ACI Research Projects: Summary Report

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In 2016 ACI was ranked 13th globally, 2nd in Asia and 1st in Singapore amongst 90 think-tanks world-wide under the “Best University Affiliated Think-Tank” category by Think-Tanks & 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:

A - Analytical inputs to initiate policies for policy-makers and business leaders in Asia
C - Capacity building to enable others through improvement in productivity and efficiency
I - Intellectual leadership to create pragmatic models of competitiveness and inclusive growth

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

Vision and Mission

• ACI’s over-arching vision is to build up its research credibility with policy impact, contributing as a professional, world-class think-tank.
• ACI’s mission is to establish our niche as a leading policy think-tank by identifying competitiveness trends, opportunities and challenges, as well as promoting competition and 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.

Key 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 states and federal territories of India and 33 provinces of Indonesia.
V. We have signed Memoranda of Understanding with The World Bank (2016 and 2015), SPRING Singapore (2014) and European Central Bank (2014).
VIII. We have signed Memoranda of Understanding with 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).
Founding Patron and International Advisory Panel

Founding Patron: Mr George Yeo
Visiting Scholar, Lee Kuan Yew School of Public Policy, National University of Singapore
& Former Minister of Foreign Affairs, Singapore

International Advisory Panel

Co-Chairs: Professor Michael Porter (2006-2010)
Bishop William Lawrence University Professor

Ms Marjorie Yang (2006-2012)
Chairman, Esquel Group

Members: Professor Kishore Mahbubani
Dean, Lee Kuan Yew School of Public Policy, National University of Singapore

Dr Kuntoro Mangkusubroto
Head, President’s Delivery Unit for Developing Monitoring and Oversight (UKP4), Indonesia

Mr Narayana Murthy
Chairman, Infosys Technologies Limited

Mr Philip Yeo
Chairman, SPRING Singapore

Mrs Ow Foong Pheng
Permanent Secretary, Ministry of Trade and Industry

Ms Yong Ying-I
Permanent Secretary, Public Service Division

Professor Chan Kam Leung Alan
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)
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.
ACI’s research on the relative competitiveness of the economies in the ASEAN region as well as its analysis of the sub-national economies of China, India and Indonesia helps fill a critical gap in the understanding of economic growth and living standards in Asia. The Institute’s research helps lay the groundwork for several local and national governments in the region to frame and improve their competitiveness policies, and provides guidance for businesses seeking to enter these markets.

RESEARCH OUTPUT AND ACCOMPLISHMENTS FROM FY 2012-2015

19 BOOKS
ACI’s books highlight the dynamics of competitiveness and productivity in China, India and the ASEAN economies.

20 CONFERENCES, REVIEW SEMINARS AND ROUNDTABLES
ACI regularly convenes regional and global policymakers and business leaders to deliberate on our research findings and further our research agenda.

24 JOURNAL ARTICLES
ACI’s articles appear in refereed international journals published in the UK, US and Latin America, spanning the fields of economics, public policy, development and international business.

30 ACI POLICY PAPERS
ACI’s policy papers, catered to senior government officials, translate ACI’s rigorous technical research into comprehensible terms and highlight real-world policy implications.

37 ACI TECHNICAL RESEARCH PAPERS
ACI’s technical research papers, catered to policy think-tanks and academic institutions, are empirically rigorous, transparent and supplemented with evidence from the ground.

19 OP-EDS/POLICY BRIEFS
ACI academics regularly contribute opinions on salient regional political and economic affairs to top local and regional media.

2,191 MEDIA MENTIONS SINCE 2010
ACI’s research is regularly cited by prominent local and regional media outlets, including The Straits Times, Lianhe Zaobao, The Jakarta Post, Xinhuanet.com, thetalpeetimes.com, and The Times of India.

100 MOUs AND LOIs
ACI has established a wide network of governmental and academic partners from China, ASEAN and India. The Institute also works with multilateral institutions such as the World Bank and the European Central Bank.
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The ‘ACI Research Projects: Summary Report’ is intended to give a broad overview of the research projects undertaken by the Institute. As highlighted in the ACI Impact Report, besides research, the Institute engages in outreach and convening activities in order to expand our footprint of impact and bring home the necessary data in order to conduct the research. Nevertheless, this summary report hopes to give the reader interested in our research output an indication of the type of research ACI ultimately engages in.

For the convenience of the reader, the research projects are categorised into four different sections, as highlighted in the Contents page on Page 5, and extracted below. These categories have been applied specifically for the summary report for ease of navigation for the reader. The categorisation of our ideological research pillars are as listed and expounded on Page 3.

- **flagship research projects**
- **thematic studies**
- **master plan & reports**
- **recently completed projects**

1. The first category ‘flagship research projects’ refers to the Institute’s annual sub-national competitiveness research and other flagship studies on economies, which focus on China, India, and Indonesia, and ASEAN on an ongoing basis.
2. The second category ‘thematic studies’ refers to the Institute’s ongoing research with thematic applications to the competitiveness of economies.
3. The third category ‘master plan & reports’ refers to bespoke master plans created for India and ASEAN, as well as a case study report on a successful family business.
4. The fourth category ‘recently completed projects’ amalgamates the collection of research done in the recent past.

Each research project summary contains the following information about the research:

- **Objective:** Provides the background and rationale of the research project.
- **Scope:** Explains the project’s coverage of geography and timeframe.
- **Methodology:** Furnishes the gist of the methodology used in the project.
- **Data:** Lists the data sources referenced in the project.
- **Related Research Outputs:** Lists the related research outputs in terms of book publications, journal papers, ACI policy research papers, ACI technical working papers, ACI policy briefs, editorial-opinions, and ACI research missions reports.

The next section explains the Institute’s basic methodology used for research involving competitiveness analysis. As many projects adopt this framework, it would be useful to have an idea of the common methodology that is fundamental to our quantitative analysis.

The complete master list of research outputs can be found in the Appendix of the report on Page 64.
ACI’s competitiveness research employs a common underlying methodology akin to that adopted by the World Competitiveness Yearbook. ACI’s methodology encompasses a comprehensive and multi-dimensional set of factors that would critically influence a nation’s ability to advance its economic growth and enhance the living standards of its people. The analysis begins by first defining economic competitiveness through four categories, or ‘environments’, namely:

(i) Macroeconomic Stability;
(ii) Government and Institutional Setting;
(iii) Financial, Businesses and Manpower Conditions; and
(iv) Quality of Life and Infrastructure Development.

These environments carry equal weightage (25%) in the computation of the Overall Competitiveness score. To rank the economies’ competitiveness level, ACI utilises a nested approach, with three sub-environments under each of the four environments. We use a statistical method based on ‘standardised scores’, which allows us to assess the relative performance among economies, or, in statistical terms, how many standard deviations away each economy is from the ‘average’ economy. The standardised scores for each indicator are first aggregated at the sub-environment level, then re-aggregated at the environment level, and finally aggregated again to produce the Overall Competitiveness scores.

‘What-If’ Simulation Analysis

Once the ranking exercise is completed, ACI conducts a ‘what-if’ competitiveness simulation exercise, which is based on an imaginary improvement of each economy’s bottom 20% indicators and a re-calculation of the economy’s standardised score following such an improvement. The simulation exercise shows how an economy’s competitiveness ranking can improve if that economy improves on its sets of weakest indicators.
All the labeled figures listed below have been generated by ACI for the purpose of the research they are listed under.

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Flagship Research Projects
1. Annual Competitiveness Ranking and Simulation Studies of ASEAN-10

Objective
ASEAN-10 joins Greater China and India as ACI’s flagship projects, completing ACI’s abbreviations as standing for ASEAN-China-India. The regional grouping is at an exciting crossroads as the world’s seventh largest economy with the ASEAN Economic Community (AEC) scheduled to be established by end 2015 aiming to strengthen regional economic integration toward a ‘single market and production base’. On the flip side, the development gap within the bloc remains stark, particularly between Cambodia, Laos, Myanmar and Vietnam and the more mature ASEAN-6. ACI’s annual study on ASEAN-10 offers an in-depth assessment of competitiveness at the national level for individual member states, thereby enabling policymakers to identify gaps to be addressed to improve national competitiveness and achieve convergence.

Scope
The study covers the ten members of ASEAN, namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam, ACI’s competitiveness analysis of ASEAN-10 goes beyond ranking to offer constructive policy recommendations on how individual member states can improve their rankings vis-à-vis their regional peers. With such a regional focus, ACI also seeks to contribute to realising the AEC which is currently work-in-progress. The study period is from 2000 to the present and our findings are updated annually.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. There is a total of 121 indicators used in ACI’s competitiveness rankings and simulations for ASEAN-10.

Data
The data used in this study were collected from World Bank World Development Indicators, Asian Development Bank (ADB) and World Economic Forum Global Competitiveness Index. Other sources include Economist Intelligence Unit (EIU), Global Market Information Database (GMID),

**Related Research Output**

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Objective

China is the second largest economy in the world and a major trade partner for many countries in ASEAN as well as other parts of the world. How China would fare economically matters not only to its own people but also carries great impact on the stability and prosperity of the region and the world. Underpinning the phenomenal growth China experienced over the last three decades since its reform and opening up, there is at play the concept of competitiveness, a core notion in economic analysis, which will continue to be a critical factor determining the trajectories of China’s further reform and development. Against this backdrop, through a methodical analysis of competitiveness at sub-national levels using an evidence-based, empirical approach involving a comprehensive list of tell-tale indicators and by conducting what-if policy simulations, ACI aims to give an objective assessment of competitiveness for the 34 economies and five regions of Greater China, to form an valuable source of reference to inspire better government policy formulation as well as business strategic planning.

Scope

The study covers 34 Greater China economies to include the Special Autonomous Regions as Hong Kong and Macau, as well as Taiwan for completeness in Greater China economies as a competitive grouping. The study period is from 2000 to the present and our findings are updated annually.

Methodology

This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. There is a total of 102 indicators used in ACI’s competitiveness rankings and simulations for Greater China economies.
Data
The data used in this study were collected from China Statistical Yearbook, China Provincial Statistical Yearbook, Hong Kong Annual Digest of Statistics, Macau Yearbook, Taiwan Statistical Yearbook.

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India joins ASEAN including Indonesia, with Greater China economies as ACI’s flagship projects, completing ACI’s abbreviations as standing for ASEAN-China-India. India is at an exciting crossroads which will certainly be as epochal as any Asian giant emerging to shake the world. With its billion-plus population to match China’s, but with a youth dividend in contrast to ageing China, this project offers an in-depth analysis of India’s competitiveness at the sub-national level. The research outcome finds that business opportunities are available for all, in and outside India. Many policy implications are offered in what-if policy induced simulations for India’s local and central governments to consider to improve their competitiveness.

Scope
The study covers all 35 states federal territories and by regions. The five regional groupings are based and aligned on the Confederation of Indian Industry (CII) classification. The study period is from 2000 to the present and our findings are updated annually.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. Comparative analysis is further conducted by considering the 35 sub-economies as Top 10 (at the top range of competitiveness), Middle 15 and Bottom 10, which provides further insights and nuances in making objective assessments on their respective strengths.
and weaknesses. There is a total of 75 indicators used in ACI’s competitiveness rankings and simulations for India.

### Data

The data used for this study were collected from various sources in India official agencies for statistics, both from the central government such as the Ministry of Statistics and Programme Implementation (MOSPI), Reserve Bank of India (RBI), among others, augmented by other international sources such as United Nations Development Programme (UNDP) and the World Bank. Apart from official data from India and other international sources, intensive surveys were conducted in numerous field trips to the states and union territories in India.

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4. Provincial and Regional Competitiveness Analysis and Simulation Studies in Indonesia

Figure 5: Overall Competitiveness Ranking and Standardised Scores for Indonesia (2014 Ranking)

Objective
As an archipelagic country, Indonesia has more than 17,000 islands divided across 34 provinces. Diversity exists in all aspects, from resource endowments to stages of development to varied ethnic groups. Regional policy is no doubt becoming more important in responding to the windows of opportunities and demands of different regions so as to improve policy effectiveness and economic efficiency. With Indonesia’s rising economic importance in Asia and the world, understanding the competitiveness dynamics in this country brings enormous values, especially when adopting more granular analysis at the sub-national level. It is with this context that ACI undertook this research to track competitiveness of Indonesian provinces across the year.

Scope
The study covers 33 provinces and six regions in Indonesia. The newly created province, North Kalimantan is not yet included pending data availability. The study period is from 2010 to the present and our findings are updated annually.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. On top of that, competitiveness analysis at the regional level is also conducted, using classification adopted in the Master Plan for Acceleration and Expansion of Indonesia’s Economic Development 2011 to 2025 (MP3EI).

Data
Data for the 104 indicators used in this study came from various sources. Most of the data (79 out of 104 indicators, approximately 76%) were from the year 2011, taken from official sources, such as the Central Statistical Bureau (Badan Pusat Statistik), Central Bank (Bank Indonesia), Ministry of Health, etc. These were secondary quantitative data. A smaller portion of the data (25 out of 104 indicators, approximately 24%) was sourced through perception surveys conducted in each province. Three types of stakeholders were surveyed separately in each province: (1) business owners and operators, (2) provincial government, and (3) academics. Responses from the three different
stakeholders were aggregated at the province level, with the intention that one stakeholder group can provide a balancing view for the other stakeholders.

**Related Research Output**

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5. Annual Tracking of World’s Major 103 Cities on Cost of Living, Wages, and Purchasing Power for Expatriates and Ordinary Residents

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Figure 6: Ranking of Cost of Living for Expatriates vs. Ordinary Residents in 103 World’s Major Cities (2014 List of Top 20 Rankings)

Objective

Cost of living, wages and purchasing power are key benchmark indicators to track and monitor basic living standard for cities. They are important for employers and employees and matter even more for multinational corporations, policy makers and especially for the government of the day. The ACI’s study provides annual cost of living indices and rankings for expatriates and ordinary residents. In addition, we also present annual indices and rankings of wages and purchasing power for the latter group. Our rigorous methodology is explained openly, data sources are explicitly disclosed and our assumptions are laid down in a transparent approach.

Scope

The study covers 103 major cities across six continents – Africa, Asia, Australasia, Europe, North America and South America. The study period is from 2005 to the present and our findings are updated annually.

Methodology

The ACI cost of living indices for expatriates and ordinary residents consist of 10 Consumption Categories, which cover 165 products and 283 price data entries for each city. Both indices use New York as the base city (New York index value = 100). The cost of living index for expatriates is obtained by dividing the weighted average of average prices in a city with the weighted average of average prices in New York and multiplying the resultant ratio by 100. The cost of living index for ordinary residents is constructed in a similar manner, with the inclusion of appropriate adjustment factors. Item weights for expatriates are the same across 103 cities and reflect our assumption that
expatriates everywhere follow Western consumption patterns. Meanwhile, item weights for ordinary residents are country-specific as they reflect the local consumption patterns of ordinary residents in each country. A city with larger cost of living index value for expatriates (ordinary residents) is more expensive for expatriates (ordinary residents) to live in and is ranked higher in our cost of living ranking for expatriates (ordinary residents). Both cost of living rankings for expatriates and ordinary residents are not sensitive to the choice of base city, a hallmark of rigorous methodology.

The wages index for ordinary residents is the ratio of gross hourly wages (in US dollar) in a particular city to gross hourly wages in New York, multiplied by 100. A larger index value implies higher wages for ordinary residents in the city and earn the city a higher place in our ranking for wages. Finally, the purchasing power index is the ratio of the wages index to the cost of living index for ordinary residents, multiplied by 100. A larger index value indicates that ordinary residents in the city can consume more baskets of goods and services given an hour of work. Cities with larger purchasing power index values are ranked higher in our purchasing power ranking.

**Figure 7: ACI Consumption Categories**

Data

The data used for the study were collected from various sources. Main sources include EIU CityData, UBS Prices and Earnings study, World Bank’s International Comparison Programme (ICP) survey and World Development Indicators (WDI), household expenditure survey in various countries, the Bloomberg Terminal, the International Monetary Fund's International Financial Statistics database and the International Labour Organisation (ILO) database.
### Related Research Output

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6. Bi-Annual Tracking of World’s Major 64 Cities on Liveability

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Figure 8: ACI Global Liveable Cities Index (GLCI) Overall Ranking & Simulation for 64 Global Cities (2012 List of Top 20 Rankings)

Figure 9: ACI Global Liveable Cities Index (GLCI) Conceptual Framework
Objective
The concept of liveability is taking centrestage in many discourses on the competitiveness of cities. Not only has globalisation caused the agglomeration of activities in cities that are seen as powerful growth engines, rapid urbanisation and the resulting multiplication of megacities mean that many governments especially of the emerging world are eager to get a better understanding of the challenges in formulating and implementing policies to improve the liveability of their cities. With this as the backdrop, we attempt to track the liveability of 64 of the world’s major cities to analyse the liveability conditions of major cities, and conduct what-if policy simulations to present the direction policy makers can take in order to improve the liveability of their cities. Unlike other well-known liveability rankings of cities, ACI’s liveability ranking takes the perspective of an ordinary man living in the city, and includes a large number of major cities in emerging economies in order to get a diverse and more representative coverage of major cities for all continents.

Scope
The study covers 64 of world’s major cities spreading across the diversity of continents, and the latest study is based on the most updated data available as of 2013 and our findings are updated biannually.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. For the liveability study, however, the multi-dimensional character of liveability is captured in five environments instead of four, namely: Economic Vibrancy and Competitiveness, Domestic Security and Stability, Socio-Cultural Conditions, Political Governance, and Environmental Friendliness and Sustainability. There is a total of 85 practical indicators used in this study.

Data
The data used for the study were collected the IMF’s International Financial Statistics database, ASEAN Secretariat, Bank for International Settlements, Political and Economic Risk Consultancy, Governance Metrics International, and WDI.

Related Research Output

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<td>A New Instrument to Promote Knowledge-led Growth: The Global Liveable Cities Index</td>
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7. Greater China Liveable Cities Index and the Emerging Concept of Intelligent Cities

Objective
It is increasingly evident that the Chinese economy is entering into the ‘New Normal’ era of a slower, but more sustainable and inclusive growth. In tandem with this is the clear shifts in political priorities and societal sentiments that progress should encompass more than economic growth to include other environmental and social factors that contribute to the welfare of its citizens. To that end, it is imperative to have a framework to study the liveability of cities, which would not only assist policy makers to assess the liveability conditions of major cities in Greater China Region, but it will also help them to identify the strengths and weaknesses of each city so as to facilitate a more informed policy formulation process that can result in a greater improvement in the liveability of China’s cities.

Scope
The study covers 100 cities in the Greater China region including the Special Autonomous Regions as Hong Kong and Macau, as well as Taiwan. The data were gathered starting from year 2012 and our findings are updated biannually.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. This project’s particular framework captures the multi-dimensional character of liveability in five environments instead of four, namely: economic development; environmental standards; safety and security; socio-cultural conditions; and political governance.

Data
The hard data used in this study are gathered from various publicly available sources including China Statistical Yearbook, China City Statistical Yearbook, China Urban Construction Statistical Yearbook, Hong Kong Annual Digest of Statistics, Macau Yearbook of Statistics, Taiwan Statistical Data Book, Taiwan Urban and Regional Development Statistics, etc. ACI also engaged professional institutions to gather survey data through phone surveys in all 100 cities from May 2014 to August 2014.
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<td>Tan, K.G., Tan, K.Y. and Nie, T., (FY2015), <em>《城市宜居性无关城市大小》</em>, Lianhe Zaobao, 27 November 2015</td>
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Objective
The economic literature has long recognised that it is paramount to not only look at macroeconomic factors to devise policies for improving an economy’s competitiveness but also to examine firm-level performances that underpin sectoral and, ultimately, national competitiveness. ACI has thus embarked on a new research project to develop a comprehensive dataset along and beyond the data required by European Competitiveness Research Network (CompNet) pioneered by Dr Filippo di Mauro, Senior Advisor, Research Department, European Central Bank. This project examines company-level productivity, efficiency and competitiveness for companies in selected sectors from 16 Asian economies.

Scope
The study covers 16 Asian economies of Mainland China, India, Japan, South Korea, Taiwan, Hong Kong and ASEAN-10.

Methodology
ACI’s company-level dataset will comprise both time series hard data related to financials (as reported in financial statements), manpower and trade and survey data. The data will then be used for cross-country comparison and benchmarking between Asian firms and European firms, drawing on and extending out of a technical framework established by the ECB CompNet. The research can thus provide invaluable inputs for policymakers as they engage in the design of public policies. The entire project will take three years to complete over three stages with Singapore being the prototype. Under Stage I, an index for productivity tracking and efficiency monitoring for small- and medium-sized enterprises (SMEs) in Singapore will be constructed based on data from a sample of 2000 companies from selected sectors. The index will allow ACI to draw important policy insights for SME development in Singapore. Stage II and III will involve the remaining 15 Asian economies. Around 20 Memorandums of Understanding (MOUs) will be signed with national think-tanks and/or Chamber of Commerce from these 15 economies, which completes the establishment of Asia CompNet.

Data
The data used for this study were collected from Yearbook of Statistics Singapore, 2009 and 2013, and IMF, World Economic Outlook Database, October 2013, among others. Relevant time series hard data on financials, manpower and trade, as well as survey data on firms’ characteristics and operations will be obtained in the course of the ongoing project.

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<td>Tan, K.G., Yuan, R. and Nie, T., (FY2015), <em>Total Factor Productivity Measurement</em></td>
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9. Ease of Doing Business Index: Attractiveness to Investors, Business Friendliness, and Competitive Policies (EDB Index ABC) for Selected Economies of India and Indonesia

**Objective**

As rising emerging countries, Indonesia and India need investment to drive higher growth. For that to happen, the country has to improve its local investment climate. The countries’ governments at the sub-national level hold more responsibilities and possess executing power, acting as key partners to the central government to secure investment, either from domestic or foreign investors, and determine the trajectory of the sub-national economy’s continued development. Assessing the ease of doing business in more details is therefore of paramount importance, not only at the national level, but increasingly so at the sub-national level.

**Scope**

The ACI study on EDB Index ABC for India covers well over 20 states and federal territories with the support of the Confederation of Indian Industry (CII) classification. The ACI study on EDB Index ABC for Indonesia aims to cover the majority of provinces in Indonesia. The newly created province, North Kalimantan is not yet included pending data availability. For secondary data, indicators are drawn from the latest available year at the source while primary data are collected from perception survey and structured interview conducted in mid-2015.

**Methodology**

This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. This project’s particular framework consists of three environments, namely attractiveness to investors, business friendliness, and competitive policies, covering four sub-environments with more than 70 hard and soft indicators. This EDB Index ABC is a comprehensive sub-national and recurrent analysis, applicable to both domestic as well as foreign firms. It allows comparison on ease of doing business across the country at the sub-national level. This is a bottom-up approach that takes into account business perspectives at the micro level by survey data,
combining it with publicly available hard data. This is in contrast with the World Bank’s approach which is narrower, only looking at the processes from opening to closing business.

**Data**
The primary data used for the study were collected from business perception survey and structured interview with the relevant policymakers at the provincial level (for Indonesia) or at the states and federal territories level (for India).

Official data for India were collected from MOSPI, RBI, augmented by other international sources such as UNDP and the World Bank.

Official data for Indonesia were collected from various statistical books published by Central Statistical Bureau (BPS), World Bank Indonesia Database for Policy and Economic Research (INDO-DAPOER), Central Bank of Indonesia.

### Related Research Output

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| **ACI Policy Research Papers** | |
Research with Thematic Applications to Competitiveness of Economies
10. Agricultural Productivity Studies for Sub-National Economies of China, India, Indonesia, and ASEAN

Objective
Despite rapid industrialisation, agriculture remains an important source of livelihood for many Asian economies, including India, China, Indonesia, and ASEAN-8 (excluding Singapore and Brunei). However, with limited resources, migration of people from rural to urban areas, along with rapid conversion of agricultural land into industrial zones, achieving and sustaining agricultural productivity is paramount if these economies aim to ensure food security in the coming years. The purpose of this paper is to analyse agricultural Total Factor Productivity (TFP) and its components for the Asian economies between in the past decade or more. To date, most of the existing work on Asia’s agricultural sector has been at the national level. However, considering the extent of these individual economies’ internal diversity, a sub-national level analysis of their agricultural sectors would be more useful from a policy perspective. In this light, this study examines agricultural productivity growth in the sub-national economies of India, China and Indonesia, as well as in the national level for ASEAN-8, and draws policy implications from such empirical analysis.

Scope
The study for India covers all 35 states federal territories and by regions from 2000-2012. The five regional groupings are based and aligned on the Confederation of Indian Industry (CII) classification.
The study for China covers 30 Chinese provinces from 1990-2012.
The study for Indonesia covers 32 provinces from 2000-2012. The newest province is North Kalimantan which was created in 2012 and hence not included in our analysis.
The study for ASEAN covers ASEAN-8 economies excluding Singapore and Brunei from 2000-2011.
Methodology
This project applies both Cobb-Douglas and Malmquist index methodology to gain a comprehensive understanding of the agricultural total factor productivity (TFP) growth in the mentioned Asian economies. Given lack of observations to conducted panel analysis at the sub-national levels, we applied growth accounting methodology only at national level. In order to have a deeper understanding of the driving factors of TFP growth, we adopted the Malmquist index method at the sub-national level, which allows us to decompose TFP change into technological change and efficiency change.

Data
The data used in the study for India were collected from MOSPI, RBI, UNDP, the World Bank, and the Food and Agriculture Organisation (FAO).
The data used in the study for China were collected from China Statistical Yearbook, Provincial Statistical Yearbooks, and China Rural Statistical Yearbook.
The data used in the study for Indonesia were collected from World Bank's Indonesia Database for Policy and Economic Research (INDO-DAPOER), World Bank INDO-DAPOER, BPS, and Ministry of Agriculture.
The data used in the study for ASEAN were collected from FAO, U.S. Department of Agriculture (USDA), the World Bank, and International Fertilizer Association (IFA).

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Tan, K.G., Merdikawati, N. and Rajan, R., (FY2015), *How Productive is the Agricultural Sector in Indonesia?*, International Journal of Asian Business and Information Management (USA) [Forthcoming]

**ACI Technical Working Papers**

Tan, K.G., Rao, K. and Rajan, R., (FY2014), *How Productive is the Agricultural Sector Across Indian States?*

Tan, K.G, Suo, H. and Rajan, R.S., (FY2014), *Estimating Provincial Agricultural Total Factor Productivity in Mainland China*

Tan, K.G., Suo, H. and Rajan, R.S., (FY2015), *How Productive is the Agricultural Sector in ASEAN?*

Tan, K.G., Nurina, M. and Rajan, R., (FY2015), *Agricultural Productivity in Indonesian Provinces*
Objective
Sustainable economic growth is increasingly pushed up the agenda of policy makers and economists alike. In the last few decades, Asian economies, especially Eastern and Southern Asian ones, have experienced impressive high-speed growth, pushing up the living standards of billions of its people. However, in recent years, the unexpected growth slowdown experienced by the region’s developing economies has sparked off controversy surrounding the reasons for the slowdown. This project zeroes in on the income levels of Asia’s economies, in order to locate the episodes of slowdown, then identify the main contributors of growth slowdown, with consideration of each economy’s unique characteristics. We also conduct simulation analysis based on current data to project potential growth slowdown scenarios in the future thereby offering targeted policy implications for interested policy makers.

Scope
The study covers sub-national economies in Greater China, India, Indonesia and ASEAN countries over an overarching timeframe of 1990-2013 for Greater China and Indonesia, 1993-2013 for India, 1980-2013 for ASEAN.

Methodology
Our methodology follows several existing literature. First, we pick indicators from Aiyar et al. (2013), Eichengreen, Park, and Shin (2011 and 2013) and Flaen, Ghani, and Mishra (2013), which cover various aspects of economy including: demographic, exogenous factors, human capital, infrastructure and macroeconomic factors. Next, we classify our economies into low-, middle- and high-income groups based on their current gross regional domestic product (GRDP) per capita in 1990 PPP$. Then we identify growth slowdown according to Eichengreen, Park and Shin (2011 and 2013) by three inequalities and we specify a logit model using the slowdown dummy created as the dependent variable, with GRDP per capita inside as a control variable. This analysis is conducted separately for slowdowns in different income groups over different economies. Based on our regression analysis, we obtain a model which links the probability of growth slowdowns occurring...
in various income groups to different independent variables. Finally, we generate predictions on the probability of slowdown for all economies until 2017 using current data. This exercise enables us to identify high-risk economies which are prone to slowdown in the near future and give corresponding policy implications to help them averting the prospect of slowdown.

Data
The data used for this study were collected from various sources. Main sources include Euromonitor International, Global Market Information Database; Fraser Institute, Economic Freedom of the World database; ILO, Key Indicators of the Labour Market, 8th Edition; IMF, World Economic Outlook Database, April 2015; Maddison (2010); The Conference Board, Total Economy Database (May 2015 version); UNCTAD; World Bank, WDI; National Bureau of Statistics of China; various China provincial statistical yearbooks; Hong Kong Annual Digest; Taiwan Statistical Yearbook; Taiwan Statistical Databook; Indiastat; Centre for Monitoring India Economy PVT LTD, States of India Database; CEIC Database; Ministry of Statistics and Programme Implementation; World Bank Indo-dapoer; Statistics Indonesia; various statistical yearbooks; Investment Coordinating Board (BKPM).

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12. Evaluating Singapore’s Longer-term Public Policies: Enhancing Competitiveness and Staying Relevant within a Global Context

Objective
In 2015, Singapore celebrated her 50th Jubilee year, and with celebrations came a call to look soberly into the future – how Singapore will maintain its track for progress and thrive amidst the challenges that the current environment poses. As Singapore’s leaders take a deep and far look into the country’s economic future, ACI will conduct a quantitatively-based, thorough assessment and evaluation of Singapore’s public policy framework to sieve out policies based on their relevance in the current and projected future climate. This will be examined in the context of the changing needs of Singaporeans, emerging technological and business trends, and the challenges and opportunities Singapore need to address and seize. This project addresses Singapore’s longer-term survival as a nation, and will identify pertinent policies options for Singapore in the next 2-3 decades.

Scope
Our research will cover Singapore through her history and towards her projected future. We will assess the success of policies according to the contexts through the 50 years, and identify current and future trends in 30 years’ time in order for Singapore to be future-ready.

Methodology
The exact methodology is still in the discussion pipeline. ACI will adopt quantitative research methods using hard and soft data in order to generate results and relevant policy implications.

Data
Database remains to be obtained.

Related Research Output

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| 陈企业、陈光炎, (FY2012), *《全球化、国际竞争和包容性增长的现实》*, Lianhe Zaobao, 15 June 2012 |

| 陈企业, 刘奕明, 聂彤忻, (FY2013), *《陈企业：经济周期缩短、增长间断与逐渐内视的潜在危机》*, Lianhe Zaobao, 22 February 2014 |

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| 陈企业, (FY2015), *《给本区域带来带来商机与挑战》*, Lianhe Zaobao, 1 October 2015 |
| 陈企业, (FY2015), *《2015年大选后让一切回归常态？》*, Lianhe Zaobao, 28 September 2015 |

| 陈企业、沈财富, (FY2015), *《2015年大选后让一切回归常态？》*, Lianhe Zaobao, 28 September 2015 |

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| 陈企业, 连笑, 谢特蕾西, (FY2015), *《谨慎调教 理性 高度包容 能为多数人接受的财政预算案》*, Lianhe Zaobao, 25 March 2016 |
13. Impact of Exchange Rates on Foreign Direct Investment

Objective
The existing academic literature has well documented the importance of foreign direct investment (FDI) as a source of investment, technology and plugging countries into regional value chains helping them with their exports. While there are number of factors that affect FDI, countries are keenly aware that they are to remain cost competitive if they want to continue to attract FDI inflows. This is especially applicable to the economies in the Asian region. Cost competitiveness can be broadly measured by real exchange rates. In this light, the research objective and value-addition of this project can be summarized as follows: To examine empirically and quantify the impact of real exchange rates on FDI inflows to Asian economies of interest to ACI. Specifically, the project will focus on China, India, Indonesia and the rest of the ASEAN economies.

Scope
While there has been some work in the literature focusing on related issues, most of the literature is cross-country or panel in nature. Given the size and heterogeneity within countries like China, India or Indonesia, this project will undertake an empirical analysis at the province/state level in these three countries. Considering the data constraints for ASEAN countries, the project will examine empirically the impact of RER on FDI inflows to ASEAN at the aggregate level.

Methodology
The project will employ advanced panel data techniques to investigate the research objectives stated above.

Data
Relevant data for each country at the country/State/Provincial level (as it applies to the country in question) would be compiled from various secondary sources.

Related Research Output
The project envisions the completion of several journal articles that focus individually on the empirical relationship between exchange rates and FDI inflows at the sub-national level for all the sample countries including India, Indonesia, China and ASEAN economies.
Master Plan & Reports
Objective
An update covering all 35 states and federal territories for analysis of overall competitiveness and what-if policy simulations opened the way for ACI’s proposed “Master Plan for Strategic Regional Economic Development”. This allows sub-national economies grouped into regions to mitigate any weaknesses (as in transportation or finance) while adding to strengths of other neighbouring sub-national neighbours. Comparative analysis is further undertaken by considering all sub-economies as Top 10 (at the top range of competitiveness), Middle 15 and Bottom 10, gives further insights and nuances in making objective assessments on their respective strengths and weaknesses. This gives a deeper understanding of more impactful implications for policy-making.

Scope
The study covers all 35 states and federal territories of India for the time period from 2000 to 2014.

Methodology
This project adopts the methodology outlined under ACI Competitiveness Analysis Framework in Page 8 of this report. ACI also makes comparative analyses by median and maximum
competitiveness web charts to show how a particular region measures up. Gaps identified within various indicators are for policy-makers to heed to. Like what-if policy simulation, policy-makers can mitigate with an insightful view of their strengths and weaknesses to make the right decisions and policy options by regions. ACI’s competitiveness rankings and policy simulations for the period since 2000 have used 75 indicators in 2014 which include determinant and outcome indicators. The extensive number of indicators ensures robust interpretation of each environment and sub-environment in the overall competitiveness score.

**Data**

Sub-national statistics were collected from Indian-based official data agencies, including the Ministry of Statistics and Programme Implementation (MOSPI), Reserve Bank of India, among others.

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Objective
Since OUE Limited was acquired by Dr Stephen Riady in 2006, the company has gone through significant transformation to attain its present form. This inaugural ACI Business Case Study Series report examines the data, key events and factors behind the profitable business operations of Mandarin Orchard Singapore (MOS) hotel and Mandarin Gallery (MG) retail mall, as well as the leadership and Asian management philosophy that underpins a successful family business, shedding light on what it took for OUE Limited to become one of the key property players in Singapore’s real estate market today.

Scope
Singapore’s hospitality and retail sector data; Information on Mandarin Orchard Singapore and Mandarin Gallery from 2000 to 2015.

Methodology
Our report will benchmark the performance of MOS and MG to industry competitors, and evaluate the strategies employed during the process of transformation to measure their effectiveness. Interviews with staff who were present at the time of transformation will further supplement our analysis of the leadership and management approach taken towards the company.

Data
Interviews and transcript analysis, data collection from company financial reports, statistical data sources on hospitality and retail sectors, OUE Limited data, Singapore Tourism Board.

Related Research Output

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Signs of a shift in the economic centre of gravity from the West towards Asia are increasingly apparent, with 2030 poised as the year for the total GDP of Asia surpassing the West once again after a hiatus of 160 years. ACI's Asia Economic Connectivity Vision 2030 (AECV2030) aims to facilitate wider multi-modal physical and information connectivity across Asia, through the leadership of ASEAN. Taking China’s One Belt One Road initiative as inspiration, AECV2030 focuses on a consultative and collaborative approach for exchanges between all stakeholders. With five proposals on manufacturing migration to ASEAN, infrastructure investment in connectivity, enhancing agricultural productivity, promoting sustainable and green urban liveability and having ASEAN as the trade, business and services hub for Asia, AECV2030 is an evidence-based and policy-guided approach to forge actionable recommendations through stakeholder consultation, promoting sustainable development along with poverty reduction and social inclusivity in Asia for the realisation of Asian aspirations.
Scope
The study currently covers economies in Asia, such as China, India, Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam. This is not an exhaustive list as the study is ongoing.

Methodology
Besides the open and consultative approach employed by AECV2030 to engage stakeholders, ACI will also use geospatial software to simulate potential connectivity routes based upon input by stakeholders, as well as projections for indicators to the year 2030. As for the projection methodology, based upon the different characteristics of the selected indicators, there are three methods used in the projection of target values for 2030. Firstly, GDP is projected by making comparisons to the potential output estimation. Secondly, projection modelling is utilised, using an autoregressive model with GDP as an independent variable. Thirdly, indicators which have the potential to be affected by significant policy changes or possess a lack of data points were handled on a case by case basis. The target values for 2030 will be set either from existing academic studies and literature or by benchmarking. With ACI’s in-house projections which factor in existing patterns of regional development and growth, coupled with conservative premises for realisation of the goals in the five proposals of AECV2030, the selected indicators and forecasts in improvement serve two purposes. One is to give tangible and real outcomes for policy-makers to communicate effectively with all stakeholders. Two is such key performance indicators (KPIs) enable tracking and monitoring of progress in implementation of projects to deliver the results. Further cost-benefit analysis may emanate to aid in visualising the gains the region stands to benefit from, as well as to prioritise KPIs if needed. All serves to verify the execution of the phases of economic connectivity development, on time for 2030.

Data
The data used in the study were collected from IMF, ASEAN Secretariat, World Bank data, and ACI AECV2030 Catalogue.

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Objective

On 28 October 2010, the ten ASEAN member states signed the Hanoi Declaration on the Adoption of the Master Plan on ASEAN Connectivity (MPAC), the regional blueprint for improved physical, institutional and people-to-people connectivity. Under this Master Plan, strategies and action plans have been carved out to address infrastructural and regulatory bottlenecks with a view to deepening regional linkages. Commissioned by the World Bank, ACI conducted an empirical analysis on the impacts of MPAC on various economic and connectivity dimensions during the first three years since its official implementation (2011-2013). ACI’s work is one of the very few empirical evaluations of ASEAN’s regional integration initiatives.

Scope

ACI’s empirical assessment of MPAC studied the effects of MPAC on various economic and connectivity variables. Specifically, we examined ASEAN members’ real GDP, bilateral exports and economic interdependence through trade. For connectivity, we analysed the trends of air passenger flows and air cargo throughput as indicators for the development of the ASEAN Single Aviation Market which is an important strategy for enhancing regional institutional connectivity.

Methodology

ACI adopted the autoregressive distributed lag (ADL) model with a trend term to analyse the impacts of MPAC on ASEAN member’s real GDP, intra-ASEAN air passenger outflows and air cargo throughput. The MPAC dummy was included in the model to denote the period when MPAC started to be implemented.

Gravity model, a work-horse of international trade analysis, was also employed to investigate the impact of MPAC on intra-ASEAN bilateral exports and air passenger flows. Finally, ACI constructed a Structural Vector Autoregressive (SVAR) model to examine the evolution of ASEAN’s economic interdependence, as well as dependence on the traditional and emerging growth engines, before and after the implementation of MPAC. Specifically, we linked the GDP growth rates of 8 ASEAN economies, namely Brunei, Cambodia, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam, and 3 control economies – China, India and Organisation for Economic Co-operation and Development (OECD) – and 110 bilateral export share series to generate multiplier effects of a growth shock in one economy on the growth of others in the model.
Data
The data used for the study were collected from the Econometrics Studies Unit (ESU), Singapore Centre for Applied Economics (SCAPE), World Bank, the International Air Transport Association, various plane manufacturers’ websites, the Direction of Trade Statistics (DOTS) database, and the OECD database.

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Recently Completed Projects

Figure 14: Flying Geese Model – Transfer of comparative advantage from developed to newly industrialised and developing economies, leading to waves of growth

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<th>Relative Importance of China vs. Japan as an Engine of Growth for ASEAN-5</th>
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Figure 15: ACI’s Forecast of Shifts in Global Engines of Growth, 1980-2020

Objective
It is said that when the US sneezes, the Asian countries catch pneumonia. This project is an attempt to quantify the seriousness of this pneumonia and examine the dynamic evolution of ASEAN-5’s growth engines over time. Given the context of China and India as significant engines of growth for ASEAN-5 in the past decade, the paper proposes some policy recommendations:
(1) ASEAN to strategically balance the rising over-dependence on China.
(2) Management of the US participation in the Asian regional economic grouping.

Scope
We employ a structural vector auto-regression (VAR) model to examine the relative importance of the five engines of growth (US, EU, Japan, China and India) on the ASEAN-5 and other Asian countries as they evolved over the period 1980-2010.
Methodology
We use the structural VAR model developed in Abeysinghe and Forbs (2005) to calculate the estimates in this project. This model simultaneously equates output supply and demand across all countries in the world in order to capture both direct trade linkages as well as indirect multiplier effects through output fluctuations in other nations. [Reference: Abeysinghe, Tilak and Kristin Forbes. “Trade linkages and output-multipliers: A structural VAR approach with a focus on Asia.” Review of International Economics 13 (2005)]

Data
The data used in this study were collected from World Bank data sources (world GDP and country GDPs in US dollars at constant prices at annual frequency), and the United Nations’ Direction of Trade statistics (bilateral export data in US dollars), among others.

Related Research Output

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<td><strong>ACI Technical Working Papers</strong></td>
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<tr>
<td>Tan, K.Y., Tilak, A. and Tan, K.G., (FY2013), Shifting Drivers of Growth: Policy Implications for ASEAN-5</td>
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<td>Tan, K.Y., Abeysinghe, T., Tan, K.G. and Toh, R., (FY2011), Casting the net for new growth engines, The Straits Times, 28 December 2011</td>
<td><img src="image" alt="Front Cover" /></td>
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</table>
Global Fiscal Responsibilities and Lessons from Europe for East Asia’s Newly Industrialized Economies and ASEAN-10

Figure 16: Examining Fiscal Sustainability and Competitiveness of Selected European and Asian Economies

Objective
Over the past two decades the fiscal positions of many advanced economies have deteriorated rather precipitously, leading to ever-growing levels of public debt and mounting concerns about debt sustainability. In this project, we examine issues relating to fiscal sustainability, competitiveness, and external balances in a set of European and Asian economies. We find that there is a positive relationship between public debt and export growth when the debt level is below a certain threshold.
and vice versa. There is an urgent need for more credible and specific medium-term consolidation plans without derailing economic growth so as to avoid a vicious slow-growth-rising-debt-trap.

**Scope**

In Europe, we examine two sets of countries – selected Scandinavian countries, including Denmark, Finland, Norway, and Sweden, and the crisis-hit Eurozone economies that include Greece, Ireland, Portugal, Spain, and Italy. In Asia, we focus on Japan, South Korea, Hong Kong, Taiwan, and China as well as India along with a set of Southeast Asian economies, namely, Singapore, the MIT economies (Malaysia, Indonesia, and Thailand) and the Philippines. The empirics based on a panel data set of 59 countries span the sample period from 1980 to 2010.

**Methodology**

To investigate the nonlinear relation between export growth and debt, a quadratic specification is set up in which the debt-to-GDP ratio is entered in both linear and quadratic terms. We also employ ordinary least squares (OLS) with fixed effects control for unobserved country-specific factors (such as credit history). System-GMM (SGMM) is also used to correct for endogeneity of debt and other control variables.

**Data**

The data used in this study, such as real GDP figures, were collected from United Nations Conference on Trade and Development Statistics (UNCTADstat). Other data such as real effective exchange rate and export data were collected from WDI.

**Related Research Output**

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<tr>
<td>Rajan, R.S., Tan, K.G. and Tan, K.Y., (FY2014), Fiscal sustainability in selected developing ASEAN economies, Int. J. Public Policy, Vol. 11, Nos. 4/5/6, 2015, pp. 186-203 (UK)</td>
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<tr>
<td>Rajan, R.S., (FY2013), Determinants of Debt Thresholds</td>
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<td>Rajan, R.S., (FY2013), An Asian Perspective on the Eurozone Crisis</td>
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<td>Rajan, R.S., Tan, K.G. and Tan, K.Y., (FY2014), Fiscal sustainability in selected developing ASEAN economies</td>
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<td>Rajan, R., (FY2013), A Simple Framework to Analyze Monetary Policy and Exchange Rate Options for Small and Open Economics</td>
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<td>Rajan, R., (FY2013), Fiscal Sustainability and Impact on Competitiveness: Emphasis On Selected European Countries (Gipsi And Nordics)</td>
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<td>Rajan, R., (FY2013), Case-studies of the GIPSIs: Fiscal and Competitiveness Issues and Concerns</td>
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<td>Rajan, R., (FY2013), Can High Reserves Offset Unsustainable Fundamentals?</td>
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<td>Rajan, R., (FY2013), Impact of Government Spending on Real Exchange Rate Fluctuations</td>
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<td>Rajan, R., (FY2013), Relative Prices, Sectoral Allocation and Government Spending in East Asia</td>
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<td>Rajan, R., (FY2013), Managing Macroeconomic Volatility Using Capital Controls</td>
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Objective
With the ASEAN Economic Community (AEC) set to be established by the end of 2015, there is an expectation of an accelerated integration of each member country’s economy, human resources, investment, products and services within ASEAN as a group. In this context, this project examines the potential effectiveness of “Cool Japan Strategy” by Japan's Ministry of Economy Trade and Industry (METI) to enhance and link Japan’s creative industry to private businesses in the markets abroad. The study adopts a narrower focus on fashion, food, and lifestyle industries as comprising the creative industry under the strategy.

Scope
This research examines the population structure, household expenditure pattern and related facts on the lifestyles in ASEAN5 (Indonesia, Malaysia, Philippines, Singapore, and Thailand). It also incorporates summary findings from corporate case studies of the global top companies.

Methodology
Using data on ASEAN5 and corporate case studies, comparative analysis is conducted to assess and examine each of METI’s measures to enhance each of the three components of Japan’s creative industry. A broader comparative approach is also taken to analyse the “Cool Japan Strategy”, by digging deeper into the United Kingdom’s “Cool Britannica Initiative”, which was adopted to advocate British creative industry to boost annual real GDP growth, which stagnated in the late 1990s.

Data
The data used in this study were collected from ASEAN Basic Indicators, WDI, The World Bank “Global Consumption Database”, Department of Statistics of ASEAN5 and Japan, and the Department for Culture, Music and Sports, the United Kingdom.

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<tr>
<td>Oba, M. and Tan, K.G.. (FY2015), Study of Japan's Creative Industry in ASEAN</td>
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Objective
The project examines Singapore’s civil service system as a benchmark study for comparison with the Chinese and Japanese civil service. Civil service system in Japan has undergone significant changes and reforms to work more efficiently. We look at how the structure and function of the various governments’ bureaucracy as a whole have been reformed and changed over the years that will elucidate the extraordinary civil service phenomenon. Central Government Reform was implemented to merge existing ministries, strengthen the operation of cabinet and achieve more efficient work. However, there are many more changes that need to happen in enhancing flexibility, transparency and diversity in the civil service system.

Scope
While the present research focuses on China, Japan, and Singapore, the background research for country-level comparisons of civil service systems include other Asian countries such as India, South Korea, the Philippines and Thailand, as well as Anglo-American countries such as Australia, New Zealand, Canada, the United States, and the United Kingdom.

Methodology
Before the comparative study of civil service systems of China, Japan and Singapore can be made, it is imperative to develop a common language, concept and framework. Then the common comparative framework can be applied to describe each civil service system with empirical indicators and analyses three civil service systems in comparative perspective. It is also informative to compare the reform processes of three national civil service systems with contemporary international civil service systems. The seven categories of civil service systems analysed are 1) historical development, 2) internal labour markets, 3) representativeness, 4) politicisation, 5) public opinion, 6) reform and diffusion, and 7) configurations (including Heady’s configuration and Morgan’s configuration).

Data
The data on Japan’s civil service were collected from National Personnel Authority, Japan, and data for the various national governments were collected from OECD reports.

Related Research Output

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<td>Gu, Q., (FY2013), 《中国公务员制度》</td>
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<td>Lu, H., (FY2013), 《新加坡的公共服务体系》</td>
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22. Intellectual Property Rights, Innovation and Competitiveness for Selected Economies

Objective
That the level of technological innovation (of which intellectual property, or IP, is part) significantly contributes to economic performance is a widely established fact in both economic literature and the empirical evidence. The basis for a nation’s IP creation is in its capacity for innovation and how its national innovation system (NIS) encourages or inhibits activities which lead to the creation of IP assets. The study notes that patent count is the ubiquitous measure of IP creation in all major international reports. However, while this is an adequate proxy for the purposes of index construction, it can only inform so much about IP performance of an economy. The report proposes as set of detailed patent indicators which move beyond simple patent counts to reveal the multi-dimensional characteristics of patents data. These indicators provide a more holistic and comprehensive assessment of the IP performance of nations.

Scope
To understand the patterns of IP creation capability development in Asia, we have constructed the indicators using data for five selected Asian economies: Singapore, India, China, South Korea and Taiwan. These are benchmarked against five European economies – Denmark, Finland, Ireland, Israel and Switzerland - to add further insights into the strengths and weaknesses of IP creation in Asia.

Methodology
Comparisons of the 5 individual Asian economies are made with the basket of 5 European economies. For each indicator in each economy, a lead or gap to the European benchmark is established. The lead/gap measure is a relative score, following the methodology adopted by the European Union Innovation Union Scorecard 2011.

Data
The data used in this study were collected from IMD’s World Competitiveness Online database; National Science Board; OECD Main Science and Technology Indicators

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23. Studies on Income Disparity for 15 Selected Asian Economies

Objective
This study examines the impact of globalization, government redistribution policy and other institutional factors on several measures of inequality, viz., the Gini coefficient, skills wage inequality, top decile and top percentile income inequality, and gender wage inequality. Regression results of cross-country panel data analysis reveal that factors that affect income inequality and the extent of their impact may differ according to the measure of inequality. In general, higher skills demand has a significant effect in widening the income divide but these forces are often mitigated by appropriate policy measures such as social spending and unionisation. Income inequality is not necessarily alleviated by the presence of minimum wage legislation but by the appropriate minimum-to-mean wage ratio.

Scope
The study investigates the changes in income inequality across a panel of 17 developing and developed economies over the past three decades.

Methodology
This project uses a panel of developed and developing countries and is unique in that it examines the impact of skills labour demand, globalization and government policy over the past three decades on several measures of income inequality, viz., Gini coefficient, skills wage disparity, D9/D1 income disparity, P99/P90 income disparity and relative gender wage. The challenge of cross-country studies of this nature is that they are typically plagued by problems of poor reliability, lack of coverage and inconsistent methodology. At the outset of the study, attempts are made to improve the level of comparability and reliability by ensuring as consistent a basis as possible for each inequality measure.

Data
The data used in this study were collected from various national statistics bureaus, WDI, OECD statistics, ILO, Eurostat, IMF World Economic Outlook Database Oct 2012, among others.

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<td>Hui, W.T. and Toh, R., (FY2013), Globalisation and Income Inequality: Comparative Analysis of Selected Countries</td>
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Objective
The project studies the real estate sector within the construction industry of Abu Dhabi with the purpose of sectoral crisis prevention. Other purposes include exploring performance optimisation and capital return maximisation. All are followed by step-by-step recommendations. The strategic role of the real estate sector in the overall economy, as well as liveability of Abu Dhabi is clear, but what is missing is a comprehensive mechanism for monitoring and surveillance. A profound understanding of the real estate sector within the construction industry to achieve Vision 2030 for Abu Dhabi needs specific attention paid to development trends, regulation and availability of information and statistics to policy-makers.

Scope
In Memorandum of Understanding (MOU) signed in July 2013 between ACI and the Abu Dhabi Centre for Economic Research (ADCERP), Department of Economic Development (DED), Government of Abu Dhabi, United Arab Emirates, three other papers were completed on:
(i) “Competition Policy and Consumer Protection in the Emirate of Abu Dhabi”
(ii) “Productivity Study with a Focus on the Small and Medium-sized Enterprises”
(iii) “Towards Diversified Sustainable Growth: A Focus on the Promising Sectors in Abu Dhabi’s Economy”

Methodology
Based on the multi-dimensional nature of the real estate sector in Abu Dhabi, key performance indicators (KPIs) are proposed along with their benchmarks. Such statistics and information are as crucial for surveillance in early warning signs to avert bubbles as part and parcel of boom-bust cycles of real estate sector. In this paper, efforts are made to explore the effects of regional and global inflow of capital and people as part of demand and supply in such cycles. The strong correlation between the financial market and the real estate market is demonstrated, and best practices of cooling measures are provided. Finally, from the conclusion and empirical research, three specific step-by-step policy recommendations are for the role of Department of Economic Development (DED) to ensure sustainable long-term demand and supply of the real estate sector for Abu Dhabi Vision 2030.

Data
Data for the study were obtained through Abu Dhabi Centre for Economic Research (ADCERP), Department of Economic Development, Government of Abu Dhabi, United Arab Emirates.

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<td>Tan, K.G., Low, L., and Kaur, S., (FY2014), Productivity study with a focus on the small and medium-sized enterprises</td>
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<td>Tan, K.G., Low, L., and Liu, K., (FY2014), Competition policy and consumer protection in the Emirate of Abu Dhabi</td>
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<td>Tan, K.G., Low, L., and Liu, K., (FY2014), Abu Dhabi real estate industry as a promising destination for capital return, sector performance, crisis prevention, and future</td>
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## Summary of Asia Competitiveness Institute (ACI)'s Key Performance Indicators (KPIs) and Achievements: FY2013-FY2015

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### Voluntary KPI Contributions
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- **Editorial-Opinions**: -- 3 -- 2 -- 8
- **Technical Data Description Notes**: -- 4 -- 6 -- 7
- **Conference Proceedings**: -- 6 -- 7 -- 5
- **Research Mission Reports**: -- -- -- -- 2

### Notes:
- (a) #: Fiscal year refers to 1 April of the year to 31 March of the following year. For example, FY2015 means 1 April 2015 to 31 March 2016.
- (b) *: The final versions of the books were submitted to the publishers by March 31, 2016.
- (c) **: As of 31 March 2016, 11 journal papers have been completed and accepted for publication by internationally refereed journals.
## Achievements for FY2012

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<td>Ranking the Liveability of the World’s Major Cities: The Global Liveable Cities Index</td>
<td>World Scientific Publishing</td>
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<td>TAN Khee Giap, TAN, WOO Wing Thye, TAN Kong Yam, Linda LOW &amp; Grace AW</td>
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<td>陈企业、胡永泰、陈光炎、刘琳达、欧怡伶 [著] 万静、曾婷 [译]</td>
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### F. Editorial-Opinions

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| 1  | a) More productive economy still needed  
b) 《全球化、国际竞争和包容性增长的现实》 | a) The Straits Times  
b)  Lianhe Zaobao | 3 June 2012  
15 June 2012 | a) TAN Khee Giap  
b) 陈企业 陈光炎 |
| 2  | “Indonesia’s Competitiveness lies in performance of provinces” | The Jakarta Post | 5 March 2013 | TAN Khee Giap & Mulya AMRI |
### G. Technical Data Description Notes

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<td>Database on 33 Indonesian Provinces, 2010</td>
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<td>July 2012</td>
<td>TAN Khee Giap, Mulya AMRI, Jorrie ANDREAN, Diah Retno BAYUMURTHI, Tracy CAI, Vicky LEE, Amanda LIM, Linda LOW, Nurina MERDIKAWATI, MUHAMMAD Farid, Rully PRASSETYA, VU Minh Khuong, WONG Meng Khin, YAP Xin Yi, Estelle YIP, Sangiita YOONG, YUAN Randong &amp; Sukmawah YUNINGSIH</td>
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### H. Conference Proceedings

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<td>《克服障碍，改善民生：中国下阶段经济改革挑战研讨会论文集》 edited by 吴毓均，陈光炎，陈抗，陈企业和陈思</td>
<td>February 2013</td>
<td>24 August 2012 at Orchard Hotel Singapore &quot;Conference on Overcoming Obstacles&quot;</td>
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<td>Conference Summary for 2012 Annual ACI Conference on &quot;Development Strategies for Indonesia as an Emerging Middle Power; Competitiveness Ranking and Simulation Studies on 100 Asian Economies&quot;</td>
<td>December 2012</td>
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## Achievements for FY2013

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<td>&quot;Competitiveness Analysis and Development Strategies for 33 Indonesian Provinces&quot;</td>
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<td>&quot;Fiscal Sustainability and Competitiveness in Europe and Asia&quot;</td>
<td>Palgrave Macmillan</td>
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### B. Journal Papers

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<td>“Sub-National Competitiveness Analysis and Simulation Studies for 35 States and Union Territories of India”</td>
<td>International Journal of Indian Culture and Business Management (Vol. 10, No. 4, pp. 476 - 493. (UK))</td>
<td>February 2014</td>
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### C. ACI Policy Research Papers

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<td>April 2013</td>
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G. Technical Data Description Notes

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<td>Database on ASEAN-10 Economies, 2000-2011</td>
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H. Conference Proceedings

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<td>“Foreign Direct Investment and Small and Medium Enterprises: Productivity and Access to Finance”</td>
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<td>June 2014</td>
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<td>3</td>
<td>“2014 Annual Competitiveness Ranking and Simulation Study for ASEAN-10 and Development Strategies to Enhance Asia Economic Connectivity”</td>
<td>World Scientific Publishing</td>
<td>March 2015 &amp; September 2015</td>
<td>TAN Khee Giap, Sangiita YOONG Wei Cher, Sasidaran GOPALAN &amp; NGUYEN Le Phuong Anh</td>
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<td>5</td>
<td>“2014 Provincial and Inaugural Regional Competitiveness Analysis: Safeguarding Indonesia’s Growth Momentum”</td>
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<td>TAN Khee Giap, Nurina MERDIKAWATI, Mulya AMRI &amp; TAN Kong Yam</td>
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<td>(Bahasa version) &quot;Analisis Daya Saing Provinsi dan Wilayah: Menjaga Momentum Pertumbuhan Indonesia (Edisi 2014)”</td>
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<td>September 2015</td>
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<td>2</td>
<td>&quot;Asia Competitiveness Institute Master Plan on Asia Economic Connectivity Vision 2030&quot;</td>
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<td>3</td>
<td>&quot;Promoting SMEs and Enhancing Labor Productivity in Singapore: A Policy Analysis&quot;</td>
<td>Published as a journal article in &quot;Journal of International Commerce, Economics and Policy&quot;</td>
<td>April 2014</td>
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<td>&quot;Foreign Direct Investment (FDI), Productivity Spillovers and the Role of Small and Medium Enterprises (SMEs) Financing: An Overview&quot;</td>
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<td>&quot;Fiscal discipline and competitiveness in newly industrialised economies: lessons from the Nordics model&quot;</td>
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<td>May 2014</td>
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<td>Comments on Song (2014), &quot;Location Proximity and Productivity Spillover: The Case of Korean Manufacturing Plants&quot;</td>
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<td>&quot;Connecting APEC Economies through Infrastructure, Governance and Social Inclusion&quot;</td>
<td>&quot;New Directions in Asia-Pacific Economic Integration&quot; published by East-West Centre, Hawaii, USA, in November 2014</td>
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<td>&quot;Fiscal Sustainability in Selected Developing ASEAN Economies&quot;</td>
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<td>&quot;How Productive is the Agricultural Sector in ASEAN?&quot;</td>
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<td>Lianhe Zaobao</td>
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F. Editorial-Opinions

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### H. Conference Proceedings

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<td>Summary for &quot;2014 Inter-Ministerial Roundtable Forum on Indonesia’s Competitiveness&quot;</td>
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<td>19 August 2014 at Lee Kuan Yew School of Public Policy, National University of Singapore</td>
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<td>Summary for 2014 ACI Review Seminar on “2014 Annual Provincial Competitiveness Ranking, Inaugural Regional Competitiveness Analysis, Geweke Causality Analysis on Development Strategies, and Provincial Agricultural Productivity Estimation for Greater China”</td>
<td>October 2014</td>
<td>22 August 2014 at Lee Kuan Yew School of Public Policy, National University of Singapore</td>
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<td>October 2014</td>
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<td>Summary for Officiation Ceremony of Asia Competitiveness Institute at Lee Kuan Yew School of Public Policy, National University of Singapore</td>
<td>November 2014</td>
<td>26 September 2014 at ACI Office Officiation Ceremony of ACI-LKYSP-PUS</td>
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<td>Conference Summary for 2014 Annual ACI Conference on “Competitiveness Analysis of 112 Asian Economies, Asia Economic Connectivity, Liveable Cities Index for 100 Greater China Cities and Cost of Living Index for Expatriates and Ordinary Residents”</td>
<td>December 2014</td>
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<td>《大中华省域及区域竞争力分析2015年度更新：提高农业生产力和推进创新驱动型增长》</td>
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<td>&quot;2015 Annual Competitiveness Analysis and Development Strategies for Provinces of Indonesia&quot;</td>
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<td>TAN Khee Giap, Mulya AMRI, Nurina MERDIKAWATI, Nursyahirah Binte AHMAD</td>
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<td>6</td>
<td>&quot;2015 Greater China Cities Liveability Index and the Emerging Concept of Intelligent Cities&quot;</td>
<td>Whioce Publishing Pte Ltd</td>
<td>March 2016</td>
<td>TAN Khee Giap, NIE Tongxin, Shinae BAEK &amp; TAN Kong Yam</td>
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<td>(Chinese version of &quot;2015 Greater China Cities Liveability Index and the Emerging Concept of Intelligent Cities -- title to be confirmed&quot;</td>
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### B. Journal Papers

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<td>&quot;Estimating Provincial Agricultural Total Factor Productivity in Mainland China&quot;</td>
<td>International Journal of Business Performance Management (UK) (Forthcoming)</td>
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<td>TAN Khee Giap, SUO Haoran &amp; Ramkishen S. RAJAN</td>
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<td>4</td>
<td>&quot;Empirical Assessment on the Liveability of Cities in Greater China Region&quot;</td>
<td><em>Competitiveness Review</em> (Vol. 26 Iss 1 pp. 2 - 24) (UK)</td>
<td>October 2015</td>
<td>TAN Khee Giap, NIE Tongxin &amp; Shinae BAEK</td>
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<td>8</td>
<td>&quot;Drivers of Growth in the Travel and Tourism Industry in Malaysia: A Geweke Causality Analysis&quot;</td>
<td>Published in special issue on &quot;Economic Development in Southeast Asia&quot; by <em>Economies</em> (Vol. 4, No. 3, pp. 1-15) (Switzerland)</td>
<td>February 2016</td>
<td>TAN Khee Giap, Sasidaran GOPALAN &amp; Ye Ye DENISE</td>
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<td>10</td>
<td>&quot;How Productive is the Agricultural Sector in Indonesia?&quot;</td>
<td><em>International Journal of Asian Business and Information Management</em> (USA) [Forthcoming]</td>
<td>March 2016</td>
<td>TAN Khee Giap, Nurina MERDIKAWATI &amp; Ramkishen S. RAJAN</td>
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### C. ACI Policy Research Papers

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<td>1</td>
<td>&quot;Assessing Regional Competitiveness in Indonesia&quot;</td>
<td>Published in <em>International Journal of Business and Systems Research</em> (Vol. 9, No. 3, pp. 273-296) (UK)</td>
<td>April 2015</td>
<td>TAN Khee Giap &amp; Nurina MERDIKAWATI</td>
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<td>3</td>
<td>&quot;Study of Japan’s Creative Industry in ASEAN&quot;</td>
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<td>May 2015</td>
<td>TAN Khee Giap &amp; Mayu OBA</td>
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<td>4</td>
<td>&quot;Policy Research Agenda to Promote Competitiveness, Attract Foreign Investors and Improve Business Friendliness for 35 Sub-national Economies of India&quot;</td>
<td>Published in <em>STRATEGIA</em> ’s Special Issue (vol. 37) on Doing Business across the Continents* by CENTRUM Católica Graduate Business School in September 2015</td>
<td>June 2015</td>
<td>TAN Khee Giap &amp; Anuja TANDON</td>
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<td>TAN Khee Giap, YUAN Randong &amp; Sangiita YOONG Wei Cher</td>
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7  "Business as usual for Singapore after GE2015?"  
Published in Mendaki Policy Digest 2015 by Mendaki
Yaysan as "What Next after the General Election in 2015?" on 29 December 2015
October 2015  TAN Khee Giap & QIAN Yu-wei

8  "Assessing Regional Competitiveness in Five Regions of India"  
Published in International Journal of Business Competition and Growth
(Vol. 4 Iss 3/4 pp. 192-219) (UK)
October 2015  TAN Khee Giap, Kartik RAO & Sasidaran GOPALAN

9  "Empirical Assessment on the Liveability of Cities in Greater China Region"  
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October 2015  TAN Khee Giap, NIE Tongxin & Shinae BAEK

10 "Empirical Evidence of Tourism Competitiveness and Growth in Singapore and Thailand"  
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November 2015  TAN Khee Giap, Evan TAN Beng Kai & Vincent Kwan Wen Seng

D. ACI Technical Working Papers

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<td>“Manufacturing, Employment, and Economic Growth: A Geweke Causality Analysis of Indonesia’s Economically Challenged Provinces”</td>
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<td>13</td>
<td>“Empirical Evidence by Geweke Approach on Factors Contributing to Competitiveness and Stagnation of Tamil Nadu, India”</td>
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### E. Policy Briefs

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<tr>
<td>1</td>
<td>“The Illusion of Small Cities - Challenging our assumptions about liveability in the context of Greater China”</td>
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<td>TAN Khee Giap, NIE Tongxin &amp; Shinae BAEK</td>
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<td>2</td>
<td>“China’s Long March to Liveability - A need for strategic assessment of liveability and the way forward for China”</td>
<td></td>
<td>December 2015</td>
<td>TAN Khee Giap, NIE Tongxin &amp; Shinae BAEK</td>
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<td>“Look East to ’Act East’: The Business of Doing Business”</td>
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<td>TAN Khee Giap, TAN Kong Yam &amp; Sasidaran GOPALAN</td>
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<td>4</td>
<td>“Make or Break for Vietnam in the TPP Era”</td>
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<td>February 2016</td>
<td>TAN Khee Giap, NGUYEN Le Phuong Anh &amp; LUU Nguyen Trieu Duong</td>
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<td>5</td>
<td>“Getting Indonesia Back on its Growth Trajectory: Can Indonesia Achieve Another High-growth Decade?”</td>
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<td>TAN Khee Giap, Mulya AMRI &amp; Nursyahida Binte Ahmad</td>
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<td>6</td>
<td>“Commentary for 2016 Budgetary Statements”</td>
<td></td>
<td>March 2016</td>
<td>TAN Khee Giap, LIAN Xiao &amp; XIE Telei xi</td>
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### F. Editorial-Opinions

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</table>
| 1  | a) "Business as usual for S’pore after GE2015?" b) 《2015年大选后让一切回归常态？》 | The Straits Times b) Lianhe Zaobao | 3 Oct 2015 28 Sep 2015 | a) TAN Khee Giap & Ron SIM  
b) 陈企业、沈财富                        |
| 2  | [Commentary] 《给本区域带来带来商机与挑战》                          | Lianhe Zaobao             | 1 Oct 2015          | TAN Khee Giap                                                           |
| 3  | "Doing business in India: From 'Look East' to 'Act East”             | The Straits Times          | 25 Nov 2015         | TAN Khee Giap, TAN Kong Yam & Sasidaran GOPALAN                         |
| 4  | 《城市宜居性无关城市大小》                                         | Lianhe Zaobao             | 27 Nov 2015         | 陈企业、王克剑、聂彤昕                                                  |
| 5  | 《北京成为宜居城市：长路漫漫》                                     | Lianhe Zaobao             | 23 Dec 2015         | 陈企业、聂彤昕、白信爱                                                   |
| 6  | 《陈企业：低增长不应是我国经济新常态》                              | Lianhe Zaobao             | 29 January 2016     | 陈企业                                                                 |
| 7  | "Make or Break for Vietnam in the TPP Era”                            | The Straits Times          | 25 February 2016    | TAN Khee Giap, NGUYEN Le Phuong Anh & LUU Nguyen Trieu Duong            |
| 8  | 《谨慎调教 理性 高度包容 能力多数人接受的财政预算案》              | Lianhe Zaobao             | 25 March 2016       | 陈企业、连笑、谢特蕾西                                                   |
### G. Technical Data Description Notes

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<td>Database on 34 Greater China Economies, 2000-2013</td>
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<td>Database on Cost of Living, Wages and Purchasing Power for World’s Major Cities, 2005-2014</td>
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### H. Conference Proceedings

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<tr>
<td>1</td>
<td>Summary for 2015 ACI Review Seminar on &quot;Updating Provincial and Regional Competitiveness Analysis, and Tracking Potential Provincial Middle-Income Traps for GREATER CHINA&quot;</td>
<td>March 2016</td>
<td>28 August 2015 at Lee Kuan Yew School of Public Policy, National University of Singapore ACI Review Seminar on 34 Greater China Economies</td>
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<tr>
<td>2</td>
<td>Summary for 2015 ACI Review Seminar on &quot;Annual Update on Competitiveness Ranking and Simulations of ASEAN-10, Empirical Assessment of the Master Plan on ASEAN Connectivity and Tracking the Middle Income Transition for Selected ASEAN Economies&quot;</td>
<td>March 2016</td>
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<td>Summary for 2015 ACI Review Seminar on &quot;Ease of Doing Business Index on Attractiveness to Investors, Business Friendliness and Competitiveness Policies (EDB Index ABC), Middle Income Trap and Updating Competitiveness Ranking for 35 States and Federal Territories and Five Regions of INDIA&quot;</td>
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<td>8 September 2015 at Lee Kuan Yew School of Public Policy, National University of Singapore ACI Review Seminar on 33 Indonesian Provinces</td>
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<td>1</td>
<td>Research Mission to Eleven States &amp; Federal Territories of India by Delegation from Asia Competitiveness Institute (ACI) at Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS) 11-21 March; 5-7 April &amp; 18-21 May 2015</td>
<td>May 2015</td>
<td>11-21 March; 5-7 April &amp; 18-21 May 2015, India ACI's Research Mission to Eleven States &amp; Federal Territories of India</td>
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<td>Asia Competitiveness Institute (ACI) at Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore (NUS) Field Trip to Guangdong on &quot;Implementation of Innovation-Driven Development Strategies and Enhance the Core Competitiveness of Guangdong's Economy under the New Normal&quot; Invited by Counsellors' Office, the People's Government of Guangdong Province</td>
<td>May 2015</td>
<td>12 – 17 April 2015, Guangdong, China ACI's Field Trip to Three Cities in Guangdong (Shenzhen, Zhuhai, Guangzhou)</td>
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# Achievements for FY2016 (to be updated)

## B. Journal Papers

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<td>1</td>
<td>&quot;How do Exchange Rates Affect the Cost of Living for Expatriates and Ordinary Residents in Singapore and Hong Kong? An Empirical Investigation&quot;</td>
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<td>2</td>
<td>&quot;A New Index to Measure Cost of Living for Ordinary Residents in Cities&quot;</td>
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