2017 ASIA ECONOMIC FORUM ON "THE ONE-BELT ONE-ROAD INITIATIVE: IMPACT AND IMPLICATIONS"

JOINTLY ORGANISED BY

THE WORLD BANK GROUP

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ASIA COMPETITIVENESS INSTITUTE
AT LEE KUAN YEW SCHOOL OF PUBLIC POLICY,
NATIONAL UNIVERSITY OF SINGAPORE

Seminar 2: "Competitiveness, Trade, Liveability and Productivity in Greater China and India"

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

Forum Proceeding

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In 2016 and 2017, ACI was ranked 13th globally, 2nd in Asia and 1st in Singapore amongst 90 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 **A**SEAN in the context of the rise of **C**hina and **I**ndia.

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 synergising 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 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 with The World Bank (2015), SPRING Singapore (2014) and European Central Bank (2014). The Memorandum of Understanding between The World Bank and National University of Singapore, coordinated through ACI, was signed in 2016.

VI. We have signed Memoranda of Understanding with various institutions in Greater China economies, including Shanghai Academy of Social Sciences (2016), Shandong Academy of Social Sciences (2015), 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 Memoranda of Understanding with six Chief Ministers' Offices in Andhra Pradesh (2015), Bihar (2015), Chhattisgarh (2015), Madhya Pradesh (2015), Odisha (2015) and Punjab (2015).

VIII. We have signed Memoranda of Understanding 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 Memoranda of Understanding with ASEAN think-tanks and institutions, including Vietnam Chamber of Commerce and Industry (2016), Centre for Strategic and International Studies, Indonesia (2015), Institute of Strategic & International Studies, Malaysia (2015), Philippine Institute for Development Studies (2015), Thailand Development Research Institute (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 make adjustments 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 CompNet into Asia, thereby pioneering the Asia CompNet research network 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

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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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Executive Summary

With concerns about trade and financial de-globalisation weighing down the global economy, emerging market economies in Asia have their task cut out to achieve high quality economic growth by wading through the challenges stemming from a relatively less favourable and open international trading and financial system. Against this backdrop, the "One-Belt One-Road" (OBOR) initiative spearheaded by China presents a timely opportunity to enhance greater global economic cooperation through bolstering and deepening trade and investment linkages within and outside the region as a means to achieving greater integrated, sustainable and equitable economic growth.

In this light, the Asia Competitiveness Institute (ACI) at the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS), jointly with The World Bank, co-hosted the *2017 Asia Economic Forum* on ***"The One-Belt One-Road Initiative: Impact and Implications"*** on 28-29 August 2017. The forum provided an invaluable platform to deliberate, discuss and share academic and policy insights on the opportunities and challenges for Asia resulting from the OBOR initiatives. In addition, the forum also saw the dissemination of ACI's preliminary research findings on several interconnected issues of economic significance pertaining to competitiveness, trade, liveability and productivity in Asian economies.

The 2017 Asia Economic Forum Seminar 2 focusing on **"Competitiveness, Trade, Liveability and Productivity in Greater China and India"** kicked off with **Welcome Addresses** by **Ms Fatouma Toure Ibrahima**, the Acting Director and Operations Advisor of the World Bank Infrastructure and Urban Development Hub, Singapore, as well as **Professor Danny Quah**, Vice Dean (Academic Affairs) and Li Ka Shing Professor in Economics, LKYSPP, NUS.

Professor Quah's short and insightful welcome note was an ideal curtain-raiser. In his remarks, he noted that the OBOR initiative was increasingly being referred to as the Belt and Road Initiative (BRI), an acronym which he preferred to the OBOR as it resonated closely with the "BRIC" group of emerging market economies (EMEs) encompassing Brazil, Russia, India and China. With China leading the way through a grand narrative of connectivity, trade and development, Professor Quah opined that the BRI encouraged inclusiveness, pluralism and pragmatism. Further, he highlighted that the grand initiative revolved around three simple propositions, with the first being that trade was good for EMEs; the second reiterating that enhanced transportation infrastructure significantly augmented trade; and the third recognizing that geography was not destiny implying that improved connectivity and linkages could potentially transform the fortunes of countries that were not naturally gifted from a geographical perspective.

Professor Quah's fitting welcome remarks aligned well with Ms Ibrahima's inaugural remarks too, where she reiterated how 64 countries and 62 percent of the world's population would stand to benefit from a combination of closer infrastructural connectivity and resultant lower trade costs, which in turn formed the basis for supporting a grand initiative such as the OBOR.

Following the welcome remarks, the forum was graced by the **Guest of Honour** of the event, **Dr Vu Tien Loc**, Chairman and President of the Vietnam Chamber of Commerce and Industry, and Chairman of the 2017 Asia-Pacific Economic Cooperation (APEC) Chief Executive Officer Summit and Member of Parliament, 14th Legislature, Socialist Republic of Vietnam.

Dr Vu began by recollecting the historical turnaround of Vietnam's economy over the last thirty years from one of the poorest war-torn countries driven by central-planning into a middle-income country on the back of a vibrant market economy. He outlined how Vietnam could leverage on its numerous distinct advantages in the Southeast Asian region that could help the country achieve higher growth trajectories in the near future. Dr Vu enlisted those advantages to include: a large domestic market coupled with a favourable demographic dividend; an economy driven by pro-active efforts in promoting global trade integration with the region and beyond; a distinct geo-economic and geo-political position by being a pivotal link between China and the Association of South East Asian Nations (ASEAN) as well as in the East-West Economic Corridor; and the economy's notable entrepreneurship potential. He emphasized that that these unique advantages can be potential game changers for Vietnam's future economic path provided Vietnamese policymakers pay sufficient attention towards implementing reforms on the institutional front, human resources and infrastructure development. Finally, Dr Vu reiterated his desire to work with ACI on three specific areas including, how to make Hanoi a megacity; how to proceed with effective reforms of state-owned enterprises (SOEs), and finally, how to internationalize Small and Medium Enterprises (SMEs) in Vietnam.

Subsequently, the **Keynote Speech** of the forum was given by **Associate Professor Lee Pui Mun**, Dean of the School of Business at the Singapore University of Social Sciences (SUSS). His speech was entitled **"Productivity and Competitiveness: Performance and Evaluation on Singapore"**. In his keynote speech, Associate Professor Lee began by noting that despite the exceptional performance of Singapore in terms of global aggregate competitiveness rankings, it was important to recognize that the rankings by themselves did not imply that every firm in the economy could be productive. Instead, all that the rankings of such aggregate nature implied was that countries on the whole possessed the infrastructure capacity and capability to be very competitive and support firms to be productive. Having noted that, he dwelled on what such competitiveness rankings meant for the future. In doing so, he outlined some profound changes on the technological front such as sensors and big data, robots and artificial intelligence, which in totality were creating a digital world and digital economy characterized by automation. In closing, Associate Professor Lee highlighted that these big changes that were already underway would have profound ramifications in determining competitiveness of an economy like Singapore and there was a need to pay special attention to ramp up the productivity and efficiency of SMEs by harnessing their leadership and management skills.

The Keynote Speech was followed by a vivid **Question and Answer (Q&A) Session** moderated by Dr Mulya Amri, Research Fellow and Deputy Director (Research) at ACI, where Associate Professor Lee provided his insights on a variety of pertinent topics relating to the challenges confronting SMEs in the wake of the digital and automation revolution. Specifically, he tackled questions about strategies to improve human resources of SMEs in Singapore, as well as ways to adapt and reconcile themselves to the requirements of the digital economy, such as retraining of workers under conditions of automation and also on the need to promote their internationalization efforts.

Following the remarks offered by Associate Professor Lee, the forum proceeded towards the **thematic sessions** discussing the preliminary empirical findings of a wide range of topics undertaken by the ACI research team. The thematic sessions kicked off with **Session 1** entitled **"Competitiveness, Exchange Rates, and Trade Performance in Greater China."** ACI's research team presented their findings on competitiveness analysis in Greater China economies as well as the results of the impact of China's exchange rate movements and volatility on its trade flows. The competitiveness analysis results continued to show the dominance of the provinces in the Eastern coastal region along with Hong Kong, Macau and Taiwan in terms of their overall competitiveness, while the rest lagged these top-performers considerably, underscoring the greater need for balanced regional development through encouraging competition among the provinces. In addition, ACI's research estimating the impact of China's Real Exchange Rate (RER) movements on its sub-national exports showed that that there was a significant negative relationship to be observed between RER appreciation and exports, while the relationship between RER volatility and exports turned out to be insignificant.

The discussants for Session 1 included **Professor Wang Jiann-Chyuan**, Vice President of the Chung-Hua Institution for Economic Research, Taiwan, Republic of China (ROC), **Dr Li Wei**, Deputy Director, Institute of Applied Economics, Shanghai Academy of Social Sciences, People's Republic of China, and **Dr Alan Wong**, Chair Professor, Department of Finance and Big Data Research Centre at Asia University, Taiwan, ROC. All discussants lauded ACI's framework and methodology on competitiveness as well as the timely research conducted on the impact of exchange rates on exports. Specifically relating to competitiveness, Professor Wang suggested that ACI should consider including factors such as big data, sharing economy and mobile payments that could be instrumental in the economic transformation of the provinces, while in similar vein, Dr Li suggested that ACI could consider focusing on the role of value chains as yet another important determinant of provincial development. On exchange rates and exports, Professor Wong urged ACI to consider other alternative measures of exchange rate volatility, while commending the relevance of the study.

Session 1 of the forum was followed by two **Distinguished Luncheon Talks**. The first distinguished speaker was **Professor Qiang Shixue**, Vice President, The Party School of The Xinjiang Production and Construction Corps Committee of the Communist Party of China (CPC) and Vice Dean, Academy of Governance, People's Republic of China, who talked about **"The Role of Xinjiang Uyghur Autonomous Region as Crossroad for "Belt & Road" Initiative"**. Professor Qiang highlighted Xinjiang's historically irreplaceable role in the Silk Road for more than 2,000 years, which made it an integral part of the OBOR initiative. He elaborated on the special advantages possessed by Xinjiang which led to its identification as the crossroad of the "Belt" in the OBOR, not only geographically, but also functionally. Professor Qiang also noted the rapid strides made by Xinjiang on the economic and social development front, largely driven by the successful infrastructure investments channelled into the province. Reiterating the importance of recognizing Xinjiang as an important growth pole in the "Belt," Professor Qiang also outlined the fundamental role of the province as a land channel and strategic base for energy and resources transportation and restoration as well as a conduit facilitating multi-cultural integration with the neighbouring countries as part of the OBOR.

The second distinguished luncheon speaker was **Mr Henry Kwek**, Member of Parliament and Member, Government Parliamentary Committee for Trade and Finance, Republic of Singapore, who spoke about the **"Singapore's Role in the Belt-and-Road Initiative"**. Mr Kwek articulated very eloquently why Singapore possessed a vested interest in making the OBOR a success, as well as how it was ready to serve the region through the potential growth that would be generated from its success. He also highlighted the sheer depth and economic significance of the economic ties between Singapore and China, vindicated by the fact that China's investments to Singapore represented about 33 percent of all outbound investments to the OBOR region and in turn Singapore's investments into China represented a significant 85 percent of all inbound investments from the OBOR region into China. Mr Kwek also elaborated on how Singapore's uniqueness stemming from a combination of factors such as the country being an international financial centre alongside hosting several big players in infrastructure financing as well as being home to one of the leading air and maritime hubs places it in a favourable position to contribute to the growth and development of the region resulting from the success of the OBOR initiative.

Both the luncheon speeches were followed by a lively **Q&A Session** moderated by **Associate Professor Tan Khee Giap**, Co-Director of ACI at LKYSPP, NUS. While Professor Qiang tackled questions regarding the specific role played by the Party School in the development of the OBOR in Xinjiang, Mr Kwek addressed questions regarding the particular role of the local Singaporean banks in financing infrastructure projects as part of the OBOR.

The forum resumed post-lunch with **Session 2** dedicated towards an understanding of **"Competitiveness, Exchange Rates and Trade Performance in India."** The session laid out the findings of ACI's research on India's sub-national economies. The presentations encompassed both the 2017 annual update of ACI's competitiveness rankings and simulation for India's sub-national economies and regions as well as the empirical findings on the impact of exchange rate movements (levels and volatility) on trade flows involving sub-national economies. The analysis on competitiveness revealed the superior performance of the states and federal territories from the Western and Southern regions of the country in terms of overall competitiveness vis-à-vis the rest. The results pertaining to the implications of RER movements on India's exports from sub-national economies suggested that greater RER volatility produced a consistently significant negative impact on exports while RER movements in levels had no statistically significant impact on exports.

The discussant for Session 2 was **Dr Parashar Kulkarni**, Assistant Professor, Social Sciences (Political Science) at Yale-NUS College. Dr Kulkarni found ACI's competitiveness index quite comprehensive and a useful initiative to compare sub-national heterogeneity. He also offered some valuable suggestions for possible research extensions that included making the index more dynamic and geo-coded to take care of the problem of data lags that constrain such index construction. Finally, Dr Kulkarni also observed that juxtaposing the results of ACI's competitiveness index with other comparable metrics available at the sub-national level in India such as the corruption index would be a useful exercise and also noted that incorporating perceptions-related variables such as Foreign Direct Investment (FDI) intentions or world value survey indicators could allow the index to go beyond government reported statistics.

In **Session 3** of the forum entitled **"Urban Composite Development Index for 17 Shandong Cities: Ranking and Simulation Analysis based on China's Five Development Concepts"** the ACI team presented the research findings of a newly constructed Urban Composite Development Index (UCDI) applied to 17 cities of Shandong province, China. The presentation noted that the study adopted the perspectives of ordinary urbanites to comprehensively assess various aspects of urban development that directly affect the quality of life of residents. It was also reiterated that the theoretical foundations of the research stemmed from the five interconnected development concepts postulated by China's President Xi Jinping, which envisioned ways to achieve and sustain balanced, robust and holistic economic development in China.

The session's discussants included **Dr Li Wei**, Deputy Director of the Institute of Applied Economics at Shanghai Academy of Social Sciences, People's Republic of China, and **Mr Wang Kejian**, Chairman of the Urban Construction Press, People's Republic of China. Both the discussants were appreciative of the effort to integrate the development concepts put forward by President Xi Jinping into a coherent framework as well as extending the unit of analysis to cities. While Dr Li suggested that ACI could consider including indicators that captured the creative aspect of the five development concepts, Mr Wang recommended that the robustness of the research findings could be improved by conducting more extensive online surveys that would permit an analysis on a larger sample size.

The forum's **Closing Remarks** was delivered by **Professor Tan Kong Yam**, Co-Director of ACI at LKYSPP, NUS. Professor Tan thanked the speakers and discussants for their invaluable, insightful discussions over the course of two days, which opened up several enriching avenues that could be taken up as part of ACI's future research. He also commented on the relevance and significance of several ACI's research projects. Specifically, he observed that ACI's novel UCDI focused on people-oriented development in Shandong had very important policy significance owing to its focus on quality of life. Professor Tan emphasized that generating such useful rankings and engaging in benchmarking exercises on the back of good quality and transparent data always led to notable policy impacts in the cities and provinces analyzed as it spurred healthy completion and mutual learning. He also reiterated the importance of ACI's research on SMEs, considering the possibility that they might be left out of the largesse accruing from the OBOR initiative, overshadowed by the larger firms, despite their economic importance to Singapore's economy. Finally, Professor Tan drew the curtains for the forum by extending his appreciation to all the ACI staff members involved in making the event an overwhelming success.

2017 Asia Economic Forum was held at the Lobby of Oei Tiong Ham Building, Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS)

Welcome Remarks

Ms Fatouma Toure Ibrahima
Acting Director and Operations Adviser,
World Bank Infrastructure and Urban Development Hub

Distinguished Guests, Ladies and Gentlemen.

First of all, I would like to thank the Asia Competitiveness Institute and the National University of Singapore for their continued close partnership with the World Bank Group. As usual, Professor Tan's energy and spirit has galvanized us to come together today to discuss a very important issue, and to reaffirm our commitment to spurring policy dialogue and debate that leads to change for the better.

Our joint event today reflects the five-decade old partnership between Singapore and the World Bank group. In many ways, our engagement with Singapore has been best practice for our institution. Starting in 1963, we provided a helping hand for the early stages of development – to build the port, to clean the water facilities, the telecommunications systems, etc. Through hard work and determination, however, Singaporeans have made the most of that investment. So much so that within a dozen years, you no longer needed our help, and stopped borrowing from international organizations.

And look at where Singapore is now: A global leader for commerce, innovation and sustainable development. Your inspiring example is partly the impetus for the inception of the World Bank Hub for Infrastructure and Development – this is our office here in Singapore. Working with client countries across Asia, our teams worked to develop strategies that in some way incorporate some of Singapore's development lessons and leverage the full ecosystem of Singaporean expertise and policy know-how.

We now have some 200 staff across the World Bank, International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA) – these are the World Bank Group's Institutions – working on development solutions related to infrastructure finance and urban development. We are talking about water, energy, transport and Information Communication Technology (ICT). Much of our infrastructure lending in the region is managed from the Singapore hub.

But the amount we have mobilized remains a fraction – and only a fraction – of what our countries need today.

Many figures are used to describe the global infrastructure gap. Some talk about $1 trillion, others talk about $2 trillion. But the message is very clear: the current level of investment is not enough. Half of the World Bank's annual lending – which is around $40 to 60 billion – is for infrastructure investment. That is less than the amount that Indonesia alone requires each year to just maintain its infrastructure.

The persistent infrastructure gap leads us to the issue we shall discuss over the next two days: China's Belt and Road Initiative. Some of you may be doubtful that the revival of the so-called Silk Road impacts us all. But in this interconnected world, we know that no single issue is an island, and what takes place thousands of miles away carries repercussions across time zones.

Let me share with you some numbers that illustrate the ambitions of this innovative initiative from China. 64 is the number of countries that will become better connected through infrastructure. 62 is the percentage of the world's population that will benefit from lower trade costs. And 240 is the billions of dollars that has been committed by participating countries so far, with half that amount being pledged by China. If One Belt One Road accomplishes only a fraction of those goals, it is already a powerhouse in terms of size and impact.

We at the World Bank Group are already playing an active role in the initiative. Our ongoing commitment in the countries traversing the initiative amount to some $86 billion. Almost a third of this investment is for transport, such as Uzbekistan's Pap-Angren Railway or Kazakhstan's East-West Roads Project. The International Financial Corporation (IFC) is partnering with the Silk Road Fund and China's companies to develop hydropower in Pakistan. MIGA, the institution that I have just mentioned, has provided about $1 billion in guarantees to the region, which has facilitated more than $1.8 billion in investment along the belt and road.

Furthermore, we are working with China's Ministry of Finance to identify critical infrastructure bottlenecks in the Belt and Road. The Global Infrastructure Facility (GIF) and the Global Infrastructure Connectivity Alliance (GICA), both strongly represented in the Singapore hub, is also providing advice to help accelerate project readiness.

That is because, like many of you here today, we at the World Bank Group are also aware of the challenges of the Belt and Road Initiative. Regulatory reform, effective governance, incentivizing private sector participation – these are all challenges that we try to address. We have learned from experience that development projects must be part of a forward-looking exercise that lasts through generations.

We have also learned that results arise from effective implementation, and that the devil, as they say, is in the often-overlooked details.

Finally, we have learned that although governments play a vital role in development, the true engines of growth and job creation are entrepreneurs and the private sector.

If this sounds like the Singapore story, then how fitting it is that this conversation on the Belt and Road is taking place here today.

I remember that last year, we were here for a similar conference, but the rows of seats stopped in the middle of the room, so I can see there is real interest in the discussion here today. I am sure that many of the questions I have raised will be further discussed at this forum and we look forward to learning from you.

Thank you for sharing this event with us, and I wish you all fruitful discussions. Thank you.

Welcome Remarks

Professor Danny Quah
Vice Dean (Academic Affairs) and Li Ka Shing Professor in Economics,
Lee Kuan Yew School of Public Policy, National University of Singapore

Good morning! My job here is just to give some welcome remarks. I want to first of all welcome our Guest-of-Honor, Dr Vu Tien Loc, Chairman and President of the Vietnam Chamber of Commerce and Industry (VCCI). He is also a Member of Parliament in the 14th Legislature of the Republic of Vietnam, and he tells me he has been a Member of Parliament for 20 years. Given how young he looks, apparently Vietnamese politicians start when they are five years old! I also want to welcome Professor Lee Pui Mun, Dean of the Business School at the Singapore University of Social Sciences (SUSS), who will in a short while deliver a keynote speech.

A warm welcome to everyone! One-Belt One-Road (OBOR), or 一带一路, is the subject that concerns all of us in this forum. Outside of China, it is being referred to more and more as the Belt and Road Initiative, or the BRI, rather than the OBOR acronym. I want to use the BRI acronym because it reminds us that only two decades ago, Jim O'Neill of Goldman Sachs coined the term 'the BRIC (Brazil, Russia, India and China) economies'. And at the time and subsequently, there was great criticism about the coherence of the BRIC economies, and the question always was, would they all succeed?

In the title of the forum today, we have got representation from two of the original BRIC economies, India and China. You might or might not remember that Jim O'Neill used to joke, given the economic slowdowns and challenges in Brazil and Russia, that he should perhaps have named 'BRIC', just 'IC', for India and China. And now and then, before India's growth became more embedded and stable, sometimes O'Neill would joke that 'BRIC' might have just been 'C', taking out Brazil, Russia and India altogether. Of course, if you take out Brazil, Russia and India that's B, R and I. Today, we are doing the opposite. We are taking out the 'C' from the original 'BRIC', thus giving us the modern-day BRI. However, today, no one is even thinking of taking out China. Instead, BRIC stands there as a reminder, even without the 'C' in 'BRI', that China is very much central to a new grand narrative of connectivity, trade, and development.

This grand narrative replaces, among others, the earlier, 'End of History' vision, where supporters of that 'End of History' view reckoned that the world had settled on just one way of doing politics and economics. A new BRI grand narrative today is one that encourages inclusiveness, pluralism, and pragmatism. It focuses on trade and ongoing economic development, in contrast to that 'End of History' Universalist vision of only a single political economy.

To finish my welcome remarks, I want to remind us that this new grand narrative, this new modern vision, is one you and I might want to think about as being built on just three simple ideas, These areno more than three propositions in logic: The first proposition is that trade is good for emerging economies. This is because it draws on the simplest of ideas. Trade allows people to do what they do best. That is all that trade is. Now, in economies with advanced technologies, asking them this can be a shock, because income inequality has dramatically increased, and so in those economies, in all economies, trade needs to be managed. However, for those of us in the rising East, our problem remains that of getting yet more trade.

This leads me to the second idea behind the BRI vision. This second idea is an empirical idea based on facts in the world, and here is the astounding fact – the median land-locked economy today does only one-third of the trade that the median coastal economy achieves. Improving transportation infrastructure dramatically raises trade. If you put this proposition together with the first one, you are still, however, left with a conundrum: what do you do to change the median land-locked economy from remaining land-locked?

Hence the attraction and need for the third and final proposition – it is summarized in four words: *geography is not destiny*. What humanity is born with when the continents developed, and that led to some countries being land-locked and some economies being coastal, is **not** how the world needs to remain. Humanity can change what the effective linkages are that any economy has to the outside world. Part of that change is exactly the BRI. So, today, the forum will be looking at not just connectivity in the sense that I have just described, but the other issues that surround trade – competitiveness and productivity, exchange rates, and urban development and cities.

Let me finish. The Asia Competitiveness Institute (ACI), one of the co-organizers of this event, is also one of the jewels in the crown at the Lee Kuan Yew School of Public Policy, thanks to the energy and enthusiasm of its co-directors, Professors Tan Khee Giap and Tan Kong Yam. ACI has consistently pushed public engagement and on-the-ground understanding. In today's forum, ACI has continued exactly that trajectory of excellence. So, I wish ACI well and I wish you all a good second day of this forum.

Thank you very much!

Opening Remarks

Dr Vu Tien Loc
Chairman and President, Vietnam Chamber of Commerce and Industry,
Chairman, 2017 Asia-Pacific Economic Cooperation (APEC) Chief Executive Officer Summit and Member of Parliament, 14th Legislature, Socialist Republic of Vietnam

Good morning distinguished guests,

We all had the opportunity to listen to the excellent research on Vietnam's competitiveness by Professor Tan Khee Giap and his associate researchers. It provides a comprehensive picture of Vietnam's economy, outlining its achievements and challenges. If we could address those challenges, they will turn into a driving force for Vietnam's economic growth and contribute to the region's prosperity.

Thank you very much my friend Prof Tan Khee Giap and your associate researchers at the Asia Competitiveness Institute (ACI) for choosing Vietnam as a case study for your research, and also for your close collaboration over the years. We highly appreciate your goodwill to strengthen Vietnam's research skills by not only offering many scholarships to Vietnam students but also having many Vietnamese researchers in your team.

In my capacity as National Director of the government's research project on enhancing Vietnam's economic competitiveness, I wish to continue working with Professor Tan Khee Giap and his researchers in three areas. These include how to create an environment for Hanoi to become a megacity; how to effectively reform State-Owned Enterprises (SOEs); and how to internationalize Small and Medium Enterprises (SMEs). We also need to find ways to work with each other to promote further connectivity between Vietnam and Singapore – a program that was endorsed by both governments.

After 30 years of reform, from being one of the poorest countries with a centrally-planned market economy destroyed by many wars, Vietnam transformed into a middle-income country with a market economy.

In the last two decades, Vietnam's Gross Domestic Product (GDP) grew at an average rate of 6.4% per year, making it 1% higher than the average GDP growth rate of the ASEAN countries. The Government of Vietnam has set the target of 6.7% GDP growth rate for 2017 and 7% for the coming years. This is an increasing target in a globally challenging environment. However, many analysts suggest that Vietnam is growing below its potential. As the late Lee Kuan Yew once said, Vietnam should grow at 8-9% per year given its geo-economic, geo-political and human resources. We have reasons to believe so if we take a closer look at Vietnam's growth factors:

1. Vietnam is a populous country with a large domestic market. It has 95 million people and soon to reach 100 million. Each year, Vietnam's population increases by 1.8 million people, making it the 14th largest population on earth, and the third largest in ASEAN. Vietnam is also a youthful nation, with people in the working age accounting for 60% of the country's population. The middle-class population is increasing rapidly in the recent years, due to the fast growth rate of its enterprises. It is estimated that by 2020, Vietnam's middle class will double itself with more than 33 million people. By 2035, more than 50% Vietnamese will join this middle-class society. Vietnam's economic liberation with a changing workforce from agriculture to industry has brought higher incomes for millions of people. Subsequently, their increasing consumption need becomes the driving force for the economy. Besides, Vietnam has proactively engaged in the global integration process. Vietnam signed and implemented ten Free Trade Agreements (FTAs), concluded two FTAs, and in the process of negotiation of four more FTAs, including major FTAs at high level such as Trans-Pacific Partnership (TPP), European Union-Vietnam (EU-VN) FTA, and the Regional Comprehensive Economic Partnership (RCEP) etc. Vietnam is also an important entry point to ASEAN and China. One could say that Vietnam has the most FTAs and a huge market.

2. With a relatively low cost and large workforce (54 million in the working age), Vietnam can become the next regional manufacturing hub, after China. This is evidenced by the increasing number of companies with investment strategy of China plus one, moving from China to Vietnam due to China's higher cost.

3. Vietnam's geo-economic and geo-political position: Vietnam is the important link between China and ASEAN, to the sea, and the East-West Economic Corridor.

4. Vietnam also has potential for development in high-tech agriculture and bio-agriculture. With a long coastline and a diverse climate, Vietnam can become "the kitchen of the world".

5. With its diverse nature and rich culture and history, Vietnam is ranked 18th in the list of countries with the most potential for tourism, by the World Travel and Tourism Council.

6. Vietnam also has an advantage in the Information and Communications Technology (ICT), and software industry. According to the Global Entrepreneurship Network's survey in 2016 conducted for 60 economies, Vietnamese entrepreneurship is ranked among the top 20 leading economies. According to this organization, 3 in every 4 Vietnamese adults with to become entrepreneurs.

In order to mobilize Vietnam's potential and turn them into a driving force for the economy, it is decisive that Vietnam successfully implements institutional reforms, and develop its human resources and infrastructure. We focus on these three areas for reform:

- Infrastructure: We set the target of 7% growth rate for infrastructure development in the coming years in Vietnam which will require a great deal of resources. This is also an area of safe and effective investment. We encourage favorable conditions for investment in highways, airports, seaports and railways. Vietnam is developing a plan to build three special economic zones which is also a good opportunity for investment.

- Human resources: In order to become the next manufacturing hub, Vietnam needs to address the challenge of the fourth industrial revolution, especially the impact of automation, use of robots, artificial intelligence and 3D printing. Vietnam focuses on human resource development for services and high-tech industries, through international and private-public collaboration.
- Institutional reforms: Vietnam aims to have a "facilitating government" to improve business and investment environment according to global standards. In the period between now and 2020, the Government of Vietnam focuses its efforts to narrow the gap with the top ASEAN countries, achieve the average level of the top ASEAN-4 and ASEAN-3 in key indicators in doing business. We also aim to achieve the OECD level in a number of indicators, according to the World Bank ranking.

The Communist Party issued a resolution to develop the private sector with the objective to double the number of enterprises in the period of 2016-2020. By 2020, Vietnam expects to have at least 1 million enterprises with effective operation. This figure increases to 1.5 million in 2025 and two million in 2030. The National Assembly recently passed the Law to support Small and Medium Enterprises, encourage entrepreneurship, and develop a start-up ecosystem.

Global integration is facing difficulties with the US withdrawing from the TPP. However, the Government is committed to pursue liberal trade policies. Vietnam's global integration and institutional reform continues to forge ahead. Vietnam supports regional and global initiatives to promote further connectivity on the basis of mutual benefits. Vietnam's experience shows that the recent achievements in the reform are closely associated with our efforts to 'open door' and integrate with the world. Integration and domestic reform will continue to be the driving force for Vietnam's economic growth.

In the eyes of foreign investors, how does Vietnam look? The international business community continues to view Vietnam as a top destination for investment. According to the Japan External Trade Organization (JETRO) report released in 2017, 66.6% of Japanese businesses in Vietnam have plans to expand businesses in the next year or two. Meanwhile, the same response in the Philippines is 54%, Indonesia 51%, Malaysia 44% and China 40%.

Vietnam is a successful example of trade liberalization and we also promote further measures. It is only fitting that Vietnam has been chosen as the host country for Asia Pacific Economic Cooperation (APEC) 2017 amidst the increasing sense of protectionism. We hope that APEC 2017 will continue to nurture the spirit of globalization and that APEC 2017 will bring about opportunities for growth and regional connectivity.

In the Leaders' Week of APEC 2017 in November, the VCCI will host the APEC CEO Summit and Vietnam Business Summit with participation from more than 1000 CEOs across 21 APEC economies. I hope this is a forum for integration and connectivity in order to bring about opportunities for growth in all APEC economies. In Vietnam's experience, three years after hosting APEC 2006, FDI inflows increased to a record level. It was US$10 billion in 2006, US$21 billion in 2007, and US$64 billion in 2008. We have high hopes for this APEC 2017 to create a similar impact for Vietnam's FDI and our economic growth.

Thank you very much for your attention!

Keynote Speech

"Productivity and Competitiveness: Performance and Evaluation on Singapore"

Associate Professor Lee Pui Mun
Dean, School of Business,
Singapore University of Social Sciences

A very good morning, first of all, to the honourable Dr Vu Tien Loc, also of course to our hosts, Associate Professor Tan Khee Giap, Professor Tan Kong Yam and Professor Danny Quah, Ladies and Gentlemen.

As you know, I am not an economist. I am more of a management researcher and an analyst. Today, my topic is going to be on competitiveness and productivity in Singapore, but I am not going to delve too much into that because Asia Competitiveness Institute (ACI) has done a lot of research in this area. What I am going to talk about is some of the competiveness rankings, how I look into it, and a little bit about the Belt and Road Initiative (BRI) and how Singapore can tap into this initiative. Last of all, I would like to say something about firm-level competitiveness.

First of all, from a country ranking perspective, Singapore has done very well in terms of building up the infrastructure and setting the stage for companies and businesses to operate out of Singapore in a very competitive environment. From the International Institute of Management Development (IMD)'s Annual Competitiveness Yearbook Index and the World Economic Forum (WEF)'s Global Competitiveness Index, you can see that Singapore is almost right there at the top (Exhibit 1). There are two competitiveness ranking indices and they use slightly different criteria to look at competitiveness. Nevertheless, if you are to study them closely, you will find that some countries are always there. The red ones are those countries or economies which are always ranked in the top 15, and you can see that Singapore is one of them, along with Hong Kong and Taiwan, representing Asia, and the rest of the countries are from Europe and North America continents (See Exhibit 1 again).

Exhibit 1:

Rank	IMD Ranking 2016	Global Competiveness 2016	Productivity Ranking based on GDP (PPP) per hour based on 2013 US$
1	Hong Kong SAR	Switzerland	Norway
2	Switzerland	Singapore	Luxembourg
3	Singapore	United States	United States
4	USA	Netherlands	Belgium
5	Netherlands	Germany	Netherlands
6	Ireland	Sweden	France
7	Denmark	United Kingdom	Germany
8	Luxembourg	Japan	Ireland
9	Sweden	Hong Kong SAR	Australia
10	UAE	Finland	Denmark
11	Norway	Norway	Sweden
12	Canada	Denmark	Austria
13	Germany	New Zealand	United Kingdom
14	Taiwan	Taiwan	Canada
15	Finland	Canada	Iceland

However, remember this – when we say that Singapore is at the top when it comes to competitiveness, does it really mean that every company is very competitive? Those are two different things and I will deal with that a little bit later. So these are our ranking performances, and we work very hard to maintain this status. We are still making a lot of changes as we go along to keep on remaining on this competitiveness ranking. Now, how about productivity? There are not many rankings on productivity and it depends on how you want to look at it.

Again, this is not about a firm's productivity, how productive a local firm is, or how productive they are based on fixed inputs. This is based on a surrogate measure - based on Gross Domestic Product (GDP), the number of people in a country and how many hours each of these people can work a year - and then you come up with this productivity ranking based on GDP and Purchasing Power Parity (PPP) per hour. As you can see, for some reason Singapore is not within the top 15 rankings (See Exhibit 1 again). We are somewhere around the 20th to 30th ranks. Does this mean that, if you are competitive you can be less productive to a certain extent?

Now if you look at those top 15 ranking countries in the productivity rankings, you would notice that countries include Belgium, France, Ireland, Australia, Austria and Iceland are never listed in the top 15 ranks in those competitiveness rankings (Exhibit 2). I am not going to delve too much into why, but it shows you that countries as a whole can have the infrastructure to be very competitive and to support firms, but it does not mean that every firm can be productive. Vice-versa, you also have countries that are somehow quite productive based on, if you want to believe in those criteria, GDP per hour but not found in the top competitiveness rankings.

Exhibit 2:

Rank	IMD Ranking 2016	Global Competiveness 2016	Productivity Ranking based on GDP (PPP) per hour based on 2013 US$	GDP per Capita Ranking 2016
1	Hong Kong SAR	Switzerland	Norway	Luxembourg
2	Switzerland	Singapore	Luxembourg	Switzerland
3	Singapore	United States	United States	Norway
4	United States	Netherlands	Belgium	Macao SAR
5	Netherlands	Germany	Netherlands	Ireland
6	Ireland	Sweden	France	Qatar
7	Denmark	United Kingdom	Germany	Iceland
8	Luxembourg	Japan	Ireland	United States
9	Sweden	Hong Kong SAR	Australia	Denmark
10	UAE	Finland	Denmark	Singapore
11	Norway	Norway	Sweden	Sweden
12	Canada	Denmark	Austria	Australia
13	Germany	New Zealand	United Kingdom	San Marino
14	Taiwan	Taiwan	Canada	Netherlands
15	Finland	Canada	Iceland	Austria

However, on the other hand, there are those countries highlighted in red on the last column which indicate their GDP per capita within the top 15 rankings always appear in both the competitiveness rankings and the productivity rankings (See Exhibit 2 again). As you can see, these are largely countries from the West which started early, as the industrial revolution was in the West and they had a good head start. Take note also that countries that are highlighted in blue, namely Luxembourg and United Kingdom do not appear in top 15 competitiveness rankings but are amongst the top 15 productivity rankings. These are insights I thought were quite interesting, and wanted to share with you all.

The last thing I want to show about rankings is the GDP per capita rankings. Of course, Singapore is up there. It is a small country with a relatively big economy and not that many people, so our GDP per capita is right there on the top. You can also see that there are some interesting countries highlighted in purple which include Macao and San Marino who are quite highly ranked in terms of GDP per capita but nowhere in the top when it comes to competitiveness and productivity (See Exhibit 2 again).

While rankings are important, we must take things with a pinch of salt. It is good for Singapore to be ranked in top position as it shows that we are serious in terms of improving infrastructure, helping companies and building our businesses as evidenced by our 2016 competitiveness rankings. We have seen over the past two or three years that the world is changing very fast. Do any of these competitiveness rankings mean anything for the future, and how do we adapt to this future? What kind of future are we seeing? I am sure that in the audience, everyone knows that disruptive changes are coming. Some of you have already experienced the changes.

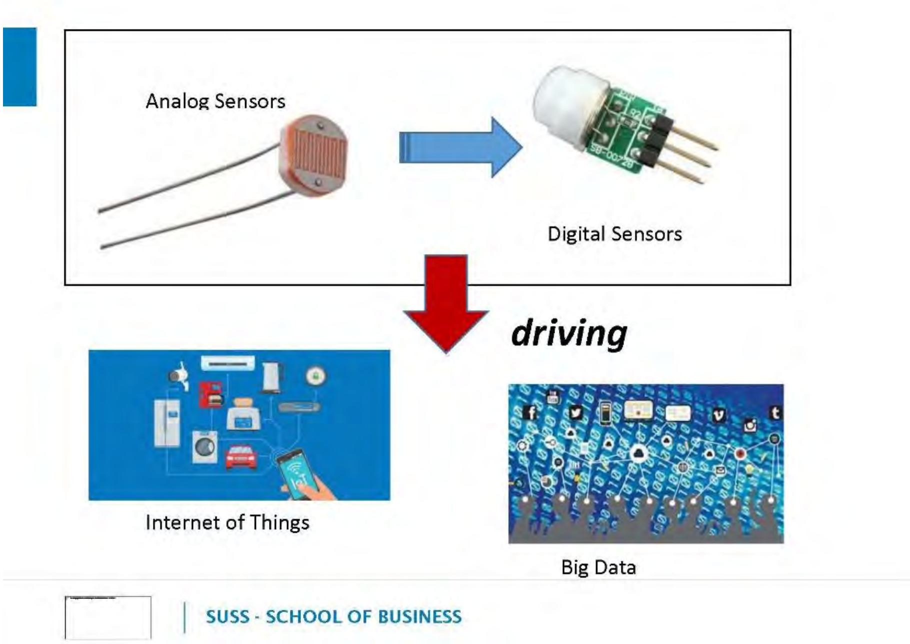
I just want to reiterate some of these things that we will all face in the next five to ten years, which are going to change how we work, how we live, how we do things, and do business. Just to give you some perspective on why we are here and where we are, in terms of the changes we are seeing and feeling every day. In 1985, the Cray-2 supercomputer was developed, and that was supposed to be the fastest computer in the world. It was a very expensive computer that probably would fill up an entire room, just to perform some very heavy computing. By 2011, the same heavy-duty computing can now be done by the Apple IPad 2, with the same efficiency. So you can see that, within the span of about 25 years, you can shrink a supercomputer into an IPad, and we may not realise it, but that is what is driving changes we are seeing today.

Another example is that in 1997, another “fastest computer in the world”, the Accelerated Strategic Computing Initiative (ASCI) Option Red, was supposed to be able to run at 1.8 teraflops. I am not a computer scientist, but that means it was very fast at the time. However, just nine years later in 2006, the Sony PlayStation was touted as being equivalent in performance to that ASCI Option Red computer. That implies that the Sony PlayStation can also do 1.8 Teraflops and the Sony PlayStation costs somewhere around USD $200, which is used by children!

That is the kind of technological improvement that we see, which we have never seen or we could not see. Two hundred years ago when we first had the steam engine, it changed everything and factories come along and many other things did too. Of course, all of us here were not born during that time, but when we were born, factories were around, and we did not really sense the changes. But we can sense the changes here, which are all due to Moore's law with regards to transistors, which states that the number of transistors in a processor will continue to multiply, meaning that computing power keeps going up.

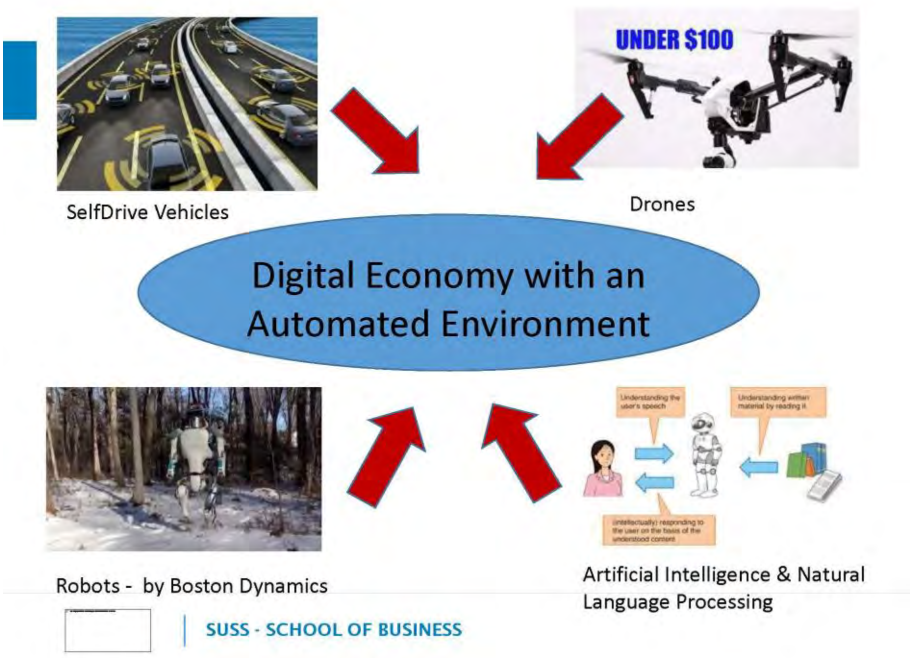
Now, in the past few years, what I have noticed is something that is even more profound – sensors. Sensors are driving a lot of things that we see and feel, and how we live today. Although it is invisible to a certain extent, many of you may wear some kind of smartwatch which monitors your heartbeat and so on. So, they have sensors in it, and we are moving into that world where we live with sensors, and this causes us to have a proliferation of the Internet of Things (IOT) (Exhibit 3). Anything you put a sensor into becomes more user-friendly and adds value to the product, because it allows it to perform more functions than whatever traditional devices that we have.

Exhibit 3:



Sensors also allow for the collection of more data, and therefore we have this word called 'big data' coming along. And we see businesses noticing the big data approach. "Now we can analyse a lot of situations and a lot of behavioural situations of our consumers because of the sensors we put into our devices. We know what they are doing and how they do things", and this is very much business analytics as we called it. Of course, some of these are still in the early stages, but I am sure that in five years' time all these will become more commonplace – Self-driving vehicles, drones, robots (Exhibit 4).

Exhibit 4:



Incidentally, robots have been around for 20 or 30 years, but recently I looked at a YouTube video of a robot by Boston Dynamics, and it can walk in the snow! To those who are very technically inclined, this is a breakthrough. For robotics, tactile feeling is one of the last frontiers in terms of things you can build into a robot. Robots cannot climb stairs and do things like that in the past. They have only been able to sit on a table top and do pick-and-place things that you see in the factories. But robots are becoming more like humans, and can walk in the snow, and this is a big leap!

Of course, if you coupled robots with Artificial Intelligence (AI) and the ability of computers to understand natural languages like Russian, Chinese, Vietnamese and English, then the world is going to be very different. It is going to be a digital world and a digital economy, with an automated environment (See Exhibit 4 again).

So, for all those competitiveness rankings that we have, which we work so hard to achieve, does it mean anything for the future? Of course, it does. Singapore recognizes these changes, and we are consistently building our capabilities. For those who did not hear about this, SkillsFuture is one of those initiatives to train people. We are also building a Smart Nation, among other initiatives.

Now, if you look at the Belt and Road Initiative (BRI), Singapore is going to benefit if we work closely with it. We are a little red dot right there, and you can see the belt, which is the sea route. You also have those roads that connect all the way to Russia, Central Asia, Europe continent and so on (Exhibit 5).

Exhibit 5:

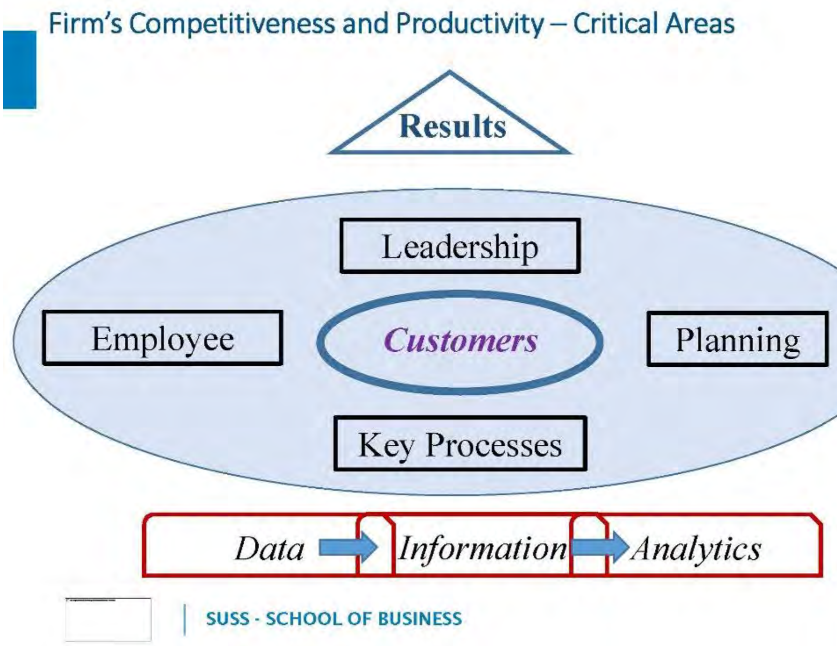
What can Singapore do with this? We are a nation, but we are a city-state and from a business perspective, the BRI – if all its infrastructure is built up –can give us a hinterland landscape which we have never had before. Our leverage is to build the competitiveness to adapt to this, and to always be mindful that the world is going to be a digital economy.

What are our advantages in capturing these advantages that the BRI is going to give us? It is going to be our western business practices and our eastern cultural sensitivities. We were born that way and we are in that location, and we have been doing business in the western way for a long time. So this is good for countries coming from the north, like China, who want to interact with the south like Australia, and the West. So Singapore is a good staging point. The Association of Southeast Asian Nations (ASEAN) Economic Community in which we are integrated, is helping the West to come to us so that they can interact with ASEAN. So we have the advantages of working both ways because of our western business experiences practices and our eastern cultural heritage. More importantly, we have built up over the years a brand name of integrity, transparency, trustworthiness and efficiency, and that efficiency can be seen in all the competitiveness rankings, and in how we do business.

Finally, the last frontier is our Small and Medium Enterprises (SMEs). How to ride on this bandwagon, seize the opportunities and help companies that come here and want to do business with ASEAN and China? We already have SMEs that have grown – such as Charles & Keith, BreadTalk and OSIM. We also have bigger companies like Sembawang Corporation, Keppel Corporation. Singapore Airlines which are the frontrunners that begun many years ago. Of course, our banks are all over the place, along with SingTel as well. But we need more as we go along, so the only way to do that is to build our SMEs and grow them.

Now bearing in mind all those rankings that I have shown you at the very beginning, those are at the country level, but at the firm level, it is a very different thing that we need to drive. So how do we drive firm-level competitiveness, especially for SMEs? I have been an assessor for the Singapore Quality Award for many years, and this Business Excellence Framework is used to assess companies and see how good they are before we give them an award, and it is used not only in Singapore but in almost 110 countries all over the world (Exhibit 6). I am sure Vietnam also has a quality award, which uses a similar form of the Business Excellence Framework. So, I am borrowing on this framework and saying that if you want a firm to be competitive and productive, you must look at these areas – leadership, employees, planning and also the managing of key processes. Not to forget that in today's world, data is a very valuable asset which will turn into good analytics to help make decisions. Customers are right at the centre of the framework. So, if SMEs can follow this roadmap, they have a chance to grow.

Exhibit 6:



Why this Business Excellence Framework? It is because it is used to drive attributes which I feel can help to sustain competitiveness which include committed leadership, customer focus, innovation, productivity focus, and so on, and at the end, corporate governance (Exhibit 7). For SMEs, if you want to grow big, you need corporate governance.

Exhibit 7:

Attributes Driving Sustainable Competitiveness
Committed Leadership
Customer Focus
Innovation and Productivity Focus
Organisation Learning and Development
Employee Development
Agility in Leading and Managing
Analytics Driven Decision Making
Anticipative Planning
Talent Management & Succession Planning
Corporate Governance

I heard a lot of good research conducted especially by Asia Competitiveness Institute (ACI), which were dealing with the Productivity Tracking and Efficiency Monitoring (PTEM) framework. So, with regards to some of the PTEM's 86 indicators, 12 sub-environments and 4 environments that were mentioned, most of it was hard data, but some of it could be soft data that you might like to incorporate into the PTEM framework. This will let you see and track how competitive your SMEs are, because if they want to be competitive, they need to achieve good performance in these attributes in the framework, and the first thing is always the leadership, especially for small companies. If the leadership does not drive, nothing else works.

When it comes to leadership, what are we looking for? You need to have good leaders that can drive the company, with a mission, a vision and so on and so forth. You need to be able to build an organisational culture. For SMEs, if they want to be competitive, they must have a corporate culture, because good, talented people will come and work for you if they believe in your culture. There must also be good corporate governance, not only to ensure that checks and balances are in place, but also just to ensure that the company will go on for another one hundred years. You need good corporate governance, and you need succession planning. With regards to customers, I am sure that businesses today are all very much focused on customers, so I am not going to talk too much about it.

For planning, we all know the famous story of Nokia. They always thought they would be number 1, but in a matter of a few years, they are gone. Therefore, adaptive, anticipative planning is very important. Always be looking out for the next big thing, and the next big thing comes very fast in our digital economy today. SMEs need to have some form of planning, so when you are tracking the competitiveness at the firm-level for SMEs, you must see whether they do some form of planning, because if they do not, this is an indication that the companies will not be very competitive or sustainable. These are the kinds of tracking indicators that you might also incorporate, besides the hard data. Of course, employee training has always been there, but in today's digital economies and automated environments, it is so much more important to re-tool and re-skill employees constantly.

It is of course the processes that determine output and productivity. If you do not manage your key processes well, it is not going to work. Managing key processes also depends on suppliers. Supplier and partner management are thus also important. So, if you are tracking firm-level competitiveness, you should also look for any sign and indication that they are serious about building a good supplier management framework or relationship. If not, their competitiveness is in question.

Finally of course, in today's world, we have so much data coming from sensors, so we had better make use of that, because if you do not, your competitor will make use of it and you will become less competitive, and that is how firms go by the wayside.

Thank you very much!

Question & Answer Session

Responses from Forum Participants

Dr Mulya Amri: Professor Lee, if you can comment on some of the reports and comments that other people have made about human resources, especially for Small and Medium Enterprises (SMEs). How can we improve the human resources of SMEs and make SMEs more attractive so that they can attract some of the best minds and best talent in Singapore as well?

Professor Lee Pui Mun: As I mentioned in my presentation, in Singapore we are driving in a very big way in re-tooling and re-skilling our workforce with things like SkillsFuture Singapore. We are also looking at the organisations on how to transform them to meet the challenges of a digital economy. We also have the industrial transformation maps which we are mapping now. As an educational institution, especially my institution, because we have a very strong relationship with the industries, we are helping to do all of these skills mapping for industries and for our government agencies. That is at the national level.

However, when it comes to re-tooling and re-skilling the workforce, the main drivers must still be the employers. That is why I say that committed leadership is very important. If the owners of the businesses and the leaders in their associations do not encourage employee training and do not identify the right training for their employees, then at the country level, we can only do so much. If the leaders in the businesses believe in the Business Excellent Framework which I use, that you need to train workers and lead in your role to build a good culture. Talented people will join the company if they know that this company, whether big or small, is going to be there for another 20, 30 or even 50 years, because there is good corporate governance. Then slowly and hopefully, the talented people will come and work and stay in these smaller companies.

Professor Wang Jiann-Chyuan: Thank you very much for a very exciting speech from Professor Lee. I was thinking that investing in big data, Artificial Intelligence (AI) and the Internet of Things (IoT), is very expensive for SMEs. So how can SMEs overcome these barriers to entry to compete with big firms in this era of the digital economy?

Professor Lee Pui Mun: In fact, it might be the opposite of what your question has mentioned. Is it too expensive for small companies to invest in so-called business analytics, big data analysis? Actually, we are seeing the opposite because of cloud computing, which is another major thing that is on the horizon. Cloud computing means that companies do not need to maintain expensive hardware and network servers to store all their data, which is all stored on the cloud. It is also relatively cheap, so small companies can now be as well-equipped as big companies to develop their databases, and gather more data.

Another thing is that small companies can also leverage on data analytics because, as I keep mentioning, sensors are becoming predominant in our lives. If small companies know how to embed sensors into their devices, that is where they can collect very useful data from their consumers. Of course, we already see that in our digital platforms where a lot of businesses like Alibaba. Although we see it just as a simple platform where people buy and sell, what is actually valuable to Alibaba is the data they are collecting, every single second, from all those buyers and sellers. They are going to use it for many other businesses and business models. So, in the past, in order to do what big companies do, maybe you had to buy heavy equipment, big computers and set up big shops. But now, with cloud computing and with data as the drivers of new business models, small companies can also play a very big part. So it is like what I have thought about with regards to drones. If a small country needs to build a viable air-force, they have to buy airplanes from other countries. But now with drones, there is the possibility that small countries can be as effective as any other country in terms of air-force defence capabilities. I am just speculating, those are just my thoughts.

Dr Sasidaran Gopalan: Thank you for a very interesting talk. Just a very quick question – you have highlighted a lot of ingredients for the productivity and efficiency of SMEs, and in fact in our comprehensive Productivity Tracking and Efficiency Monitoring (PTEM) framework that we are developing in Asia Competitiveness Institute (ACI), I think several of those ingredients are also present. However I noticed that you did not mention much about the internationalisation of SMEs, which we actually placed a lot of emphasis on in our framework. I was just wondering whether you had given it some thought, as there was a discussion by some of the discussants who said that we should not be pushing for the internationalisation of SMEs in an attempt to get them to be more productive and efficient. But we actually believe that we should consciously drive them in the direction of internationalisation. So what are your thoughts on SMEs and internationalisation, and the role it plays in enhancing productivity?

Professor Lee Pui Mun: I did not touch on that, but internationalisation is definitely one of the major goals of any SME, especially in Singapore. That is why I mentioned on one of our slides that Singapore now has a hinterland, and that means that when SMEs grow, they can grow into that hinterland. That is internationalisation. However, sometimes I do not like to use the word 'going abroad', because it gives us Singaporeans a constraint in our mind-sets – we are already a small country, and every time we fly to Vietnam or China, we are treating it like a big thing, that we are flying there. On the other hand, if you treat all of the surrounding countries as a hinterland, then in the morning you fly to Vietnam, Ho Chi Minh City and then in the evening you fly back to Singapore – It is a very natural thing in big continental countries like China and the United States of America where you fly from New York to California for a business meeting and fly back the next day. So, if you have that kind of mind-set, I would think that more SMEs will have the idea that, "this is not going abroad, I am going to Ho Chi Minh, I am going to Phnom Penh to do business, it is our hinterland". With the Belt and Road Initiative (BRI), it will bring us closer and hopefully that mind-set will change. You also asked why I did not mention internationalisation very much in my presentation. I believe that you need to be competitive first. You need to build up using the framework and be competitive before you can even talk about going anywhere else.

Associate Professor Tan Khee Giap: Thank you. Actually, I have a suggestion for collaboration with your Singapore University of Social Sciences (SUSS), especially the business school. In ACI, we just started our Professional Capacity Building module, and are yet to develop one more module. This is also in response to Professor Wang Jiann-Chyuan's question regarding how SMEs can cope with big data. So, I hope to start a new module on "The digital economy, big data approach and business analytics" whereby we would design a short professional executive program for SMEs, if we can train their people to take this exam online, and if we can massively train the management of SMEs to extract information from big data, understand the digital economy and understand the business analytics aspects, we can equip them with the basic skills. Later on, if they are running their companies, the training would give them good starts. For SMEs staff to do a three or four years of business analytics degree will be very tough, because it will take a long time and they are already in full-time employment. So, perhaps we can work together and develop a good core contents with your business school, then we can jointly provide this kind of training to all the SMEs in Singapore. What are your thoughts and do you have any suggestions on this?

Professor Lee Pui Mun: That is definitely a very welcome approach. I did not say too much, but in our business school, we actually started a business analytics degree programme exactly ten years ago. It has been ten years now, and every year, we took in about 100 students doing data-mining and business analytics. So, I definitely look forward to that kind of collaboration with ACI, if we have the chance.

Mr Ron Tan: Good morning, Professor Lee. My name is Ron Tan and I am from PRC Global. We are in fuel efficiency. How do you reconcile your statement that we train all these workers with the advancements in the field of robotics and digitalisation? In the transport sector, for example, you have the first driverless taxis coming out. Driverless buses and sea vessels are also coming soon. I have even read that there are calls now for there to be pilotless airplanes. So, how do you reconcile your statements about training all these workers with the rise of automation?

Professor Lee Pui Mun: That is a very good question and it is a million-dollar question. In fact, everywhere in the world, governments and countries are all saying the same thing: we need to re-tool and re-train our workers to face a very uncertain future. So, right now, you are saying that taxi drivers may become obsolete because of self-driving cars. So, when I say re-tool and re-train, it does not mean training them in the same area to do something. They could be operating in the back rooms of all these self-driving vehicles. Technology requires people to manage it. I visited the Port of Singapore Authority (PSA) recently, and in the past ten years they have been re-training a lot of their crane operators and ground crews to do different types of jobs in the same organisation. I have seen this with my own eyes – they have been telling me that some of these people who have been crane drivers for the 30-storey high quay cranes are now sitting in an air-conditioned room and looking at a monitor while pressing buttons to operate all those automatic quays. This is the kind of re-training we are talking about.

More importantly, especially in our universities, we recognise that besides the knowledge we want to inculcate in our students, we know that the future is a little bit uncertain, we know all these things are coming, but we do not know how this will all turn out. It is like if you were living 200 years ago, when the first steam engine came along and you have factories. All of a sudden, the farmers stop working in the farms and they go to the factories to work. We are seeing what people are calling the fourth industrial revolution. We are seeing a revolution here, in the way we live and the way we work. The future is uncertain, but we still need to re-tool and re-train. We are also pushing in a big way to re-train the mind-set, to train people to think, to analyse and to communicate, because you do not know exactly what the jobs in the future will be, but those three factors will make people much better than current robots. You are able to think, you are able to look at things, gather data to analyse, and then you are able to communicate with each other. This is still something we need to do, with 6 billion people in the world – communicate. So, these are the soft skills that we are also doing in a big way. I hope that answers your question.

Mr Sam Loo: Thank you for sharing, Professor Lee. My name is Sam from LCI Executive Seminars. Through my interactions with a lot of SME business owners, they are actually doing fire-fighting most of the time because of the high costs of operating in Singapore. One good example is the retail industry. It has been in the doldrums for many years and the government does not seem to know what to do? I do not think the industrial transformation maps are of any help because they rely on technology to solve problems. If the demand is not there, technology does not have problems to solve! It may solve the high wage problem, but high rental is still there. The retail industry is just one industry as well. Perhaps you can suggest what an SME business owner is to do when the demand is dropping. I guess in the retail industry, people are just going online to make purchases, but I feel that is only one of the problems. Perhaps you can give some suggestions about what can be done to help the retail industry?

Professor Lee Pui Mun: I am not an expert in this, but I speak from my own observations. Additionally, in our school, we also run executive management programmes which are meant for the bosses of SMEs. We have done that twice now, and I can give you this story: I had this boss of a medium size company in a very traditional business. In our programme we bring them overseas to also do business trip studies. We visited some innovative companies and start-ups. It was quite recent – only a few months back. He came back and he told me recently that he started to convert his office to do something very differently, because of what he had seen overseas. He converted some of his office spaces, a few thousand square feet, into a start-up incubator. There are a lot of things besides this, but he learned this when he went overseas with us. Now, what I am saying is how do we convince SMEs to do besides fire-fighting?

I am not a business owner, but I can speculate that a lot of those who are doing fire-fighting are doing so because they do not have this built-in Business Excellent Framework which I described just now, which would ensure that everyone is working full-steam and problems are being solved. That is why they have haphazard management and are fire-fighting. However, there are also examples of SMEs that have grown, our local companies like OSIM, BreadTalk and Charles & Keith – and internationalisation must ultimately be one of the end goals of SMEs, because our own market is a little bit too small. So, yes, fire-fighting will still be there, but there will always be a small segment of SMEs that will break through this fire-fighting and made it. If the other SMEs do not want to fire-fight then they need to maybe embrace the model that was shown, and start doing some serious housekeeping. That is my opinion.

Associate Professor Tan Khee Giap: Can I share with that participant – I always believe that as a think-tank, it is not for us to teach businessmen how to do business, otherwise why are we still here? Also, as a think-tank, I also do not believe that cost is always the problem of SMEs. We can do something to help the

SMEs, for example, we are talking to the Trade councils and business chambers to start an annual index for business costs by components and by industry. We shall track the six major industries on rental costs, the manpower costs, government fees and charges, utility costs and other miscellaneous costs.

For example many in the retail industry is complaining that rental is too high. But whether the rental is too high or too low, we should track it, so that we know exactly its impact to businesses. Many businesses which are profitable and costs are never their most serious complaint. You only hear the complaints about cost from agents of SMEs like trade councils and business chambers, which go to the government every year and present a wish list for members complaining about costs and expect government subsidies. However, when I asked businessmen how could you be still profitable given the high costs of doing business in Singapore? They said costs can be managed, in fact, their only problem is when they apply to do business, regulations set by the government are sometimes unduly restrictive, and sometimes do not allow them to do certain things. They want the government to provide a more pro-business environment. So, we should not be getting into this trap to help those SMEs by prolonging their death!

So let us not get confused with our role as think-tank and as academics. ACI's Productivity Tracking and Efficiency Monitoring (PTEM) Index is to identify by clusters or industries their respective strengths and weaknesses, but we do not prescribe what to do. We then form an advisory council with industry captains, and 100 of them have agreed with me informally. They are already chairpersons of listed companies, but they used to be SMEs who would then provide advices or remedies to struggling or weak SMEs on what they can do strengthen their companies based on the "medical heath tests" on SMEs vis-a-vis the PTEM Index. We can then go to the Workforce Development Services with the prescribed remedies which could then help to source or gather professional trainers in the respective fields with targeted subsidies on training costs. Thus PTEM Index is just an information health screening platform for SMEs which is part of ACI's proposed Enterprise Future Initiative (EFI) to complement the Government's SkillsFuture Initiative (SFI).

"Competitiveness, Exchange Rates, and Trade Performance in Greater China"

Presenters from ACI-LKYSPP, NUS (clockwise from top-left):
Dr Zhang Xuyao, Mr Gareth Tan, Ms Leong Puey Ei

Moderator from ACI-LKYSPP, NUS (centre):
Mr Luu Nguyen Trieu Duong

Session 1 (Continued)

Discussants for Session 1:

Professor Wang Jiann-Chyuan
Vice President, Chung-Hua Institution for Economic Research, Taiwan, ROC

Dr Li Wei
Deputy Director,
Institute of Applied Economics,
Shanghai Academy of Social Sciences,
People's Republic of China

Dr Alan Wong
Chair Professor, Department of Finance and Big Data Research Centre, Asia University, Taiwan, ROC

Forum Luncheon Talks

Distinguished Luncheon Speaker 1

“The Role of Xinjiang Uyghur Autonomous Region as Crossroad for “Belt & Road” Initiative”

Professor Qiang Shixue
Vice President, The Party School of The Xinjiang Production and Construction Corps Committee of CPC & Vice Dean, Academy of Governance, People’s Republic of China

Good afternoon ladies and gentlemen!

Located in the hinterland of the Eurasian continent, Xinjiang is an area which you must go through in the ancient Silk Road. It is also an important traffic artery and hub in the present China’s “Silk Road Economic Belt”. Like a dazzling pearl, Xinjiang has been playing an irreplaceable and special role in the Silk Road throughout the history of more than 2,000 years (Exhibit 1)! In the Belt & Road Initiative (BRI), because of its special advantages, Xinjiang was identified as the crossroad of "Belt", not only as a core geographically, but also functionally, with her much highlighted strategic role (Exhibit 2).

Exhibit 1:

Exhibit 2:

I. The role as an important gateway for China's Westward-Opening

Xinjiang is connected to the Mainland China in the east and adjacent to Central, West and South Asia in the west. It is also an important channel connecting China and other Eurasian countries, with particularly importance as a gateway to the west in China's Westward-Opening strategy. Since the implementation of the Western Development Strategy in 2001, the central and provincial governments have introduced a series of preferential measures and policies aimed at improving the level of opening up and cooperation in Xinjiang, and provided policy supports for strengthening economic and trade cooperation with neighbouring countries. After years of development, the economic strength of Xinjiang has been significantly enhanced, and the level of opening up has been continuously improved. An all-round newly opening-up multi-level and wide-area pattern have formed preliminarily along the border, along the bridge (the new Eurasian Land Bridge) and along the traffic trunks.

Xinjiang borders on eight countries, its borderline exceeds 5,600 km, having 17 category-one ports and 12 category-two ports as the province that owned the most land ports in China (Exhibit 3). Located at the hub of China's opening to the West, Xinjiang becomes an important window for China's Westward-Opening. With two state-level economic development zones, Kashgar and Khorgos, the China-Kazakhstan Khorgos International Cooperation Centre, Alashankou bonded area, 19 national development zones and 74 provincial development zones, Xinjiang has become an important carrier attracting domestic and foreign capital and is currently developing the export-oriented economy (Exhibit 4).

Exhibit 3:

Exhibit 4:

As the capital of Xinjiang, Urumqi plays a central role in constructing a safe and convenient transport network to connect the mainland to Central, West and South Asia by a "four-in-one" system integrating highways, railways, aviation and pipelines which lays out a strategic channel from the north, middle and south Xinjiang in order to make this area an important channel to expand its westward opening (Exhibit 5). The successful Urumqi Trade Fair for consecutive 19 sessions was upgraded to a state-level "China-Eurasia Expo" in 2011, which becomes an important platform for economic and trade cooperation between China and the Central, East and West Asian countries, Russia and Europe (Exhibit 6). With the in-depth implementation of the strategic concept "Belt" and China's Westward-Opening strategy to the west, Xinjiang is actively innovating the various cooperation initiative with her neighbouring countries, promoting the construction of energy, transportation and information channels, accelerating the opening pace, expanding the opening field, improving the opening level, and further playing the role as an important gateway for China’s Westward-Opening.

Exhibit 5:

Exhibit 6:

II. The role as a growth pole for economic transformation and upgrading

In recent years, with Xinjiang's rapid economic and social development, a large number of infrastructure and basic industry projects with profound impact on the overall and long-term development have been completed, highlighting tremendous advantages of catch-up and significantly increased its overall competitive strength, showing preliminarily the impact of Xinjiang as an important growth pole in the “Belt”.

First, Xinjiang had abundant natural resources and raw materials, with relatively sound industrial supporting facilities and the ability and foundation to undertake labour-intensive industrial migration, especially with the supports of the differentiated industrial policies, taxation, finance, land and other preferential incentives. With the help of China-Eurasia Expo and many other platforms for economic and trade cooperation with neighbouring countries, Xinjiang sees a bright prospect of developing advantageous characteristic industries, export-oriented processing industries and strategic emerging industries.

Secondly, on the platform of 19 provinces providing aid for Xinjiang, it can assemble the advantages of talents, technology, industry, capital and management experience in the whole country, especially in the Middle and East China, introducing a group of modernized enterprises to root in Xinjiang, which has changed the single function of Xinjiang as a post station in history, and provided powerful material and system guarantee for speeding up industrialization process, implementing innovation-driven development and enhancing sustainable development capacity (Exhibit 7).

Exhibit 7:

Thirdly, with the construction of a "Five-centers" (transportation hub, trade and logistics, finance, cultural, science and education, and medical services) and the development of “Ten Import & Export Industry Clusters” (machinery and equipment exports, light industrial products export-oriented processing, textile and garment products export-oriented processing, building materials export-oriented processing, chemical products export-oriented processing, metal products export-oriented processing, information service industry export, imported oil and gas resources processing, imported mineral processing, imported agro-forestry and animal husbandry products processing industrial cluster) in Xinjiang. New energy, new materials, coal chemical, modern equipment manufacturing and other industries have also been effectively laid out. Xinjiang's strategic emerging industries are in the ascendant, and the modern service industry has great potential for development.

In 2016, gross domestic product (GDP) of Xinjiang was 961.723 billion yuan, annual GDP growth of 10.2% on average during the 12th Five-year Plan, which is 2.5% higher than the national level. The secondary industry has increased value of 358.522 billion yuan, with an annual growth of 10.3% on average during the 12th Five-year Plan which is 2.5% higher than the national level. The tertiary industry 438.304 billion yuan, with an annual growth of 11.9% on average during the 12th Five-year Plan which is 3.6% higher than the national level.

Therefore, it can be expected that with in-depth implementation of the crossroad of “Belt” construction, Xinjiang will intensify the regional-level in-depth strategic cooperation on the basis of strengthening its own economic strength, and further play its growth pole role in economic transformation and upgrading of the “Belt”.

III. The role as a land channel and strategic base for energy and resources transportation and restoration

Xinjiang is located in the centre of Asia-Europe energy supply base and energy demand system. It is the energy security channel connecting China and Russia, Kazakhstan and Kyrgyzstan and it is also China's energy resources strategic base. Since ancient times, Xinjiang has been regarded as a huge "gold mine" because it is an important supply area of energy resources in China with full range of minerals and large reserves, especially oil and gas resources of enormous development potential. Currently, as many as 139 minerals have been found in Xinjiang, of which 41 minerals have available reserves that ranked among the Top-10 in China. It processed 30% of China’s onshore oil resources, 34% of natural gas resources and 40% of inferred resources of coal (Exhibit 8). The prospects of developing energy resources cooperation with neighbouring countries is bright, with Russia and other central Asian countries bordering Xinjiang are among the areas having the most abundant mineral resources in the world, especially rich in oil and natural gas resources.

Exhibit 8:

In December 2014, in the *Strategic Planning of Constructing Silk Road Economic Belt and 21st-Century Maritime Silk Road*, China recognized Xinjiang as having a strategic position in terms of possessing a "large-scale oil and gas production, processing and reserve base, large-scale coal, coal-electric and coal chemical base, large-scale wind power and photovoltaic power generation base and national energy resources land channel” (Exhibit 9). Around this strategic positioning, Xinjiang is actively planning the "three-base" construction, and participating in the national energy cooperation program.

Exhibit 9:

On the one hand, relying on Central Asia for oil and natural gas import, Xinjiang is also promoting the development of oil and natural gas development, oil processing, coal gas, coal oil and other industries, speeding up the construction of oil and gas pipelines in and out of Xinjiang (Exhibit 10).

Exhibit 10:

On the other hand, Xinjiang is currently intensifying the cooperation with Central and West Asia, Russia and Pakistan in energy resources and strategic channels, building a group of energy resources exploration, development and processing cooperation zones as well as demonstration zones with oil and natural gas as the core, thus building the energy resources cooperation industry chain integrating the upstream and downstream. Therefore, Belt core area construction will not only significantly promote energy resources cooperation between Xinjiang and Central and West Asia, Russia and Caspian oil producing countries thus playing the role as the energy resources land channel in the "Belt", but also further accelerate energy resources cooperation and utilization in Xinjiang underlining its role as the energy resources strategic base in the “Belt”.

IV. The role as a link for cultural exchanges

The ancient Silk Road has been a link connecting Asia, Africa and Europe since ancient times. It is not only a commercial and traffic route, but also a corridor of cultural exchanges between the East and the West. The time-honoured intersection of far-reaching impact between ancient China, ancient India, ancient Greece, Rome and Islamic cultural systems is Dunhuang and Xinjiang in China. Xinjiang has been shouldering the great task for East-West cultural exchanges and became a place for multi-cultural integration on the Silk Road, as well as shaping its unique regional culture and folk culture. Xinjiang is a multi-ethnic area where Uygur, Kazakh, Kirgiz, Tajik, Russia and other ethnic minorities share similar customs and habits with the people living in the neighbouring countries. The people witness a time-honoured history of friendship due to the similar language, customs and tradition.

The reality of multi-ethnic and multi-religious coexistence makes Xinjiang an important window to cultural exchanges between the East and the West. Therefore, Xinjiang has unparalleled advantages in cultural exchanges and cooperation with its neighbouring countries and even the countries in the “Belt”. In addition, with the fulfilment of the objective of "policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people bond", such advantages will be further expanded and supported by the construction of the crossroad of the “Belt” (Exhibit 11). At the same time, Xinjiang has also made notable use of cultural advantages by organizing a series of fruitful cultural exchanges with the "Belt & Road" neighbouring countries. Examples include "China Xinjiang Promotion Day", "China Culture • Charming Xinjiang", and "Exhibition of International Printmaking in Xinjiang China”. Further, it also promoted educational cooperation such as building Confucius Institutes, holding academic forums, facilitating visiting student programs and student mutual-exchange programs.

Exhibit 11:

Increasing the exchange of experts with technical know-how, other forms of scientific and technological cooperation, promoting cross-border travel cum tourism cooperation, establishing close relations between sister cities and cooperative provinces, significantly promoted "people-to-people bonding". In future, Xinjiang will also play to its diverse cultural advantages, develop extensive and in-depth cooperation with the neighbouring countries in culture, science and technology, education, tourism and other areas, promote the construction of cultural, science and education centre, strengthen the "people-to-people bonding" with the countries along the Silk Road, create new Silk Road civilization as an important link of cultural communication in the "Belt".

V. The role as the Xinjiang Production and Construction Corps worked in the "Silk Road Economic Belt"

There is a close relationship between the reclamation and the Silk Road evolution. To a certain extent, reclamation is directly related to the waxing and waning of the Silk Road history. When reclamation arose, Silk Road thrived and when it fell, the Silk Road impeded. Xinjiang Production and Construction Corps is an important part of the Xinjiang Uygur Autonomous Region, which continues the development of reclamation in China. It has unique geographical advantages endowed with resources, a special system of integrating the party, administration, army and enterprise into one, a special mission of exploiting virgin land in marginal areas by troops and the multi-ethnic integration characteristics of the culture. All these in totality determine that Corps has the ability, condition, responsibility and obligation to build the crossroad of the "Belt" together with the Autonomous Regional government and thus plays a special role in the construction of the "Belt" (Exhibit 12).

Exhibit 12:

First, the Corps provides strong protection and safety in the "Silk Road Economic Belt". From the very beginning of its establishment, the Corps had played a special role in maintaining national unity and social stability in Xinjiang. It is more important to maintain social stability in the crossroad of the "Belt" in the new era. With the mission of developing and protecting the border area, the Corps will further deepen cooperation with neighbouring countries and regions in terms of economy, trade, culture and security, and will play its special role effectively (Exhibit 13).

Exhibit 13:

Secondly, the Corps is an important component in the economic construction of the "Silk Road Economic Belt". Throughout the reclamation in the past dynasties, the soldiers did not only open up wasteland and built a large number of water conservancy works in Xinjiang, but also introduced advanced production technologies and tools which improved the productivity levels in Xinjiang. The Corps not only set a precedent for modern agriculture, but also developed the modern industry in Xinjiang, by establishing a large number of enterprises in industry, communication, and construction, business and services, so that Xinjiang is well served by highways and commercial outlets. More importantly, because of its advanced modes of production and lifestyle, the Corps improved productivity dramatically in Xinjiang. Today, the Corps has its unique advantage and function in regulating social structure, promoting cultural exchange, facilitating regional coordination and optimizing population resources, thus promoting the economic development of the "Belt" (Exhibit 14).

Exhibit 14:

For example, in agriculture, since the 1960s, the Corps had explored and accumulated rich experiences especially in overseas agricultural development and business models. They were very successful in the process and had cooperated with more than 10 countries such as Kazakhstan and Pakistan in agricultural product trade, agricultural science and technology, and agricultural investment. In terms of infrastructure, the Corps have accumulated extensive experience as well which can be seen in its construction enterprises contracting a number of road projects respectively in Pakistan, Kyrgyzstan, Tajikistan, Algeria, Mongolia and others. Some companies have had the ability to independently obtain construction contracts in foreign markets, which give them the advantage of participating in the "Belt" traffic and infrastructure construction. Therefore, the Corps have a crucial role to play in the economic construction of the "Belt" as well as promote its sustainable development.

Thirdly, the Corps is a crucial facilitator of expanding cultural communications in the "Silk Road Economic Belt". For a long time, the Corps had been promoting cultural communication by making use of its advantages in attracting minds from all over the country and integrating them into the Xinjiang society, thus shaping a Corps-characteristic cultural atmosphere that inherited the revolution tradition and Chinese culture as well as integrating the culture of the Western Region. In the construction of the "Belt", such a Corps-characteristic culture is more likely to resonate in international and domestic cooperation, promote cultural integration, people-to-people bond, and ethnic blending, and lay the foundation of public sentiment for creating a community of shared interests, destiny, and responsibility featuring mutual political trust, economic integration and cultural inclusiveness (Exhibit 15).

Exhibit 15:

Finally, the Corps is a security guard of building an ecological barrier for the "Silk Road Economic Belt". The Corps has always upheld the principle of not competing with people for profit, adhering to areas around Taklimakan and Gurbantonggut deserts and the border areas for developing the economy while attaching great importance to ecological and environmental protection with water conservancy, afforestation, treatment of saline-alkali land, energy-saving and emission reduction, and work with local governments for harnessing river and controlling air pollution jointly with excellent ecological benefits. The Corps is playing its role of security guard for protecting ecological environment, which is conducive to protecting the fragile ecological environment in Xinjiang, and building green ecological barrier in the crossroad of the "Belt" (Exhibit 16). Thank you for your attention!

Exhibit 16:

Distinguished Luncheon Speaker 2

"Singapore's Role in the Belt-and-Road Initiative"

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

BRI: The Next Great Wave of Globalization for the Region

Distinguished guests, ladies and gentlemen.

1. The Belt and Road Initiative (BRI) is one of the largest stories in the world today and rightfully so.
    a. There is a lot of attention from the international media on the infrastructure projects with hefty price tags.
2. This has people asking, is the BRI solely an infrastructure play for emerging economies?
    a. What is the role for Singapore, a developed economy with a ready-made base of infrastructure?
    b. What they are really too polite to ask is:
        i. What is the precise business case for Singapore to be involved in BRI, and
        ii. What is Singapore's economic playbook for the BRI?
3. Today, I would like to share my personal viewpoints on these matters. They are:
    a. First, Singapore is a vested interest party to the success of the BRI.

b. Second, Singapore is ready to serve the growth that BRI brings.

c. Third, Singapore's economic strategy evolves with the changing world.

Part I: BRI is a Core Economic Interest for Singapore

4. Let me touch on the initial point – that Singapore is a vested interested party to the success of the BRI.

a. First, the context:

i. BRI is a blueprint of prosperity shared by many countries.

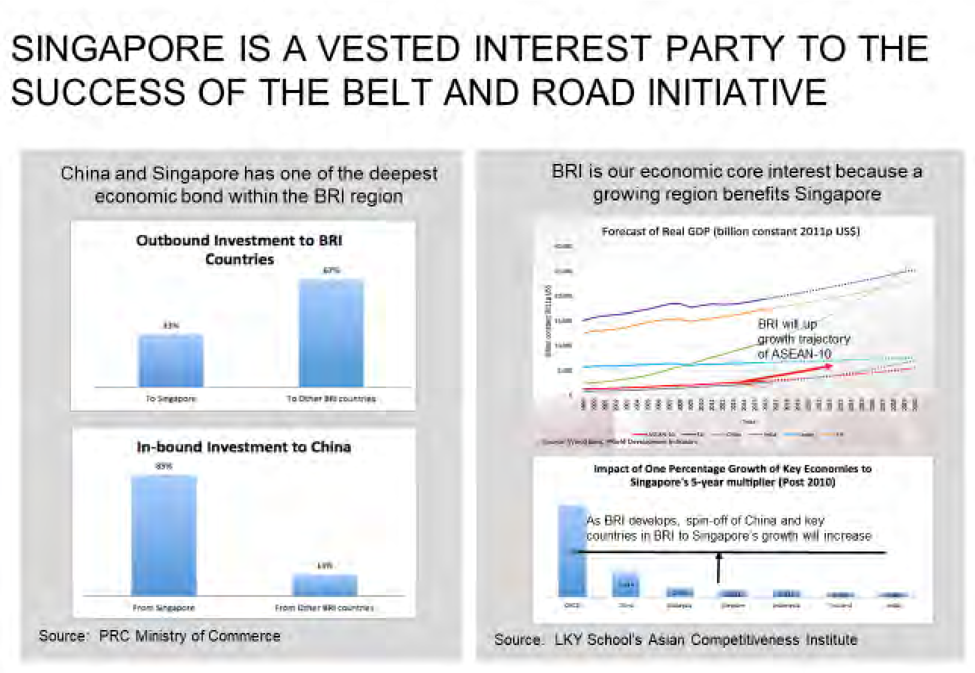
ii. If the major powers can negotiate the geopolitical sensitivities, it could unleash the biggest wave of globalization the world has ever seen.

iii. Infrastructure is the logical first step. But trade and commerce would quickly flow.

b. Now that we have stated the context for BRI, where does Singapore currently stand?

c. The answer is clear – within the BRI region, the economic bond between China and Singapore is already one of the deepest (Exhibit 1).

Exhibit 1:



i. China's investments to Singapore represent 33 percent of all outbound investments to the BRI region.

ii. Singapore's investments to China represent 85 percent of all inbound investments from the BRI region to China.

d. Therefore, given the depth of China and Singapore's economic relationship, it is only natural that Singapore is and will continue to be deeply involved in the BRI, which is put forth and ignited by China.

e. I would like to put the same point from a second perspective.

f. Let us take a look at the projected growth of the major building blocks of the world (See Exhibit 8 again).

    i. European Union (EU) and the United States of America (USA) will continue to be significant in the world economy, and will continue to grow.

    ii. The Association of South East Asian Nations (ASEAN) is also growing steadily, although from a much more modest base.

    iii. China is quickly becoming the biggest player in the world economy, not just in Purchasing Power Parity (PPP), but also nominal terms.

    iv. So what is the future of ASEAN's growth?

        A. If BRI succeeds in co-mingling the economic energies of China, Eurasia, Central Asia, and Southeast Asia (SEA), all within the context of regional peace and stability, then ASEAN's growth can only grow in one direction, which is upward. That in turn benefits Singapore.

g. Now let us arrive at the same conclusion using a third set of data. Here is the Post-2010 regression data from Asia Competitiveness Institute (See Exhibit 8 again).

    i. In this chart, it shows the impact of one percent growth of these economies to Singapore's economic multiplier. In layman's terms, it identifies which countries are the growth drivers of Singapore's economy.

    ii. Today, Singapore still relies on the Organization for Economic Cooperation and Development (OECD) countries for our economy.

    iii. But if you band China, SEA, and India together, they play an important role to our economy already.

    iv. As BRI catalyzes the growth of these countries, China, SEA, and India (who hopefully will join BRI) will contribute even more to Singapore's future prosperity.

h. Therefore, looking at the data, the business case for Singapore to be involved in the BRI is crystal clear. In fact, I believe that BRI is one of Singapore's core economic interests.

5. Now, all these talk about future growth is good, but only if Singapore can ride on the growth wave.

6. The BRI will bring forth both win-win collaborations and zero-sum competition. Singapore, as small city-state, must continue to earn our relevance.

7. At the keynote speech yesterday, Minister Shanmugam mentioned about the book "Who Moved my Cheese". I am happy to share that many of us in Singapore have read the book, and have fully internalized what the book says.

8. So that brings me to the second part of my presentation – which is that Singapore is ready to serve the growth brought forth by BRI.

Part II: Singapore is Ready to Serve the BRI Region

9. Before I start on the second part of my presentation, let me share on the uniqueness of the Singapore economy.

10. First, looking at the GDP numbers, Singapore is around the size of Malaysia, Philippines, and just a little behind Thailand. In my view, this GDP number perhaps underestimates the role that Singapore plays serving the region.

11. This is because unlike most of ASEAN, the vast majority of our GDP is geared not to serve our small population, but to contribute to the region.

12. Second, the other unusual aspect of the Singapore economy is that we have a unique combination of hubs co-located, within the confines of 720 square kilometers (Exhibit 2).

Exhibit 2:

13. Let me now quickly share:

    a. How Singapore is ready to serve the BRI region through different dimensions, and

    b. How we are preparing Singapore for the future regional growth.

Regional Headquarters and Centre for Global Manufacturing

14. Today, we have a unique concentration of global companies from the USA, EU, and Japan. Also, the number of firms from China and India are growing very fast. Leading Chinese companies like Xiaomi, Alibaba, and Haier serve the regions out of Singapore (See Exhibit 9 again).

15. We are the fourth largest exporter of high-tech products, one of the top 3 integrated petrochemicals hub worldwide, and the third fastest growing pharmaceutical exporting nation in the world (See Exhibit 9 again).

International Air Hub

16. Today, Changi airport is the 6th busiest airport for international arrivals serving more than 58 million passengers annually (Exhibit 3).

Exhibit 3:

17. Singapore is also Asia's biggest Maintenance, Repair and Overhaul (MRO) center with a quarter of the total market share. We also have an eco-system of manufacturing, research and development (R&D), and aircraft leasing companies.

18. The International Air Transport Association (IATA) forecasts annual air traffic to double to 7.2 billion by 2035, and Asia-Pacific aircraft fleet will triple to 13,500 by 2031.

19. Singapore will expand our capacity and ahead of demand too.

    a. Singapore will embark on the new terminal 5, and increase capacity to 120 million passengers (See Exhibit 10 again).

        i. To put this in context, this will be bigger than Atlanta airport in Georgia, United States of America, the busiest airport today.

    b. We are also partnering with China to develop Chongqing as an international air hub, which will benefit Singapore as well.

Maritime Hub in the Straits of Malacca

20. Today Singapore's PSA is the second busiest container port after Shanghai and can handle more than 30 million Twenty-Foot Equivalent Unit (TEU) (Exhibit 4).

Exhibit 4:

a. This is one-seventh of the world's throughput.

b. This is also more than half of the container ships passing through the Straits of Malacca.

21. The OECD believes that worldwide throughput will increase four times by 2030, and Shanghai International Shipping Institute believes that China throughput alone could reach 550 million TEU by 2030 (See Exhibit 4 again).

a. Therefore, our new Tuas mega port will double container handling capacity to 65 million TEU, by the mid-2030s.

b. We are also working with China on the "Southern Transportation Route", from Chongqing to the port city of Bebu in Guanxi.

c. This route is interesting for two reasons:

i. It is a more direct link between Western China to the coast of China, and it is all within the Chinese soil.

ii. This route can serve as a valuable link between the maritime belt and the overland road.

International Financial Center

22. Singapore's status today is the 3rd largest financial center, and the 3rd largest offshore RMB center. We are also supportive of efforts to internationalize the Renminbi (RMB) (Exhibit 5).

Exhibit 5:

SINGAPORE IS READY TO SERVE THE GROWING BRI REGION

A unique combination of hubs colocated within 720 square kilometers

International Financial Centre

Status Today
- 3rd largest financial center
- 3rd largest offshore RMB center
- Supportive of efforts to internationalize Renminbi

Future Plans
- Partnering with Chongqing as dual gateway serving Western China and SEA
- Center for Fintech innovation

23. Moving forward, Singapore will,

    a. strive to be a global center for Fintech Innovation, and

    b. partner with Chongqing as the dual financial gateway serving Western China and SEA.

Asia's Centre for Infrastructure Financing

24. Beyond being an international financial center, Singapore is also strengthening its position as Asia's center for Infrastructure Financing (Exhibit 6).

Exhibit 6:

SINGAPORE IS READY TO SERVE THE GROWING BRI REGION

A unique combination of hubs colocated within 720 square kilometers

Source: International Enterprise of Singapore

Asia's Center for Infrastructure Financing

Financing
- Complete infrastructure financing eco-system financing
- > 60% of SEA project financing

Structuring
- Multilateral development banks, World Bank deep presence
- Singapore-ADB's AICOE
- Founding funding partner of GIP

Professional Services
- Engineering, accounting, legal firms

Dispute Resolution Centre
- Trust, neutrality, adherence to rule of law
- Arbitration, litigation, mediation
- Chinese and Indian companies are top 2 users of commercial arbitration services in Singapore

25. In terms of financing,

   a. Many of the infrastructure financing players are already here. Participation of different types of financiers spread the risk, allows for participation according to different investment mandates, and risk appetites, and allows funds to be recycled more easily.

   b. Singapore-based players know how to do this well.

      i. Today, 60 percent of project finance transactions in SEA are lead-managed by Singapore-based banks.

26. In terms of Project structuring,

   a. Major multilateral developmental banks – World Bank, Asian Development Bank (ADB) and Asia Infrastructure Investment Bank (AIIB) are here. There is depth in their presence. World Bank is a prime example.

   b. The Singapore government is also actively involved in catalyzing project structuring. For example:

      i. Singapore and ADB have started the Asian Infrastructure Center of Excellence (AICOE).

         A. This helps governments to identify their needs, and bring the private sector on board.

      ii. Singapore is also one of the founding funding partners of World Bank's Global Infrastructure Facility (GIF)

         A. This facilitates the preparation and structuring of complex infrastructure Public-Private-Partnerships (PPPs).

27. In terms of professional services, Singapore has a mature eco-system:

   a. Engineering for regional infrastructure projects.

   b. Our accounting firms, in particular - the Big 4.

   c. Our law firms have regional practices.

28. In terms of dispute resolution, Singapore can play an important role.

   a. Our jurisdiction has a brand name for trust, neutrality, and adherence to the rule of law.

   b. Singapore offers the full range of dispute resolution options: arbitration, litigation, and mediation.

   c. An interesting statistic is that Chinese and Indian companies are the top 2 users of commercial arbitration services here in Singapore.

Marketplace of Ideas and People

29. Singapore is a marketplace of ideas and people (Exhibit 7).

Exhibit 7:

In Singapore, you can find:

a. First, leaders from many parts of the world passing through, or going through short-stints here, all exchanging ideas on BRI.

b. Second, regional think-thanks with many international scholars, and conferences. All these provide varying worldviews of different geographies.

c. Third, a blend of mainstream and start-up businesses, as well as a mixture of businesses from Asia-Pacific, and beyond.

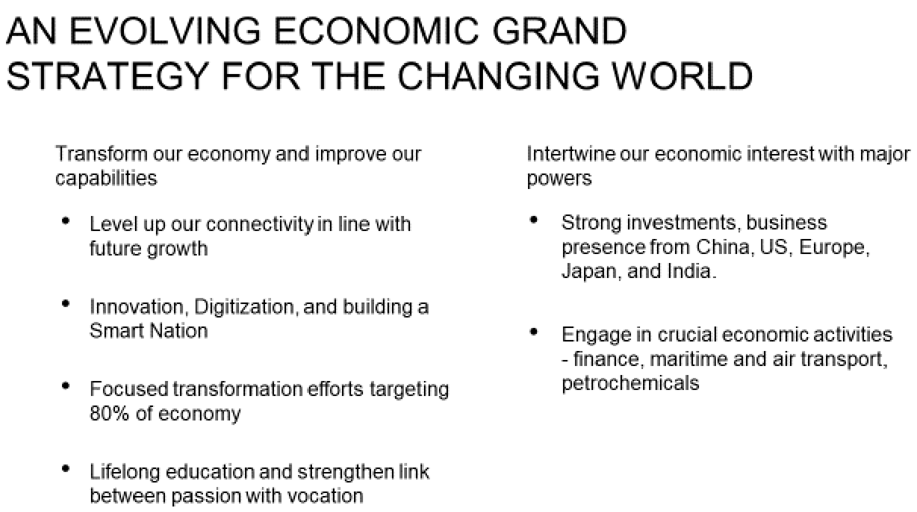
30. On top of this, Singapore is a place for talent, because it is the most livable city in Asia outside Australia and New Zealand, and the best Asian city for expats.

31. To sum up, Singapore is already serving the BRI region. We are also implementing our plans to grow our capacity and capabilities, as BRI brings more growth.

Part III: Singapore's Evolving Economic Grand Strategy

32. Now, let me talk about my third point - As the world changes, our economic strategy will evolve with it (Exhibit 8).

Exhibit 8:



a. Part of our strategy is to transform our economy and improve our capabilities. There are several parts to it.

   i. First, we are making a massive investment in infrastructure, the largest in our history.

      A. We are investing in our airports and mega-ports.

      B. We are investing in railways – both high-speed rails to Malaysia, and 3 major subway lines on top of our existing 5.

      C. We are investing in our second Central Business District.

   ii. Second, we are sparing no expenses in pushing for innovation, digitization, and building a Smart Nation.

      A. We are investing S$19 billion these five years in government-backed research. We are developing a major new industrial park, the Jurong Innovation District (JID), with innovation built at its heart.

      B. We encourage all sectors to adopt digital technologies, such as big data, Artificial Intelligence (AI), and robotics.

      C. We are applying digital technology to better our people's daily lives, through the Smart Nations initiative.

   iii. Third, we are also making a focused transformation effort targeting 80 percent of our economy.

      A. Traditionally, Singapore has a focused industrial strategy for our manufacturing and exportable services industry covering around 40 percent of our economy. That will not change.

B. Now, we are adopting the same approach to level up the other 40 percent of our economy.

iv. Fourth, we are making our largest ever investment in our people.

A. We are building up a robust system of lifelong education, together with our industries and educational institutes.

a. To us, we have to think beyond arming our people with diploma, degree, or even a PhD.

b. We have to equip all our people in every sector, on a life-long basis,

i. With industry-relevant, bite-size, just-in-time courses.

B. We are strengthening the educational link between passion and vocation because passion is necessary for mastery of any skills, which in turn determines how far they will go.

b. The second part of our economic strategy is to continue to be useful, even essential, to the world. This means we must continue to punch above our weight

i. in areas such as finance, maritime, air transportation, technology, and petrochemicals.

c. This also means we must continue to attract a strong business presence from all major powers, both existing and emerging.

d. Doing useful things, and rooting international businesses to Singapore, allows us to intertwine our economic interest with all major powers in our region.

e. This interconnectedness with the major powers, and the world, creates a valuable backstop for Singapore's economic security.

Conclusion

33. I would conclude my speech today with the following:

a. In my view, Singapore supports the Belt and Road Initiative because it is one of our core economic interests.

b. We stand ready to contribute to it, both today and tomorrow.

c. Mr. Lee Kwan Yew once reminded my fellow Singaporeans that, "Nobody owes us a living".

d. This is a point we do not forget as Singapore evolves our economic grand strategy.

e. Therefore, leveling up our economy for future opportunities such as BRI, and intertwining the economies of major powers with ours, are the best guarantees of Singapore's economic future, for the next 50 years.

Thank you!

Question & Answer Session

Responses from Forum Participants

Question: Greetings! I am a student from the Lee Kuan Yew School of Public Policy It is great to have Professor Qiang here for the sharing session. I would like to ask, what is the specific role that the Xinjiang Communist Party School plays in the development of the Belt and Road Initiative (BRI) in Xinjiang? Do you have your own strategy or plan? Thank you.

Professor Qiang Shixue: There are two Party schools at provincial level in Xinjiang. One is The Party School of Xinjiang Uyghur Autonomous Region Committee of the Communist Party of China (CPC), the other one is The Party School of The Xinjiang Production and Construction Corps Committee (XPCCC) of CPC. I come from the latter one. In the Silk Road Economic Belt, we have done some studies. The first one was conducted with the National Development and Reform Commission (NDRC) of the People's Republic of China to study how China and Pakistan could collaborate effectively, as the Department of International Organization and Conference were preparing for one of CPC leader's official visit to Pakistan.

The agriculture sector of XPCCC leads in China and even the world in terms of crop breeding, production, management, processing and sales. The natural conditions of some regions in Pakistan resemble the area of Xinjiang, with cotton planting and cultivation. Delegated by NDRC, the Department of International Organization and Conference, under the China-Pakistan Economic Belt framework, we constructed a development strategy that encourages the agriculture of production and construction corps to "go out" and seek opportunities beyond China.

The NDRC delegated 16 theses for defense appraisal. Among the 16 theses, XPCCC's proposed development strategy of "going out" ranked second, after being examined by related departments and the main leaders of our corps. The other one is that XPCCC is mainly in charge of developing the action plan of our Xinjiang production and construction corps' participation in building the Silk Road Economic Belt. Besides, in our party school, we organized some seminars to educate division commanders, regiment commanders and directors of production and construction corps. Thank you.

Associate Professor Tan Khee Giap: I would like to request to collaborate with Xinjiang's Communist Party School and may I propose a Singapore delegation to visit your party school, apart from helping Xinjiang to draw foreign direct investments and bring business, we would also like to share with Xinjiang Singapore's experience of managing in a culturally diverse, multi-religious and multi-language society through some common sharing sessions. Meanwhile, we also want to ignite the interests of young Singaporeans on Central Asia vis-a-vis Xinjiang just as Professor Liew Mun Leong said, if Singaporeans stay in their comfort zones and only pay attention to the Maritime Silk Road while neglecting the Central Asia Economic Silk Belt, we would probably lose some very important opportunities

Professor Qiang Shixue: Yes, Professor Liew also said that Shanghai once invited them for a business exploration trip. However, they declined the invitation and Singapore suffered a great loss as a result. This time, if you do not follow up in a timely fashion on the great opportunity Xinjiang offers, you might incur even larger losses!

Professor Chia Siow Yue: I would like to direct this question to Mr Henry Kwek. You spoke of the prospects of Singapore as an infrastructure financing center. However, I just wonder what role our three local banks will play. We heard two very impressive presentations by the two major Chinese banks in Singapore. What are Development Bank of Singapore (DBS), United Overseas Bank (UOB) and the Oversea-Chinese Banking Corporation (OCBC) going to do as far as participating in infrastructure financing? The question I am asking is whether these three banks which have made very limited penetration into the ASEAN region during the years of rapid ASEAN development and had faced tremendous difficulties. Will these banks also face tremendous difficulties in capturing some of the infrastructure financing pie? Thank you.

Member of Parliament Henry Kwek: Thank you for your question. I share your concerns. I think there are two parts to this. Firstly, are the opportunities presented to everybody in a fair way? I would say that to the best of my knowledge that whenever we explore opportunities, the government itself will try to bring

Singaporean companies, especially larger Singaporean companies, such as our banks, into it. Can there be effort to do more? I definitely agree.

The second point I have is that we must make sure that we keep our own lunch instead of other people taking our lunch away – because when BRI grows, the whole region grows – we must make sure that Singapore is still relevant. Our own people must simultaneously do two things – one is to understand the culture that is happening in China, which is the key growth driver. I have been fortunate to have visited China almost every year since 1991. I understand the change, and it is massive. The other dimension is that Singaporeans have to know our own region, which is Southeast Asia, well. Our people should look beyond studying say European languages but also learn Bahasa and Vietnamese, so that we can really capture the opportunities at the people level. So, I agree with you that more can be done by the government in terms of partnerships with enterprises, but more must be done with the people, because that is how we stay relevant.

Associate Professor Tan Khee Giap: I remember on the 14th of May this year, when the One-Belt One-Road Summit was held, we immediately had a response from the United States' Ambassador to China that the US would set up a small group in China to ensure that American bankers would not lose out in the infrastructure financing business. So, very quickly, the Americans saw the financing of infrastructure as something that the financial community of the US is going to benefit from, and could not lose out on. For our three local banks, I do understand that DBS, OCBC and UOB have intense presences in Chongqing, which is the starting point of the China-Singapore Economic Corridor, and part of the 21st Century Maritime Silk Road. So, our banks are certainly in some of the BRI initiatives – the infrastructure on investment projects. I think UOB also recently signed a Memorandum of Understanding (MOU) in Qingdao during the China-Europe Digital Economy conference, which is part of the Asian Silk Road Economic Belt. Of course when it comes to Singaporean banks, you will never be able to compete with banks from China. The Industrial and Commercial Bank of China (ICBC) is number one in the world, and China Construction Bank (CCB) is number two by asset size. They are so big that our three local banks would not be comparable to them even if grouped together, so maybe that is not our strength. However, the very fact that ICBC and CCB do have a strong presence in Singapore says something about what we are, a financial hub as pointed out by Henry Kwek, and it is also indicative of the instrumental role we can play in the financing of Belt and Road infrastructure and in the internationalization of the renminbi.

Mr Chua Yang Liang: My name is Yang Liang, I am from ARA Asset Management. My question is in relation to project financing in Singapore and is directed to Mr Henry Kwek. Thank you very much for your very concise presentation. In the project financing literature, one of the key arguments is that there exists a financing gap globally and in Asia as well. On the one camp, some argue that public financing in the public sector can close the gap, primarily because of the issue of bankability – there are no terms of reference, and so on. The other camp argues that the private sector, private funds and private equity should come in, and there is enough to close the gap.

Towards that end, Hong Kong established a platform, the Infrastructure Financing Facilitation Office (IFFO) in 2016. They have spearheaded the development of this platform to bring the various stakeholders together to come to an agreement on what the terms are, hopefully advance the bankability of a project and the downstream activities of a project. With regards to the earlier question about where we are and where the banks are in Singapore, and how we want to position ourselves towards BRI. This is the larger issue – are we ready as a country and as a financial hub to move beyond just financing, but looking at infrastructure as a holistic entity? In other words, are we ready to embrace what Hong Kong is doing? Are you aware of any platform that our government is pursuing with regards to this aspect of infrastructure financing or development?

Member of Parliament Henry Kwek: I think there are two parts to your question. The first relates to whether we can do more on infrastructure financing and how do we do more for infrastructure development. As I have mentioned, this is an area where Singapore is continuing to strengthen. We are not completely there yet but we are starting from a good place. I think the two platforms I have mentioned to you are relevant here. There has been a lot of collaboration and work done on this and you can potentially be part of that, as a private sector investor. So, there are a lot of conflicting views on why projects are not bankable. You can find a reason for every individual one, but I will just say that the pool is so big that we should focus on the practical part – turning those that are bankable into projects.

The other day, I was having a chat with Associate Professor Tan and he was mentioning that the World Bank actually has a pool of bankable projects, and there is always room to fund more projects, and he suggested that other multilateral banks can participate. So, there are to me, and please correct me if I am wrong, Associate Professor Tan, some bankable projects available and what is necessary is to then combine that with the Public Private Partnership (PPP) platforms out there to make it happen. That is my answer to your first question.

Your second question is about infrastructure development. Let us be frank – Singapore is never going to be competitive in high-speed rail. However, we also have a lot of strengths in certain areas or select areas. In the presentation by Professor Liew Mun Leong, he shared with us about Surbana Jurong and Changi Airport group, as well as CapitaLand's major plans in the region, so maybe you could take a look at some of the points that were raised.

Let me finish up with a final point, which is that all these companies are big companies. What happens to the Small and Medium Enterprises (SMEs), what happens to our own people? As I have mentioned in my presentation, the first part of the BRI is going to be about infrastructure, and the second part is going to be about trade and commerce. The latter part is something that will be a lot more relevant to SMEs, individual investors and funds. That is how I see it, thank you for your question.

Associate Professor Tan Khee Giap: Yes, it is true that the World Bank has many bankable projects which have been approved by the environmental department of the World Bank. As you know, the World Bank's environmental department is very strict when it comes to funding for infrastructure projects that may have an impact on the environment. But for the World Bank, their loans are already quite up to the limit. I believe this is one of the reasons why Singapore supported the Asian Infrastructure Investment Bank (AIIB) – because there are not enough agencies that are able to do this urgent funding requirements. So for AIIB, it is indeed the case that they have money, because they have just started. However, in terms of high-quality projects, those will take time to evaluate. So, I think there is synergy here, and that is why it is important that we must try and secure an AIIB branch in Singapore, just like the International Monetary Fund (IMF) and the World Bank Group which both have branches here. In 2017, Singapore has overtaken Hong Kong as the world's third competitive financial hub after London and New York. I think we should aim to surpass New York to be ranked number two.

Mr William Sim: My name is William Sim and I am serving in the United Nations Association of Singapore. The incident I want to share happened about six years ago. One of my members was handling a regasification plant project in Mexico and this was a project worth $2 billion. So, there was a consortium, and this consortium involved two parties from Mexico and one from Singapore, so three parties in all. Our job was to appoint Engineering, Procurement and Construction (EPC) contractors, which meant that the contractors would look at Korean or Japanese firms that would be good for the project in Mexico. Then, the next job had to do with appointing a receiving bank.

Because the sum was $2 billion, they could not put it into any old bank, which may just have thanked us and absconded with the funds. So, they chose to put the money in Singapore. I then went to check with DBS, and they were initially very happy, but later said that they could not do it because they needed to report it to the Monetary Authority of Singapore (MAS). I told them to go ahead because this was official, and it was not money laundering, but they said they could not do it. So, UOB and DBS both could not do this, and until today I do not know why. Halfway through, I was in Melbourne and this friend of mine passed away, so the project also dissolved after that – but it was a real job, a regasification plant in Mexico.

Member of Parliament Henry Kwek: Thank you for your highly detailed response and I am sorry to hear about your friend. I think that the exciting thing about BRI is that there are so many things that are still undone. This means that there is so much work left to do and thus a lot more opportunities for Singapore. This also means that there are many more opportunities for us to improve our policies. Maybe I could take your information and just check with MAS on where the regulations stand on this issue. Thank you.

Associate Professor Tan Khee Giap: You see our MP – instantly working! Now, I think we must take the point from Professor Liew Mun Leong on how to get younger Singaporeans interested to go exploring in Central Asia which he thinks has the first mover advantage. Perhaps we should draw the interests of tertiary educated Singaporeans from universities, polytechnics and the Institutes of Technical Education towards Central Asia, even for me when I went there, I was confused and thought I was in Singapore, because in my hotel in Kazakhstani capital of Astana, the managers, the receptionists and the waiters don't look Caucasians – they are Asians like us. However, they are mainly Russian speaking with very little English. Then you soon noticed you are in Central Asia. How alien these places are to us – when we think of Kazakhstan, Kyrgyzstan and others which we cannot even pronounce their names. Are there any young Singaporeans who have been to Central Asia and want to say something about it in the audience today?

Miss Lim Siew Ming: Hi, Professor Tan, I am Siew Ming, your student from Nanyang Technical University (NTU) of year 2000 vintage. I would like to echo your thoughts, as I have been to Uzbekistan. After going to Uzbekistan and coming back to Singapore, and speaking to many Singaporeans about Uzbekistan, I have been surprised to find that many Singaporeans are not familiar with Central Asia at all. I work with Maybank, and we do have business dealings there and I had the very privileged opportunity to explore Central Asia, as a result. I realized that we really need to deepen our understanding of Central Asia, and increase the opportunities to have more business alliances over there.

Associate Professor Tan Khee Giap: So do you work with Maybank in Malaysia or in Singapore?

Miss Lim Siew Ming: I work in the International Markets office of Maybank, which is based in Singapore.

Associate Professor Tan Khee Giap: But are there any local banks which are also interested? Did you see your competitors from Singapore there?

Miss Lim Siew Ming: Uzbekistan is growing at 8% per annum and there are so many business opportunities over there. However, I think there is a kind of risk aversion, because there is a lack of understanding of Uzbekistan, and I think that is something that banks as a whole, whether it be local banks or regional banks, need to overcome. So, I agree with you in that I think that we need to bring our young ones overseas.

Associate Processor Tan Khee Giap: And Uzbekistan and Kazakhstan are Muslim-majority countries, right?

Miss Lim Siew Ming: Yes, but they are very liberal. They embrace all kinds of ethnic groups, all kinds of religions and they have got a mixture of around 100 ethnic groups there, so if we talk about multi-racial, I think there are very wonderful things to see there. You get Uzbeks, and Tajiks and Russian-looking people. I did however, have a question for Professor Qiang Shixue. You just mentioned about "people-to-people bonding", may I ask what should be done to pacify the people in the small central Asian countries surrounding Xinjiang, in the sense that how could they collaborate with China in the One-Belt One-Road development plan? I would like to hear your thoughts on this issue.

Professor Qiang Shixue: "People-to-people bonding" has been a key issue in One-Belt One-Road Initiative. The Chinese government has been initiating it actively, especially in the multi-racial regions of Xinjiang and in neighboring multi-ethnic countries. I have mentioned that there are many ethnicities from around the region in Xinjiang and the first thing to do is facilitate cross-culture communication. I think culture has a fundamental, long-term and pivotal impact on "people-to-people bonding". Only when we are communicating culturally, then can we have mutual respect, understanding and mingling to strengthen our relationships.

There are different cultures, religions and customs across ethnic groups. I think as long as we communicate and respect each other, we can be understood, benefit from communication and adopt the common recognized values. I recall that former Prime Minister Lee Kuan Yew proposed "Asian values". In fact, "Asian values" are closely related to the ethnic structure of Singapore. Singapore is a multi-ethnic country with different religions, customs and cultures. How did Singapore's management of its multi-racial and multi religious society receive worldwide respect? I think one of the important reasons is the integration of Singapore's diverse cultures.

Firstly, Singapore has common values and laws which all Singaporeans need to follow. At the same time, it does not impose limits on different races. It does not require you to abandon your own customs, religions and cultures but to respects them. The laws and regulations of Singapore are respected by all races, and form the common values all Singaporeans hold. I think it is after the formation of these common values that Singapore could develop steadily and continuously.

The same rule applies if countries in the Silk Road Economic Belt are to participate together. We must have a common value. This common value is that everyone, every ethnic-group and every country is willing to participate in the plans and the development process is up to the people of each country. In return, the outcome of development is shared by people in each country. I think culture could have this fundamental, long-term and pivotal impact. Thank you.

Associate Professor Tan Khee Giap: Just now, I noticed that Professor Qiang was saying that in the army, there is no distinction made between Uyghurs and the Han people. I can understand this point since they have the same goals and common working policy. But I do not know about the everyday communications between ordinary citizens of Han and non-Han ethnicity in the markets. We are quite worried about it. For example, let us say that our companies want to go and invest there – perhaps we are going to Xinjiang today, they are wondering whether the security is guaranteed and if they will be beheaded on the streets. Investors going there are most afraid of their safety. I do not have any ideas on it since we have not been to Xinjiang and do not understand it that thoroughly. If we go to Xinjiang, will you worry about the security in Xinjiang?

Professor Qiang Shixue: There is a Chinese saying that seeing is believing. When you arrive Xinjiang, you will know Xinjiang is the most stable region in China currently, and you can hardly find a thief. Xinjiang is very safe indeed.

Question: When Singapore participates in BRI, will we have enough talents and elites? When I am in China, I educate Chinese students who mostly wish to study in the Ivy Leagues in the U.S. And now looking at Singapore – in the early years, Singapore had a Colombo Plan Scholarship to cultivate the present leaders. Now if we are going to participate in the BRI, do we have enough talents such as world-class engineers and bankers? I am asking this question since these sort of education programs could be settled in the BRI plan and has not been mentioned in this forum. This question is directed towards Singapore because I do have a clear understanding on how China cultivates their elites.

Member of Parliament Henry Kwek: Let me try and answer in English. I understand your point – do we have enough capable Singaporeans to contribute to the BRI in a significant way? I will put my answer this way. We have a lot of very capable young people. What we need to do is expose them to all the opportunities. Today, there are many opportunities available to them, and that is why I made my point previously that we have to strengthen the cultural understanding between Singapore and the major economies, especially China, and Southeast Asia, our own region.

Now, my second point is that we have to promote our people to go overseas. Why do we have to do that? Today our growth estimate is around 1% to 3%, and why is that so? Because we have made the political decision to constrain the growth of our economy. For example, people – foreigners coming into Singapore. That is a political decision that we make as a society. The consequence of that is that the growth is coming, and it must largely come from increases in productivity. Yet, growth and entrepreneurship are important. I share this very strong view that without growth and opportunities, the wealth in Singapore will more commonly be inherited and not created, which is not good for Singapore as a society. We are a society that prides itself as an inclusive society and a place where there are opportunities available to most. So, Singapore must encourage our companies and people to be entrepreneurial and to be international.

My last point is that we are a small country punching above our weight but we must also be realistic. We have to be very clear on where we can value-add and where we have to collaborate – so that is the less good news. The good news is that we are a small population and the world is very big. All we need to do is be very strategic in our niches and very focused in our execution, and we can take care of our people well, especially our youth. Thank you!

"Competitiveness, Exchange Rates and Trade Performance in India"

Presenters from ACI-LKYSPP, NUS (clockwise from top-left):
Dr Sasidaran Gopalan, Ms Jigyasa Sharma, Ms Nursyahida Binte Ahmad, Ms Leong Puey Ei

Moderator from ACI-LKYSPP, NUS (second from the left):
Ms Chuah Hui Yin

Discussant for Session 2:

Dr Parashar Kulkarni
Assistant Professor, Social Sciences (Political Science), Yale-NUS College

Session 3

"Urban Composite Development Index for 17 Shandong Cities: Ranking and Simulation Analysis based in China's Five Development Strategies"

Presenters from ACI-LKYSPP, NUS (clockwise from top-left):
Ms Hou Xiaofu, Associate Professor Tan Khee Giap, Mr Gareth Tan, Mr Nguyen Duy

Moderator from ACI-LKYSPP, NUS (fourth from the right):
Mr Thomas Chan

Discussants for Session 3:

Dr Li Wei
Deputy Director, Institute of Applied Economics,
Shanghai Academy of Social Sciences, People's Republic of China

Mr Wang Kejian
Chairman, Urban Construction Press, People's Republic of China

Closing Remarks and the Way Forward

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

On behalf of Associate Professor Tan Khee Giap and myself, we would like to thank the speakers and discussants for the great contributions – in particular our guests, who have given us very insightful perspectives and ideas that will help us in our future research work. Firstly I think the ACI project that was just presented, namely the Urban Composite Development Index (UCDI), which focuses on people-oriented development with President Xi's five major focuses has a very important significance with potential contributions because it deals with quality of life.

The initial work they have done on the 17 major cities of Shandong has an enormous number of indicators on environmental quality, public health, culture, social security, public governance, transparency and accountability. This is to reflect the fact that the quality of life of the average citizen is an increasingly important pillar of political legitimacy in China. More importantly, it will increasingly be used as a way to evaluate and promote government officials. This research will result in very important analysis on sustainable, balanced and inclusive development for cities.

I remembered well over 10 years ago before we came to ACI, Khee Giap and I actually did some competitiveness ranking on provinces in China. When the findings were published, the media in China picked it up. We thus received an enormous number of phone calls from senior government officials in Beijing, Shanghai and Guangdong about how we arrived at those rankings and what they could do to improve them. This experience basically taught me that when you do rankings with good data and transparent information for benchmarking, such rigorous, objective and professional work can have important impact because it spurs cities and provinces to benchmark, compete, learn from one another.

I think our collaborations with Shandong Academy of Social Sciences (山东社科院) and Shanghai Academy of Social Sciences (上海社科院) would help us to improve on quality of data and surveys and to move on beyond Shandong. This will have useful contributions as increasingly for ASEAN countries with higher per-capita Gross Domestic Product (GDP) and some of India's better developed cities and states quality of life will become very important.

We have also been able to have very interesting discussions this morning about small and medium enterprises (SMEs) especially after the keynote speech by Professor Lee Pui Mun. This is significant because SMEs constitute 47% of Singapore's GDP and 68% of employment. These figures are even larger for other ASEAN countries. Over the next five years, as the Belt and Road Initiative (BRI) becomes more significant, there is the danger that BRI might just benefit large companies because they have huge resources, big business networks and better government linkages.

It is critical for SMEs to benefit from this growth locomotive and momentum within the ASEAN countries, whether they are suppliers, subcontractors, designers or special service providers. They can hook on to larger companies which rely to the BRI to grow. This will create employment, spread growth around, reduce income and wealth inequality, and thereby maintain social stability. ACI's evidence-based research on SMEs is important in that sense in that it can steer BRI from distorting income distribution further and help to mitigate other development activities which might not be beneficial to SMEs.

Ladies and Gentlemen, the BRI as it is being conceived, I believe it would become an important growth locomotive for ASEAN in the next 20 years. Fortunately, ACI has done a lot of research work and have been updating them which gave us the perspective that ASEAN's physical infrastructure is still weak. Whether you look at Cambodia, Laos, Myanmar, Vietnam or Indonesia, their infrastructure development and investment in roads, airports, seaports, rail, power plants and telecommunications are still far from satisfactory. BRI will improve infrastructure because of the funding and other factors that will come in through international agencies such as the Asian Infrastructure Investment Bank, Asian Development Bank and the World Bank Group.

In my observation, the key trend at the moment is that most of the current research on infrastructure in the world including ASEAN, has been too focused at the national level. You will find this to be the case if you look at the work of the World Bank Group, Asian Development Bank, World Economic Forum or International Institute for Management Development. At ACI, we pioneered the research into competitiveness indicators at the provincial and state level and I think that is very important.

In the future, as more information on infrastructure inadequacy are being revealed at the sub-national level in ASEAN countries, we can help to formulate public policies to improve on some of these areas which would have repercussion and implications for regional inequality. For example over the past ten years we witnessed a lot of in-fighting in Thailand involving protestors wearing "red shirts" and "yellow shirts" which has led to political instability. Additionally, now Yingluck Shinawatra has disappeared. If you look at it carefully, it is caused by regional inequality brought about because Thailand focused too much on the greater Bangkok region at the expense of the north and north-eastern part of Thailand which caused wide polarization within the Thai society. Through the evidence-based research by ACI on regional development infrastructure expansion, we might be able to make some contributions to address some of these issues before they become too polarized and unstable.

Last but not least, on behalf of Professor Tan Khee Giap and myself, we are very grateful that the conference turned out to be a great success. We would like to especially thank all the dedicated ACI staff under the able leadership of taskmaster Ms Yap Xin Yi, who has worked very hard with the ACI team in preparing this event for more than three months, involving an enormous amount of logistics arrangements. In fact, I have heard very good praise for ACI's staff from Dean Kishore Mahbubani and Professor Liew Mun Leong, for their good work in putting together this forum in such a very effective and dedicated way. There is a lot of recognition on this, so please join me in showing your deep appreciation for all the ACI staff who have contributed to this.

Programme

2017 ASIA ECONOMIC FORUM ON "THE ONE-BELT ONE-ROAD INITIATIVE: IMPACT AND IMPLICATIONS"

JOINTLY ORGANISED BY
THE WORLD BANK GROUP
&
ASIA COMPETITIVENESS INSTITUTE (ACI) AT LEE KUAN YEW SCHOOL OF PUBLIC POLICY (LKYSPP), NATIONAL UNIVERSITY OF SINGAPORE (NUS)

Seminar 2: Competitiveness, Trade, Liveability and Productivity in Greater China and India

29 August 2017

Venue: Lobby, Oei Tiong Ham Building, LKYSPP, NUS

Time	Programme
0800 – 0855	**Arrival of Guest-of-Honour, Discussants, Moderators, Presenters and Participants**
0850 – 0900 0900 – 0910 0910 – 0930 0930 – 0950 0950 – 1000	**Welcome Remarks** Ms Fatouma Toure Ibrahima Acting Director and Operations Adviser, World Bank Infrastructure and Urban Development Hub **Welcome Remarks** Professor Danny Quah Vice Dean (Academic Affairs) and Li Ka Shing Professor in Economics, LKYSPP, NUS **Opening Remarks by Guest-of-Honour: "Potential of Vietnam as the Regional Growth Engine"** Dr Vu Tien Loc Chairman and President, Vietnam Chamber of Commerce and Industry; Chairman, 2017 APEC CEO Summit & Member of Parliament, 14th Legislature, Socialist Republic of Vietnam **Keynote Speech: "Productivity and Competitiveness: Performance and Evaluation on Singapore"** Associate Professor Lee Pui Mun Dean, School of Business, Singapore University of Social Sciences **Question & Answer** **Moderator:** Dr Mulya Amri Research Fellow and Deputy Director (Research), ACI-LKYSPP, NUS
1000 – 1015	**Coffee/Tea Break**
1015 – 1130 1015 – 1020 1020 – 1035	**Session 1: Competitiveness, Exchange Rates, and Trade Performance in Greater China** **Moderator:** Mr Luu Nguyen Trieu Duong Research Associate, ACI-LKYSPP, NUS **Session 1a: 2017 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on Greater China Economies: Ensuring Robustness in Academic Benchmarking Studies** **Presenters:** • Dr Zhang Xuyao Postdoctoral Fellow, ACI-LKYSPP, NUS

Time	Programme
	• Mr Gareth Tan Research Assistant, ACI-LKYSPP, NUS • Ms Leong Puey Ei Research Assistant, ACI-LKYSPP, NUS
1035 – 1050	**Session 1b: Impact of Real Effective Exchange Rates on Trade in Goods and Services in Greater China Economies** **Presenters:** • Professor Ramkishen S Rajan Professor, LKYSPP, NUS • Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS • Dr Zhang Xuyao Postdoctoral Fellow, ACI-LKYSPP, NUS • Ms Leong Puey Ei Research Assistant, ACI-LKYSPP, NUS
1050 – 1100	**Discussant 1 for Sessions 1a & 1b:** Professor Wang Jiann-Chyuan Vice President, Chung-Hua Institution for Economic Research, Taiwan, ROC
1100 – 1110	**Discussant 2 for Sessions 1a & 1b:** Dr Li Wei Deputy Director, Institute of Applied Economics, Shanghai Academy of Social Sciences, People's Republic of China
1110 – 1120	**Discussant 3 for Session 1b:** Dr Alan Wong Chair Professor, Department of Finance and Big Data Research Centre, Asia University, Taiwan, ROC
1120 – 1130	**Question & Answer**
1130 – 1330	**Forum Luncheon Talk**
1130 – 1150	**"The Role of Xinjiang Uyghur Autonomous Region as Crossroad for "Belt & Road" Initiative"** **Distinguished Luncheon Speaker 1:** Professor Qiang Shixue Vice President, The Party School of The Xinjiang Production and Construction Corps Committee of CPC & Vice Dean, Academy of Governance, People's Republic of China
1150 – 1210	**"Singapore's Role in the Belt-and-Road Initiative"** **Distinguished Luncheon Speaker 2:** Mr Henry Kwek Member of Parliament & Member, Government Parliamentary Committee for Trade and Finance, Republic of Singapore
1210 – 1220	**Question and Answer** **Moderator** Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS
1220 – 1330	**Lunch**
1330 – 1435	**Session 2 : Competitiveness, Exchange Rates and Trade Performance in India**
1330 – 1335	**Moderator:** Ms Chuah Hui Yin Research Assistant, ACI-LKYSPP, NUS
1335 – 1350	**Session 2a: 2017 Annual Update of ACI's Competitiveness Ranking and Simulation Studies on India's Sub-national Economies: Ensuring Robustness in Academic Benchmarking Studies** **Presenters:**

Time	Programme
	• Dr Sasidaran Gopalan Research Fellow and Deputy Director (Administration), ACI-LKYSPP, NUS • Ms Jigyasa Sharma Research Assistant, ACI-LKYSPP, NUS • Ms Leong Puey Ei Research Assistant, ACI-LKYSPP, NUS
1350 – 1405	**Session 2b: Impact of Real Effective Exchange Rates on India's Trade in Goods and Services** **Presenters:** • Professor Ramkishen S Rajan Professor, LKYSPP, NUS • Dr Sasidaran Gopalan Research Fellow and Deputy Director (Administration), ACI-LKYSPP, NUS • Ms Jigyasa Sharma Research Assistant, ACI-LKYSPP, NUS • Ms Nursyahida Binte Ahmad Research Assistant, ACI-LKYSPP, NUS
1405 – 1415	**Discussant 1 for Session 2a:** Dr Parashar Kulkarni Assistant Professor, Social Sciences (Political Science), Yale NUS College
1415 – 1425	**Discussant 2: for Session 2b:** Dr Arpita Mukherjee Professor, Indian Council for Research on International Economic Relations (ICRIER), New Delhi, India
1425 – 1435	**Question & Answer**
1435 – 1525	**Session 3: Urban Composite Development Index for 17 Shandong Cities: Ranking and Simulation Analysis based on China's Five Development Concepts**
1435 – 1440	**Moderator** Mr Thomas Chan Associate Director, Research Support Unit and Chief Administrator, ACI-LKYSPP, NUS
1440 – 1455	**Presenters:** • Ms Hou Xiaofu Director, Institute of Provincial Situation and Social Development, Shandong Academy of Social Sciences, People's Republic of China • Associate Professor Tan Khee Giap Co-Director, ACI-LKYSPP, NUS • Dr Zhang Xuyao Postdoctoral Fellow, ACI-LKYSPP, NUS • Mr Nguyen Duy Research Assistant, ACI-LKYSPP, NUS • Mr Gareth Tan Research Assistant, ACI-LKYSPP, NUS
1455 – 1505	**Discussant 1:** Dr Li Wei Deputy Director, Institute of Applied Economics, Shanghai Academy of Social Sciences, People's Republic of China
1505 – 1515	**Discussant 2:** Mr Wang Kejian Chairman, Urban Construction Press, People's Republic of China
1515 – 1525	**Question & Answer**
1525 – 1535	**Closing Remarks and the Way Forward** • Professor Tan Kong Yam Co-Director, ACI-LKYSPP, NUS
END OF SEMINAR 2	

Profiles of Speakers, Discussants and Moderators

(in alphabetical order)

Thomas CHAN
Thomas Chan is a Certified Practising Accountant (CPA) graduated from the University of Adelaide with a Bachelor of Commerce degree (Accounting). He has close to two decades of professional experience in the private sector, higher education industry and research sector. His expertise centres on grant management, policy writing and compliance, financial control and management reporting. He is currently the Associate Director at Lee Kuan Yew School of Public Policy, heading the Research Support Unit. He also oversees the administration of Asia Competitiveness Institute. Previously he was at the Centre for Quantum Technologies, the 1st Research Centre of Excellence funded by the National Research Foundation and Ministry of Education managing grants in excess of $30 million a year. His topic interests are politics, international relations, history and heritage.

CHUAH Hui Yin
Chuah Hui Yin currently works as a Research Assistant at Asia Competitiveness Institute (ACI), Lee Kuan Yew of Public Policy, National University of Singapore. Hui Yin holds a Master's Degree in Development Studies from London School of Economics (LSE). She was a recipient of Commonwealth Scholarship nominated by LSE. Prior to that, Hui Yin graduated with a first class honours Bachelor degree in Economics from University of Malaya. At ACI, Hui Yin works on research related to international trade, ASEAN economies and Small and Medium Enterprises. Her research interests include development studies and public policy.

Sasidaran GOPALAN
Sasidaran Gopalan is a Research Fellow and Deputy Director (Administration) at the Asia Competitiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). Prior to joining ACI, he was based in Hong Kong as a Post-Doctoral Fellow at the HKUST Institute for Emerging Market Studies and HKUST Jockey Club Institute for Advanced Study at the Hong Kong University of Science and Technology. Dr Gopalan completed his PhD in Public Policy, specialising in International Finance and Policy at the School of Public Policy, George Mason University, USA. He obtained his Bachelors and Masters' degrees in Economics from Loyola College (Chennai, India) and Madras School of Economics (Chennai, India), respectively. He spent a year at the Indian Institute of Management Bangalore post-graduation as a Research Associate and was subsequently based at the Institute of South Asian Studies at NUS for two years undertaking research on international economic policy issues concerning South Asia. His scholarly publications include several journal articles in refereed international journals including top-tier field journals. He has also co-authored many books, published by leading publishing houses such as Oxford University Press and Palgrave-Macmillan. In addition, he has extensively contributed to book chapters in edited volumes, policy briefs as well as editorial opinion articles for leading global financial dailies. Dr Gopalan's research interests span the fields of international finance and development policy. At ACI, he is the lead coordinator for the flagship projects on India relating to competitiveness analysis, ease of doing business as well as impact of exchange rates on foreign direct investment and trade flows at the sub-national level. He also supervises and contributes to the formulation as well as implementation of several empirical research projects, targeted towards journal publications and broader policy outreach.

HOU Xiaofu
Hou Xiaofu, Professor and Director of Institute of provincial situation and social development, Shandong Academy of Social sciences whose research Interests include rural social development, community construction, grassroots governance, and social impact assessment of investment projects. Professor Hou graduated with a bachelor degree in History from Shandong University. Her major publications are "Status and Development of Social organizations in China, Qunzhong Publishing House, 2005, "Investigation on community construction in urban-rural fringe area of Shandong province", *Chinese Public Administration*, No 7, 2010, "The Social Support Condition of Enhancing Domestic Demand and Consumption", *Shandong Social Sciences*,2010 No.11, "Public participation in environmental management in UK and Its enlightenment to China", *China Population, Resources and Environment,* Vol.14 No.5, 2004. Her academic experience include being a Professor since 2006 and was Associate Research Fellow, 2005-1997. She was a Visiting Scholar, at Development and Planning Unit of the University College of London in 2001. Her professional activities

include being an evaluation expert of government Purchase of Services in Shandong province and was Vice President of sociology society of Shandong province.

Fatouma Toure IBRAHIMA
Fatouma Toure Ibrahima is the Acting Director and Operations Adviser of the World Bank Infrastructure and Urban Development Hub in Singapore, where the World Bank, IFC and MIGA work together to generate direct investments and provide technical assistance for infrastructure and related sectors. Since joining the World Bank in 1998, Fatouma has worked in several sectors, including the finance and energy sector. Prior to joining the Singapore Hub, Ibrahima served as Regional Representative for the Public Private Partnership Infrastructure Facility (PPIAF), in charge of the West, Central and North Africa portfolio, and Senior Financial Sector Specialist and Task Team Leader in the Africa region, where she led the design and implementation of various country and regional-level energy projects. A national of Mali, Fatouma has also served as Special Assistant in the office of the World Bank Group Managing Director and Chief Financial Officer, and as Financial Sector Specialist in the Middle East and North Africa Region, where she managed financial sector and financial system infrastructure projects and contributed to the Financial Sector Assessment Program.

Parashar KULKARNI
Parashar Kulkarni is an Assistant Professor of Social Sciences at Yale-NUS College. His research interests are in political economy, development, and comparative politics. He has worked on research projects with several organizations including the UNDP, UNRISD, and Oxfam GB.

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 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.

LEE Pui Min
Lee Pui Mun is a faculty member in the School of Business at the Singapore University of Social Sciences, and is currently the Dean of the School of Business. Besides managing the school, his research interests are in in the areas of business excellence, business analytics, performance analysis and leadership. He has published widely in journals and conference proceedings. He also regularly provides management consultant services to major organizations. He is member of the Management Systems Standards Committee in Singapore and has served as a Singapore Quality Award Assessor in many annual award cycles.

LEONG Puey Ei
Leong Puey Ei is currently working as Research Assistant at the Asia Competitiveness Institute, Lee Kuan Yew School of Public Policy, National University of Singapore. She graduated from Singapore Management University, majoring in Finance in 2017. Puey Ei is currently assigned to the Productivity Tracking and Efficiency Monitoring Project for small and medium enterprises (SMEs) in Singapore. She is also currently assisting in the Shandong Urban Development Index project, as well as the Competitiveness Analysis for Greater China Economies and sub-national economies of India.

LI Wei
Li Wei, male, researcher, PhD in economics, PhD mentor, deputy director of Institute of Applied Economics in Shanghai Academy of Social Sciences, chief economist of industrial economics innovation, mainly engaged in industrial organization, industrial structure and industrial policy, industrial development planning and government regulation, and other related research. He has published dozens of papers in core journals such as "Management World", "Science Research Management" and more. Headed research projects at both the provincial and ministerial levels and handled more than 50 government commissioned projects at all levels. As the overall project in charge, he has led one of the three research series on industrial systems and industrial transformation during the 12th and 13th Five-Year Plans. He

has also been actively involved in urban policy research organized by the Shanghai municipal government. He continues to be the lead in charge of writing the Shanghai Industrial Development Report for years.

LUU NGUYEN Trieu Duong

Luu Nguyen Trieu Duong is a Research Associate at the Asia Competitiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). Luu graduated from NUS in 2015 with a Second Upper Class Honours Bachelor of Social Sciences in Economics. Luu was a recipient of the ASEAN Undergraduate Scholarship and was placed on the Dean's List and Dean's Scholar List on separate occasions during his course of study. At ACI, he is the lead coordinator of the ACI's flagship project "Cost of Living, Wages and Purchasing Power Indices for Expatriates and Ordinary Residents in World's Major Cities", the lead coordinator of the project "Econometric Modelling of Domestic and External Engines of Growth for ASEAN Economies" and the co-coordinator of the ASEAN research cluster overseeing all projects related to ASEAN-10. He also participated extensively in the research on growth slowdown analysis by income thresholds, the study on the effects of exchange rate on foreign direct investments and the research on the effects of exchange rate on export for ASEAN economies. Luu has co-authored journal article, books and editorial-opinion on cost of living in world's major cities as well as economic development in ASEAN economies. Luu's research interests include growth and development, ASEAN economies, applied econometrics, international trade and public economics.

Arpita MUKHERJEE

Dr Arpita Mukherjee is a Professor at ICRIER. She has several years of experience in policy-oriented research, working closely with the government in India and policymakers in the European Commission and its member states, United States, Association of Southeast Asian Nations and in East Asian countries. She has conducted studies for international organizations such as Asian Development Bank, Asian Development Bank Institute, ASEAN Secretariat, Foreign and Commonwealth Office, United Kingdom Trade and Investment, Italian Trade Commission, Konrad-Adenauer Stiftung, Organisation for Economic Co-operation and Development, Taipei Economic and Cultural Centre, United Nations Conference on Trade and Development, World Bank and the World Trade Organization (WTO). She has worked with Indian industry associations such as National Association of Software and Services Companies, Federation of Indian Chambers of Commerce and Industry, Indian Beverage Association, Indian Direct Selling Association and Express Industry Council of India and foundations such as Amway Opportunity Foundation. Her research areas include trade and investment in services; special economic zones; economic corridors; food supply chain; retail; migration and labour market; WTO; bilateral and regional agreements. Her research is a key contributor to India's negotiating strategies in the WTO and bilateral trade agreements. She has authored chapters in Joint Study Group reports set up by Indian government and has led research teams contributing to India's domestic policy reforms in areas such as logistics, retail, special economic zones and mega food parks. Dr Mukherjee has a PhD in Economics from the University of Portsmouth, UK. She has published widely in national/international referred journals and books/book chapters. Dr Mukherjee is a member of various government committees and policy panels and is in the editorial board of several journals. She has presented her work in different international events. She is a regular contributor to newspapers and magazines.

Mulya Amri

Mulya Amri is a Research Fellow and Deputy Director (Research) at the Asia Competitiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore (NUS). He has held a key role in ACI's research on Indonesian sub-national competitiveness since 2011, including co-writing three books on the topic, the latest one titled "2015 Annual Competitiveness Analysis and Development Strategies for Indonesian Provinces". He is also closely involved in ACI's research on city liveability and competitiveness, and has written widely on the topic of urban development and city-level governance. Mulya has 15 years of working experience in the private, public, and non-profit sectors. Upon moving to Singapore in 2008, he worked with HOK (a global planning and architecture consultancy firm) on city planning projects throughout Asia, and with Jurong Consultants (the consultancy arm of Singapore's JTC Corporation) on the planning of industrial zones in the Middle East. Prior to that, Mulya worked with international development agencies such as the World Bank, UNDP, and UN-HABITAT on projects related to urban and housing development, local governance, as well as community-driven development in various Indonesian regions. He is also a co-founder and sits on the advisory board of COMBINE Resource Institution, a non-profit organization based in Yogyakarta, Indonesia. Mulya has a PhD degree in Public Policy from NUS. Prior to that, he graduated with a bachelor's degree from Institut Teknologi Bandung, Indonesia, and was awarded the Fulbright scholarship to study for a Master's degree in Urban Planning at the University of California, Los Angeles, and a Chevening award to study at the London School of Economics and Political Science.

NGUYEN Duy

Nguyen Duy is a Research Assistant at the Asia Competitiveness Institute (ACI), Lee Kuan Yew School of Public Policy, National University of Singapore. Duy received his Bachelor (Honors) degree in Biology with first class from NUS and was also a recipient of the ASEAN Undergraduate Scholarship. His most recent publications are: "How Do Exchange Rates Affect Foreign Direct Investment Inflows?" and "Impact of Real Effective Exchange Rate Movements and Volatility on Foreign Direct Investment Inflows into Indonesia: An Empirical Assessment". His interests and also current researches in ACI are applying econometric methodology such as Vector Error Correction Model in regressing and forecasting economic entities, constructing competitiveness ranking and simulation studies for ASEAN-10 countries, building survey and collecting data of Small and Medium-sized Enterprises (SMEs) in Singapore, and investigating Cost of Living for expatriates and ordinary residents in cities across the world.

Nursyahida Binte 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.

QIANG Shixue

Qiang Shixue, male, Han nationality, born in July 1964, Changan, Shaanxi Province, China, members of the Communist Party of China, Professor of economics, Master of public administration and management, Singapore National University, the graduate tutor in China Shihezi University. The vice president of Party school and the vice dean of administrative college of China's Xinjiang Production and Construction Corps (hereinafter referred to as the Corps); Director of China Agricultural Reclamation Economic Association; The vice president of macroeconomic society, and the vice president of law society of Corps; Standing director and deputy secretary-general of Xinjiang Reclamation Economic Association. My main direction of academic research is the evolution process and main features of Corps' industrial structure. I published more than 40 academic papers; Published and edited, as editor in chief, 20 academic works; Presided over and completed five national projects, presided over 13 academic works "Xinjiang Changzhi Jiu'an series" supported by the national publishing fund; Presided over and completed five provincial and ministerial projects; Presided over more than 30 projects entrusted by the Corps Development and Reform Commission, the Commerce Bureau and other relevant departments. In the past 20 years, my research has mainly focused on the issues of the optimization and upgrading of the industrial structure of the Corps and the leap-forward development of the Corps, for example, the international competitiveness of the Corps, the agricultural structure of the Corps, the interrelationship between the agricultural and industrial development of the Corps, the new level of industrialization of Corps, the issues on the development strategy of "Going-out", the development of the Corps' characteristics industry, the role of Corps listed companies on the restructuring of the economic structure and changes in the development, and so on.

Danny QUAH

Danny Quah is Li Ka Shing Professor in Economics and Vice Dean Academic Affairs at the Lee Kuan Yew School of Public Policy, National University of Singapore. His current research takes an economic approach to world order, studying the supply and demand of world order: on the one hand, what international system the world's superpowers provide, and on the other, what world order the global community needs. Quah uses this to recast analysis of global power shifts, the rise of the east, regional order, and models of global power relations. Quah is the author of "The Global Economy's Shifting Centre of Gravity". He gave the third LSE-NUS lecture in 2013, TEDx talks in 2016, 2014, and 2012, and the Inaugural LSE Big Questions Lecture in 2011. Quah was previously Assistant Professor of Economics at MIT, and then Professor of Economics and International Development, and Director of the Saw Swee Hock Southeast Asia Centre at LSE. He had also served as LSE's Head of Department for Economics, and Council Member on Malaysia's National Economic Advisory Council. Since 2016 his has been named one of the top 100 Economics blogs in the world. Quah's research has been supported by the Khazanah Research Institute, the John D. and Catherine T. MacArthur Foundation, the British Academy, the UK's Economic and Research Council, and the Andrew Mellon Foundation. Quah has written on a range of different topics including timeseries econometrics, spatial econometrics, income inequality, economic convergence and growth, inflation, new technologies, and sources of economic fluctuations. Quah studied at Princeton, Minnesota, and Harvard.

Ramkishen S RAJAN

Ramkishen S. Rajan (PhD Claremont) is a Professor at the Lee Kuan Yew School of Public Policy, National University of Singapore. Prior to this, he was a Professor of Economics at ESSEC Business School, Asia-Pacific. From 2006 to 2016, he was a Professor of International Economic Policy at the Schar School of Policy and Government, George Mason University (GMU) in Virginia, USA. In the past, he has taught at the University of Adelaide in Australia, Claremont Mckenna College and Claremont Graduate University in California, Singapore Management University and Nanyang Technological University in Singapore. He specializes in international finance with particular reference to the developing Asia-Pacific region. He has published numerous books, journal articles and book chapters and a number of policy briefs, op-eds and book reviews on various aspects of international economics.

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 recently graduated from NUS with a degree in Master of Social Science in Applied Economics. At ACI, she is working on a wide range of projects. She is the co-coordinator for ACI's flagship project on Annual Competeveness Analysis of 36 Indian Sub-National Economies. 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, Special Economic Zone Index on Accessibility, Infrastructure and Development for Indonesia and Sub-national Infrastructure Index for Indonesian Provinces. Her research interest includes Development Economics, Financial Economics, Urban Economics, International Economics and Political Economy.

Gareth TAN Guang Ming

Gareth Tan Guang Ming is a Research Assistant at the Asia Competitiveness Institute (ACI), at the Lee Kuan Yew School of Public Policy, National University of Singapore. Graduating with a First Class Honours from the University of York at undergraduate level, Gareth subsequently pursued a Masters in World Literatures in English at the University of Oxford, from which he graduated with a Distinction in 2016. Signing on with the ACI in early 2017, Gareth is currently assisting with the compilation of materials for the institute's OUE Business Case Study project, as well as taking part in ongoing data collection and analysis efforts for the ACI's ambitious Small and Medium Enterprise (SMEs) Productivity Tracking and Efficiency Monitoring index. He is also assisting with ongoing efforts to update ACI's Cost of Living, Wages and Purchasing Power, and Global Livable Cities Indices. Gareth has co-authored an op-ed entitled "Forging a new consensus for the future economy", which was published in The Straits Times. His research interests include economic development within ASEAN, as well as the intersections between foreign policy and economic growth vis-à-vis ASEAN member states.

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 (NUS). 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, NUS, 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. 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 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 econometric forecasting, Cost of Living Index, Global Liveable Cities Index and competitiveness analysis on 31 provinces in China, 35 states in India, 33 provinces in Indonesia and ASEAN-10 economies. Dr Tan was Deputy President of the Singapore Economic Society, 2004. He served in the 2002 Economic Review Committee (ERC), and was Chairman of the Task Force on Portable Medical Benefits (PMB) and Deputy Chairman of the IPS Forum for Economic Restructuring (IFER) in 2003. He is a member of the Resource Panel of the Government Parliamentary Committee (GPC) for Transport, GPC for Finance and Trade & Industry and GPC for Defense and Foreign Affairs since 2007. Dr Tan has extensively advised and guided multinational corporations leading to public listings especially those companies from Mainland China and Taiwan. He is also currently an Independent Director of the publicly listed BreadTalk Group, Boustead Projects, 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.

VU Tien Loc
Member of Parliament of 14th Legislature (2016 – 2021),
Chairman and President of Vietnam Chamber of Commerce and Industry
Chairman of APEC CEO Summit 2017
Dr Vu Tien Loc has been President and Chairman of the Vietnam Chamber of Commerce and Industry since 2003. He is a senior Member of the National Assembly since 2001, and is a member of its Economic Committee. Dr Loc is also President of ASEAN Chamber of Commerce and Industry. Born in the northern coastal province of Thai Binh in 1960, Dr Loc holds a number of influential positions within Vietnam's political structures. These include, but are not limited to: Chair of the Central Council for Vietnamese Businesses, Co-Chair of the Vietnam Business Forum (VBF), and Vice Chair of the Prime Minister's Advisory Council for Administrative Procedures Reform; Dr Loc has been at the forefront of establishing formal business associations and having business and entrepreneurship recognized by Government and the Party as a praiseworthy sector. For example, he was first to coin the phrase "Entrepreneurs – Soldiers in Peace Time". Dr Loc was a driving force behind the Resolution on Entrepreneurs which was approved by the Vietnam Communist Party in 2013 as its first Party Resolution (09NQTW) to formally recognize and endorse entrepreneurship. Such has been Dr Loc's centrality to business advocacy is that in 2013 he proposed to – and convinced – the National Assembly that business and entrepreneurship be recognized in the Constitution of Vietnam. Dr Loc is the Director of the National Project on Improving Vietnam's Competitiveness. He has overseen creation of the Provincial Competitiveness Index (PCI) and the Ministerial Effectiveness Index (MEI) in order to motivate the reform process and improve authorities' governance. He has chaired and directed the implementation of first development programs for Small and Medium Enterprises. Dr Vu Tien Loc has a PhD in Economics, Senior Political Theory. He has chaired many research projects and lectured at several major universities in Vietnam and abroad

WANG Jiann-Chyuan
Wang Jiann-Chyuan graduated from Dept of Economics, National Taiwan University in 1982. In 1989, he obtained his PhD Degree from Dept of Economics, Purdue University, USA. Since then, he joined Chung-Hua Institution for Economic Research (CIER), one of the most regard economics think tank in Taiwan. He has served CIER for 28 years. His current position is vice president and director for Taiwan Economy Division. He is also an adjunct professor at National Taiwan University of Science and Technology. Dr Wang majors in industrial economics and industrial policy. He participated in more than two hundred projects. He published several books and about 20 papers in SSCI or EI journals. In addition, he also writes articles commenting major economic issues in Taiwan's newspapers.

WANG Kejian
Wang Kejian, born in 1965, is a senior engineer with a MPAM graduate degree from Lee Kuan Yew Public Policy School, National University of Singapore. Mr Wang is president of the Urban Construction Magazine; deputy director

of the Commercial Network Construction and Development Centre of State-owned Assets Supervision and Administration Commission of the State Council, the People's Republic of China. Since 2008, Mr Wang has published more than 200 articles related to the urban construction and social development such as "China Power", "Building Energy Conservation has a Long Way to Go", "Green Building- the New Coordinates of Urban Construction", "The Development, Protection and Utilization of Traditional Culture in the One Belt and One Road Strategy". Mr Wang was director of the organizing committee of the China Urban Construction Summit from 2009 to 2012, as well as director of the organizing committee of the 2014 Asia-Pacific Urban Construction and Development Summit. In 2007, Mr Wang was named the "Driving Force of Urban Construction Figures of China". In 2009, he won the "China City Construction Special Contribution Award". In 2010, he was named the "China Urban Construction Figures with Special Contribution".

Alan WONG Wing Keung

Professor Wong, Wing Keung obtained his PhD from the University of Wisconsin-Madison, USA with major in Business Statistics (Statistics and Finance) and obtained his Bachelor degree from the Chinese University of Hong Kong, Hong Kong, with a major in Mathematics and a double minor in Economics and Statistics. Currently, he is a Chair Professor at the Department of Finance, Asia University. He was Full Professor at the Department of Economics, Hong Kong Baptist University and Deputy Director in at Risk Management Institute, National University of Singapore. He has been serving international academies, Government, society and universities, providing consultancy to several Government departments and corporations, and giving lectures and seminars to several universities. For example, he has been serving as editor, guest leading editor, advisor, associate editor for some international journals, appointed as an advisor/member of various international associations/institutes, serving as referee for many journals/conferences, supervising solely or jointly several overseas graduate students, appointed as external reviewer and external examiner by other universities, and invited by many universities/institutions to present papers or conduct seminars. He has published more than two hundred papers.

ZHANG Xuyao

Zhang Xuyao is a Postdoctoral 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 her 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, he is the coordinator for the Competitiveness Analysis for Greater China Economies and the Shandong Urban 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 and the Infrastructure index.

Channel 8 News and Current Affairs, 28 August 2017

9/18/2017 尚穆根：智库扮演着重要角色 必须保持客观 - 8频道新闻及时事节目

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尚穆根：智库扮演着重要角色 必须保持客观

2017年8月28日 22:05

内政部长尚穆根（照片：TODAY档案图片）

内政部兼律政部长尚穆根表示，智库扮演着重要角色，可提供不同的观点，但关键是智库必须保持客观。

尚穆根在"一带一路倡议：效果与影响"亚洲经济论坛上，答复有关智库和商人在同其他国家建立关系，扮演着什么角色的提问时，表示这点。

尚穆根说，学者如果被外国政府收买，表面上以客观和学术自由之名，呈现出一套观点，而隐藏的议程却是要影响新加坡的政策，这是无法被接受的。

尚穆根说，智库必须时时保持警惕，而真正的学者能提出具学术性且实用的观点，来帮助国家。不过，这不意味着智库必须认同政府的做法，智库甚至是可以客观地挑战政府，或者其他人的观点的。

针对商人的角色，尚穆根指出，商人在同国外建立关系时扮演重要角色，然而有时政府无法接纳商人的建议，是因为商人有商业的考量，而政府必须考虑到整个国家的利益。

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http://www.channel8news.sg/news8/latestnews/20170828-sg-thinktank/3811016.html news

Home Affairs and Law Minister explains crucial role of think-tanks in S'pore

Think-tanks must be objective: Shanmugam

ELGIN TOH, THE STRAITS TIMES

Think-tanks may disagree with the Government, but they must not do so under the influence of a foreign country, Home Affairs and Law Minister K. Shanmugam said yesterday.

While such institutions play an important role — to explore issues civil servants may not be able to — they must maintain an independent stance.

"Objectivity is critical," he said at a forum by the Lee Kuan Yew School of Public Policy.

His remarks come shortly after an academic was rapped for working with a foreign government to influence Singapore's foreign policy.

Dr Huang Jing, 60, who was from the Lee Kuan Yew School of Public Policy, had his permanent residency cancelled this month after the Home Affairs Ministry labelled him "an agent of a foreign country".

While Mr Shanmugam did not refer to a specific case, he said it was unacceptable for academics to be "suborned" and to project views of a foreign country "under the guise of objectivity and academic freedom", with a hidden agenda of influencing Singapore's policies.

He said academics do so because they are "working with foreign intelligence" or because they are "seduced by them".

He was responding to a question about the role of think-tanks and businessmen in foreign relations.

Mr Shanmugam said the late deputy prime minister Goh Keng Swee set up think-tanks to provide fresh perspectives and prevent groupthink.

Dr Goh pictured think-tanks challenging the Government's views at times and being knowledgeable, objective and clear.

"Dr Goh would certainly turn in his grave if he thinks that the think-tanks he set up or was responsible for have become instruments of influence for other countries," he said.

He added that think-tanks should challenge the Government "where (the Government) needs to be challenged".

Academics ought to be "real scholars and put forward (not just) scholarly viewpoints, but practical ones, that help the country".

Turning to businessmen, he said they played a key role in expanding Singapore's gross national product and in building good economic relations with other countries, which helps Singapore's foreign relations.

But both businessmen and the Government should "understand where the line is drawn", and the Government cannot take the advice of businessmen due to the different perspectives.

Home Affairs and Law Minister K. Shanmugam was responding to a question at a forum by the Lee Kuan Yew School of Public Policy. PHOTO: **THE STRAITS TIMES**

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Prime Minister Lee Hsien Loong's Facebook Page, 31 August 2017

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Lee Hsien Loong
31 August at 18:02

Minister K Shanmugam Sc gave a good speech on the impact of China's 'One Belt, One Road' (OBOR) initiative, and what it offers Singapore, at the 2017 Asia Economic Forum.

The OBOR is a bold vision to link countries across Europe and Asia together, recreating a modern day Silk Route, and engaging China with the world. If successful, it will bring prosperity to many countries – especially in ASEAN. Singapore stands to benefit greatly, as the OBOR means better connectivity in our region, and new economic opportunities for us.

We must take full advantage of the OBOR. As Minister Shanmugam pointed out, we may be small, but by thinking boldly and acting swiftly, and not being complacent, we can keep our place in the sun.

You can read the transcript of the speech here: http://bit.ly/2xxlWZw

– LHL

内政部长兼律政部长尚穆根在"一带一路倡议：效果与影响"亚洲经济论坛上，重申新加坡对一带一路和亚投行的支持。中国的一带一路倡议是大胆和创新的愿景。这项倡议能拉近亚细安和中国和欧亚的关系。– 李显龙

Singapore in 'a position to benefit' from Belt and Road push

Having recognised early the benefits of China's One Belt, One Road (OBOR) push, Singapore has actively supported it and is well-positioned to make gains from it....

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