

#### Economic Research Institute for ASEAN and East Asia





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## PUBLICATIONS CATALOGUE 2014

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ERIA regularly produces reports and publications to ensure that the rich findings of its studies are shared and disseminated to its target audience. ERIA publications are written and published in different forms—as key reports, research project reports, policy briefs, and discussion papers. These publications are categorised into six subject matters:

- ASEAN Economic Community
- Energy
- Infrastructure
- Narrowing Development Gaps
- Regional Comprehensive Economic Partnership/ Free Trade Agreements
- Sustainable Development

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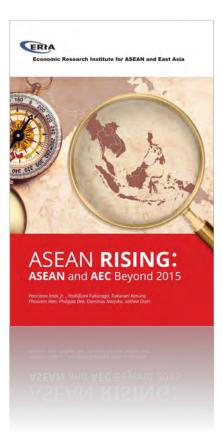
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## ASEAN Economic Community

ERIA is tasked to provide analytical support to the work of the Mid-Term Review of the ASEAN Economic Community (AEC) Blueprint. It also conducts improvement efforts of the AEC Scorecard on several priority sectors. Furthermore, ERIA works closely with related governments to conduct necessary follow-ups to the Jakarta Framework and Bali Concord III which look beyond 2015.



#### **ASEAN RISING**

By Ponciano Intal, Jr., Yoshifumi Fukunaga, Fukunari Kimura, Phoumin Han, Philippa Dee, Dionisius Narjoko, Sothea Oum

ASEAN RISING: ASEAN and AEC Beyond 2015 puts together ideas, thoughts, and papers from more than 30 experts and specialists in the region on various areas relating to ASEAN and the ASEAN Economic Community (AEC) beyond 2015. It discusses the challenges for ASEAN and AEC, how to face them, and how ASEAN should move forward towards AEC 2015 and beyond.

ASEAN is predicted to be highly populated by 2030, with about 720 million people, making the region a huge market. It is likely that by 2030, three or four ASEAN Member States (AMSs) would be high income countries, two to four AMSs would become upper middle income countries, and three to four rising towards becoming upper middle income countries themselves. The AMSs should maintain the momentum of reforms, institutional development, and community building towards an integrated and highly contestable ASEAN, a competitive and dynamic ASEAN, an inclusive and resilient ASEAN, and a global ASEAN. This then translates into an ASEAN RISING indeed.

This publication is ERIA's latest endeavour to support ASEAN and the regional integration efforts in ASEAN and East Asia. The recommendations made in this project are hoped to help the region move forward confidently into 2015 and beyond.



### Automobile and Auto Components Industries in ASEAN: Current State and Issues

by Research Institute Auto Parts Industries, Waseda University ERIA Research Project Report 2013-7

The realisation of the ASEAN Economic Community (AEC) 2015 will result in a common market with a population of over 600 million. The creation of such a common market will have great consequences for the world economy.

This research project focuses on the impact of AEC 2015 on the automotive industry, which includes vehicle producers and auto parts suppliers. The reason is that the brand-to-brand complementation (BBC) scheme as proposed by Mitsubishi Motors allows the automotive industry to play an important role in the historic development of AEC. The BBC scheme and the ASEAN Industrial Cooperation, which were replaced by the ASEAN Free Trade Area (AFTA), developed into the present AEC 2015.

However, this development is not the only relationship between the automotive industry and AEC; AEC is, in fact, the driving force in the development of said industry. The agglomeration of the automobile original equipment manufacturers and the extensive supplier industry is linked to this growth. In short, the automotive industry has been a main promoter and beneficiary of regional integration. Therefore, the research will be limited to exploring the impact of the forthcoming AEC 2015 on the automotive industry.

#### ASEAN Beyond 2015: The Imperatives for Further Institutional Changes

By Rizal Sukma ERIA Policy Brief 2014-05

As the members of the ASEAN are now committed to a deeper integration process towards an ASEAN Community beyond 2015, the need for greater and deeper institutionalisation has become more urgent. While ASEAN recognises the need to strengthen its institutions, as reflected in its commitment to undertake greater institutionalisation efforts mandated by the ASEAN Charter, the willingness of its member states to rely on regional institutions is still circumscribed by strong attachment to the principle of sovereignty and preference for maintaining unity amidst regional institutions without necessarily transforming itself into a supra-national organisation.

## Delivering Results in Standards and Conformance in ASEAN: The Critical Roles of Institutional Strengthening and the Private Sector

By Simon Pettman ERIA Policy Brief 2014-07

Addressing technical barriers to trade, as part of trade facilitation, is a key priority of ASEAN in achieving an integrated economy under the ASEAN Economic Community in 2015 and in building an effective and competitive economic community beyond 2015. Standards and conformance assessment measures, while seeking to ensure quality and safety of products for consumers, should not become barriers to trade across the region as ASEAN liberalises its trading regime. A delicate balance needs to be achieved between the two to build a thriving economic region. ASEAN has been working towards achieving standards harmonisation in its priority sectors of integration and bringing about regulatory convergence, taking into account the diversities in its 10 member states. More, however, needs to be done and, as this policy brief shows, the roles of institutional strengthening and the private sector are critical in this task.

## Education and Human Capital Development to Strengthen R&D Capacity in ASEAN

By Tereso S. Tullao, Jr. and Christopher James Cabuay ERIA Policy Brief 2014-01

Education is crucial in the process of economic development. Initially, investments in training and education produce the necessary technical workers. At higher levels of economic development, the formation of highly skilled technicians, engineers, and professionals are made through advanced levels of education. The accumulation of sophisticated types of human capital is a major factor in creating the research and innovation infrastructure of a mature economy. Yet, most ASEAN countries still have ways to go in order to fully develop their innovative capacity, judging by their research and development (R&D) capacity. Engineering, a significant source of innovations, needs to have its curriculum revamped to adapt to global competition and to cater to the need of countries to innovate. This study recommends the improvement of technical competence of engineering education, the exploration of possible cooperation among engineering schools and professionals, the development of the soft skills of engineering students, and the adoption of an innovation perspective in the development of a nation.

#### Financial Integration Challenges in ASEAN Beyond 2015

By Maria Monica Wihardja ERIA Policy Brief 2014-08

Financial integration can potentially bring economic benefits. However, it also comes with potential risks. Since ASEAN's financial sector is generally bank dominated, the banking sector is a key driver in the financial integration process. The ASEAN Banking Integration Framework (ABIF) aims to provide financial stability in the region and achieve multilateral liberalisation in the banking sector by 2020 for ASEAN commercial banks. Given the diversity of financial market development, economic structure, and priorities among ASEAN members, the implementation process of ABIF is very challenging; the biggest technical challenges concern harmonising of the principles of prudential regulations and building financial stability infrastructure. Political challenges, meanwhile, stem from varying political commitments to ABIF between countries, with the ABIF process experiencing numerous domestic political backlashes.

ASEAN countries can learn lessons from European Union (EU) banking integration, although the ABIF will not be the same as that of the EU. Ultimately, ABIF will continue to progress in the 'ASEAN way', marked by small incremental changes, pragmatism, and countries retaining much of their sovereignty.

## Stimulating Innovation in ASEAN Institutional Support, R&D Activity, and Intellectual Property Rights

By Rajah Rasiah ERIA Policy Brief 2014-06

The policy brief suggests initiatives that poorer ASEAN member governments should take to stimulate technological upgrading of firms at the bottom with a focus on innovation, and discusses the governance framework of intellectual property rights (IPRs) in ASEAN. With an emphasis on technology as the driver of economic growth, typologies of taxonomies and trajectories are used to evolve a policy framework to coordinate the relationship between macro-institutions, meso-organizations, and micro-agents (firms) for ASEAN members to transform from developing nations to join Singapore as developed nations. Recognising the varying capacities of ASEAN members, the paper recommends that a common platform of IPRs be developed with the more developed members assisting the least developed ASEAN members to quicken the development of a technologically more egalitarian region.

#### The ASEAN Single Aviation Market: Liberalizing the Airline Industry

By Alan Khee-Jin Than ERIA Policy Brief 2014-04

This policy brief presents an overview of the barriers facing air transport liberalization in ASEAN. It lays out the policies that governments should undertake to overcome these barriers, particularly in light of rapid changes in the aviation industry. It also assesses the incomplete or unfinished nature of the ASEAN Single Aviation Market that necessitates further liberalizing steps beyond 2015. In particular, more meaningful market access and ownership/control relaxations must be pursued to deal with the increasing competition from airlines outside the region. A united external policy is also required to enhance ASEAN's negotiating position vis-á-vis other countries and blocs.

#### Towards Freer Movement of Skilled Labour in AEC 2015 and Beyond

By Siow Yue Chia ERIA Policy Brief 2014-02

Movements of skilled labour in ASEAN have been largely from the lower income labour surplus economies to the higher income labour deficit economies in response to employment and remuneration differentials. The ASEAN Economic Community Blueprint includes the objective of free flow of skilled labour to facilitate flows in services and investment. However, free flow is obstructed by differences in qualifications, standards, and language proficiency as well as by national legal provisions and policies despite mutual recognition arrangements (MRAs) on professional services and the Agreement on Movement of Natural Persons. To facilitate free flows, their net benefits have to be emphasised; MRAs and labour market access be implemented effectively; and regional differences among tertiary institutions in standards, capabilities, and English language proficiency be narrowed through academic cooperation and exchanges, and joint establishment of regional centres of excellence.

#### Transmission Channels of Economic Shocks in ASEAN

By Ruperto Majuca and Jesson Pagaduan ERIA Policy Brief 2015-01

This policy brief examines the transmission of economic shocks both from the rest of the world into the ASEAN region and into a typical ASEAN Member State (AMS). 'Typical' here means representative AMSs, e.g., Singapore for a developed country, Philippines or Indonesia for ASEAN-5 economies, and Viet Nam for the CLMV (Cambodia, Lao PDR, Myanmar, Viet Nam) countries. It looks into the trade and financial linkages of a typical AMS and employs a specialised type of vector autoregression model to decompose the shocks into trade shocks, financial shocks, and commodity price shocks. The policy brief concludes with an analysis of the implications for macroeconomic policy coordination in the region.

#### Auto and Car Parts Production: Can the Philippines Catch Up with Asia?

By Rene E. Ofreneo ERIA Discussion Paper 2015-09

The Philippines pioneered the establishment of automotive assembly in Southeast Asia in the 1950s. But Thailand, Indonesia, and Malaysia have led the region since the 1990s. The foremost reasons for the decline are policy incoherence and unchecked inflows of smuggled cars, which are reflected in the erosion of the domestic automotive components supply base. Japanese assemblers are increasingly sourcing them from abroad through global production networks (GPNs), which has also made the Philippines a global producer of selected auto parts. Institutional support is necessary for the Philippines to take advantage of GPNs to catch up with the leading countries.

#### **China's Semiconductor Industry in Global Value Chains**

By Xin Xin Kong, Miao Zhang, Santha Chenayah Ramu ERIA Discussion Paper 2015-15

This article examines how global production networks have benefited technological upgrading in the semiconductor industry of China. Evidence shows that trade impacted positively on technological capabilities. The empirical evidence likewise shows that 93 percent of firms were engaged in incremental innovation activities, while 87 percent in new product development in 2012. Government support (90 percent) and collaboration with universities and research institutes (87 percent) have been pertinent in firms' participation in research and development activities.

#### Current State and Issues of the Automobile and Auto Parts Industries in ASEAN

By Hideo Kobayashi

ERIA Discussion Paper 2015-22

This paper provides an overview of the current situation of the automotive industry in ASEAN and certain member states. The current state of the ASEAN automobile industry is explained by putting it in the global context, including the ASEAN strategy of original equipment manufacturers (OEMs) from Europe, Japan, and other countries.

In general, the ASEAN Economic Community (AEC) 2015 will likely impact the automotive industry, which has two distinct patterns: on one side is production in developed markets with an integrated supply chain, while on the other side is production in developing markets that is mainly based on assembly of imported completely-knocked-down kits. While Toyota's Intelligent International Multi-Purpose Vehicle project represents the former, those of Tan Chong and Truong Hai Auto Corp. represent the latter. Thus, cases will be investigated to show the distinct effects of AEC 2015 on automobile production in the ASEAN region.

## Firm-level Evidence on Productivity Differentials and Turnover in Vietnamese Manufacturing

By Doan Thi Thanh Ha and Kozo Kiyota ERIA Discussion Paper 2014-07

This paper examines the relationship between productivity differentials and firm turnover in Vietnamese manufacturing. The study utilised firm-level data between 2000 and 2009, including the year 2007, when Viet Nam joined the World Trade Organization. The major findings are: (i) the productivity of entrants, survivors, and exiters increased simultaneously from 2006 to 2007, suggesting that the cut-off productivity level increased after trade liberalisation; and (ii) the resource reallocation between firms was facilitated after the liberalisation. These findings are consistent with the implications of the recent models of international trade and firm heterogeneity.

## Global Production Networks and Host-Site Industrial Upgrading: The Case of the Semiconductor Industry in Thailand

By Patarapong Intarakumnerd, Pun-Arj Chairatana, Preeda Chayanajit ERIA Discussion Paper 2015-18

Although Thailand's electronics industry has been considered as one of the strategic sectors, the evidence in this paper shows it is dominated by midstream and downstream activities. Despite accounting for a quarter of electronics exports, semiconductors manufacturing is confined to low value added activities. The lack of industrial policy has restricted technological upgrading in the industry. Upgrading efforts made by both public and private initiatives have so far failed. The case studies show that firms in Thailand must acquire and develop technological capabilities to stimulate the industry's transformation from low to high value added activities.

#### Globalization: A Woman's Best Friend? Exporters and the Gender Wage Gap

By Esther Ann Bøler, Beata Javorcik, Karen Helene Ulltvei-Moe ERIA Discussion Paper 2015-25

While the impact of globalization on income inequality has received a lot of attention, little is known about its effect on the gender wage gap (GWG). This study argues that there is a systematic difference in GWG between exporting firms and non-exporters. By virtue of being exposed to higher competition, exporters require greater commitment and flexibility from their employees. If commitment is not easily observable and women are perceived to be less committed workers than men, exporters will statistically discriminate against female employees and will exhibit a higher GWG than non-exporters. This paper tested this hypothesis using matched employer-employee data from the Norwegian manufacturing sector from 1996 to 2010. The identification strategy relies on an exogeneous shock, namely, the legislative changes that increased the length of parental leave days available only to fathers. The paper argues that these changes have narrowed the perceived commitment gap between the genders and show that the initially higher GWG observed in exporting firms relative to non-exporters has gone down after the changes took place.

## Host-site Institutions, Regional Production Linkages, and Technological Upgrading: A Study of Automotive Firms in Viet Nam

By Nguyen Dinh Chuc, Nguyen Ngoc Anh, Nguyen Ha Trang, Nguyen Ngoc Minh ERIA Discussion Paper 2015-11

Using technological capabilities that take account of technology embodied in machinery, organisation, processes, and products, this paper examines its link with host-site institutions and regional production linkages. The statistical results show no relationship between these variables. In-depth interviews complement the quantitative findings. Overall, the results show that the government's localisation efforts failed because too many joint-venture assemblers were approved in the 1990s when the domestic market was small. The lack of economies of scale also affected the growth of national suppliers. Hence, national producers are confined to low value added segments and lack the quality to compete in export markets.

## Host-site Support, Foreign Ownership, Regional Linkages, and Technological Capabilities: Evidence from Automotive Firms in Indonesia

By Rajah Rasiah, Rafat Beigpoor Shahrivar, Abdusy Syakur Amin ERIA Discussion Paper 2015-08

This study analyses the influence of host-site institutional support, foreign ownership, and regional production linkages on firm-level technological capabilities using data from automotive firms in Indonesia. The results show that host-site institutional support and foreign ownership are positively correlated with technological capabilities. In addition, regional linkages show a significant and positive link on technological capabilities. However, regional linkages and foreign ownership explain more strongly technological capabilities than host-site institutional support in automotive firms in Indonesia. This evidence suggests that the supporting high tech environment requires further strengthening to stimulate higher technological capabilities of Indonesia's automotive industry.

## Import Penetration, Export Orientation, and Plant Size in Indonesian Manufacturing

By Sadayuki Takii ERIA Discussion Paper 2014-17

This paper empirically examines differential impacts of globalisation on plant size among plants with different characteristics, including initial plant size, import and export status, and ownership. After accounting for other characteristics, results of this analysis suggest that both import penetration and export orientation do not have differential impacts on the size of larger and smaller plants. This is contrary to fears that only relatively large plants can benefit from globalisation while smaller plants would lose their market shares. The results also suggest that the negative impact of import penetration on plant size is greater for importers and that the increase in export orientation positively impacts the size of exporting plants.

#### Industrial Upgrading in Global Production Networks: The Case of the Chinese Automotive Industry

By Yansheng Li, Xin Xin Kong, Miao Zhang ERIA Discussion Paper 2015-07

This article examines the development of China's automotive industry. Evidence shows that integration in global production networks has stimulated upgrading of technological capabilities among automotive firms. However, the competitiveness and intra-industry analyses show mixed results. Although intra-industry trade in automotive products has improved since 2000, the trade competitiveness of completely built vehicles has largely remained in low value added activities. Nevertheless, firm-level evidence shows that the industry has undergone considerable upgrading, albeit in low value added activities. Trade integration and host-country institutional support have been the prime driving forces of technological upgrading of China's automotive industry.

## Institutional Support, Technological Capabilities, and Domestic Linkages in the Semiconductor Industry in Malaysia

By Rajah Rasiah and Yap Xiao Shan ERIA Discussion Paper 2015-16

This article examines the relationship between host-site institutional support and regional trade linkages on firm-level technological capabilities in the semiconductor industry in Malaysia. An evolutionary perspective was used to measure technological capabilities using knowledge embodied in machinery, organisation, processes, and products. The results show that host-site institutional support and regional trade linkages were correlated with technological upgrading. The relationship between host-site institutional support and technological upgrading was stronger than that between regional trade linkages and technological upgrading. Findings further revealed that host-site institutional support is more important than regional integration in influencing firms' capacity to upgrade their technological capabilities.

## Intra-industry Trade, Product Fragmentation, and Technological Capability Development in Thai Automotive Industry

By Patarapong Interakumnerd and Kriengkrai Techakanont ERIA Discussion Paper 2015-10

Thailand's automotive industry has evolved from a small import-substituting industry to a vibrant exporting one. It has contributed significantly and increasingly to the economy and intra-industry trade in Southeast Asia. The country also has experienced 'qualitative' change from simple production to technologically sophisticated activities. The evidence amassed illustrates that firm strategy and collaboration with other actors in the national innovation system were the most important drivers of technological upgrading in the industry. Local automotive part suppliers in particular had to become 'active' learners by collaborating with other partners beyond their own multinational buyers to compete in export markets.

## Market Integration and Energy Trade Efficiency: An Application of Malmqvist Index to Analyse Multi-Product Trade

By Yu Sheng, Yanrui Wu, Xunpeng Shi, Dandan Zhang ERIA Discussion Paper 2014-20

This paper uses the data envelope analysis method to investigate the Malmquist index-based gravity relationship between bilateral energy trade flows and their determinants throughout the world. Using a balance panel data of 40 countries between 1995 and 2008, this paper shows that market integration will increase energy trade by improving trade efficiency between trade partners, though allowing for a flexible substitution between different energy products tends to weaken these effects. This result highlights cross-product substitution and its implications for the aggregate energy trade pattern, providing insights on the importance of prioritising product-specific trade facilitating policies.

#### Migrant Networks and Trade:

#### The Vietnamese Boat People as a Natural Experiment

By Christopher Parsons and Pierre- Louis Vézina

ERIA Discussion Paper 2014-09

This paper provides cogent evidence for the causal pro-trade effect of migrants and, in doing so, establish an important link between migrant networks and long-run economic development. It studies a unique event in human history, the exodus of the Vietnamese boat people to the United States (US). This episode represents an ideal natural experiment as the large immigration shock—the first wave of which comprised refugees exogenously allocated across the US—occurred over a 20-year period during which time the US imposed a complete trade embargo on Viet Nam. Following the lifting of trade restrictions in 1994, the share of US exports to Viet Nam was higher and more diversified in those US states with a larger Vietnamese population, resulting from larger refugee inflows 20 years earlier.

#### Multinationals, Technology, and Regional Linkages in Myanmar's Clothing Industry

By Tin Htoo Naing and Yap Su Fei

ERIA Discussion Paper 2015-14

Myanmar's clothing industry has played a pivotal role in generating employment and exports. This article makes a contribution to the explication of the role of supporting institutions in the development of clothing manufacturing in Myanmar. The statistical analysis show that technological intensity is not correlated with labour productivity and export intensity, which may be a consequence of the infancy of the industry and the use of old technologies in Myanmar. Also, the Probit estimations show that regional linkages matter in labour productivity and export intensities but not with technological intensities in Myanmar's clothing industry.

## Offshoring and the Shortening of the Quality Ladder: Evidence from Danish Apparel

By Valéria Smeets, Sharon Traiberman, Frederic Warzynski ERIA Discussion Paper 2014-12

A small and growing empirical literature, particularly that of Khandelwal (2010), has attempted to analyse the role of quality in our understanding of trade. This paper builds on this new structural literature using similar demand estimation techniques on a panel of Danish apparel firms from 1997 to 2010 to analyse how firms responded to China's entry to the World Trade Organization and to the dismantling of the Multi-Fibre Agreement. This paper explores the implications of offshoring and import competition on the distribution of apparel quality in Denmark, and demonstrates the firm-level mechanisms that induced the observed aggregate changes. Finally, it shows how import competition appears to spur entry of higher quality firms and exit of lower quality producers. Nevertheless, the reallocation pattern is imperfect, suggesting that two sources of heterogeneity–productivity and quality margin–are key to understanding these patterns.

#### Social Protection in ASEAN: Challenges and Initiatives for Post-2015 Vision

By Mukul G. Asher and Fauziah Zen ERIA Discussion Paper 2015-06

ASEAN is engaged in framing a post-2015 vision for social protection in the region that would facilitate productive ageing. This paper assesses existing social protection systems in ASEAN and suggests initiatives which policymakers and other stakeholders could consider for progressing towards a more robust social protection system. The paper argues that progressing towards the post-2015 vision of social protection will require greater coordination between the economic and social sector groups in ASEAN, as weak social protection systems existing today will increasingly constrain future economic growth. ASEAN as a group will also need to lessen its reliance on outside donors for funding and expertise. The specific initiatives suggested for facilitating productive ageing in ASEAN are (i) creating an ASEAN social protection forum for developing more robust databases, encouraging communication and indigenous research, and rendering technical assistance to members; (ii) pursuing measures to reduce expenditure needs of the elderly, including well-designed discount systems for public amenities and basic needs; (iii) giving greater priority to cross-border worker agreements to improve their living conditions, and encourage totalisation agreements; and (iv) enhancing professionalism and systemic perspectives.

#### The CLMV Automobile and Auto Parts Industry

By Hideo Kobayashi and Yingshan Jin ERIA Discussion Paper 2015-23

To begin, consider the general economic characteristics of Cambodia, Lao PDR, Myanmar, and Viet Nam, collectively known as the CLMV countries. These countries joined ASEAN relatively late and are economically less developed than the original members. According to the World Bank (2012), Viet Nam's gross domestic product (GDP) stood at US\$155.8 billion in 2012, Myanmar's at around US\$50 billion, Cambodia at US\$14.04 billion, and Lao PDR at US\$9.41 billion. Therefore, these countries can be labelled developing countries. The level of economic development is also reflected in their GDP per capita. While Viet Nam and Lao PDR roughly have US\$1,500, that of Cambodia and Myanmar are below US\$1,000 and are, therefore, among the least developed countries.

More than 20 years after the end of the civil war, Cambodia still has not progressed economically. Under the military junta, Myanmar's economy also stagnated but with the gradual democratisation process, the country is receiving foreign direct investment and appears to slowly improve its economic status. However, while all these countries are on the path towards market economy and are strengthening their trade relations with Western countries, the common characteristic is that these countries' economic relations are strongly linked to the United States, China, South Korea, and Thailand.

#### The Garment Industry in Laos:

#### Technological Capabilities, Global Production Chains and Competitiveness

By Vanthana Nolintha and Idris Jajri

ERIA Discussion Paper 2015-13

This article examines the relationship between institutional support and regional production linkages, and technological capabilities and firm performance in the garment industry of Lao PDR. Evidence shows that the technology of garment firms in Lao PDR have been upgraded considerably, and that firm performance and technological capabilities are determined by export intensity. Firms' technological capabilities are determined by the quality of host-site institutional support, while foreign firms have invested little to upgrade human capital in the country. In addition, firms of all ownership structure have invested little in research and development.

#### The Indian Automotive Industry and the ASEAN Supply Chain Relations

By Tristan Leo Dallo Agustin and Martin Schröder ERIA Discussion Paper 2015-24

Automotive supply chains have been increasingly studied as these raise questions related to economic development, especially from the perspectives of simultaneous globalisation and regionalisation, and trade. While ASEAN is a prime example of intraregional production networks, supply chains that connect ASEAN and India have not been studied in depth. Therefore, this paper investigates the Indian automotive industry, which is composed of automobile original equipment manufacturers and parts and components producers, and other supply chain connections to the neighbouring ASEAN region.

#### The Transformation of the Clothing Industry in China

By Miao Zhang, Xin Xin Kong, Santha Chenayah Ramu ERIA Discussion Paper 2015-12

This article examines the transformation of clothing manufacturing in China with a focus on institutional support, technological upgrading, and global production chains. Evidence shows that reforms and integration into global production chains have rapidly expanded China's exports but have also driven the relocation abroad of Chinese clothing firms. Global integration has motivated clothing firms to upgrade through learning, adoption, and innovation. Hence, despite improvements in technological capabilities, the share of clothing value-added in manufacturing has gradually declined. Also, China has increasingly faced industrial structural change from clothing to the capital goods, real estate, and high tech sectors.

### **ENERGY**

ERIA analyses the energy saving potential in the East Asia region, transparent energy trade and investments, sustainability of biomass energy, and other aspects of energy.

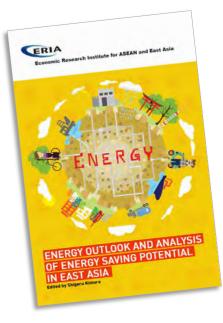


#### Energy Market Integration in East Asia: Energy Trade, Cross Border Electricity, and Price Mechanism

By Fukunari Kimura and Han Phoumin ERIA Research Project Report 2013-29

Research on energy market integration (EMI) has been the focus of many scholars, researchers, and leaders in the energy field as evidence, particularly in Europe and America, tends to show the benefits from such market integration. The ASEAN Community, aiming to achieve the ASEAN Economic Community, will need to address the issue on EMI more explicitly as it has been a driving force for economic growth in the region so far. For EMI and energy trade to occur, the basic prerequisite is to have sufficient available connecting infrastructure between markets and the supporting regulatory and political conditions. A well-coordinated and effective resource allocation could happen only if markets are contestable and fully competitive, and countries may give up their policy on sovereignty from 'own-regulation' to 'deregulation' in order to join regional market integration.

This EMI study provides analytical perspectives on constraints and barriers, and the measures that countries could take to address issues—from institutional, financial, and human resources—to realise the potential benefits from energy trade-related matters, power connectivity, and other EMI-involved mechanisms.



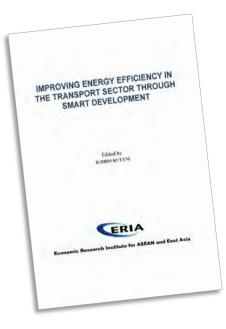
## **Energy Outlook and Analysis of Energy Saving Potential in East Asia**

By Shigeru Kimura ERIA Research Project Report 2013-19

This study is a response to the Cebu Declaration on East Asia Energy Security adopted by the East Asia Summit. It examines two energy outlook scenarios up to 2035: (i) business-as-usual (BAU) scenario which reflects each country's existing energy policy, and (ii) alternative policy scenario which includes additional energy saving goals and action plans currently being considered in each country. The study analyses the additional energy saving that could be achieved through the implementation of goals and action plans in each country that are beyond the BAU scenario.

Based on the results, ERIA recommended the following:

- Set up energy efficiency action plans across all energy-consuming sectors.
- Rationalise the prices of electricity, oil products, and natural gas in the near term, and remove subsidies, whilst considering support for low-income groups.
- Prepare consumption data regularly by conducting large-scale surveys, applying the experience and know-how obtained through the ERIA pilot surveys.
- Implement more aggressive energy saving goals and action plans, and utilise more low or zero carbon energy technologies.



## Improving Energy Efficiency in the Transport Sector through Smart Development

By Ichiro Kutani

ERIA Research Project Report 2013-27

This study examines ways of improving energy efficiency in the transport sector of East Asia Summit (EAS) countries. Amongst various possible measures, the study especially focuses on improving traffic flow in urban areas and its subsequent effects.

Coping with increasing oil demand is one of the top policy agenda in EAS countries since such demand has been causing countries a variety of concerns, such as deteriorating security of oil supply, exacerbating fiscal balances, and worsening air quality. Although a number of studies were conducted to address this issue, few focused on an interrelation between traffic flow and energy consumption. This study is unique in its approach as it interconnects energy policy and city planning, and quantifies the effect of traffic flow improvement on energy efficiency improvement.

The study examines policy options that could enhance a modal shift from private cars to public transport, through a simulation analysis for the selected sample city, Jakarta. Based on a preference survey of the general public, this analysis figures out a possibility of modal shift which leads to reduced use of private cars and, thus, reduced oil consumption.



#### Investing in Power Grid Interconnection in East Asia

By Ichiro Kutani and Yanfei Li ERIA Research Project Report 2013-23

This study covers ASEAN countries, Northeast India, and Southwest China. It estimates the cost and net economic benefits, which imply feasibility and priority of the proposed new transmission capacities, for each possible power transmission line for interconnection.

A positive net economic benefit indicates economic feasibility of the project; thus, it should be prioritised. Amongst the listed projects, the Viet Nam-Lao PDR-Thailand-Malaysia-Singapore interconnection route could be the most beneficial, and the Cambodia-Thailand linkage could be the second beneficial interconnection.

The study has the following policy implications:

- Investment efficiency for power infrastructure could be improved with enhanced grid interconnection in the region.
- Favorable investment environment is required to attract private and foreign capital to invest in the interconnection projects.



#### Study on Asian Potential of Biofuel Market

By Kaoru Yamaguchi ERIA Research Project Report 2013-20

With a growing population, rising income levels, and expanding urbanisation, Asia's demand for oil is expected to increase rapidly. However, due to limited resource reserves, most countries in the region are heavily dependent on imports for their oil supply, which is a major, if not the most critical, concern in their energy policies. Though it has been debated intensively, biofuel is perceived as a possible option to address the oil security issue, since expanding the use of biofuels will not only result in reducing demand for oil but will also contribute to the diversification of import sources for liquid fuels. Moreover, biofuel production also provides an additional way of increasing the income of farmers.

This study focuses on the Asian potential on the two types of biofuel—bioethanol and biodiesel. The objectives are to find the methods and policies for promoting the sustainable use of biofuels. The core strategy suggested in this study is to improve the enabling environment: improve productivity and enhance regional cooperation for trade and energy security.



## Study on International Cooperation on Nuclear Safety Management in East and Southeast Asian Countries

By Yanfei Li and Tomoko Murakami ERIA Research Project Report 2013-25

This publication is a response to the plan of some ASEAN countries to introduce commercial nuclear reactors in 2020 because of their increased energy demand. During the working group meetings, the following were discussed: (i) current development plan on safety regulatory systems, emergency preparedness, and participation in international activities of ASEAN member countries to identify problems in establishing an emergency action plan for accidents and to consider desirable cross-border cooperation; and (ii) proposals for regional cooperation on emergency preparedness and response.

The basic principle for regional cooperation in nuclear safety management involves four main issues that could enhance nuclear emergency preparedness and response. These issues are:

- Building a cooperative relationship with the regulatory organisation in Asia that would provide expertise and technical assistance on preparedness and response in cases of radiological or nuclear emergencies.
- Sharing experiences on nuclear safety to newcomers by training and educating regulatory staff in ASEAN countries, through expert organisations.
- Learning from the European Union-Nordic models of emergency response schemes.
- Constructing a common database on nuclear facilities and alert systems in Asian countries to collect accurate information to protect public health and the environment of a country, including accident prognosis and dispersion.

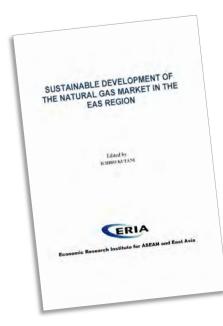


#### Study on the Development of an Energy Security Index and An Assessment of Energy Security Policy for East Asian Countries

By Ichiro Kutani ERIA Research Project Report 2013-24

This study examines the quantitative status of energy security in East Asia Summit (EAS) countries to predict the future and draw out policy implications for improving their specific situations. Although the importance of energy security has already become common ground and shared amongst countries, the methodology to obtain an accurate and quantitative view of its status is not established with consensus. An accurate understanding of the current situation in energy security is essential in developing and implementing better energy policy. From this point of view, the lack of an established assessment methodology is a matter of concern. This study aims to provide a possible way to have an accurate view of the energy security situation in the EAS region.

The study developed and assessed some indices that can explain certain aspects of energy security called energy security index. The study then applied this methodology to examine the future status by using energy supply-demand outlook and other relevant data. In analysing future status, the study employed the business-as-usual and the alternative policy scenarios to conduct comparative analysis. Policy implications for enhancing energy security in the region were then derived.



## Sustainable Development of the Natural Gas Market in the EAS Region

By Ichiro Kutani ERIA Research Project Report 2013-26

This publication explores the necessary measures to achieve sustainable development of the natural gas market in the East Asia Summit (EAS) region where demand for natural gas is increasing.

The driving factors of this trend include the effective use of domestic resources, diversification of energy source, and reduction of environmental load. At the same time, import dependency for natural gas supply is rising in many member countries. Countries are also experiencing and anticipating structural changes in the global gas market, particularly as regards the shale revolution in the United States. As such, the region needs to implement the necessary and appropriate policy measures that can respond to this changing situation.

The paper examines recent changes in the global gas market that may have an influence on the EAS region. Subsequently, it explores the natural gas supply-demand and policy trends in the region. With this background information, the study further analyses the supply-demand outlook of the region for natural gas/liquefied natural gas, and discusses major issues that policymakers need to address.

## Analysis on Price Elasticity of Energy Demand in East Asia: Empirical Evidence and Policy Implications for ASEAN and East Asia

By Han Phoumin and Shigeru Kimura ERIA Discussion Paper 2014-05

This study uses time series data of selected ASEAN and East Asian countries to investigate the patterns of price and income elasticity of energy demand. The findings show that price is generally inelastic in the countries studied. Also, price elasticity in developing countries is more sensitive than in developed countries. Income has been very sensitive towards energy consumption, except in India, China, and Australia. The findings have policy implications as inelastic price will impact on the uptake of energy efficiency in developing and developed countries. Therefore, removal of energy subsidies, albeit done gradually, will be critical to the promotion of energy efficiency. Its impact likewise goes further in that it will benefit uptake of renewable energy, the environment, and society.

#### ASEAN-India Gas Cooperation: Redefining India's "Look East" Policy with Myanmar

By Andindya Bhattacharya and Tania Bhattacharya ERIA Discussion Paper 2014-19

As economic power shifts towards Asia–particularly China, India, and ASEAN–a robust energy cooperation within this region will help sustain the region's development. This study focuses on India and how its 'Look East' Policy helps forge trade and other bilateral cooperation with ASEAN nations, and how Myanmar, with its abundant untapped natural resources which include hydro and natural gas, plays a strategic role in India's energy security. This study also concentrates on a particular energy resource—natural gas—and develops a quantitative assessment model to evaluate the long-term natural gas demand of India and its neighbours vis-à-vis infrastructure requirements, and investment demand. It also looks at how India's 'Look East' Policy can help secure the required amount of natural gas from the ASEAN and East Asia region and at what cost.

#### Deregulation, Competition, and Market Integration in China's Electricity Sector

By Yanrui Wu

ERIA Discussion Paper 2014-22

This report presents an updated and expanded review of reforms in China's electricity sector. It aims to examine the impact of reforms on competition, deregulation, and electricity market integration in China. The findings are used to draw policy implications for electricity market development, particularly the promotion of energy market integration.

#### Enhanced Measurement of Energy Market Integration in East Asia: An Application of Dynamic Principal Component Analysis

By Dandan Zhang, Xunpeng Shi, and Yu Sheng ERIA Discussion Paper 2014-23

Part of the initiatives to enhance cooperation among ASEAN and its dialogue partners is the energy market integration (EMI) in East Asia that has been under way for over a decade. Despite the efforts exerted by countries in the East Asia Summit (EAS) region, little research has been done to measure the extent of EMI's progress. This paper innovatively applies the dynamic principal component analysis to measure EMI and its evolution in the EAS region between 1995 and 2011. The EMI is measured using five categories: (i) energy trade liberalisation, (ii) investment liberalisation, (iii) energy infrastructure development, (iv) domestic market openness, and (v) energy pricing liberalisation.

Results show that significant progress has been made for the EMI in the EAS region, although there are cross-country disparities in different aspects. According to the level of progress achieved, further efforts towards EMI in general should focus on liberalising national markets, then phasing out fossil fuel subsidies and, finally, liberalising investment regime. Some mechanisms have to be developed to keep national level market liberalisation under monitoring. Certain countries that lagged behind in EMI may have to catch up and learn from either their past experiences or from other nations, and focus their efforts on their relatively weak dimensions.

## Impact of International Oil Price Shocks on Consumption Expenditures in ASEAN and East Asia

By Dayong Zhang and David C. Broadstock ERIA Discussion Paper 2014-24

This paper examines the impact of international oil shocks on consumption expenditure in selected ASEAN and East Asia economies. Empirical results show that oil shocks do affect consumption and there are asymmetrical effects. There are clear differences in the level and direction of the impacts on each ASEAN and East Asia economy. These implications shed light on how the idea of regional energy market integration can be a way to share risks and optimise resource allocation. Nonetheless, given the clear disparity and similarity in sub-groups, integration should be implemented while allowing for differentiation in terms of the role of each country.

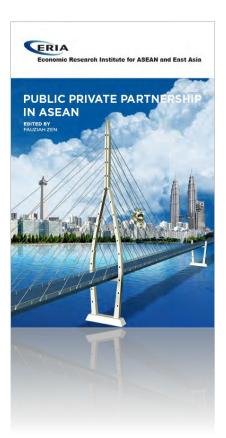
## Trade-off Relationship between Energy Intensity—thus energy demand—and Income Level: Empirical Evidence and Policy Implications for ASEAN and East Asia Countries

By Han Phoumin and Fukunari Kimura ERIA Discussion Paper 2014-15

This study has been motivated by the recent shift of energy demand's gravity to Asia due to decades of robust and stable economic growth in the region. Said economic growth has correspondingly led to increases in per capita income in emerging economies in ASEAN and East Asia. Past empirical studies showed that energy intensity—thus energy demand—tends to grow at an early stage of development. However, curbing the energy intensity remains central to green growth policy. Thus, this study formulates the hypothesis on whether energy intensity, thereby energy demand, starts to fall as a country becomes richer. The study aims to investigate the (i) non-monotonic relationship between energy demand and income levels in selected ASEAN and East Asia countries, (ii) short- and long-run association of energy demand with price and income level, and (iii) country performance in curbing the energy intensity.

The findings imply three points: (i) energy intensity—thus, energy demand—has a trade-off relationship with income level which contributes to the theory of energy demand; (ii) energy demand has a trade-off relationship with income level, albeit the fact that each country has a different threshold level, implying that whatever the level of per capita income a particular country has, that country can curb energy intensity if it has the right policies in place; and (iii) countries with persistently increasing energy intensity will need to look into their energy efficiency policies more aggressively to ensure that structural changes in the economy do keep the energy efficiency policy to its core.

# INFRASTRUCTURE ERIA follows up the implementation of the Master Plan on ASEAN Connectivity and the Comprehensive Asia Development Plan in various countries. It also examines appropriate risk sharing for Public-Private Partnership projects.



#### **ASEAN PPP Guidelines**

By Fauziah Zen and Michael Regan

Infrastructure is vital and in increasing demand, especially in emerging economies with rapid rates of economic and population growth. There is no dispute that when an infrastructure project is selected correctly and the process to develop it is conducted efficiently, it can significantly impact on growth.

If public-private partnership (PPP) is based on a good governance process, it should be implemented in the right way, providing additional sources for infrastructure finance and supporting economic growth. Efficiency, innovation, and quality are among the key advantages sought by PPP projects. Yet, setting up and launching a PPP is no easy task.

This publication is designed to provide a common set of policy principles for member countries of ASEAN. It offers a broad framework based on best practice standards that will help government departments manage and implement PPP projects.



#### **Financing ASEAN Connectivity**

By Fauziah Zen and Michael Regan ERIA Research Project Report 2013-15

This report gives deeper insights on how infrastructure development is being funded in different ASEAN Member States (AMSs) for ASEAN connectivity. In this regard, the Public-Private Partnership (PPP) programme is also seen as a way to help build infrastructure in ASEAN.

The AMSs have different levels of infrastructure policy, financing method, and financial capacity. The PPP programme has been significantly developed and utilised in Malaysia, Indonesia, Thailand, the Philippines, and Singapore. Whilst Cambodia and Viet Nam have not yet formalised the PPP, private sector participation has become increasingly important in infrastructure development. Lao PDR and Myanmar have potentials, but are facing multiple challenges from lack of fiscal sources for fiscal sustainability. PPP still takes a less significant role in Brunei Darussalam that has abundant public financial resources to build infrastructure.

The differences amongst ASEAN countries mentioned above are seen in many ways. The issues discussed in this report consist of the country's fiscal situation, regulatory framework, potential financial sources, the PPP in ASEAN, and the PPP in an ASEAN way. This publication will hopefully give a broader and better picture of the financing situation in ASEAN's infrastructure development and help both academics and policymakers in making recommendations and policies regarding infrastructure development in ASEAN for ASEAN connectivity.

#### Infrastructure Investment for Power Trade and Transmission in ASEAN+2: Costs, Benefits, Long-Term Contracts, and Prioritised Development

By Yanfei Li and Youngho Chang ERIA Discussion Paper 2014-21

This study establishes a system approach in assessing the financial viability of power infrastructure investment for the Greater Mekong Subregion (GMS) and ASEAN Power Grid (APG) in the ASEAN+2 (ASEAN plus China and India) region. It aims to identify the financial and finance-related institutional barriers in implementing such regional power interconnectivity. A whole-grid/system simulation model is built to assess both their financial and commercial viability, which implies profitability for investors and bankability for financiers of new transmission projects with the optimised pattern of power trade. The study also determines the optimised planning of new transmission capacities. Results show that the existing planning of power transmission infrastructure in the region, so-called APG+, stands as a commercially and financially viable plan. However, planning in terms of timing, routes, and capacity of the cross-border transmission lines can be improved. The study also recommends that GMS-related projects be prioritised.

## Narrowing Development Gaps

To help achieve a more equitable development and narrowing of the development gaps in the region, ERIA conducts research on small and medium enterprises (SME) and social safety net issues, among others. On SME, ERIA developed the ASEAN SME Policy Index to support ASEAN Member States in establishing competitive and innovative SME sectors. On safety nets, as ASEAN economies become more integrated, more exposed, and vulnerable to external shocks, and with many people in the region facing the challenge of ageing at relatively low incomes, there is a need to look into the issue of establishing robust, yet prudent, safety net and social protection programmes.



## ASEAN SME Policy Index 2014:Towards Competitive and Innovative ASEAN SMEs

By ERIA SME Research Working Group

Small and medium enterprises (SMEs) are an important driver for job creation and an engine of economic growth in ASEAN, accounting for more than 96 percent of all enterprises in the region. As the ASEAN Economic Community (AEC) moves toward a higher level of market integration, new perspectives are opening for these firms. Innovative and high-growth SMEs, in particular, have an opportunity to transform their business. To help SMEs fully tap these possibilities, ASEAN member countries have been taking steps to stimulate SME growth.

This publication presents SME development policies and actions implemented by ASEAN countries and helps identify strengths and weaknesses in policy design and implementation. It compares the experiences and performance of the 10 ASEAN member countries, measures convergence towards the policy guidelines of the ASEAN Strategic Plan for SME Development, and recommends priority reforms, using the SME Policy Index as methodology.

The ASEAN SME Policy Index, derived from the SME policy index of the Organisation for Economic Co-operation and Development, was adapted to the ASEAN context. It is a tool to systematically and analytically track policy development and to identify gaps in policy elaboration and implementation at the national and regional levels.



## Innovation, Technology Transfers, Finance, and Internationalization of SMEs' Trade and Investment: Policy Best Practices for ASEAN and East Asia

By Sothea Oum, Patarapong Intarakumnerd, George Abonyi, and Shigeo Kagami ERIA Research Project Report 2013-14

The ASEAN Policy Index study revealed that a lot is to be done towards adopting best practices in each policy area of small and medium-sized enterprises (SMEs). These policy areas are institutional framework, access to support services, cheaper and faster start-up and better legislation and regulation for SMEs, access to finance, technology and technology transfer, international market expansion, promotion of entrepreneurial education, and more effective representation of SMEs' interests.

The most significant gaps and low regional standing are on policies that promote technology development and transfer; access to finance; entrepreneurial education; cheaper, faster start-up and better regulations; and access to support services. This study aims to hasten the narrowing of these policy gaps and formulating a regional strategy to boost SME participation in trade and investment in ASEAN and East Asia. It documents policy best practices in these areas which are critical in fostering regional SMEs' policy cooperation and in providing practical policy implementation.

## Constraints, Determinants of SME Innovation, and the Role of Government Support

By Sothea Oum, Dionisius Narjoko, and Charles Harvie ERIA Discussion Paper 2014-10

This paper provides an empirical analysis of potential constraints to SMEs upgrading their capability to innovate, and assesses the effectiveness of government support in overcoming these constraints. The justification for government support is that market failures can hinder SMEs' access to information, finance, technology, and human resources. This paper focuses on the impact of the perceived effectiveness of government support through business development services in terms of providing training, counselling and advice, technology development and transfer, information, business linkages, financing, and a conducive business environment. The effectiveness of this support is evaluated against the ability of SMEs to innovate.

#### Japanese Small and Medium-Sized Enterprises' Export Decisions: The Role of Overseas Market Information

By Tomohiko Inui, Keiko Ito and Daisuke Miyakawa ERIA Discussion Paper 2014-16

This paper examines how the decision to export by Japanese firms is affected by the availability of information on export markets, focusing on whether the availability of such information has a different impact on the export decision between large firms and small and medium-sized enterprises (SMEs). The study focuses on the role of firms' lender banks as an additional source of information. It also uses a unique dataset containing information on firms' export activities and their lender banks' exposure to other exporting firms and lender banks' own overseas activities.

Findings reveal that information spillovers through lender banks positively affect SMEs' decision to start exporting and the range of destinations to which they export. Such information spillovers also reduce the likelihood that exporter firms exit from export markets. The export-to-sales ratio of exporter firms, however, is not affected by such information spillovers. The results imply that information on foreign markets provided by lender banks substantially reduces the fixed entry costs associated with starting exporting and entering new export markets as well as firms' costs associated with continuing to export. Our results highlight that channels of information spillovers other than those examined in the literature so far may be considerably important, especially for SMEs.

## Productivity Evolution of Chinese Large and Small Firms in the Era of Globalisation

By Yifan Zhang ERIA Discussion Paper 2014-13

Using a large firm-level dataset from China's manufacturing industry, this paper studies the productivity gap and productivity convergence between large and small firms in China. Findings reveal that small firms were less productive than large firms, but the productivity gap became smaller over the sample period 1999-2007. Based on static and dynamic Blinder-Oaxaca decompositions, the paper distinguishes the endowment effect from the return effect, and quantifies the impacts of exports and FDI on the productivity gap and productivity convergence.

#### The Exporting and Productivity Nexus: Does Firm Size Matter?

By Cassey Lee

ERIA Discussion Paper 2014-14

The main purpose of this study is to examine whether the relationship between exporting and productivity differs across firm sizes in the Malaysian manufacturing sector. A firm-level panel data from the Study on Knowledge Content in Economic Sectors in Malaysia (MyKE) is used in the study. Overall, exporters were found to be more productive than non-exporters. This productivity gap becomes less important as firms become larger.

Evidence suggests that the selection process for exporting is binding only for small firms. Policies that are meant to encourage small firms to export need to focus on enhancing human capital and foreign ownership.

## Regional Comprehensive Economic Partnership/ Free Trade Agreements

ERIA is conducting a comprehensive mapping of existing ASEAN+1 Free Trade Agreements (FTAs) and bilateral FTAs to provide policy recommendations towards the Regional Comprehensive Economic Partnership.

#### Assessing the Progress of ASEAN MRAs on Professional Services

By Yoshifumi Fukunaga ERIA Discussion Paper 2015-21

ASEAN has established mutual recognition arrangements (MRAs) on eight professional services. This paper assesses the progress of these arrangements' paying special attention to the (i) regional and national implementation, (ii) national regulatory changes, and (iii) utilisation of these frameworks and actual movement of these professionals in the region. MRAs on Architectural and Engineering Services have made steady progress, including the setting up of regional registration systems. This, however, has not resulted in a large-scale movement of these professionals for many reasons, such as existence of alternative legal schemes and small additional benefits of ASEAN MRAs. The ASEAN MRA on Nursing Services, without a regional registration system, has facilitated movement of nurses in only a few countries. Meanwhile, further efforts in advancing initiatives closely related to the movement of people are being made through the ASEAN Agreement on the Movement of Natural Persons, ASEAN MRA on Accountancy Services, ASEAN MRA on Tourism Professionals, and the ASEAN Qualifications Reference Framework.

#### Beyond Trade Creation: Free Trade Agreements and Trade Disputes

By Tan Li and Larry D. Qiu ERIA Discussion Paper 2015-28

This paper investigates the effects of the formation of free trade agreements (FTAs) on trade disputes. A unique and comprehensive dataset on inter-country trade disputes from 1995 to 2007, covering 110 countries and 1,130 trade disputes, was constructed.

Findings reveal that the incidences of trade disputes between two countries are positively associated with economic size, economic growth, and trade shares, thereby lending partial support to the 'capacity hypothesis' in the dispute literature. More importantly, FTAs between two countries reduce the occurrence of trade disputes between them. Moreover, FTAs relying on the dispute settlement mechanism of the World Trade Organization further reduce trade disputes between their members compared to FTAs without provisions on trade dispute settlement. By contrast, the dispute-reducing effect is mitigated in FTAs which have their own dispute settlement mechanisms. The main results are robust to the control for possible measurement error and endogeneity problem.

#### **Business Licensing: A Key to Investment Climate Reform**

By Lili Yan Ing, Stephen Magiera ERIA Discussion Paper 2015-05

Reforming business licensing is a key starting point for improving the investment climate. Complex licensing procedures may encourage firms to remain unregistered, giving rise to difficulties later in accessing finance from formal financial institutions and constraining productivity and expansion. Across sectors, this can suppress the establishment of new firms and, therefore, the creation of new jobs, dragging down overall economic growth. Improving and reforming business licensing can significantly increase the number of businesses and thus help nurture job creation. Several guick-win interventions are possible. First, there is a need to improve the guality of the business licensing website and help desk. The website and help desk should act as a frontline in dealing with investment regulations and policies for investors. Improvements should cover both hard and soft infrastructure of the website and help desk, including the skills of officials. Second, business license simplification should be continued by limiting licenses to those that serve their objective and cutting unnecessary licenses, and/or consolidating licenses. Third, full implementation of electronic application and payment systems for business licenses should be fostered, together with increasing the non-fiscal incentives for firms to become registered. The registration system should also function as a nationwide database which could then be a source of reliable information both on firms and for firms, linked to government programmes and grants, and business regulation updates. Fourth, a transparent system to show the progress of each business application should be set up, together with a recorded evaluation system through which users can provide feedback to improve the system. Finally, efforts in the medium term should focus on improving coordination among government agencies and clarifying the roles of central and local regulations, both horizontally and vertically.

#### Coverage of Trade in Services under ASEAN+1 FTAs

By Hikari Ishido ERIA Discussion Paper 2014-26

This paper examines how ASEAN-centred free trade agreements (FTAs), or so-called ASEAN+1 FTAs, are correlated among themselves and thus have the potential to be merged into one single commitment toward the establishment of a Regional Comprehensive Economic Partnership (RCEP). The coverage index defined in this paper highlights similarities and differences among the ASEAN+1 FTAs. While it shows rather low levels of commitment by member countries, a feasible policy suggestion is to further prioritise the priority integration sectors, including transport-related sectors, for a seamless ASEAN Economic Community and a well-connected RCEP.

#### Did China Tire Safeguard Save U.S. Workers?

By Sunghoon Chung, Joonhyung Lee, Thomas Osang ERIA Discussion Paper 2015-26

It has been well documented that trade adjustment costs to workers due to globalisation are significant and that temporary trade barriers have been progressively used in many countries, especially during periods of high unemplolyment rates. Consequently, temporary trade barriers are perceived as a feasible policy instrument for securing domestic jobs in the presence of increased globalisation and economic downturns. However, no study has assessed whether such temporary barriers have actually saved domestic jobs. To overcome this deficiency, we evaluate the China-specific safeguard case on consumer tires petitioned by the United States. Contrary to claims made by the Obama administration, we find that total employment and average wages in the tire industry were unaffected by the safeguard using the 'synthetic control' approach proposed by Abadie et al. (2010). Further analysis reveals that this result is not surprising as we find that imports from China are completely diverted to other exporting countries partly due to the strong presence of multinational corporations in the world tire market.

## Dynamic Two-way Relationship between Exporting and Importing: Evidence from Japan

By Kazunobu Hayakawa and Toshiyuki Matsuura ERIA Discussion Paper 2014-08

This paper investigates the dynamic nature of trading using Japanese firm-level data. Specifically, the study examines state dependence and cross effects in exporting and importing. Findings of this study are: (i) there are significant state dependence and cross effects in exporting and importing; (ii) those effects diminish over time; (iii) such state dependence and cross effects are found to be market-specific and such market specificity is more significant in small and medium-sized enterprises; and (iv) past export/import intensity matters in the current trade status.

#### **Exporting and Firm-Level Credit Constraints - Evidence from Ghana**

By Mai Anh Ngo ERIA Discussion Paper 2015-27

This paper models how firms finance their fixed costs of exporting—through internal financing from retained earnings and external financing by borrowing from banks. The theoretical model features firms that are heterogeneous in productivity, liquidity, and collateral. It also models the lending decisions of banks explicitly, allowing for endogenous firm default rate as well as allowing the loan interest rate to depend on the characteristics of firms. The model predicts that credit access positively impacts the export propensity of firms and that this effect is only significant in firms in the intermediate range of productivity. These predictions are supported by the empirical analysis of a longitudinal data set of Ghanaian firms; the empirical results are robust to various robustness checks.

#### Fiscal Policy and Equity in Advanced Economies: Lessons for Asia

By Gemma Estrada, James Angresano, Jo Thori Lind, Niku Määttänen, William McBride, Donghyun Park , Motohiro Sato, and Karin Svanborg-Sjövall

ERIA Discussion Paper 2015-04

Advanced economies have a longer history of leveraging fiscal policy to address inequality relative to developing Asia. We examine the country experiences of the Nordic countries, France, Japan, and the US, to draw lessons for developing Asia in its relatively new quest to use fiscal policy to promote inclusive growth. Those experiences suggest that fiscal policy can indeed be an effective tool for inclusive growth as long as it does not compromise fiscal sustainability or economic growth.

#### How Restrictive are ASEAN's RoO?

By Olivier Cadot and Lili Yan Ing ERIA Discussion Paper 2014-18

This paper uses a disaggregated (product-level) gravity approach to estimate the effect of ASEAN's product-specific rules of origin (RoO) on regional trade, using original data on rules applicable at the six-digit level of the harmonised system. Overall, findings reveal that the average ad-valorem equivalent (AVE) of ASEAN's RoO is 3.40 percent across all instruments and sectors. The trade-weighted average is 2.09 percent, which is in line with existing literature. However, some sectors—including leather, textile and apparel, footwear, and automobiles—have fairly high AVEs. The study finds that some rules appear more restrictive than others; in this regard, the Textile Rule seems to stand out as a relatively more trade-inhibiting rule than others.

#### Impact of Free Trade Agreements on Trade in East Asia

By Misa Okabe ERIA Discussion Paper 2015-01

This policy brief examines the transmission of economic shocks both from the rest of the world into the ASEAN region and into a typical ASEAN Member State (AMS). 'Typical' here means representative AMSs, e.g., Singapore for a developed country, Philippines or Indonesia for ASEAN-5 economies, and Viet Nam for the CLMV (Cambodia, Lao PDR, Myanmar, Viet Nam) countries. It looks into the trade and financial linkages of a typical AMS and employs a specialised type of vector autoregression model to decompose the shocks into trade shocks, financial shocks, and commodity price shocks. The policy brief concludes with an analysis of the implications for macroeconomic policy coordination in the region.

### Korea's Policy Package for Enhancing its FTA Utilization and Implications for Korea's Policy

By Inkyo Cheong ERIA Discussion Paper 2014-11

Korea's trade with most of its 46 free trade agreement (FTA) partner countries expands continuously. Its FTA utilization ratios were as low as 20 percent before 2010. However, Korea recorded higher than 70 percent of FTA utilization in the case of the Korea-US FTA and the European Union-Korea FTA in 2013. Today's high performance could be achieved through the strategic approach and diverse support mechanisms initiated by its government since 2010. The supporting programmes for businesses included education courses for companies and consulting, workshops to explain, and provide information on, the FTAs, building the portals for FTAs, and the expos for FTAs in foreign countries.

Several policy implications can be drawn from Korea's experience in assisting businesses using FTAs: (i) the major barriers that prevent companies from utilizing FTAs should be clearly identified; (ii) coordination among national supporting agencies is critical in increasing the efficiency of the infrastructure assisting FTA utilization; (iii) governments should promote FTAs with large economies to bring expected high economic gains in general; (iv) authorities of trade and industry should understand the importance of the quality of FTAs.

#### Learning from the ASEAN+1 Model and the ACIA

By Nanda Nurridzki ERIA Discussion Paper 2015-19

The Regional Comprehensive Economic Partnership (RCEP) is a new regional integration initiative intended to achieve a modern, comprehensive, high-quality, and mutually beneficial economic partnership agreement among the ASEAN Member States (AMSs) and ASEAN's free trade agreement (FTA) partners. It will enhance access to a huge potential market, bringing benefits to both businesses and consumers in the participating countries and should lead to greater economic integration, support equitable economic development, and strengthen economic cooperation among the countries involved.

In general, RCEP can be seen as a regional economic integration process in East Asia on a higher level. It is assumed that RCEP will produce a commitment from AMSs and most partners. Commitments from the partners are also expected to be in conjunction with the commitments made with individual AMSs. Additionally, the commitments made under RCEP are supposed to be substantially better compared to the existing ASEAN+1 commitment. This technical note aims to support RCEP through an analysis of the current ASEAN+1 FTAs, which will be an input for policy during RCEP negotiations in the area of investment.

## Multiproduct Firms, Export Product Scope, and Trade Liberalization: The Role of Managerial Efficiency

By Larry Qiu and Miaojie Yu ERIA Discussion Paper 2014-06

This paper provides a theoretical and empirical analysis of the effects of one-sided tariff cuts on the export product scope of firms. The theoretical model explicitly incorporates cost of management in addition to the commonly used production cost. Firms are heterogeneous in terms of managerial efficiency but homogenous in terms of production productivity. The analysis predicts that the home country's tariff cut reduces all home firm's export product scope, whereas in response to the foreign country's tariff cut, a home firm's export product scope expands (shrinks) if the firm's management cost is low (high). These predictions are supported by the paper's empirical analysis based on data on Chinese firms from 2000 to 2006.

## Searching for an Ideal International Investment Protection Regime for ASEAN + Dialogue Partners (RCEP): Where Do We Begin?

By Junianto James Losari ERIA Discussion Paper 2014-25

The members of ASEAN and its six dialogue partners—Australia, China, India, Japan, New Zealand, and South Korea—decided in November 2012 to launch the negotiation of a free trade agreement (FTA), also known as the Regional Comprehensive Economic Partnership (RCEP). The agreement includes investment despite the fact that the negotiating states already have various international investment agreements with each other. This paper analyses how RCEP can better improve and add more value to the current regime of international investment protection within the region by suggesting standards that negotiators should consider.

## Towards an Enabling Set of Rules of Origin for the Regional Comprehensive Economic Partnership

By Erlinda M. Medalla ERIA Discussion Paper 2015-03

With overlapping, multiple free trade agreements (FTAs), such as those of ASEAN and the various ASEAN+1 FTAs, complications could arise that run counter to the economic integration objectives of the East Asia region. Forging the Regional Comprehensive Economic Partnership (RCEP) among ASEAN and its FTA partners is a next logical step. How facilitative the rules of origin (RoO) provisions are could prove crucial in maximising the potential benefits. This paper revisits the nature of RoO in ASEAN and the various ASEAN+1 FTAs to (i) examine the surrounding constraints and issues, and (ii) provide recommendations on the beneficial set of RoO for the RCEP to serve as inputs for policymakers and negotiators.

#### **Use of FTAs from Thai Experience**

By Archanun Kohpaiboon and Juthathip Jongwanich ERIA Discussion Paper 2015-02

This paper examines in depth the use of free trade agreements (FTAs) in Thailand to shed light on the ongoing negotiations on the Regional Comprehensive Economic Partnership. The key finding is that whilst certificates of origin significantly increased over the period in consideration, their value remained less than one-third of total trade.

The ASEAN Free Trade Area and its successor, the ASEAN Economic Community, accounted for the largest share with a noticeably declining relative importance. Products that are often traded under an FTA preferential trade scheme are highly concentrated. Firms in these sectors are generally large in size and their products have a high level of local content. Evidence that the top 15 items are usually subject to high tariff margins suggests that firms incur costs when applying for a certificate of origin. Our analysis suggests that FTAs could be used to gradually achieve trade and investment policy reforms. To encourage firms to use the signed FTA, policy focus should be on the rules of origin and their related administrative procedures.

## Value and Limitations of the ASEAN Agreement on the Movement of Natural Persons

By Yoshifumi Fukunaga and Hikari Ishido ERIA Discussion Paper 2015-20

ASEAN Economic Ministers signed the Agreement on the Movement of Natural Persons (MNP) in 2012. This is a new instrument potentially facilitating the free flow of goods, services, investment, and skilled labour, thus contributing to the establishment of an ASEAN single market and production base.

This paper then aims to assess the benefits and limitations of this new instrument. The MNP Agreement is an independent mode 4 services agreement. Actual commitments cover business visitors, intra-corporate transferees, and contractual services suppliers. In general, the commitments add value to predated agreements for many ASEAN Member States in terms of wider sectoral coverage and/or new categories of commitment. However, the commitments vary widely across countries in terms of sectoral coverage, committed categories of MNP, and lengths of initial periods of stay. A stand-alone MNP Agreement may result in mode 4 commitments inconsistent with mode 3 commitments. Furthermore, the current agreement does not cover non-services sectors at all.

## Sustainable Development

The issues on environment, disaster management, and food security all affect the sustainability of the economic and social well-being of the peoples of ASEAN and East Asia. As such, studies on these areas remain high on the list of ERIA's research. For disaster management, in particular, ERIA is looking at potential insurance mechanisms at the regional level to help address and manage post-disaster effects.



#### Disaster Risks, Social Preferences, and Policy Effects: Field Experiments in Selected ASEAN and East Asian Countries

By Yasuyuki Sawada and Sothea Oum ERIA Research Project Report 2013-34

In preparing for, or after, a disaster, various market and non-market mechanisms are indispensable for people to maintain their livelihood. Market insurance mechanisms include mechanisms through direct insurance markets and indirect mechanisms based on credit, labour, and other market transactions. Since market insurance mechanisms are still weak, especially against damage caused by disasters, governments and communities can play important roles in strengthening overall insurance mechanisms. The state can provide public insurance schemes and social protection programmes. Community-based informal insurance mechanisms can also make up for a lack of formal insurance schemes.

Strengthening market, state, and community insurance mechanisms requires a strong grasp of the roles of individual and social preferences. This report aims to produce the academic foundations of the nexus between a disaster and individual/social preferences, and to fill in the remaining large gap in the literature on behavioural impacts of disasters by investigating whether and how a disaster affects preferences, and how preferences determine the vulnerability and resilience against damage caused by a disaster. Findings from this study provide important policy implications for better insurance mechanisms at the community, national, and regional levels, generating inputs for high-level forums of ASEAN and East Asia.

#### ASEAN Food Security: Towards a More Comprehensive Framework

By Barry Desker, Mely Caballero-Anthony and Paul Teng ERIA Policy Brief 2014-03

This policy brief is based on the Issues Paper on ASEAN Food Security: Towards a More Comprehensive Framework. The key message is that food security is a priority agenda for the ASEAN Economic Community, and the issues to be addressed are (i) current impediments to agricultural trade and food production, (ii) standardisation mechanisms and regulatory frameworks, (iii) disjunctions between regional arrangements and domestic policies, (iv) public-private partnerships, and (v) crucial indicators for food security robustness.

Routledge-ERIA Studies in Development Economics

#### Real and Financial Integration in Asia

by Shandre M. Thangavelu, Aekapol Chongvilaivan July 2014

This book investigates the impact of both real and financial integration to growth and to welfare, and to enquire whether increases in either or both forms build the linkage between the real and financial economy. It contributes to the following two areas: (1) Research of economic developments in East Asia, the most dynamic and populous region in the world, in itself is important for researchers, policymakers, journalists, business people, and others. East Asia's economic developments influence peoples' lives not only in East Asia but also in other parts of the world. (2) Many aspects of East Asian experiences in economic development are unique, making research of East Asia attractive and important to discern mechanisms of economic development.

The study begins with chapters that address the measurement of regional integration compared with the engagement with the global economy and how this influences the aggregate behaviour of the economies. The second part turns to consideration of the financial sector and the efficiency and performance of banking in the region. This allows a discussion whether, in the current crisis, the banking sector was an important channel of financial shock into real behaviour. The third part turns to the corporate sector. Using data on firms, type of finance used by firms, its impact on their performance, and ownership structure influence over the productivity growth are discussed. Based on the findings, the book presents several policy recommendations and future research agenda for further economic integration in East Asia.

#### Rebalancing Economies in Financially Integrating East Asia

by Jenny Corbett, Ying Xu November 2014

Since the Asian Financial Crisis of 1997–1998 large current account surpluses have accumulated in the countries of Asia and the Pacific with corresponding deficits elsewhere. The sharp plunge in global trade volumes during the global financial crisis has highlighted the need for 'rebalancing'—focusing more on domestic sources of economic growth than on exports in some Asian economies. One key objective of the book is to elucidate the economic structures and policies that give rise to current account surpluses and imbalances and consider what policy adjustments could change them. Another objective is to show the link between financial systems, financial integration, and the transmission of economic shocks between countries.

The book offers new dimensions to understand 'rebalancing' and provides alternative and arguably more fundamental solutions to address imbalances. Rather than focusing on exchange rate misalignment, this book begins from the premise that the imbalances are a macroeconomic problem that reflects a mismatch between savings and investment in the surplus countries. Then, it examines exchange rate policies adopted by countries in the region and finds that part of the explanation for their currency strategy lies in their perceived need to build foreign exchange reserves to provide a buffer in case of instabilities. The book examines whether there are other possibilities for countries to insure against economic volatility by more actively and openly engaging with international capital markets. The studies show that closer financial integration, involving more open financial markets, with well-chosen partners, would improve welfare and should reduce the need for the counterproductive, self-insurance policies that result in foreign exchange accumulation.

#### **About ERIA**

The Economic Research Institute for ASEAN and East Asia (ERIA) is an international organisation providing support to the Chair of the ASEAN Summit and the East Asia Summit through policy research on deepening economic integration, narrowing development gaps, and achieving sustainable development. ERIA and the Organisation for Economic Co-operation and Development have engaged in productive collaboration, and signed a memorandum of understanding in 2014 on joint policy work.

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