandate;

3. Ecosystem function: creating supportive and conducive environment to encourage investments in Indonesia through creative financial instruments. To pursue its function in ecosystem building, PINA has initiated the efforts for deepening the capital market, developing standar business models acceptable to potential investors, as well as creating investors forums to enhance communication and discussion.

Through these functions, PINA Center is conducting its main role as enabler to establish linkage between investors and investees to utilize a variety of financial instruments to reach financial close that could ultimately enable infrastructure projects to develop and grow further.

Through its facilitation efforts PINA Center has developed a vast network of diverse list of potential investors, both international and domestic, ranging from pension funds, insurance, sovereign wealth funds, to strategic investment companies. We believe building a broad professional network is the key to unlocking business opportunities, obtaining more investors and investee, and more importantly fulfil our intended purpose by achieving financial closing towards the projects.

We are delighted to share with you about PINA Center success stories, where they have facilitated collaboration between the investors and investee in financing the project achievement in the toll road, airport, renewable energy and many more with a total sum of USD 2.3 billion.

We are optimistic that the success stories will continue to grow in an impactful and positive manner towards the infrastructure development of Indonesia.

PINA Center's pipeline consists of many projects including several sectors such as airports, plantation, aviation, integrated tourism and others amounting to USD 39 billion in total of 33 projects. We expect the number and amount to continuously grow to follow the success stories that has been achieved.

Other source of financing which Indonesia develops is the Blended Finance scheme. This scheme focus on mixing the use of fund from Multilaterals Agency, Government, or Philanthropy to be the source of financing to address the bottleneck in investing in the infrastructure projects from private investors. The success story of Indonesia is the development and revitalization of micro hydro power plant project in the province of Jambi where the project was funded by donation and Community Social Responsibility (CSR) fund of the National Zakat Agency (BAZNAS) and regional bank of Bank Jambi, blended with development fund from UNDP and supported by the Government through Ministry of Energy and Mineral Resources and the Jambi provincial government. We expect this success to be replicated to other mini hydro power plant projects in Jambi and possibly in other infrastructure projects elsewhere in Indonesia.

Distinguished guests, Ladies and Gentlemen,

To conclude my speech today, I would like to invite you to acknowledge our vision, mission and intention towards our initiatives. Our achievements towards the development program have shown significant progress. Indonesia's economic progress will depend on human resources development which requires the support of massive physical infrastructures. Several initiatives and schemes that are launched by the Government has proven to accelerate the development of infrastructure projects and we would expect the increased participation in such initiatives and schemes through joint effort.

Thank you.

Day One Plenary Sessions & Talks

Plenary Session 1

National Competitiveness, Welfare Spending and Budget Sustainability of ASEAN Economies and OECD Countries

(a) Presentation 1a: 2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on ASEAN-10

The first presentation in the seminar was on the annual updates of ACI's competitiveness rankings and simulation studies for the 10 ASEAN countries. While Singapore and Malaysia continued to retain first and second place respectively, Thailand managed to overtake Brunei to rank third in 2016. Additionally, the results also highlighted how Myanmar's development continues to lag behind its neighbours in the region.



Ms Melissa Poh Wei Le Research Assistant, ACI-LKYSPP, NUS

(b) Presentation 1b: Welfare Spending and Budget Sustainability in ASEAN-7 Economies



Mr Tan Kway Guan Research Assistant, ACI-LKYSPP, NUS The second presentation was about the welfare spending and budget sustainability analysis on 7 ASEAN economies, namely Indonesia, Malaysia, Thailand, Laos, Cambodia, the Philippines, and Vietnam. According to the results, Vietnam was the only country out of the seven to show signs of potentially unsustainable fiscal spending. Moreover, the ACI team found that debt-to-GDP ratios in these countries are largely driven by GDP growth and infrastructure spending.

(c) Presentation Ic: Welfare Spending and Budget Sustainability in OECD Countries

The third and final presentation of the seminar concerned the welfare spending and budget sustainability done by ACI on OECD economies. The presentation explored how changes in social expenditures affect debt-to-GDP ratios in these countries. It found that, for the sample period of the study, debt-to-GDP ratio was at approximately 60 percent across all OECD countries. Additionally, the results showed that social expenditure significantly contributed to debt-to-GDP ratios in these economies.



Mr Lim Tao Oei Research Assistant and Assistant Director (Project Management), ACI-LKYSPP, NUS

Plenary Session I (Continued)

(d) Discussant I for Presentations Ia, Ib & Ic: Dr Hezri Adnan, Senior Director (Research), Institute of Strategic and International Studies, Malaysia



Dr Adnan noted that even though ACI's competiveness rankings were similar to other competitiveness rankings, ACI's key contribution to the literature is the fact that they have complete data for all 10 ASEAN economies from 2000 onward. He also suggested several methods to make the ranking index more robust such as by clarifying empirically the significance of the various key indicators. On the topic of welfare spending and budget sustainability, he also suggested that there may be some merits in linking this subject with economic competitiveness and exploring the relationship between the two.

(e) Discussant 2 for Presentation Ia, Ib & Ic: Dr Yose Rizal Damuri, Head, Department of Economies, Centre for Strategic and International Studies, Indonesia

Dr Yose Rizal noted that it while it was to be expected that Singapore and Malaysia occupy the top two spots in the competitiveness rankings, the other countries' rankings, particularly Brunei's exceptional performance over the study period, warrant further examination. Dr Rizal also noted that the welfare spending and budget sustainability model only explains a country's debt burden through the expenditure side, and recommended that more should be done to explore the association between debt ratio and the government's revenue flow.



Conference Luncheon Talk: "Special Economic Zones for Economic Development"



Dr Ir. Wahyu Utomo, M.S.

Deputy Minister for Infrastructure & Regional Development, Coordinating Ministry for Economic Affairs, Indonesia

Good afternoon ladies and gentlemen,

First of all, I would like to thank the Asian Competitiveness Institute for inviting me to this very important event. I also would like to thank Professor Tan, who has pulled me from my daily office routine to come to Singapore to discuss issues relating to infrastructure and special economic zones (SEZ). I would also like to thank Professor Tan Kong Yam for moderating this session and introducing me, but I would also like to introduce my colleagues. First, Mr Enoh Suharto is a Secretary of the National Economic Area (SEZ) National Board. He is actually responsible for building, monitoring, and the formation of Special Economic Zones. He is also accompanied by Mr Bambang, who is one of his staff.

Ladies and gentlemen, within twenty minutes, I will try to explain the nature of SEZs but first I would like to speak briefly about Indonesia. I think you already know a lot about Indonesia. It is an archipelagic country with 5,200 kilometres from east to west and I,900 from north to south. It is also quite important to quote the Indonesia President Joko Widodo, who mentioned during the IMF-World Bank meeting in October 2018 that what is happening today is a lose-lose situation. He said that instead of nations confronting each other, it would be better for nations to strengthen cooperation and tackle global problems hand-in-hand. I brought up this statement from President Jokowi because today, we have learnt from ACI and NUS that competitiveness is important, but we also have to work together to improve the competitiveness of the entire region. I would also like to inform you that Indonesia benefits from demographic dividends. By 2025, the population of Indonesia will be roughly 280 million. By 2030, I think that Indonesia will have one of the world's youngest demographic profiles, with 60 percent of the population under 30 years of age. The period between now and 2030 will be the most important period for Indonesia as we will have a demographic dividend with a large amount of the population under 30 years old.

I would also like to inform you that the current population of Indonesia is about 260 million, and more than 50 percent of the population resides in Java. If you go deeper, right now, more than 50 percent live in urban areas. Based on estimations from international agencies, by 2035 and 2040, urbanisation in Indonesia will be

increased to more than 70 percent. There is a strategy from the government on how to make it more equal between urban and rural areas and between Java and the area outside Java. What we plan to do in Indonesia is to develop new economic areas outside of Java, which is the idea behind the SEZs.

Looking at the current economic performance of Indonesia, it is true that our economy can grow about five percent, but I think it is not enough. Compared to the period before the financial crisis, Indonesia could grow more than seven percent. This is actually the target of the Indonesian government: to achieve economic growth over five percent and, if possible, reach seven percent growth. The plan to achieve this is to develop new economic growth areas outside of Java. There are many indicators showing that Indonesia is quite stable in terms of GDP growth, inflation rate (which is below four percent), unemployment rate (which is around five percent), and we have brought the percentage of those in poverty to a single digit. We also have to recognise that Indonesia's performance in the Global Competitiveness Index is getting better and better. For example, if you use the Global Competitiveness Index, we are improving in the areas of logistics and investment. However, unfortunately, in terms of ease of doing business, we slipped one rank this year and score-wise, the distance to the frontier also increased. Fortunately, Vietnam also decreased one point, but this is not the answer nor the reason why Indonesia cannot improve our investment climate.

The Indonesia government would also like to double the income per capita. GDP per capita will also be doubled, and we hope that income per capita can also be increased in the future. What is the government doing right now? Right now, the government has issued several policies. First, the government has implemented what we call the online single submission. The online single submission is an effort from the government to streamline the process and reduce the time needed to start a business. Also, the government would like to focus on human capital development through vocational education because right now, the government feels that developing infrastructure is not enough to utilise the existing workforce. We do not only need those with bachelor level education, but we also need those who are vocationally trained to support infrastructure development. Also, to get the private sector to invest, we have to provide fiscal incentives. These three pillars are key to how the government can boost the investment in Indonesia.

The online single submission is a quite new government policy. We would like to implement this policy not only in the central government, but also in local governments. Of course there are challenges, but I think we can solve those challenges as it seems that this system is already working quite well. While several local governments have already taken this approach, others need support and assistance from the central government. The idea is to standardise permits and have integration between all ministries in provincial governments, ensuring the fulfilment of safety, health, security, and environmental standards. We also use IT programs that can be easily used by anyone. This will also provide supervision by the central government. It will also increase the trust in businesses to meet the standard through less person-to-person contact.

In terms of tax holidays, this is policy that has already be implemented by the government. For example, we have already issued tax holidays with 100 percent corporate income tax reduction with several tiers. For example, if the investment is about 500 billion to one trillion rupiah, the tax holiday will be five years. If the investment is between one to five trillion rupiah, the tax holiday can be given for seven years. This also applies to 17 pioneer industry groups. As far I know, the government is currently reviewing the tax holiday to increase that number from 17 to 18. Also, in the special economic zones, the tax holiday will be different. It will be different and bigger than those outside the SEZ. This is also the reason the government would like to develop more SEZs outside of Java.

To establish these SEZs, we also need infrastructure. This is key to inviting more private sector to aid in the development of the SEZs. Under this government, Indonesia already has a plan to develop 223 strategic national projects. This is our job right now: to finalise the 223 strategic national projects. As we all are aware, it is hard to develop infrastructure in two or three years. We need a longer period, but I am sure that it can be done. Several policies have been implemented by the government in land acquisition as well as incentives towards infrastructure development and financing. I think infrastructure will be developed in due time.

Also, Indonesia will have Palapa Ring digital connectivity. With this connectivity, I think Indonesia will be able to compete in the digital era, and, hopefully, this system will be finalised by mid-2019. With this digital connectivity, we hope that there will be no more problems in communication, especially in areas outside of lava.

In the SEZs, we also consider frameworks for green growth because we believe that, in order to have sustainable development, we need to implement several polices related to green growth. In addition to sustainable growth, we are also considering inclusive and equitable growth so that the growth is not only for a certain group of people but also for marginalised populations. Also, social, economic, and environmental resilience will create healthy and productive ecosystem services. Also, greenhouse gas emission reduction is important and we are going to develop this in our SEZs.

Regarding the SEZs, I have already mentioned that the government would like to develop more of these outside of Java. Currently, we have I2 SEZs. The idea behind the development the SEZ is that Indonesia needs new economic locomotives outside of Java. This is clear. These new economic areas should have good access to the global market. Secondly, the government will give both fiscal and non-fiscal incentives in areas such as infrastructure. We hope that through this, the government can attract more investors to develop our SEZs.

Right now, Indonesia has 12 SEZs, but there are only four that are currently operating: one in North Sumatra, one in West Java, one in Nusa Tenggara Barat, and one in Sulawesi Tengah. Another four will be operational within this year while the remaining four will be operational next year. Besides these 12 SEZs, we also are processing several proposals from local governments and business entities. I would like to mention also that, of the 12 SEZs, there are four where the main economic activity is in tourism while the other eight's main economic activity is industrial in nature. Why are industrial SEZs important in Indonesia? It is because Indonesia would like to increase its export capacity. The import growth in Indonesia is higher than export growth, so this is the governments answer: to develop the industrial sector through SEZs. Hopefully, this will empower our current deficit account where exports are higher or balanced with imports.

Investment in SEZs can be developed in three ways. First, the investor can invest as a tenant to the SEZ. They will invest and develop manufacturing capabilities in the industrial areas or they will develop a hotel in the tourist areas. The second scheme is in which the investor can operate together with the business entity that is operating within the SEZ. They can establish a special purpose unit together with the business entity in the SEZs to run the business in the SEZ together. The third way is that the investor can work together with the business entity to develop the infrastructure inside the SEZ. If this scheme is implemented, then the investor will be able to enjoy the incentives that are applied in the SEZs.

These are the benefits and incentives for any investor who want to develop SEZs. If the investor comes to the SEZs, we will check if they fit with the primary entity. The primary entity is usually set up at the beginning of the SEZ. If the investor activity fits with the primary entity, then the investor will be able to enjoy the income tax reduction. If the investor does not fit with the primary entity, they will not be able to get the tax reduction but will able to get an investment allowance. They can still get fiscal incentives from the government.

Lastly, there are also non-fiscal incentives that any investor can get if they want to invest in SEZs. The first is related to the negative list. The negative list will not be applied in SEZs. Secondly, import limitations will not be applied. Third, in terms of ease of doing business, permits and licenses will be processed quickly and easily. Before the SEZ achieves operational status, they had to have a system that ensures that the permit and licensing process is streamlined. Fourth, there are policies on foreign property ownership in tourism SEZs. This is very important in tourism SEZs as it relates to the foreign investor. Fifth, there are also local taxes in tourism SEZ. Also, there are special regulations for labour and employment in SEZs. There are also simple immigration formalities that are supported by the administrators of these SEZs. Lastly, land and property titles will be more easily processed. With that, I think the government will be able to get more

investments in Indonesia and in SEZs because we would like to promote development not just in Java, but in the areas outside of Java.

With that, I would like to conclude my presentation. I thank you all again.

Plenary Session 2

National Competitiveness, Welfare Spending and Budget Sustainability of Indonesian Provinces and Regions

(a) Presentation 2a: 2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on Indonesian Provinces and Regions



Ms S Shalini Sivakrishnan Research Assistant, ACI-LKYSPP, NUS

The first presentation of the second seminar provided the results of the annual update of ACI's competitiveness rankings and simulation studies for the 34 provinces of Indonesia. The ACI researchers noted that the notion of competitiveness is inherently complex, particularly for archipelagic nations like Indonesia. For example, the results showed that there was a long-standing disparity between the highly-competitiveness provinces in the Java region and the rest of Indonesia. The presentation concluded with the suggestion that Indonesia should continue its efforts to develop their Special Economic Growth Areas.

(b) Presentation 2b: Welfare Spending and Budget Sustainability of Indonesia Sub-national Economies

The second presentation concerned the welfare spending and budget sustainability analysis conducted on the subnational economies of Indonesia. According to their model, the ACI presenters concluded that currently, the debt-to-GDP ratio of the Indonesian provinces are quite low, which implies that their current fiscal status is quite sustainable. However, they also found that populations under 15 years of age and over 65 years of age may result in increased welfare spending on education and healthcare.



Ms Nursyahida Ahmad Research Assistant and Assistant Director (Impact Evaluation), ACI-LKYSPP, NUS

Plenary Session 2 (Continued)

(c) Discussant I for Presentation 2b: Dr Ir. Wahyu Utomo, M.S., Deputy Minister for Infrastructure & Regional Development, Coordinating Ministry for Economic Affairs, Indonesia



Dr Ir. Wahyu Utomo suggested that, with regards to the budget spending and welfare sustainability analysis, it may be prudent to include a discussion on the indicators and limitations of a sustainable regional budget to better define to what extent a budget can be described as sustainable. He also noted that since many Indonesian provinces' local income and GRDP are dependent on natural resources, future research on this topic should take into account of economic sensitivity to the commodity demand and prices of these resources.

(d) Discussant 2 for Presentation 2a: Dr Siwage Dharma Negara, Senior Fellow, Cocoordinator, Indonesia Studies Programme & Coordinator, APEC Study Centre, ISEAS-Yusof Ishak Institute

Dr Siwage Dharma Negara commended competitiveness framework for using both primary and secondary data to create a measurable benchmark for the policymakers to assess their competitiveness. However, he noted that an emphasis on ranking may be misleading in terms of capturing the actual progress made by each individual province. He concluded his discussant notes by saying that even though the provinces in Java are among the most competitive in Indonesia, it could also help to analyse how these subnational economies perform in relation to the neighbouring countries in the region.



<u>Sub-national Economic Competitiveness, Welfare Spending and Budget Sustainability of Greater China Economies</u>

(a) Presentation 3a: 2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on Greater China Economies



Dr Zhang Xuyao Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS

The first presentation of this session was on the annual update of the competitiveness ranking and simulation studies for the subnational economies of Greater China. The analysis was conducted at both the individual and regional level, in general our findings suggest that economies on the east coast of China tended to perform better in the rankings than their peers. The presenters suggested that even though all regions should improve productivity in an environmentally sustainable level, those that are struggling in the rankings should strengthen its traditional industries while the better performing economies should focus on developing their human capital.

(b) Presentation 3b: Welfare Spending and Budget Sustainability of Mainland China Economies

The following presentation was on the findings of the welfare spending and budget sustainability analysis conducted on the subnational economies of mainland China. According to their model, the ACI research team found that China's public debt is unsustainable and characterised by high debt ratios and spatial imbalance. Moreover, they also found that social expenditures could have a significant effect on the debt of these economies.



Mr Mao Ke Research Assistant, ACI-LKYSPP, NUS

(c) Discussant I for Presentation 3a & 3b: Dr Wang Huitong, Research Fellow, Institute for Finance and Economics Research, Central University of Finance and Economics, People's Republic of China



Dr Wang Huitong commended the ACI team on the work they have done regarding the competitiveness rankings and the welfare spending and budget sustainability. She noted that the simulation studies are important in identifying weaknesses in policymaking. Dr Wang also mentioned that the debt problem is quite pronounced amongst local governments in China, and thanked ACI for covering such a relevant issue. She ended his discussant notes by suggesting that ACI could cover other topical issues the Chinese economy is currently facing.

Plenary Session 3 (Continued)

(d) Discussant 2 for Presentation 3a & 3b: Dr Cui Shuyi, Director, Institute of Demography, Shandong Academy of Social Sciences, People's Republic of China

Dr Cui Shuyi acknowledged that many of the findings of the welfare spending and budget sustainability study was consistent with what is happening in China today. However, he pointed out that there is a tension between social expenditure and fiscal sustainability. He proceeded to say that the Chinese government cannot just reduce social welfare expenditure as it plays an important role in maintaining social stability. He also added that Chinese policymakers are already taking steps towards alleviating this problem.



Plenary Session 4

Sub-national Economic Competitiveness, Welfare Spending and Budget Sustainability of India

(a) Presentation 4a: 2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on India's Sub-national Economies



Ms Melissa Poh Wei Le Research Assistant, ACI-LKYSPP, NUS

During the first presentation, the ACI team presented the results of the annual update of the competiveness ranking and simulation studies conducted on the subnational economies of India. At the provincial level, Maharashtra continued to retain its top position. Regionally, the Western region of India continued to be the best performing, while the Northern region managed to overtake the Southern region to assume second place.

(b) Presentation 4b: Welfare Spending and Budget Sustainability of India's Sub-national Economies

The second presentation was on welfare spending and budget sustainability analysis for provinces of India. Although the ACI team's found that India's national debt and debt-to-DSDP ratio have steadily been on the rise, the latest time trends suggest that this growth may be sustainable in the future. The results also showed that while welfare spending did not seem to have an impact on the debt level, infrastructure spending has a positive and significant effect on national debt.



Ms Jigyasa Sharma Research Assistant, ACI-LKYSPP, NUS

Plenary Session 4 (Continued)

(c) Discussant I for Presentation 4b: Dr Manoj Panda, Director, Institute of Economic Growth, India



Dr Manoj Panda praised the competitiveness ranking as an important contribution to understanding the nature of subnational economies in India. He noted that it was also interesting to see the correlation between a state's performance and foreign direct investment inflows. With regards to fiscal sustainability, Dr Panda stressed that the ability of a government to generate revenues is also crucial to maintaining a balanced budget.

(d) Discussant 2 for Presentation 4a: Professor Wang Bo, Chief Editor, Editorial Department of Dongyue Forum, Shandong Academy of Social Sciences, People's Republic of China

Dr Wang Bo suggested ways in which ACI's competitiveness methodology may be refined by conducting simulations at the environmental level. He also mentioned that further research could be done on the outcomes and causes of competitiveness by analysing the flow of resources and capitals or on how political and economic shocks affect competitiveness.



Day Two Plenary Sessions & Talks

Welcome Remarks



Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS

Good morning Ladies and gentlemen!

We have prepared a very rich program for you today. Our first keynote speaker is Mr Henry Kwek, our Member of Parliament for Kebun Bahru, who will speak on Singapore's role as an infrastructure hub for Asia. You would be interested to learn how Singapore can help as a hub to draw infrastructure investment as well as evaluate infrastructure projects especially for the Asian region. Our second keynote speaker is Professor Zheng Yongnian who is the Director of the East Asia Institute. He will talk about the current global economic and political developments with implications from the US-China trade war. You would remember yesterday, the Indonesian Minister of National Planning, Dr Bambang, talked about how Indonesia can benefit from the relocation of manufacturing activities to their Special Economic Zones due to increased production costs resulted mainly from higher tariffs imposed by the US to China and vice versa.

The third keynote speaker is Dr Panda who is the Director of the Institute of Economic Growth, a national think tank of India. He will articulate on India as an emerging global economic power. India is currently the world's second biggest emerging economies after China. I am sure that India, under the dynamic leadership of Prime Minister Modi, will play an important catalytic role in ASEAN development too.

During the lunch, we will have Dr Thia Jang Ping from the Asia Infrastructure Investment Bank or AIIB as our Distinguished Luncheon Speaker. He will speak on infrastructure development in terms of evaluation, financing, and sustainability. I know that some of you are senior civil servants in ASEAN, and I am sure that you will be interested in how professional AIIB is being managed with strong determination to press through its future agenda.

May I wish you all a successful conference ahead, thank you!

Keynote Address I

"Singapore as an Asia Infrastructure Hub"



Mr Henry Kwek
Member of Parliament & Member, Government Parliamentary Committee for Trade and
Finance, Singapore

Good morning everybody,

My name is Henry Kwek and today I will be talking about infrastructure development, debt challenges, and the "Singapore factor". If you read the international press nowadays, you will see the phrases "debt crisis" and "debt traps" coming up a lot. Many people are now asking if investments in infrastructure will always lead to a debt crisis at some point. This is what many people who read the papers are asking today. So today I thought that, rather than saying what Singapore does for Asia with regards to investment, I want to talk about why. It is literally about governance. If you take an expanded yield on governance, beyond the project financing and structuring part, you realise that governance is what enables a country to have to an absorptive capacity for investments.

I will also try to tie in a few themes that we have talked about today, meaning that, you must not only get the project right, you must also get the social policies right. I spoke at the last conference about the importance of sustainability in social policy. Yesterday, at the keynote speech, the Minister from Indonesia talked about industrial policy. Actually, all this comes together. If you get all these things right, then the ability for a country to absorb a lot of investment is huge. I want to share today that emerging countries with large infrastructure investments have challenges that are unique to them. During normal times, good policies are important, but they are even more important during crises. What matters during a crisis is if one can manage debt well while keeping up growth. With that in mind, you can see how Singapore's value proposition will make sense, especially for developing countries.

My first point is about debt crises. Debt crises can affect most nations, whether they are emerging or developed. We have talked about the importance of governance in infrastructure projects in that they must be efficient, fair, and transparent, but infrastructure financing is part of a country's debt level. There are other things can contribute to a country's national debt. There are policies beyond that will make a country

susceptible to debt crises. For example, if you have the right industrial and labour policies, they will support the drive for investment, but if you have the wrong policies, you will make things bad at certain times. Macroeconomic policies during both normal and bad times are important as are social policies: is it too much or too little? If you do not do this well, it could lead to a major setback in its investment drive, which will affect its long term potential. Yesterday, the Minister from Indonesia stressed that, because of the Asian Financial Crisis, Indonesia's drive to build up its industrial base was deeply affected and right now they are going through a second wave of industrialisation. Indonesia lost many years of production capacity because of this.

Emerging countries that need large infrastructure projects have three characteristics. The first thing is that debt financing of building real-estate and infrastructure create large cyclical swings in the economy. What do I mean by that? You can build things very fast. A construction project involves taking a lot of people, rushing it out for one or two years, then it is done. After that, what do you do with the people and the equipment, so it is largely cyclical. Of course, there are some countries, including China, which manage to have a high non-stop sustained rate of investments, but then it creates several interesting characteristics in their economy later on, in which it becomes what we call an investment-driven economy and the long-term answer is to rebalance away from it. If you are a normal country that does not have China's deep pockets, there will be a cycle of ups and downs, and if you are going through a down period, the debt crisis will be more strained. Also, in many emerging economies, the debt is in a foreign currency, that is an important point.

The second point is that increased competitiveness will also create large debt-driven economic crises. If you start with a country with very cheap labour, new infrastructure investments will lead to an export boom. The export boom will lead to rising incomes, but this will also lead to a cost increase as wages go up. Unless you have the right industry policy to increase competitiveness at the same time and the right labour policy to make sure that wages do not outpace productivity gains, once the cost competitiveness goes down, you suddenly will experience an accelerated decline and that could coincide with a debt crises.

The third thing is that foreign-funded debt infrastructure create current account surpluses. We heard it from the Indonesian experience yesterday that the rupiah is under pressure because when they have a lot of major construction projects, some of the raw materials are brought in from overseas. There was the example yesterday about general electric turbines in Indonesia not selling as well as those in other countries because they were not inspected. The answer is that you can offset with an import substitution strategy, meaning creating more of the materials from within. Rising income also creates a property boom, which can sometimes attract hot money coming in from the rest of the world. That could then create big cyclical movements again. Of course, the way to do that is have the right macro policies to make sure that during the property boom, the hot money is under control before a crisis hits.

When a debt crisis hits, well-managed macro policies will help soften the blow. What I mean by that is that, with regards to currencies, the central bank can usually devise an evaluation at the right level so that nobody will question if it is overvalued. You close your external balances by tightening monetary policy so that the domestic demand falls down in line with the income. At the same time, you increase interest rates so that foreign money has a motivation to stay in the country. And then, you also smooth the downturn through making sure that the ForEx reserves are used to smooth out withdrawals. And then you also manage the bad debts and the restructuring of companies as well as various entities.

Conversely, what happens with bad macroeconomic policy? It compounds the crisis. For example, with regards to currency, people might expect devaluation, but if the central bank does not do enough, there will be expectations of further decline because the initial devaluation is not big enough. What happens is that this will create inflationary expectations, and that will create problems later on. If policymakers do not make painful domestic choices, such as keeping interest rates low, money will flow out. Monetary policy is loose and policymakers will have to use things like capital controls to stop the outflow of capital. They will also have to tap on reserves to keep up the high level of spending and will default internally, leading to more

capital flights. Capital flights lead to more currency pressure, which leads to more inflation. This cycle will make life very difficult.

The key to preserving growth when debt crises hit is to spread out the pain, which is what we call restructuring. This can be done, but it is usually more challenging if the country's debt is in foreign currencies. Let me give you a positive example. Let's say a typical country has a debt crisis where a loan is 200 percent of GDP, and the bad debt ratio is around 20 percent, and maybe about 40 percent of that bad debt cannot be recovered. If you work it out, it is about 8 percent of total debt and about 16 percent of GDP. If you allow the country not to pay this all back in one shot and pace it over about 15 years, that is about a one percent drag on the economy. That is manageable. What is important is this slide: what do you do with the growth? Of course, I did not draw in this temporary dip when you have a currency crisis or a debt crisis, but let's say that if you do the wrong thing and implement a populist policy and other ineffective responses, the GDP will have a permanent downshift. If you do the right thing, allowing for the increase in infrastructure that you had previously to be realised while making sure that you have the proper policies, even with debt, the GDP will continue to go up. If the trajectory is sharper, growth is higher, and the drag from the restructuring of the debt crisis is not there.

With that in mind, let us talk about Singapore's value proposition with regards to governance. Governance is, simply put, doing things the right way with the right people, usually with transparency. At the project level, Singapore has capabilities in infrastructure investment, design engineering, and project management. Our government is exploring support for project proposals by qualifying Singapore based companies, meaning that if you are a Singapore-based company and you bid for a project, Singapore can consider co-funding your effort to pitch for those big infrastructure projects. We also have multilateral banks with very strong presence, like the World Bank's Infrastructure and Development Hub in Asia and the MIFC, which is a very important division in investment banking in the World Bank. We have multi-region guarantee agencies here. Singapore is a founding partner of World Bank's global infrastructure facilities, which is a 100 million dollar facility which brings projects and financing together. Singapore is well known to be a banking hub. 60 percent of all project financing in Southeast Asia is funded by Singapore banks and with Singapore banks as the lead bank. At the same time, Singapore is the third largest global financial centre and that means that there are many different kinds of players that can invest in many different infrastructure projects. We also recently changed our laws to allow for the right kind of structuring of offshore funds which can be used for infrastructure investments. This is to say that Singapore today manages a lot of capital and investments, but many of these funds are structured out of BVI, Cayman Islands, and other places. What we are doing is that we are expanding up the value chain to change our laws to allow us to do the incorporation in Singapore, which also will encourage more investment firms to be based here.

The whole point about this value proposition is to allow projects to be bankable, investable, and visible as well as allowing us to crowd private capital in. We recently organised the Infrastructure Roundtable in Singapore. Its goal was to complement the G20's effort to create more visibility on infrastructure projects. We also are pushing for the standardisation of infrastructure contracts and doing it with a template, which will make it more efficient. We want to make sure that there is proper planning and structuring of projects to ensure that infrastructure projects meet the right timeline because there can be a lot of consequences. A recent study by McKinsey shows that for large scale projects, especially for infrastructure, mining, oil, and gas projects, they run, on average, 20 months late and 80 percent over cost. Therefore, this is very important to make sure that the project survives and the project can repay its debtors. Then you have to secure the financing at various stages. During construction, project financing investors are banks because the returns are higher. After the project is operational, there is a steady stream of income which is better suited for pension funds. Then there are also sovereign wealth funds, and insurances companies when the property is properly securitised. The governments, together with multilateral development banks, can provide exit funding to crowd in private capital for projects that have a return that is higher than the nominal return. World Bank's multilateral investment guarantee agency (MIGS) can provide risk insurance for large cost projects. That is at the project financing part at the private project level.

Now what happens when the project goes south? Let's say something happens to the country, and you need to do restructuring of individual projects. This is something that Singapore has also been improving in its value proposition. This year, I was in a parliamentary debate in which we changed our Companies Act to incorporate key elements of the US Chapter II Bankruptcy Act. What this means is that there is a worldwide impact for debt moratorium, you have debtor in possession financing, and you give the rescue capital that is necessary for restructuring a higher priority when compared to traditional debtors. We are also strong in arbitration. Within a couple of years, Singapore is first in Asia and third worldwide for arbitration. Many of the cases are international. We have arbiters from more than 40 countries. We are home to the International Court of Arbitration of the International Chamber of Commerce and the Permanent Court of Arbitration. We are also party to the New York Convention, meaning that the arbitration cases done in Singapore can be enforced in many other jurisdictions.

Beyond arbitration, Singapore is also a leading location for litigation as well as for mediation. The SICC and SIMC were set up in 2015. It is a neutral forum for commercial litigation and the judgements benefit from cross-border enforceability. This is the same for mediation. It is a non-advisory approach for resolving disputes. There are also hybrid approaches: arbitration and then mediation and then arbitration, combing various approaches so that one does not have to go for costly litigation.

This is not enough because these are just general things. How about something specifically about infrastructure? Singapore recently came up with a new Singapore Infrastructure Dispute Management Protocol (SIDP). The idea is that we can proactively manage issues before they get out of control. This is very useful for large scale projects above 500 million dollars. You appoint a committee on a dispute board that is onsite. The dispute board can be the middleman and prevent things from escalating out of control, and if disputes happen, all the documents and knowledge are there, which will shorten the time and the cost should these happen.

Beyond infrastructure, Singapore can also contribute to the best practices with regards to governance. Good governance will remove questions. Good governance with good policy outcomes will reduce the pressure that leads to debt crises. Singapore can contribute in three different ways. We have the Singapore Corporation Program, where we have trained more than 112,000 officials from more than 170 countries. There are different kinds of trainings, such as bilateral training. We also partner with other countries to train the countries in need. We also partner with other international organisations to train the countries in need. That is under the Singapore Corporation Program. We also have many different institutes to train many different things. Many of them are housed in the esteemed LKY institute.

One thing that is really not well known, at least in the infrastructure circle, is that Singapore has been a regional training centre for the IMF for more than 20 years. We have trained 14,000 officers from the region. When you have such sophisticated knowledge of all these different areas, such as fiscal policy, macroeconomics, and monetary policy, which will also strengthen the country's ability to manage the situation at the macroeconomic level. Again, you have macroeconomic competence, you have general policy knowledge, you have specific bodies of knowledge in specific areas like water sanitation, urban planning or smart nations, and then you have proper project financing with proper resolution framework. Altogether, you can have governance and governance will create trust, trust will keep everything together and prevent debt crises from happening. Even if they do happen, this will allow them to be effectively, efficiently, and quickly resolved.

Of course, for Singapore, this is not good enough. We always want to do something more, so recently we have created the Infrastructure Asia office. It is a collaboration between MAS and Enterprise Singapore. Singapore is both big and small. It is small because we are a very small country geographically and big because we have a depth of talent in many areas. Sometimes, it is very hard to know exactly all the available resources in this country. Infrastructure Asia is a new agency to process all these value propositions so that it can make Singapore smaller for all of you who are in infrastructure financing. I believe we have some of our officials

from Infrastructure Asia here among the audience. More may be here later on. This is a very small room, so go and talk to them. They can connect you with the right resources.

With that, I want to thank you for your time today. Thank you.

Keynote Address 2

"US-China Trade War"



Professor Zheng Yongnian Director, East Asian Institute, NUS

I would like to thank the organiser, particularly Professor Tan, for giving me this opportunity to exchange views with you on the ongoing trade war between China and the United States (US).

Now, let me share my personal views with you on three possible implications about this ongoing trade war.

- (I) First, the trade war is inevitable.
- (2) Second, this trade war has no winner.
- (3) Third, China's takeaway from a trade war.

The first point I would like to make is that the trade war between the 2 countries is perhaps inevitable. This is largely due to the changes at both sides. It is easy to understand that when you are weak, people will not be afraid of you. When you are poor, people will probably be sympathetic towards you. Hence, when you are strong and rich, people will have a different attitude towards you. This is human nature. In the past four decades and this year, when it celebrated their 40^{th} anniversary of reform and open door policy, China has changed drastically.

In 1981, when I went to Beijing University, China's per capita GDP was much less than US\$300 but today, its per capita GDP is approximate US\$9,000. There is a huge change in wealth, in which China transformed from one of the poorest countries at that time to the second largest economy now in the world. People now criticize President Xi Jinping for his foreign policies, which gives potential businesses low profiles.

However, I am very sympathetic towards President Xi Jinping because it is now very difficult for China to keep its profile low. China is now too big to pretend to be small so a trade war is somehow inevitable.

Similarly, the US has also changed drastically and many of its domestic problems could give rise to the occurrence of a trade war. For example, one indicator is the size of the middle class. The US figure was about 70% at its peak but is shrinking to less than 50% now. During Obama's 8 years of presidency, the size of the middle class was dropping by more than 1% each year. This has shown a huge impact. This is also the reason why populism comes back and why Donald Trump is able to garner a sizeable support.

Beyond the shrinkage of the middle class, another problem in the US is its huge stock of trade deficits. The fiscal position of a country will be unsustainable if its trade deficits are too large. I strongly believe that we should remember the 1840s Opium War. During that period, China had many items exporting to the UK but the UK had nothing of interest to China. Eventually, UK began selling opium to China. In another way, both countries will have to find a way to deal with the huge trade deficits; otherwise, it will not be beneficial to both sides. Nevertheless, the trade deficit problem cannot be easily resolved. On the one hand, China always says that they are not actively pursuing a trade surplus. On the other hand, the US is reluctant to sell technologies that encompass the comparative advantages of US because these technologies are sensitive and the US is afraid that China will use them in military areas.

Furthermore, the US and China have disputes over intellectual property rights and technological transfers. In March, when Premier Li Keqiang met our group, one of the delegates from the United States asked him why China has a policy that forces the US to perform technological transfers. Premier Li Keqiang answered that he did not know why the government of China has such a policy. He said, "China has I.3 billion populations and roughly 100 million enterprises. Therefore, definitely, there are some enterprises that constantly request the US to transfer technologies to China." As per his words, the requirement of technology transfer is not a formal policy from the government but a *de facto* practice in China. This angers the US.

From a political point of view, the US and China do not trust each other. In the 80s, the US optimistically believed that China would eventually democratise and become a democracy. Economic optimisation and political democratisation were the two slogans at that time. Yet eventually, the US found that China's economy did not embrace the free market ideology from western countries and China did not become a democracy. However, we have to keep in mind that the US is still a missionary country and it still has a strong will to change other countries' political system.

The relationship between the US and China are even worse in military areas, particularly the South China Sea issues as well as the issues regarding North Korea and Taiwan. The US military industrial complex has been strong, ever since the end of the "Cold War". In order to obtain more military budget, the US needs an enemy. Similarly, China also wants more budget so that they can maintain their influence in the South China Sea area. Such motivation of self-interest is understandable.

Given all the backgrounds, I would say that the collision between these two countries would escalate to a new state. China has also made some huge mistakes, one of which I would call the "over-propaganda of their policy". This mistake is reflected mainly in three areas.

The first area that makes the US upset is the "Made in China 2025" plan. Just like German Industry 4.0, which aims only at upgrading industries, the plan *per* se is actually not a big deal. However, China's propaganda is very awful. The advocacy of this plan, as a means to surpass the US and to defeat the US and Europe, is an over-propaganda and an over-publicity.

The second area is known as the "China Model". I believe that China has its own model, which allows China to be differentiated from the US or Europe. President Xi Jinping himself has made strong emphases on this model over a few occasions, particularly last year when President Xi Jinping initiated a dialogue between the

Communist Party and the world. During that dialogue, more than 300 political parties and international organisations gathered in Beijing. Some of the developing countries were interested in the "China Model" but President Xi Jinping told them, "Yes! You can learn if you are interested but we are not going to export our model." However, China's propaganda is different from what he said. There has been strong propaganda for promoting the Chinese model everywhere and that the model is better than the US. This triggered many controversies in the West.

The third area is the "One Belt, One Road". It is officially defined as an initiative. However, the propaganda of "One Belt, One Road" is China's global strategy. This is again an over-propaganda that could give rise to many negative consequences.

Considering the mistake that China made, we could say that a war between the US and China is inevitable. However, a trade war, rather than wars in other areas, is the best outcome for China. Wars such as those arising from the conflicts in the South China Sea, in Taiwan and in Korea Peninsula could be worse off. As of today, a trade war is still the best option.

My second point is that there will be no winner in this trade war. In reality, I do not believe that the US is afraid of China's political system. I strongly believe that China's political system does not have any influence over the US or Europe. Most people consider China's political regime primitive or underdeveloped. Thus, I do not think that China's political system would be attractive to so many countries. However, there are still some African and Latin America countries expressing slight interests in the system, but I do not think that it will be attractive to the US. Similarly, I do not believe that the US is afraid of China's military because the gap between the military of the US and China is too huge. However, the Pentagon wants more budget so it will still label China as a major threat. I personally feel that what the US is afraid of is China's huge market. The market is extremely important because it is the key to China's strong growth.

I have heard that the US is now ceasing the issuance of visas to Chinese students and scholars in certain areas. It seems that a "Cold War" is now taking place between the US and China. Despite so, I do not think that the US will give up on China's market.

Since the 80s, China has been the last to adopt capitalism. While India is growing rapidly, it is still in the early stage of development and its capitalist development will be slower than China's development before. China's rapid development can be attributed to Chairman Mao because he eliminated almost all barriers to develop capitalism. However, Japan will not give up, and similarly, Europe will not give up. Even the White House has a military industrial complex interest different from that the Wall Street does. For the moment, the US has obviously formed a unanimous policy against China. However, I think that different groups have different attitudes towards China. The Military Industrial Complex group wants a "Cold War" while Wall Street wants China to open up its door wider.

My last point is that China will develop even faster if it learns a lesson from this trade war. However, it is a big "IF". However, for the moment, everything looks fine since President Xi Jinping has emphasized many times that China will open its door wider.

For China, I do not think that it would want to be in a trade war with the US. The China-US relationship has always been important to China ever since the late Deng Xiaoping era. A working and feasible China-US relationship is the most important KPI for the leader. This also gives rise to many rumours that President Xi linping is facing high pressure within the party due to the tension between China and the US.

China has also emphasized multilateralism – perhaps I should say that China has overemphasized it. The "16 + I" initiative in East European is an example. China always likes to invite many leaders to come together to discuss certain things but yet the business has never covered more than 2 countries.

For the US, I believe that it is not wise to discontinue its relationship with China. For example, after the Tiananmen Square protest in June 4th 1989, the West imposed economic sanctions on China, particularly in its military domain, but China decided to develop its own system at that time. If China's military system is independent from that of the US, it will be much more difficult for the US to deal with. It is the same in other areas as well. Another example is that the supercomputer of China has developed more advanced than that of the US is. Many examples can also be found in other areas like aerospace, speed train and cashless payment. Additionally, China has the BATs – Baidu, Alibaba and Tencent. The key advantage of China is its huge market. While the US has accused China of intellectual property right violation, we have to remember that China has also been the biggest market for the US to sell technology applications.

Technology is very expensive. In Singapore, unlike China, the market is very small. Even if we have new technologies, we would have to spend a lot of money and we do not have the market for it. For the middle class in China, although its per capita GDP is still much lower than that of the US, its sheer size is almost equal to that of the US. The middle class is shrinking in the US but is still growing in China. For instance, China has experienced 5- to 6-point worth of growth in a decade time. Eventually, China's middle class will be much bigger than that of the US are. A big market is in favour of technological progress. If you neglect the market in China, you are not going to benefit from this.

Nonetheless, there is a possibility that China is irrational or too nationalistic. If China retaliates to the strike from the US immediately, a "Cold War" will probably take place. A "Hot War" is almost impossible since both the US and China have nuclear capabilities but a "Cold War" or a new type of the "Cold War" could still be triggered. However, it seems that everything is well for now and that the US and China will not enter into a "Cold War". President Xi Jinping and Donald Trump will meet in a few days. Hopefully, they can strike a deal and the US-China relationship could be adjusted.

Once again, thank you for giving me this opportunity to exchange views with you. Looking forward to any further questions during the Q&A session.

Keynote Address 3

"India as an Emerging Regional Economic Power"



Dr Manoj Panda
Director, Institute of Economic Growth, India

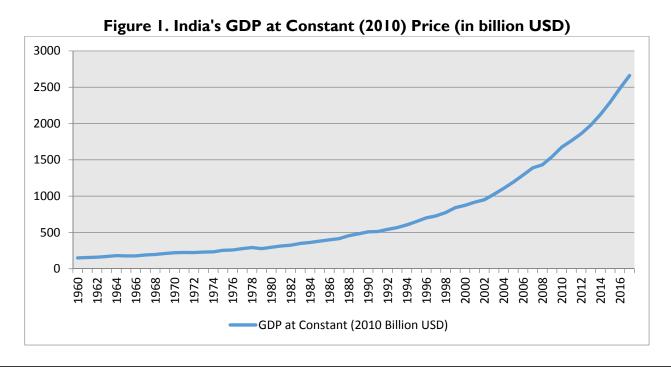
India in one of the oldest civilizations in the world. It has historically exercised religious, cultural and philosophical influence on several other countries. It was a relatively prosperous country about 300 years ago by the global living standards of those days. Its wealth attracted Vasco da Gama to discover new sea route from Europe to India. According to economic historian Angus Maddison, India accounted for 22.6% of world income in 1700 that shrank to 4.2% in 1950. The colonial rule of 200 years followed a discriminatory policy against the native entrepreneurial class that could not take advantage of the industrial revolution. At the time of its independence in 1947, the jewel in the British Crown was left as one of the poorest countries in the world.

India followed a democratic form of government after gaining independence. It is a country that faces huge diversity in terms of geographical conditions, languages spoken in different regions, religious practices by the people, and, of course, the old age caste system that is still prevalent, though weakening over time. Rooted in a common history and culture, the people are guided by the principle of 'unity in diversity'.

After its independence, India followed a mixed economy system with greater role for the government sector till 1980s. Industrial activities of the private sector were extensively regulated with licensing requirements. The economy was nearly closed due to tariff and non-tariff barriers on foreign trade and restrictions on foreign investment. The outcome was that the gross domestic product (GDP) grew at a low rate of less than 4% (or, about 2% per capita) for 4 decades after independence. Unlike Singapore and other East Asian countries, India could not take advantage of expansion of world trade during the 1970s and 1980s. But, market friendly reforms were initiated in 1991 and a vibrant private sector increased its influence and contributed to a new phase in economic growth.

At present, India is considered by several observers as an emerging economic power in the world. It is among the top few countries in the world in terms of size of the economy and exhibiting its economic leadership potential. It is a rising economic power, although this power is yet to be fully realized.

Using the yardstick of the aggregate size of its economy, India's GDP in nominal terms was \$2.7 trillion in 2017 contributing 3.3% to the world GDP of \$80.9 trillion (Figures I and 2). At an average growth rate of about 7% in the post-reform period, the Indian economy has been one of the fastest growing ones in the world. India is projected to rank 5th in terms of nominal GDP in 2019 surpassing France and UK. In purchasing power parity (PPP) terms, India's GDP (PPP) stands at 10.5 trillion international dollars and is the third largest after that of China and US China and USA at 25.2 and 20.5 trillion respectively. The India growth story has thus given rise to the possibility of the country emerging as an economic power.



USA, 24.1% Rest of the World. 31.6% China, 15.1% Russian Federation, 2.0% Canada, 2.0% Italy, 2.4% Brazil, 2.5%_ Japan, 6.0% France, 3.2% UK, 3.3%-India, 3.3% -Germany, 4.6%

Figure 2. Percentage Share of World GDP 2017 (USD)

On a 5-yearly average basis, its economy has continuously grown at above 6.5% since 2003-04. The growth rate was above 8% per annum during 2003-2011. While it slowed down in the aftermath of the global financial crisis, it continues to grow above 6.5% which is among the highest in the world. The economy has exhibited resilience to absorb shocks like natural calamities, border tensions, and global economic slowdowns with disruptions lasting for relatively a small period.

Admittedly, it lags behind most other countries in terms of several other economic indicators which have a bearing on its average living standard. Given that India is the second most populous country in the world with a population of 1.35 billion, its average level of living stands only at \$2100 which is way below world average of \$11000. In PPP terms too, India's per capita income at 7800 Int\$ is only 45% of world average of 17000 Int\$. About 20-25% of India's population remains below \$2 a day poverty line. In absolute number, this figure is large amounting to about 250 million. But poverty is also not just about lack of purchasing power or money, it is also about human capability, the ability to realise one's human potential, and that's what Amartya Sen and others have been speaking about. In terms of the Human Development Index, India is ranked 130th out of 189 countries, which essentially means that a large part of India's population is still ranked very low in the social development process. In fact, a section of the population is not integrated with the mainstream economy. This is a major problem in India's development process. In fact, in terms of certain other social indicators such as child or infant mortality rates, India lags behind some of its neighbours (Figure 3).

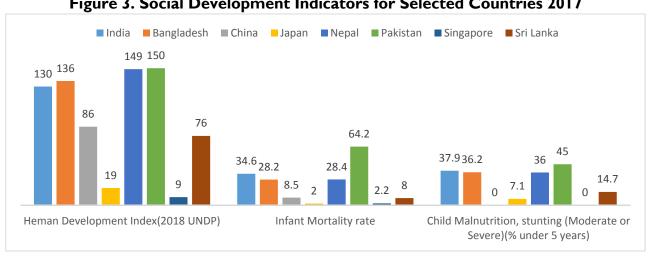


Figure 3. Social Development Indicators for Selected Countries 2017

The scenario is, however, changing fast at least on the income poverty front. It is likely to substantially reduce to a negligible level by 2025. Driven by the growth factor, governments, both at the Union and state level, can also afford to spend more on social sectors, specially on provision of health services. It is being well realized that progress on human development should be an integral part of economic growth process; otherwise, it might turn out to be a constraint on growth. Overall, our capacity to meet our own challenges in increasing over time.

Despite such constraints, India has attempted to enhance regional cooperation in South Asia. It has also played a major role in the region or in other groups of countries. For example, during Nehru's time, it has played a major role in Indonesia in supporting their liberation movement. It is the most influential country among the SAARC countries, an active member of BRIC and G-20 and has been involved with ASEAN as well. In the process, it has demonstrated ability to hold strategic dialogues in a meaningful way to overcome several strategic constraints.

India is making its presence felt in the global market in several areas such as information technology, business process outsource for the global corporations, biotechnology, and transport equipment. It has built up a fairly strong trade relation in the South Asia region. It accounts for more than half of Nepal's total trade flows. Its share in total imports of Sri Lanka and Bangladesh is 21% and 12% respectively (Figure 4).

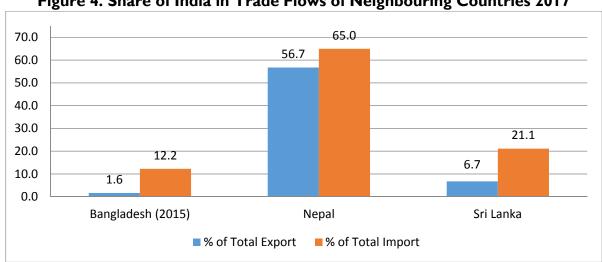


Figure 4. Share of India in Trade Flows of Neighbouring Countries 2017

As an emerging power, India also accommodates huge migration from its neighbouring countries. It had its own unemployment problem, yet unlike some other countries, it is able to accommodate large number of migrants. Several million people migrated from Bangladesh and Pakistan during the partition and during the liberation war in Bangladesh. India also has a huge Nepalese population who move freely between the two countries without the requirement of a Visa.

When we talk of India as an emerging regional power, a question that comes up is whether it is able to help the neighbouring countries during their distress. India has been helping Nepal, Sri Lanka, Bangladesh, and Maldives in various forms as per mutual understanding and cooperation. One example of such help worth mentioning is that Prime Minister Modi pledged \$1 billion in aid to Nepal after great earthquake in 2015 to rebuild physical infrastructure including schools, roads, hospitals and key heritage sites destroyed by the earthquake.

To conclude, India is emerging as a strong economic power on the global stage with high economic growth rate during the last three decades. It will continue to build a strong relation with developed and developing countries. It exerts considerable international influence to rise as a prominent voice in global affairs. Its leadership role in the South Asia region and beyond is well recognized. It will play a stronger role in future.

2018 Global Liveable and Smart Cities Index on 78 World's Major Cities

(a) Presentation



Dr Zhang Yanjiang Post-doctoral Fellow and Assistant Director (Academic Publication), ACI-LKYSPP, NUS

The presentation was on the third update of ACl's Global Liveable and Smart Cities (GLSC) Index which is being reviewed once every three year. The GLSC Index look at liveability and smart technological empowerment from the perspective of ordinary city dwellers covering a total of 78 cities. The findings revealed that of the top-ten cities, nine were from Europe and the only exception was Singapore which ranked ninth. Asian and ASEAN cities did not rank well due largely to poor performances in indicators related to environmental aspects and provision of public services.

(b) Discussant I: Dr Tim Moonen, Managing Director, The Business of Cities, United Kingdom

Dr Tim Moonen spoke briefly on the complexity of defining liveability, and commended the GLSC Index for being one of the few liveability indices that tried to capture liveability from the perspective of the average urban residents. He also stressed that a high level of liveability cannot simply be achieved in one or two political terms and that it can only be attained through long-term planning and sustained investment. Dr Moonen also found it interesting that in Asia, middle-tier cities seemed to perform better than those in the region that are often seen as leading global centres.



(c) Discussant 2: Mr Timothy McDonald, Journalist, BBC News



Mr Timothy McDonald congratulated the ACI research team for creating the GLSC Index as it could be a potentially useful tool for policymakers to consider improving the liveability of their cities. He also wondered if there was a better way to capture the discrepancies between cities within the same country, as liveability can be dramatically different between regions. Mc McDonald continued by suggesting that the index could try to capture the more intangible metrics for liveability such as having good access to art and culture.

2018 Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities

(a) Presentation



Mr Isaac Tan Yang En Research Assistant, ACI-LKYSPP, NUS

This presentation reports on the annual update of ACI's indices that measure the cost of living for expatriates and ordinary residents as well as the purchasing power and wages for ordinary residents in 105 cities around the world. This continuing ACI series is important as it differentiates between the consumption patterns of ordinary residents and expatriates, allowing for a more detailed and thorough analysis of the cost of living in a city which would allow more flexibility for multinational corporations when determining allowances of their expat staff. The ACI team also presented a case study done on the Singapore government's intervention in the resale market of flats by Housing Development Board.

(b) Discussant I: Dr Tim Moonen, Managing Director, The Business of Cities, United Kingdom

Dr Tim Moonen spoke on how important cost of living for cities are when trying to attract and retain talents. He also alluded to the social problems that come with rising unaffordability for cities at different stages of developmental. Dr Moonen also commended the ACI team for creating a cost of living index that shifts beyond common assumptions and uses a nuanced range of statistics in the evidenced-based study.



(c) Discussant 2: Mr Timothy McDonald, Journalist, BBC News



Mr Timothy McDonald discussed how cost of living is a complex subject matter to measure because it is hard to determine what an average consumption basket is, even for expatriates. As an expatriate, Mr McDonald pointed out that his spending patterns probably do not match that of the average expatriate in Singapore. He also pointed out that expatriates may face a different definition of cost of living because some may be subjected double-taxation.

Conference Luncheon Talk: "Infrastructure Development: Evaluation, Financing and Sustainability"



Dr Thia Jang Ping
Principal Economist, Strategy, Policy and Budget Department, Asian Infrastructure
Investment Bank

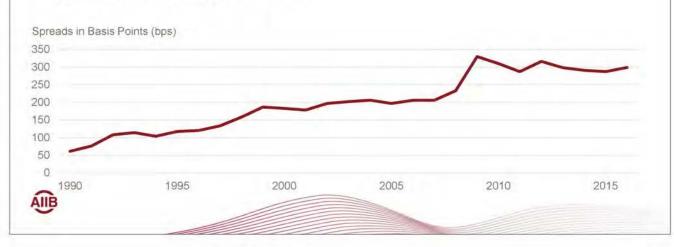
Infrastructure Evaluation, Financing and Sustainability

November 2018



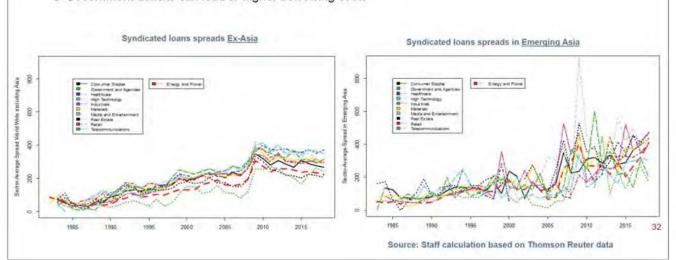
Spreads are structurally higher post crisis, and policy rates are also rising

- Borrowing cost = Reference rate (usually Libor) + Spreads.
- Spreads structurally higher post crisis, but overall effect masked by low reference rate until 2016
- Borrowing cost likely to create pains as reference rates revert to norms (Libor below 1 percent up till 2016, but 2.5 percent in August 2018).
- Asia spreads are volatile (see next slide).



Asia private sector loan spreads are volatile

- Loan spreads for all sectors increased post-crisis and remained elevated, Asia EM spreads more volatile.
- Spreads on energy and power projects lower (on a relative basis).
- Staff preliminary studies show that country macro conditions affect private sector spreads.
 - o Government deficits can lead to higher borrowing costs



There are different types of (related) macroeconomic stresses & crises

Nature / Type	Drivers	What happens during crisis	
Currency	Loss of competitiveness	 Sharp depreciation of currency (15 percent or more), coupled with balance of payment difficulties. 	
Inflation	Loose monetary policies	 High or hyperinflation. Related to loss of competitiveness through real exchange rate appreciation (if nominal exchange rate inflexible). 	
Debt (sovereign)	Overstretched public finance	Government fails to meet its external or internal debt obligations	
Banking and Finance	Unsustainable credit expansion; reliance on foreign borrowings	 Failure of financial institutions, with systemic effects. Closure, takeover or large-scale assistance by governments to one of more major financial institutions. Associated with high private sector indebtedness and NPLs. 	

Standard tools are necessary (but does not describe macro-tradeoffs)

At the project level

- Cost benefits analysis is necessary
- Establish and apply methodology
- Aim to be broadly right (rather than precisely wrong)
- Establish clear EIRR guidelines

For private sector projects

- Financial analysis is important as an addition
- Debt-service coverage ratios
- Financial strengths of project sponsor (or parent company)
- Strength of the infrastructure contract (including against downside risks)



Policy (macro) trade offs have become sharper

- Managing infrastructure development in the context of high debt levels
 - o No one single formula on sustainable debt
- Prioritizing growth or macroeconomic stability
- Examples of tradeoffs, projects
 - In weaker macro environment
 - With weak offtake
 - o Require large public subsidies or gap financing
 - o Various



Closing Remarks and the Way Forward



Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS

May you join me in showing our great appreciation to Jang Ping for a very excellent and insightful presentation.

I am supposed to say some closing remarks, but I understand that I am actually preventing you from your lunch, so I will be very brief and concise and focusing a bit more on our discussions over the last one and a half days contributions to public policy.

Firstly on Special Economic Zones(SEZs) in Indonesia: As you are aware, your minister Bambang and Deputy Minister Wahyu Utomo has highlighted the importance of SEZs in Indonesia's regional development, and Professor Tan Khee Giap has actually kindly introduced Dr Wahyu to our EDB chairman Dr Beh. There is a lot of discussion now on how Singapore can come into cooperation with the Indonesians on SEZ development, and I think ACI will play some role in this. So, we see this as a very important project that can go on in terms of these discussions in the conference, as well as what follows up from these discussions, in terms of ACI's contributions in getting EDB and SEZ people in the Indonesian government to work on this area.

Secondly, in terms of infrastructural development, we heard a very good presentation by Jang Ping and also Henry Kwek which focused a lot on Singapore's role as Asia's Infrastructure Investment Hub, the kind of project financing, structuring, you know, bankable projects and others that are roles that Singapore can play, including mediation and dispute resolution. So this is a way where I think Singapore can play some role to attract investment capital into infrastructural development in Asia, particularly in Indonesia. During the lunch break yesterday, I was having a discussion with Minister Bambang and we were talking about the Canadian pension fund. As some of you might be aware, the CPPIB Canadian Pension Fund are looking for long-term sustainable returns and I met some of their senior executives, and your minister has also met them. They are very interested in putting money into this dynamic region, and Professor Tan Khee Giap and I also have spoken to the Changi airport board members. They are thinking about having some of this equity money coming in to help Indonesia to develop their airports. A lot of these are equity capital, so that will reduce the danger of over borrowing in bank debt.

The last point I want to highlight is tourism. Minister Bambang mentioned about Indonesia is too focused on Bali. Indonesia wants to build ten more Balis. But if you build ten more Balis, you need people to come, you know, otherwise that's just ten more Balis without tourists. So there is a huge potential, I think Prof Tan Khee Giap has spoken to your minister. As you might be aware, Changi Airport has 62.2 million passengers passing by last year, out of which almost 20 over million are transit passengers. And a lot of these people are from the US, Europe, Australia and all this, and a lot of them are actually presently interested to explore the region. Some of them spend, you know, two to three hours in city tours in Singapore. But at Changi Board we estimated that at least 10-15 percent, which means that two to three million people might be interested if they stay an extra two days. From Singapore they hop on to Indonesian tourist sites and Indonesia has a lot of very good sites in terms of, you know, historical sites, beaches, cultural scenery, cultural attractions, natural scenery.

And so if Singapore and Indonesia work together in terms of all this development, we might be able to get more tourists to fill up your ten Balis, and some of these people will stay longer in Singapore, and we have a big win-win situation. And I estimated that if these things happen and if 10-15 percent just hop on for another two to three days, Indonesia's tourists, which was 14 million last year, could easily increase by almost 15-20 percent, you know, of all this outflow. So that could be one area that would be relevant.

Thank you for being here with us today!

Conference Programme

"Infrastructure Development, Welfare Spending and Budget Sustainability"

26-27 November 2018, Lobby @ Oei Tiong Ham Building, LKYSPP Campus (Address: 469C Bukit Timah Road, Singapore 259772)

Jointly organised by The World Bank Group, with

Asia Competitiveness Institute (ACI) at Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS)

Monday, 26 N	lovember 2018
0830 – 0900	Conference Registration
0900 – 0910	Welcome Remarks Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS
0910 – 0920	Welcome Remarks Ms Fatouma Toure Ibrahima Operations Advisor, Singapore Infrastructure and Urban Development Hub, The World Bank
0920 – 0925	 Launch of six books by ACI-LKYSPP, NUS to be witnessed by Guest of Honour Dr Bambang Brodjonegoro, Minister, National Development Planning Agency (BAPPENAS), Indonesia: "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Trade in Value-Added of ASEAN Economies" "2018 Impact Estimation of Exchange Rates on Exports and Annual Update of Competitiveness Analysis for 34 Greater China Economies "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Exports from Sub-National Economies of India" "2018 Annual Competitiveness Analysis and Impact Estimation of Exchange Rates on Exports from Sub-National Economies of Indonesia" "2018 Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities" "2018 Global Liveable and Smart Cities Index: Ranking Analysis, Simulation and Policy Evaluation"
0925 – 0955	Conference Opening Remarks by Guest of Honour: "Infrastructure Financing and Development in Asia" Dr Bambang Brodjonegoro Minister, National Development Planning Agency (BAPPENAS), Indonesia Moderator: Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS
0955 – 1005	Question & Answer Session
1005 – 1020	Coffee/Tea Break
1020 – 1140	Session 1: National Competitiveness, Welfare Spending and Budget Sustainability of ASEAN Economies and OECD Countries
1020 – 1025	Moderator: Mr Isaac Tan Yang En Research Assistant, ACI-LKYSPP, NUS
1025 – 1040	Presentation 1a: "2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on ASEAN-10"
	 ACI Presenters: Mr Tan Kway Guan, Research Assistant, ACI-LKYSPP, NUS Ms Melissa Poh Wei Le, Research Assistant, ACI-LKYSPP, NUS
1040 – 1055	Presentation 1b: "Welfare Spending and Budget Sustainability in ASEAN-7 Economies"
	 ACI Presenters: Mr Tan Kway Guan, Research Assistant, ACI-LKYSPP, NUS Ms Melissa Poh Wei Le, Research Assistant, ACI-LKYSPP, NUS
1055 – 1110	Presentation 1c: "Welfare Spending and Budget Sustainability in OECD Countries"
	ACI Presenters:

	Mr Lim Tao Oei, Research Assistant and Assistant Director (Project Management), ACI-LKYSPP, NUS
	 Dr Huang Yuting, Research Assistant All-LKYSPP, NUS Dr Zhang Xuyao, Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS
1110 – 1120	Discussant 1 for Sessions 1(a), (b) & (c): Dr Hezri Adnan Senior Director (Research), Institute of Strategic and International Studies, Malaysia
1120 – 1130	Discussant 2 for Sessions 1(a), (b) & (c): Dr Yose Rizal Damuri
4400 4440	Head, Department of Economies, Centre for Strategic and International Studies, Indonesia
1130 – 1140	Question & Answer Session
1140 – 1400	Conference Luncheon Talk: "Special Economic Zones for Economic Development"
1140 – 1145	Moderator: Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS
1145 – 1205	Distinguished Luncheon Speaker: Dr. Ir. Wahyu Utomo, M.S. Deputy Minister for Infrastructure & Regional Development, Coordinating Ministry for Economic Affairs, Indonesia
1205 – 1215	Question & Answer Session
1215 – 1400	Lunch
1400 – 1505	Session 2: National Competitiveness, Welfare Spending and Budget Sustainability of Indonesian Provinces and Regions
1400 – 1405	Moderator: Ms Jigyasa Sharma Research Assistant, ACI-LKYSPP, NUS
1405 – 1420	Presentation 2a: "2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on Indonesian Provinces and Regions"
	 ACI Presenters Ms Nursyahida Ahmad, Research Assistant and Assistant Director (Impact Evaluation), ACI-LKYSPP, NUS Ms S Shalini Sivakrishnan, Research Assistant, ACI-LKYSPP, NUS
1420 – 1435	Presentation 2b: "Welfare Spending and Budget Sustainability of Indonesia Sub-national Economies"
	 ACI Presenters: Ms Nursyahida Ahmad, Research Assistant and Assistant Director (Impact Evaluation), ACI-LKYSPP, NUS Mr Mirza Akmarizal Ghazaly, Research Assistant, ACI-LKYSPP, NUS
1435 – 1445	Discussant 1 for Session 2(b): Dr. Ir. Wahyu Utomo, M.S. Deputy Minister for Infrastructure & Regional Development, Coordinating Ministry for Economic Affairs, Indonesia
1445 – 1455	Discussant 2 for Session 2(a): Dr Siwage Dharma Negara Senior Fellow, Co-coordinator, Indonesia Studies Programme & Coordinator, APEC Study Centre, ISEAS-Yusof Ishak Institute
1455 – 1505	Question & Answer Session
1505 – 1610	Session 3: Sub-national Economic Competitiveness, Welfare Spending and Budget Sustainability of Greater China Economies
1505 – 1510	Moderator: Dr Zhang Yanjiang Post-doctoral Fellow and Assistant Director (Academic Publication), ACI-LKYSPP, NUS
1510 – 1525	Presentation 3a: "2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on Greater China Economies"
	 ACI Presenters: Dr Zhang Xuyao, Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS Mr Mao Ke, Research Assistant, ACI-LKYSPP, NUS
1525 – 1540	Presentation 3b: "Welfare Spending and Budget Sustainability of Mainland China Economies"
	ACI Presenters:

	 Dr Zhang Xuyao, Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS Mr Mao Ke, Research Assistant, ACI-LKYSPP, NUS
1540 – 1550	Discussant 1 for Sessions 3(a) & (b):
	Dr Wang Huitong
	Research Fellow, Institute for Finance and Economics Research, Central University of Finance and Economics, People's Republic of China
1550 – 1600	Discussant 2 for Sessions 3(a) & (b):
	Dr Cui Shuyi Director, Institute of Demography, Shandong Academy of Social Sciences, People's Republic of China
	bliector, institute of bernography, Shandong Academy of Social Sciences, Feople's Republic of China
1600 – 1610	Question & Answer Session
1610 – 1620	Coffee/Tea Break
1620 – 1725	Session 4: Sub-national Economic Competitiveness, Welfare Spending and Budget Sustainability of India
1620 – 1625	Moderator:
	Dr Zhang Xuyao Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS
1625 – 1640	Presentation 4a: "2019 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on India's Subnational Economies"
	ACI Presenters:
	Ms Jigyasa Sharma, Research Assistant, ACI-LKYSPP, NUS Ms Melissa Poh Wei Le, Research Assistant, ACI-LKYSPP, NUS
1640 – 1655	Presentation 4b: "Welfare Spending and Budget Sustainability of India's Sub-national Economies"
	ACI Presenters:
	Ms Jigyasa Sharma, Research Assistant, ACI-LKYSPP, NUS
	Ms Melissa Poh Wei Le, Research Assistant, ACI-LKYSPP, NUS
1655 – 1705	Discussant 1 for Session 4(b):
	Dr Manoj Panda Director, Institute of Economic Growth, India
1705 – 1715	Discussant 2 for Session 4(a):
7700 1710	Professor Wang Bo Chief Editor, Editorial Department of Dongyue Forum, Shandong Academy of Social Sciences, People's Republic of China
1715 – 1725	Question & Answer Session
1713 - 1725	44001011 471101101 50001011
1800 – 1930	Conference Dinner

End of Programme for 26 November 2018

Tuesday, 27 November 2018		
0830 – 0900	Conference Registration	
0900 – 0910	Welcome Remarks Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS	
0910 – 0915	Moderator: Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS	
0915 – 0935	Keynote Address 1: "Singapore as an Asia Infrastructure Hub" Mr Henry Kwek Member of Parliament & Member, Government Parliamentary Committee for Trade and Finance, Singapore	
0935 – 0955	Keynote Address 2: "US-China Trade War" Professor Zheng Yongnian Director, East Asian Institute, NUS	
0955 – 1015	Keynote Address 3: "India as an Emerging Regional Economic Power" Dr Manoj Panda Director, Institute of Economic Growth, India	
1015 – 1025	Question & Answer Session	

1025 – 1040	Coffee/Tea Break		
1040 – 1140	Session 5: 2018 Global Liveable and Smart Cities Index on 78 World's Major Cities		
1040 – 1045	Moderator: Mr Tan Kway Guan Research Assistant, ACI-LKYSPP, NUS		
1045 – 1100	 ACI Presenters: Dr Zhang Yanjiang, Post-doctoral Fellow and Assistant Director (Academic Publication), ACI-LKYSPP, NUS Mr Lim Tao Oei, Research Assistant and Assistant Director (Project Management), ACI-LKYSPP, NUS Associate Professor Tan Khee Giap, Co-Director, ACI-LKYSPP, NUS 		
1100 – 1115	Discussant 1: Dr Tim Moonen Managing Director, The Business of Cities, United Kingdom		
1115 – 1130	Discussant 2: Mr Timothy McDonald Journalist, BBC News		
1130 – 1140	Question & Answer Session		
1140 – 1240	Session 6: 2018 Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities		
1140 – 1145	Moderator: Mr Mao Ke Research Assistant, ACI-LKYSPP, NUS		
1145 – 1200	ACI Presenters: • Dr Zhang Yanjiang, Post-doctoral Fellow and Assistant Director (Academic Publication), ACI-LKYSPP, NUS • Mr Isaac Tan Yang En, Research Assistant, ACI-LKYSPP, NUS • Associate Professor Tan Khee Giap, Co-Director, ACI-LKYSPP, NUS		
1200 – 1215	Discussant 1: Dr Tim Moonen Managing Director, The Business of Cities, United Kingdom		
1215 – 1230	Discussant 2: Mr Timothy McDonald Journalist, BBC News		
1230 – 1240	Question & Answer Session		
1240 – 1500	Conference Luncheon Talk: "Infrastructure Development: Evaluation, Financing and Sustainability"		
1240 – 1245	Moderator: Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS		
1245 – 1305	Distinguished Luncheon Speaker Dr Thia Jang Ping Principal Economist, Strategy, Policy and Budget Department, Asian Infrastructure Investment Bank		
1305 – 1315	Question & Answer Session		
1315 – 1325	Closing Remarks and The Way Forward Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS		
1325 – 1430	Lunch		
	End of Conference		

End of Conference

Profiles of Speakers, Discussants and Moderators

(in alphabetical order)

Bambang Brodjonegoro

Bambang Permadi Soemantri Brodjonegoro is currently the Minister for National Development Planning (Bappenas), having been appointed to that role by President Joko Widodo on 27 July 2016. He was previously the Minister for Finance (from 27 October 2014 to 27 July 2016) in President Widodo's Working Cabinet. Under President Susilo Bambang Yudhoyono's administration, Bambang served as the Deputy Minister for Finance (from 3 October 2013 to 20 October 2014). Bambang is one of Indonesia's leading economists, with a Bachelors Degree in Economic Development and Regional Economy from the University of Indonesia (1990), and a Masters Degree (1995) and PhD (1997) in Urban and Regional Planning from the University of Illinois, USA. His areas of expertise include regional economics, fiscal decentralisation, public finance, development economics, urban economics and transportation. Prior to his ministerial positions, Bambang's career included Commisioner roles with PT Pertamina (a national Oil & Gas company); PT Aneka Tambang (a State-owned mining company); PT Adira Insurance; and PT PLN (the national electricity company). He is active on a number of international boards including the ASEAN Infrastructure Fund and the ASEAN+3 Finance and Central Bank Deputies Meeting. He is a committed and active academic, currently a Professor of Economics at the University of Indonesia. Prior experience has included positions as guest lecturer in the Department of Urban and Regional Planning with the University of Illinois; Director General of the Islamic Research and Training Institute at the Islamic Development Bank; and Decan of the Faculty of Economics with the University of Indonesia. He was born in Jakarta on 3 October 1966.

CUI Shuyi

Cui shuyi, born in 1963. Bachelor of philosophy in 1984 (Department of philosophy, Shandong University); Master of sociology in 1987 (Department of sociology, Shandong University); Doctor of law in 2005 (Department of international politics, Shandong University). Visiting scholar at Monash University (1997), University of Liverpool (2005) and Stanford University (2010). Presently director and senior professor of the Institute of demography at Shandong Academy of Social Sciences. Member of the council of China Population Association and Gerontology Society of China. Consultant to several departments of Shandong Provincial Government. Research interests include population administration, social service for the aged, think tanks, etc.. Published 10 books and nearly 100 papers.

Hezri Adnan

Dr Hezri Adnan is a Senior Director (Research) at the Institute of Strategic and International Studies Malaysia. He specialises in comparative public policy with work spanning areas such as sustainable development strategy, green economy, and natural resources security. From 2015 to June 2018, Hezri served as a Member of the United Nations' International Resource Panel (IRP), a UN Environment expert body that focuses on strategic issues of resource scarcity, efficiency and decoupling. He is an elected Fellow of the Academy of Sciences Malaysia (ASM), and currently holds visiting status as Honorary Associate Professor at the Fenner School of Environment and Society, Australian National University and Adjunct Professor at Universiti Tenaga Nasional (UNITEN). He was recently a Visiting Scholar at the Center for Southeast Asian Studies (CSEAS) at Kyoto University, Japan. Dr Hezri has consulted for international organizations such as UNDP, UNESCAP, UNICEF, UNRISD, Asian Development Bank and the World Bank, on many issues related to development and environmental challenges in the developing world. His past and current advisory roles include Cleared Advisor for the Malaysian Ministry of International Trade and Industries, Member of the Advisory Council for WWF Malaysia, and Co-Chair of the Penang Green Agenda Advisory Committee as well as a Board Member of the Penang Green Council. Dr Hezri has been awarded research fellowships by various institutions abroad, including the Australian Studies Fellowship by the Department of Foreign Affairs and Trade, Commonwealth of Australia, International Leadership Programme by the United States Department of State, and the Asian Public Intellectuals Fellowship by The Nippon Foundation. Among his over 100 publications is a book entitled The Sustainability Shift: Refashioning Malaysia's Future, which was funded by The Perdana Prime Minister's Exchange Fellowship. Hezri holds a PhD in Public Policy from the Australian National University.

HUANG Yuting

Huang Yuting is a Research Assistant at the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). Concurrently, Miss Huang Yuting is a PhD student in the Real Estate Department of NUS. She received her Bachelor and Master degree in Investment from Central University of Finance and Economics, China in 2012 and 2014 respectively. During the PhD candidature, she worked as the teaching assistant as tutors for undergraduate modules, such as, Real Estate Securitization, Real Estate Finance et al. At ACI, she is mainly involved in the WSBS project. Her research interests include financial economics, financial econometrics, real estate finance and housing economy.

Fatouma Toure IBRAHIMA

Fatouma Toure Ibrahima is the Operations Adviser in the Infrastructure and Urban Development Hub in Singapore where the World Bank, IFC and MIGA collocate to generate direct investments and provide technical assistance in infrastructure and related sectors. Fatouma has worked in development for the past 20 years, focusing on financial sector policy, financial system infrastructure, energy project design and implementation, energy sector policies and viability. Prior to joining the Singapore Infrastructure and Urban Development Hub, Fatouma held various positions including:

- Regional Representative for the Public Private Partnership Infrastructure Facility in charge of the West, Central and North Africa Portfolio;
- Senior Financial Sector Specialist and Task Team Leader in the World Bank Africa Energy Group where she led the design and implementation of various country and regional level energy projects;
- Special Assistant to the World Bank Group Vice President and Corporate Secretary and subsequently to the World Bank Group Managing Director and Chief Financial Officer; and
- Financial Sector Specialist in the Middle East and North Africa Region where she managed financial sector and financial system infrastructure projects and made major contributions to the Financial Sector Assessment Program.

Henry KWEK

A member of the Singapore Parliament, Henry is a former management consultant and economic planner. He previously worked in the North American office of McKinsey & Co. where he worked with senior management of global firms from the energy, medical devices, construction, and logistics to develop strategies and manage organisational change. Before that, he was with the Singapore Economic Development Board (EDB) where he promoted and evaluated investment projects for Singapore in the IT and chemical sectors. As a Singapore parliamentarian, he is actively involved in the Government Parliamentary Committees for Finance and Trade and Industry, as well as Culture, Community and Youth. He is a member of the Ministry of Defence's Accord Committee, which maintains public support for national service. Henry actively contributes to public discussions on economic matters such as Asia-Pacific's economic integration, Singapore's economic transformation, and promoting Singapore entrepreneurship. Beyond the economic sphere, he is passionate about seniors-related policy and social work. Henry graduated from Stanford University with a BA in Economics and an MSc Management Science and Engineering.

LIM Tao Oei

Lim Tao Oei is a Research Assistant at the Asia Competitiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). He graduated from NUS with a Bachelor of Social Sciences with Honours (Distinction) in Economics, and specialized in Applied and Policy Economics. At ACI, Tao Oei is the project coordinator for the research projects on the Urban Composite Development Index for 17 Shandong Cities: Ranking and Simulation Analysis, as well as the 100 Greater China Liveable Cities Index. In addition, he is actively engaged in the research projects on the Global Liveable Cities Index, Welfare Spending and Fiscal Sustainability, and the Productivity Tracking and the Independent Review and Efficiency Monitoring (IREM) of Real Time Outcome Monitoring System (ROMS) for the Government of Andhra Pradesh (GoAP), India. His research interests include ASEAN economics, labour economics and behavioural economics.

MAO Ke

Mao Ke is a research assistant at Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore. He graduated from National University of Singapore with Bachelor of Business Administration with Honours (Distinction) and specialised in Finance and Operations & Supply Chain Management. He is the coordinator of ACI's project on Annual Competitiveness Analysis for 34 Greater China Economies. He is also actively involved in several projects: Welfare Spending and Fiscal Sustainability Analysis; Independent Review and Efficiency Monitoring (IREM) of Real Time Outcome Monitoring System (ROMS) for the Government of Andhra Pradesh (GoAP), India; and Cost of living and Wages for Expatriates and Average Residents for 105 Cities. His research interests cover the fields of financial economics, macroeconomic policy and development economics.

Timothy MCDONALD

Timothy McDonald is an award-winning freelance journalist, radio and television producer and film-maker. He works mostly with international broadcasters, including the BBC. But he also works with a number of local production houses. He has lived in Singapore since 2013. Prior to his arrival, he worked for the Australian Broadcasting Corporation.

Mirza Akmarizal Ghazaly

Mirza is a Graduate Research Assistant at Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore. Currently, he is a candidate of Master in Public Policy at LKYSPP. Mirza graduated from Universitas Indonesia, with a Bachelor of Social Science in International Relations. At ACI, he is currently involved in Indonesia's Competitiveness Analysis project. His research interests include education policy, health policy, and urban planning and management.

Tim MOONEN

Dr Tim Moonen is a Director at The Business of Cities (www.thebusinessofcities.com) an urban intelligence firm based in London that has worked with senior leaders in more than 150 cities, 30 higher tiers of government, and 50 global companies and organisations. He has authored and co-authored more than 20 publications, with partners including the Brookings Institution, World Bank, OECD, and Future Cities Catapult. He has participated on international advisory boards for leadership in cities such as New York, Moscow, Sydney and Riga. His team manages the bi-annual global review of over 500 city benchmarks and indexes, in collaboration with Jones Lang LaSalle, and advises multiple cities and regions (e.g. Oslo, Mumbai, Atlanta, Glasgow, South East Queensland) on effective performance benchmarking.

Other relevant experience includes:

- Executive Education for senior and mid-career staff in organisations such as Arup and LSE Cities Working with City Leaders, Benchmarking Cities, The Relationship between Cities and Business, The Future of Cities, The Urbanisation of Capital.
- A PhD in International Studies from the University of Bristol and degrees from the University of Cambridge and the Universidad Europea de Madrid.
- Co-author of two books World Cities and Nation States (Wiley, 2016) and The Business of Cities: How Corporates and Capital are Re-urbanising Our World (Routledge, 2019).

Siwage Dharma NEGARA

Siwage Dharma Negara is senior fellow at the Institute for Southeast Asian Studies (ISEAS- Yusof Ishak Institute). He is Co-Coordinator for the Indonesia Studies program and Coordinator for APEC Studies program at the institute. Before joining ISEAS, he was researcher at the Indonesian Institute of Sciences (LIPI) (1997-2014). He is currently an editorial member of Journal of Southeast Asian Economies. His research interests include macroeconomic and development policy, regional connectivity, industrial and trade competitiveness with special focus on Indonesia. He received his PhD in economics from the University of Melbourne, Australia.

Nursyahida Ahmad

Nursyahida Ahmad is a Research Assistant at Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy, National University of Singapore. Nursyahida graduated from Nanyang Technological University, with a Bachelor of Arts (Honours) in Economics. At ACI, Nursyahida is actively involved in Indonesia's competitiveness analysis at the provincial and regional level, as well as other thematic studies including impact of real exchange rates on trade and investment. She is also working on a research on firm-level productivity and efficiency. Nursyahida has co-authored three books on provincial development and policy options for Indonesia. Her research interests include development economics and socioeconomic studies.

Manoj PANDA

Manoj Panda is Director of Institute of Economic Growth, Delhi since November 2012. He is currently a member of the National Statistical Commission. He earlier served as Director of the Centre for Economic and Social Studies (CESS), Hyderabad and as Professor and Associate Professor at the Indira Gandhi Institute of Development Research (IGIDR), Mumbai. He holds a PhD in Economics from the Indian Statistical Institute. He spent a year at the Yale University, USA on a post-doctoral fellowship. Dr Panda has undertaken short term assignments for several international organizations including the World Bank, ADB and UNDP. His research areas span monitoring and analysis of macroeconomic trends and prospects, development of computable general equilibrium (CGE) models and applications to analysis of alternative trade and fiscal policy options, construction of Social Accounting Matrices (SAM), measurement issues in poverty and human development, linkages between macroeconomic policy and poverty reduction, and interaction of carbon emission with economic growth and its pattern. He has published his research output in several referred international and national journals and edited books.

Melissa POH

Melissa Poh is a Research Assistant at the Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore. Melissa graduated from the National University of Singapore with a Bachelor's of Arts and Social Sciences (Hons), majoring in Sociology. She is currently involved in the Competitiveness Rankings and Simulation Studies for ASEAN-10 Economies, the Welfare Spending and Budget Sustainability project for ASEAN, and the Competitiveness Rankings and Simulation Studies for India. Melissa's research interests include crime, public policy and inequality.

Jigyasa SHARMA

Jigyasa Sharma is working as a Research Assistant at Asia Competitiveness Institute (ACI) at Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). She graduated with a First Class Honours Degree in Economics from University of Delhi. She was awarded twice for academic excellence and for securing the first position in her college. She graduated from NUS with Master of Social Science in Applied Economics. At ACI, she is working on a wide range of projects. She is the coordinator for ACI's flagship project on Annual Competiveness Analysis of 36 Indian Sub-National Economies and Ease of Doing Business Index for 21 sub-national economies of India. She is also the coordinator and lead technical field researcher for the Independent Review and Efficiency Monitoring (IREM) of Real Time Outcome Monitoring System (ROMS) for the Government of Andhra Pradesh (GoAP), India. She is also actively involved in the project on Productivity Tracking and Efficiency Monitoring of SMEs in Singapore, Impact of Real Effective Exchange Rates on Foreign Direct Investment (FDI) and on Exports from Indian Sub-National economies. Her research interest includes Development Economics, Urban Economics, International Economics and Public Policy.

S Shalini SIVAKRISHNAN

S Shalini Sivakrishnan is a Research Assistant at the Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore. Shalini graduated from Nanyang Technological University with a Bachelor's of Arts and Social Sciences (Hons), majoring in Public Policy and Global Affairs, and a minor in Philosophy. She is currently involved in the Competitiveness Rankings and Simulation Studies for Indonesia. Shalini's research interests include developmental studies, human rights and forced migration.

Isaac TAN Yang En

Isaac Tan is a Research Assistant at the Asia Competiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). He graduated from the University of British Columbia with a Bachelor of Arts in International Relations in 2015. Isaac has also studied at the University of Sydney. He hopes to pursue further studies in Public Policy and International Organizations. At ACI, Isaac is currently involved in monitoring the trends in the cost of living, purchasing power, and wages of both expatriates and ordinary citizens in different cities.

TAN Khee Giap

Tan Khee Giap is a Co-Director of the Asia Competitiveness Institute (ACI) and Associate Professor at the Lee Kuan Yew School of Public Policy, National University of Singapore. He is also the Chairman of the Singapore National Committee for Pacific Economic Cooperation. Upon graduating with a PhD from University of East Anglia, England, in 1987 under the Overseas Research Scheme awarded by the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom. He joined the banking sector as a treasury manager and served as secretary to the Assets and Liabilities Committee for three years, there after he taught at the Department of Economics and Statistics, National University of Singapore, 1990-1993. Dr Tan joined Nanyang Technological University in 1993 and was Associate Dean, Graduate Studies Office, 2007-2009. Dr Tan has consulted extensively with the various government ministries, statutory boards and government linked companies of Singapore government including Ministry of Finance, Ministry of Trade & Industry, Ministry of Manpower, Housing & Development Board, Civil Aviation Authority of Singapore, Singapore Tourism Board, Trade Development Board, Maritime Port Authority, Ministry of Information, Culture & Arts, Economic Development Board, Ministry of National Development, Media Development Authority, Ministry of Environment and Water Resources, Singapore Design Council, Ministry of Community Development, Youth & Sports, Singapore Press Holdings, Yayasan Mendaki, StarHub, CapitaLand and Great Eastern Life. He has also served as a consultant to international agencies such as the Asian Development Bank, Asian Development Bank Institute, United Nations Industrial Development Group, World Bank Group, World Gold Council, ASEAN Secretariat, Central Policy Unit of Hong Kong, Kerzner International, Las Vegas Sands and Marina Bay Sands. Dr Tan is the lead author for more than 20 books, serving as journal editors and published widely in international refereed journals. He is the associate editor of the journal Review of Pacific Basin Financial Markets and Policies (US) and is on the editorial advisory board of the journal Competitiveness Review (UK). His current research interests include Cost of Living and Purchasing Power Index for World's 105 Cities, Global Liveable Cities Index, Ease of Doing Business Index and competitiveness analysis on sub-national economies of China, India, Indonesia and Association of South East Asian Nations. Dr Tan was Deputy President of the Singapore Economic Society, 2004. He served in the 2002 Economic Review Committee (ERC), served as Chairman of the Task Force on Portable Medical Benefits (PMB), served as the Deputy Chairman of the IPS Forum for Economic Restructuring (IFER) in 2003 and served as a member of the Resource Panel of the Government Parliamentary Committee for Transport and Government Parliamentary Committee for Finance and Trade & Industry and Government Parliamentary Committee for Defense and Foreign Affairs since 2007. Dr Tan is currently an Independent Director of the publicly listed BreadTalk Group, Boustead Singapore, TEE Land and Chengdu Rural Commercial Bank.

TAN Kong Yam

Professor Tan Kong Yam is presently the Co-Director of the Asia Competitiveness Institute. He is also Professor of Economics at the Nanyang Technological University. From 1985-89, he was the chief assistant to the late Dr Goh Keng Swee on his consultancy to Mr Deng Xiaoping on China's development strategy. From June 2002 to June 2005, he was a senior economist at the World Bank office in Beijing. In 2004, he was a member of the World Bank expert group on the eleventh five year plan (2006-2010) for the State Council in China. The expert group provided analysis and policy recommendations on urbanization, regional inequality, innovation policy, energy and water policy as well as strategy on banking reform to the Chinese government. Prior to that, he was the chief economist of the Singapore government (1999-2002), Head, Department of Strategy and Policy, Faculty of Business Administration at the National University of Singapore (NUS). He is a graduate of Princeton (1975-79, class of 1931 scholar, Paul Volcker Thesis prize) and Stanford University (1980-83), where he completed his Master and PhD in three years. Prior to joining NUS, he has worked at the Hoover Institution at Stanford University, World Bank, the Monetary Authority of Singapore, and was the Director of Research at the Ministry of Trade and Industry in Singapore. His research interests are in international trade and finance, economic and business trends in the Asia Pacific region and economic reforms in China. He has published ten books and numerous articles in major international journals including American Economic Review, World Bank Economic review, etc on economic and business issues in the Asia Pacific region. He served as board member at the Singapore Central Provident Fund Board (1984-96) and the National Productivity Board (1989-90). He has also consulted for many organizations including Temasek, GIC, Citigroup, IBM, ATT, BP, ABN-AMRO, Ikea, Bank of China, China Construction Bank, People's Bank of China, EDB, Areva, Capitaland, Samsung, Mobil, etc.

TAN Kway Guan

Tan Kway Guan is a Research Assistant at the Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore. Kway Guan graduated from the University of Western Australia with a Master of Economics and a Bachelor of Commerce, double major in Economics. He is currently the project coordinator for the Annual Competitiveness Analysis and Development Strategies for ASEAN 10 Economies as well as assisting in the Annual Indices for Purchasing Power, Cost of living and Wages for Expatriates and Average Residents for 105 Cities and the Welfare Spending and Budget Sustainability analysis for ASEAN economies. His research interests include development economics and energy economics.

THIA Jang Ping

Thia Jang Ping is the Principal Economist in the Policy and Strategy Department of the Asian Infrastructure Investment Bank (AIIB). He is responsible for economic analysis, including macroeconomics monitoring, review of project economics, as well as supporting sector and investment strategies at the Bank, "China and Singapore are strong examples of how investment in infrastructure has promoted economic growth and transformed societies. China has also greatly expanded on sustainable infrastructure in recent years. I am very honored to be part of AIIB's mission to promote this model in Asia". Prior to joining the Bank, Jang Ping was the Director responsible for national security and community budgets in the Ministry of Finance (Singapore), overseeing spending on security, sports, community and telecommunication infrastructure. Having graduated with an Economics PhD degree from London School of Economics, he was also previously the Director for Economics at the Ministry of Trade and Industry, responsible for macroeconomic analysis, research and policy evaluation in the public sector.

Wahyu Utomo

Wahyu Utomo is Deputy for Infrastructure Acceleration and Regional Development to the Coordinating Minister of Economic Affairs, he plays strategic roles in policy development and decision making to accelerate infrastructure projects as well as Special Economic Zones. Mr Utomo headed the Implementation Team for Committee for Acceleration of Priority Infrastructure Delivery (KPPIP) which is tasked to monitor 223 projects and 3 programs with total value of USD 307,4 Billion. More than USD 100 Billion worth of projects are now under construction. Furthermore, KPPIP is also mandated to accelerate 37 priority projects from drinking water supplies, toll roads, seaports, power plants, and oil refineries. In delivering major infrastructure programs, Mr Utomo's contributions vary from formulating policies, recommending regulations, and resolving bottlenecks. Mr Utomo is currently sits as the Commissioner for PT Sarana Multi Infrastructure – a financial institution which plays an active role in facilitating project preparation and providing financing for infrastructure projects in Indonesia. Mr Utomo graduated from Cornell University, USA in 2002 for PhD majoring Regional Science.

WANG Bo

Wang Bo, born in 1969 in Yanggu, Shandong Province. Graduated from the Department of rural economics and management, Shandong Agricultural University in 1990. Master of management. He was an assistant researcher of the Institute of Rural Development, deputy director and professor of the Institute of Marine Economics, director and professor of the Provincial Research Center at Shandong Academy of Social Sciences. Currently, he is the editor-in-chief and professor of the Iournal of Dongyue Tribune, a specially appointed professor at Jinan University, a master's supervisor at Shandong Agricultural University and Qilu University of Technology, and an industrial economic post expert of Shandong People's Government. In recent years, he has independently presided over 2 national projects, 5 provincial projects, published 6 papers and 2 books and won 3 provincial prizes.

WANG Huitong

Professor Huitong Wang is the director of Institutes of Environmental Economics and a professor in the Institute for Finance and Economics Research at Central University of Finance and Economics. She is the member of Beijing Haidian District Committee of the Chinese People's Political Consultative Conference. Prof Wang held the deputy director of the Research Office at Beijing Municipal Bureau of Financial Work from 2011 to 2012. Prof Wang focus on finance, environmental economics, regional economic theory and policy. She has a PhD degree in finance from National Academy of Economic Strategy of Chinese Academy of Social Sciences. She also has a bachelor's degree in Industrial analysis from Guilin University of Technology, a master's degree in finance from Chinese Academy of Social Sciences, and a master's degree in environmental economics from Wageningen Universiteit in Holland. Wang has published over 60 works in refereed journals in the areas of finance, environmental economics, regional economics, and management science, such as management World, Finance & Trade Economics, China Population, Resources and Environment, and Urban Studies. In 2016, an authored paper won Beijing Twelfth Outstanding research achievement award. In 2006, an authored paper won the second place Best Paper Award from Beijing Municipal Commission of Development and Reform. Wang has consulted for international financial organizations and government, including The World Bank, Asian Development Bank, Ministry of Finance of the People's Republic of China, National Development and Reform Commission, Ministry of Environmental Protection of the People's Republic of China, National Planning Office of Philosophy and Social Science, Beijing Municipal Commission of Development and Reform, Beijing Municipal Science & Technology Commission, Beijing Municipal Bureau of Financial Work, Beijing Haidian District Financial Services Office, Beijing Haidian District Development and Reform Commission. She is one of the most sought after experts on finance strategy and performance evaluation. Prof Wang is a member of the Chinese Women Economists Union, a fellow of the Economic Committee of Beijing Committee of China Zhigong Party. She has received many academic awards, including the New Century Excellent Talents by Ministry of Education (2010), Three one hundred projects in Beijing (2011), the three-time most Academic Award at Central University of Finance and Economics in 2009, 2014 and 2016.

Yose Rizal Damuri

Yose Rizal Damuri is the Head of the Department of Economics, Centre for Strategic and International Studies. His research activities focus on international trade, regional integration and globalization of value chain. Yose has been teaching International Economics courses in the Department of Economics University of Indonesia for many years. He is active in many networks of research institutes in East Asia region, such as in Asia Pacific Research Network on Trade (ARTNet) and ERIA Research Institute Network (ERIA-RIN). Currently he serves as the Co-Chair of Indonesia National Committee of Pacific Economic Cooperation (INCPEC). Yose is active in many policy forum including as the Research Coordinator of Indonesia Service Dialogue, a forum dedicated for the development of services sector in Indonesia. He also helps the Indonesian government as an Advisor to

Indonesian Trade Negotiating Team. He received his PhD in International Economics from the Graduate Institute of International Studies, Geneva, Switzerland.

- PhD in International Economics from the Graduate Institute of International Studies, Geneva, Switzerland
- Head of the Department of Economics, Centre for Strategic and International Studies
- Lecturer at the Fakultas Ekonomi dan Bisnis, Universitas Indonesia
- Founder of Indonesia Services Dialogue (ISD)
- Co-chair of Indonesia National Committee of Pacific Economic Council (INCPEC)

ZHANG Xuyao

Zhang Xuyao is a Research Fellow at the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). Dr Zhang received his PhD in Economics from NUS in 2016 and obtained his Bachelor (Honors) degree in Applied Mathematics from NUS as well in 2012. During the PhD candidature, he worked as teaching assistant in conducting undergraduate tutorials, such as Microeconomics, Macroeconomics and Managerial Economics. His research focuses on Industrial Organizations, Applied Game Theory, and Public Economics. In particular, he is interested in technology transfers and anti-trust policies. He studies the optimal environmental taxation on the pollution problems in the presence of corruption. He also works on the beneficiary of research joint ventures with technology transfer. He also studies the Qualcomm's anti-trust case in China. At ACI, Dr Zhang is supervising all the Competitiveness Projects (ASEAN, China, India and Indonesia). He is the coordinator for the Welfare Spending and Budget Sustainability project and Shandong Urban Composite Development Index project. He is also the co-coordinator for the project studying the impact of exchange rate on trade at provincial level of Mainland China. Dr Zhang is also working on the methodology of applying the concept of Shapley values to index ranking analysis. This method will subsequently serve as a robustness check to all the competitiveness ranking studies in ACI. Additional projects he is working on include the construction of the Special Economic Development Area index, the construction of Infrastructure index and the Independent Review and Efficiency Monitoring (IREM) of Real Time Outcome Monitoring System (ROMS) for the Government of Andhra Pradesh (GoAP), India.

ZHANG Yanjiang

Zhang Yanjiang is a Postdoctoral Fellow at the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS). Dr Zhang obtained his PhD in urban economics and policies from NUS in April 2018. He obtained his Master's degree in energy and environment economics from Xiamen University (China) in June 2013, and earned his Bachelor's degree from Southwestern University of Finance and Economics (China) in June 2010. Before joining ACI, he worked as research associate in the Department of Real Estate NUS. He has also led or participated in various projects studying topics such as energy planning, green building, rental housing market and housing policies. He also has served as teaching assistant and tutors in NUS, teaching modules such as Research Methodology, Real Estate Economics, and Housing Policy. Yanjiang's research focuses on Housing Economics and Policy, Housing and Land Planning, and Environment Policy. In particular, his PhD dissertation explains how a sellers' stamp duty in the Singapore private housing market removes market liquidity by deterring the selling of individual investors and how it inhibits the effectiveness of later policies aiming to cool down the housing market. After joining ACI, Yanjiang serve as the supervisor for Liveability Ranking and Simulation Studies on World's Major Cities, Supervisor for Coordinated, Innovative and Sustainable Development Index for 17 Shandong Cities, Supervisor for Annual Ranking and Simulation on Liveability of 100 Chinese Cities, Supervisor for Annual Indices for Expatriates and Ordinary Residents on Cost of Living, Wages and Purchasing Power for World's Major Cities. He has obtained the Outstanding Paper Award from the 1st China Urban Economics Scholar Forum which is held jointly by MIT, Chinese Academy of Social Sciences, Peking University, Tsinghua University and other leading institutions. He has published housing policy opinions in Singapore.

ZHENG Yongnian

Professor Zheng received his B.A. and M.A. degrees from Beijing University, and his PhD at Princeton University. He was a recipient of Social Science Research Council-MacArthur Foundation Fellowship (1995-1997) and John D. and Catherine T. MacArthur Foundation Fellowship (2003-2004). He was Professor and founding Research Director of the China Policy Institute, the University of Nottingham, United Kingdom. He is Editor of Series on Contemporary China (World Scientific Publishing) and Editor of China Policy Series (Routledge). He is also the editor of China: An International Journal and East Asian Policy. He has studied both China's domestic transformation and its external relations. His papers have appeared in internationally referred journals such as Comparative Political Studies, Political Science Quarterly, Third World Quarterly and China Quarterly. He is the author of a few dozens of books, including Market in State: The Political Economy of Domination in China, Contemporary China, The Chinese Communist Party as Organizational Emperor, Technological Empowerment, De Facto Federalism in China, Discovering Chinese Nationalism in China and Globalization and State Transformation in China, and editor of many books on China and its foreign relations including the latest volumes China Entering the Xi Era (2014), China and the New International Order (2008), and China and International Relations (2010). Besides his research work, Professor Zheng has also been an academic activist. He served as a consultant to United Nation Development Programme on China's rural development and democracy. He has also been advising the Chinese government at different levels on various areas of reform and development. In addition, he has been a columnist for Xinbao (Hong Kong) and Zaobao (Singapore) for many years, writing numerous commentaries on China's domestic and international affairs.

Media Coverage

Republika Online, 26 November 2018

1/11/2019

Beragam Instrumen Digunakan Demi Pembangunan Infrastruktur | Republika Online

Beragam Instrumen Digunakan Demi Pembangunan Infrastruktur





Kepala Badan Perencana Pembangunan Nasional (Bappenas), Bambang Brodjonegor,

Foto: Republike TV/Hevid Al Vizid

Bappenas menyebut pemerintah menginisiasi skema pembiayaan KPBU dan PINA

REPUBLIKA.CO.ID, JAKARTA – Menteri Perencanaan Pembangunan Nasional/Badan Perencanaan Pembangunan Nasional Bambang Brodjonegoro menilai, total estimasi investasi yang dibutuhkan selama 15 tahun untuk membangun infrastruktur di Asia Pasifik adalah 26,2 triliun dolar AS. Hal ini disampaikannya dalam Asia Competitiveness Institute (ACI) Annual Conference Collaboration dengan tema Infrastructure Financing and Development in Asia di Singapura, Senin (26/11).

Dari 2016 hingga 2030, sektor pembangkit listrik menduduki prioritas teratas, yaitu 14,7 triliun dolar AS atau 56 persen dari total investasi infrastruktur. Diikuti sektor transportasi sebesar 8,4 triliun dolar AS atau berkontribusi sekitar 32 persen.

Sejalan dengan kondisi tersebut, Bambang menuturkan, pemerintah Indonesia saat ini berkomitmen meningkatkan konektivitas antar wilayah. "Tujuannya,

https://www.republika.co.id/berita/ekonomi/keuangan/18/11/26/pit55i349-beragam-instrumen-digunakan-demi-pembangunan-infrastruktur

Republika Online, 26 November 2018 (Continued)

1/11/2019



Beragam Instrumen Digunakan Demi Pembangunan Infrastruktur | Republika Online

untuk menciptakan pemerataan pembangunan, dengan mempercepat pembangunan infrastruktur secara masif," ujarnya dalam rilis yang diterima Republika.co.id, Senin (26/11).

Untuk mengatasi kesenjangan pembiayaan infrastruktur nasional, pemerintah Indonesia telah menginisiasi skema pembiayaan alternatif melalui dua cara. Yakni, Kerjasama Pemerintah dengan Badan Usaha (KPBU) dan Pembiayaan Infrastruktur Non Anggaran Pemerintah (PINA).

Bambang mengatakan, sepanjang 2014 sampai 2019, partisipasi kolaboratif BUMN dan swasta diharapkan dapat membiayai kebutuhan infrastruktur sebesar 59 persen dari total investasi infrastruktur nasional 359,2 miliar dolar AS.

Saat ini, terdapat 19 sektor yang dapat dikerjasamakan dengan skema KPBU, meliputi konektivitas, perkotaan, dan infrastruktur sosial. Untuk menawarkan jaminan pemerintah dan meningkatkan minat investor terhadap KPBU, Kementerian PPN/Bappenas mendirikan Kantor Bersama KPBU sebagai *one stop service* dan menjadi forum koordinasi antar pemangku kepentingan KPBU di tingkat pemerintah pusat yang beranggotakan tujuh Kementerian/Lembaga.

Sampai saat ini, 13 proyek senilai USD 8,9 miliar yang dibiayai melalui skema solicited dan dalam tahap konstruksi dan operasi. Ketiga belas proyek ini merupakan bagian dari Proyek Strategis Nasional (PSN). Termasuk di antaranya jalan tol, energi, telekomunikasi, dan penyediaan air.

Bambang mengatakan, contoh kisah sukses skema ini adalah pembangunan Sistem Penyediaan Air Minum (SPAM) Umbulan di Jawa Timur. Infrastruktur ini telah direncanakan sejak zaman kolonial Belanda. "Pada skema *unsolicited*, dua proyek jalan tol yang merupakan PSN juga telah mencapai *financial closing* dan dalam tahap konstruksi," ucapnya.

Sementara itu, PINA yaitu merupakan skema pembiayaan infrastruktur yang fokus pada proyek-proyek dengan Internal Rate of Return (IRR) di atas 13 persen. Sebagai bentuk prioritas, pemerintah mendirikan PINA Center pada 27 Februari 2017. Tujuannya, untuk membangun hubungan baik antara investor dan investee, baik domestik maupun internasional, dalam memanfaatkan berbagai instrumen keuangan. Misalnya, dana pensiun, asuransi, kekayaan negara, hingga perusahaan investasi strategis.

Melalui PINA Center, Bambang menjelaskan, pihaknya telah memfasilitasi kolaborasi antara investor dan investee dalam membiayai proyek jalan tol, bandara, energi terbarukan dan lainnya dengan total investasi sebesar 2,3 miliar dolar AS. PINA Center juga telah melakukan pipelining pada 33 proyek. Di antaranya, bandara, perkebunan, penerbangan, pariwisata dan lainnya dengan total investasi sebesar 39 miliar dolar AS.

Skema pembiayaan lain yang dikembangkan pemerintah yakni blended finance. Skema ini fokus pada gabungan pendanaan dari badan multilateral, pemerintah, atau filantropi untuk mengatasi hambatan investasi swasta dalam proyek-proyek infrastruktur.

https://www.republika.co.id/berita/ekonomi/keuangan/18/11/26/pit55i349-beragam-instrumen-digunakan-demi-pembangunan-infrastruktur

関係 😕 WAVA SOMEORIZE SE

印尼为削减经常项目赤字拟再工业化与拓展旅游业

为了削减经常项目赤字,印度尼西亚计划进行重新工业化(reindustrialisation),并拓展旅游业。

印尼国家发展计划部长班 邦·布罗佐内戈罗(Bambang Brodjonegoro)昨天参加亚洲竞争 力学院年度大会时指出这点。

印尼今年第三季度的经常项目赤字扩大到2014年第二季以来的最高水平,占国内生产总值的3.37%。今年第三季,海外投资者纷纷把资金撤出印尼,导致印尼盾下跌至接近亚洲金融危机的水平。

班邦说,随着印尼经济日益增长,石油与天然气的进口越来越多,在石油领域的赤字是印尼最大的贸易赤字。

他表示, 印尼将通过两个渠

道来试图削减经常项目赤字。

首先,印尼计划进行重新工业化,进一步吸引外资发展制造业,把焦点放在增值较高的领域,减少对农业、矿业和商品的依赖。

其次,印尼要推动旅游业, 发展在峇厘岛以外的旅游业,这 包括开发另外10个"峇厘岛"。

班邦也指出,印尼致力于发展基础设施,要建设总共1000公里的公路、七个海事中心和24个海港,以及15个新机场。

2014年至2019年期间,印尼 所需的基础设施投资总额为3592 亿美元,其中59%的要来自私人 领域。

新加坡是印尼最大的外资来源,班邦希望吸引更多新加坡资 金来印尼投资基础设施。



股汇金市

股市	海指:	3093.38	+40.89点
汇市	1美元:	1.373	and the second second second
	1新元:	3.052	令吉
	1新元:	5.053	人民币
金市	1安士:	1226.11	美元
(来源:彭博	杜)		

调查:下降两位排第54名 我国普通人民生活成本稍低于全球中位数水平

胡渊文 报道

yuanwen@sph.com.sg

一项调查显示,对于外派人员来说,我国的生活成本相当高,但对于普通人民来说则略低于全球中位数水平。

新加坡国立大学李光耀公共 政策学院亚洲竞争力研究所进行 的年度调查显示,我国是外派人 员生活费最高的亚洲城市,在全 球105个城市中排名第四,和去年 一样;但对于普通老百姓来说, 我国的生活成本排在第54位,比 去年下降两位。

亚洲竞争力研究所所长陈企业博士接受《联合早报》访问时指出, 西方国家城市的生活水平, 对于外派人员和普通人民来说差得不远, 但在亚洲国家城市, 外派人员的生活成本比老百姓的高得多。他说, 这主要是因为在亚洲, 老百姓到小贩中心用餐, 去菜市场买菜, 而在西方国家城市, 大家都上餐馆和超市。

报告中也指出,在西方国家 城市,服务业人力密集,平均薪 金显著来得高,推高了生活成 木 陈企业说,不少国人觉得我 国的生活成本越来越高,其实是 因为随着经济的发展进步,国人 对生活的要求提高了,比如上餐 馆用餐,出门搭德士;本地的中 产阶级让孩子上各种课程,请专 业教练教孩子学习体育项目。这 样一来生活费就高了。

而在各类生活费当中, 我国 的烟酒成本居全球第二, 若是抽 烟喝酒, 生活费当然会高。

"生活成本有多贵,是自己 决定的。我们应该量人而出,理 性地思考每个月的收人如何分 配。"

亚洲竞争力研究所的调查显示,全球外派人员生活费最高的 10个城市中有三个位于亚洲,除了新加坡之外,还有排名第六的 香港,以及排名第九的东京。

普通老百姓生活费最高的城 市当中,排名最高的亚洲城市是 东京,在第19位。

该学院的调查也显示,新加坡人的购买能力和薪水双双位居亚洲第一,在全球则分别排第20和第46位。

不论是外派人员或一般百姓

的生活成本,委内瑞拉的加拉加斯(Caracas)皆高居世界第一, 因为该国出现恶性通货膨胀。

全球薪水最高和购买能力 最强的城市都是瑞士的日内瓦 (Geneva)。

这项调查自2005年开始进行,目的在于提供平民百姓、跨国执行人员、潜能投资者、决策者和政府官员,关于全球主要城市生活费的可靠预测。

调查是使用世界银行、经济 学人信息社、经济合作与发展组 织(OECD)和国际劳工组织等 的数据进行分析和排名。

可居住城市和智慧城 我国名列亚洲第一

亚洲竞争力研究所也针对可居住城市和智慧城为79个城市排名,新加坡排在第九,比2015年下跌两位,被阿姆斯特丹和柏林超越,但仍是排名最高的亚洲城

在五大衡量标准当中,新加 坡在经济蓬勃和竞争力,环保和 可持续发展以及政治治理方面的 排名下滑,国内安全和稳定排名

全球城市生活成本排名

对于 外派人员	城市	对于 普通百姓
1	加拉加斯	1
2	纽约	2
3	苏黎世	3
4	新加坡	54
5	日内瓦	4
6	香港	50
7	洛杉矶	6
8	伦敦	23
9	东京	19
10	芝加哥	14

资料来源/亚洲竞争力研究所

跃升到第一位,社会文化情况也 改善。

此外,亚洲竞争力研究所 也发布了亚细安10国的竞争力排 名

在亚细安10国当中,新加坡 的整体竞争力连续17年排名第 一,在金融与商业和人力条件方 面的表现超越马来西亚,回到第 一的位置。

这份调查根据121个指标来衡量亚细安10国的竞争力,首次发表于2003年。由于收集数据和公布数据之间需要时间,因此今年公布的调查结果是2016年的得分和排名。

1/11/2019

Bappenas Optimistis Keberhasilan Skema Pembiayaan...

Bappenas Optimistis Keberhasilan Skema Pembiayaan Non-APBN Berlanjut

Oleh : Herry Barus | Selasa, 27 November 2018 - 09:00 WIB

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Berita Terkait



Bappenas Ajak Pengusaha Australia Berinvestasi dengan Skema PINA

Pertumbuhan Ekonomi Triwulan III-2018 5,1 Persen

Dumping PET Picu Kenalkan Harga Produk Hilir INDUSTRY.co.id - Jakarta- Menteri Perencanaan Pembangunan/Kepala Bappenas Bambang Brodjonegoro optimistis keberhasilan skema pembiayaan non-APBN untuk pembangunan proyek-proyek infrastruktur akan terus berlanjut

"Beberapa inisiatif yang dikembangkan Pemerintah Indonesia telah terbukti mempercepat pembangunan proyek infrastruktur Indonesia. Kami optimis jumlah proyek ini terus bertambah mengikuti kisah sukses yang telah kami capai hingga saat ini. Kami berharap keberhasilan ini dapat direplikasi ke proyek infrastruktur lainnya di seluruh Indonesia," ujar Bambang dalam sambutannya pada Asia Competitiveness Institute (ACI) Annual Conference Collaboration dengan tema "Infrastructure Financing and Development in Asia", di Singapura sebagaimana keterangan resmi yang diterima Antara di Jakarta, Senin (26/11/2018)

Total estimasi investasi yang dibutuhkan selama 15 tahun untuk membangun infrastruktur di Asia Pasifik adalah 26,2 triliun dolar AS. Dari 2016 hingga 2030, sektor pembangkit listrik menduduki prioritas teratas, yaitu 14,7 triliun dolar AS atau 56 persen dari total investasi infrastruktur. Diikuti sektor transportasi sebesar 8,4 triliun dolar AS atau 32 persen. Sejalan dengan kondisi tersebut, Pemerintah Indonesia berkomitmen meningkatkan konektivitas antarwilayah

untuk menciptakan pemerataan pembangunan dengan mempercepat pembangunan infrastruktur secara masif.

LINE

Untuk mengatasi gap pembiayaan infrastruktur nasional, Pemerintah Indonesia telah menginisiasi skema pembiayaan alternatif melalui Kerjasama Pemerintah dengan Badan Usaha (KPBU) dan Pembiayaan Infrastruktur Non Anggaran Pemerintah (PINA). Sepanjang 2014-2019, diharapkan partisipasi kolaboratif BUMN dan swasta dapat membiayai kebutuhan infrastruktur sebesar 59 persen dari 359,2 miliar dolar AS total investasi infrastruktur nasional.



Saat ini terdapat 19 sektor yang dapat dikerjasamakan dengan skema KPBU, meliputi konektivitas, perkotaan, dan infrastruktur sosial. Untuk menawarkan jaminan pemerintah dan meningkatkan minat investor terhadap KPBU, Kementerian PPN/Bappenas mendirikan Kantor Bersama KPBU sebagai "one stop service" dan menjadi forum koordinasi antar pemangku kepentingan KPBU di tingkat pemerintah pusat yang beranggotakan tujuh Kementerian/Lembaga. Hingga saat ini, 13 proyek senilai 8,9 miliar dolar AS yang dibiayai melalui skema "solicited" dan dalam tahap konstruksi dan operasi.

Ketiga belas proyek ini merupakan bagian dari Proyek Strategis Nasional (PSN), d iantaranya jalan tol, energi, telekomunikasi, dan penyediaan air.

Contoh kisah sukses skema ini adalah pembangunan Sistem Penyediaan Air Minum (SPAM) Umbulan di Jawa Timur, yang telah direncanakan sejak zaman kolonial Belanda. Pada skema "unsolicited", dua proyek jalan tol yang merupakan PSN juga telah mencapai financial closing dan dalam tahap konstruksi.

Skema kedua adalah PINA, yaitu merupakan skema pembiayaan infrastruktur yang fokus pada proyek-proyek yang memiliki Internal Rate of Return (IRR) di atas 13 persen. Untuk membangun hubungan baik antara investor dan investee baik domestik maupun internasional dalam memanfaatkan berbagai instrumen keuangan, seperti dana pensiun, asuransi, kekayaan negara, hingga perusahaan investasi

http://www.industry.co.id/read/45526/bappenas-optimistis-keberhasilan-skema-pembiayaan-non-apbn-berlanjut

Industry, 27 November 2018 (Continued)

1/11/2019

Bappenas Optimistis Keberhasilan Skema Pembiayaan...

strategis untuk mencapai financial closing, Kementerian PPN/ Bappenas mendirikan PINA Center pada 27 Februari 2017. "Melalui PINA Center, kami telah memfasilitasi kolaborasi antara investor dan investee dalam membiayai proyek jalan tol, bandara, energi terbarukan dan lainnya dengan total investasi sebesar 2,3 miliar dolar. PINA Center juga telah melakukan pipelining pada 33 proyek, antara lain bandara, perkebunan, penerbangan, pariwisata dan lainnya dengan total investasi sebesar USD 39 miliar," kata Bambang.

Skema pembiayaan lain yang dikembangkan Pemerintah Indonesia adalah skema "blended finance". Skema ini fokus pada gabungan pendanaan dari badan multilateral, pemerintah, atau filantropi untuk mengatasi hambatan investasi swasta dalam proyek-proyek infrastruktur. Salah satu kisah sukses Indonesia adalah pembangunan dan revitalisasi Pembangkit Listrik Tenaga Mikro Hidro (PLTMH) di Jambi yang didanai dengan donasi dan CSR dari Badan Zakat Nasional (BAZNAS), Bank Jambi, UNDP, serta Kementerian ESDM dan Pemerintah Provinsi Jambi.

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