Chapter 1

Overview: Deepening East Asian Economic Integration

Jenny Corbett
Crawford School of Economics and Government, The Australian National University

So Umezaki
Economic Research Institute for ASEAN and East Asia

March 2009

This chapter should be cited as
Corbett, J. and S. Umezaki (2009), 'Overview: Deepening East Asian Economic Integration', in Corbett, J. and S. Umezaki (eds.), *Deepening East Asian Economic Integration*. ERIA Research Project Report 2008-1, pp.1-57. Jakarta: ERIA.

CHAPTER 1

Overview: Deepening East Asian Economic Integration

JENNY CORBETT
Australia-Japan Research Centre
Crawford School of Economics and Government
The Australian National University

SO UMEZAKI
Economic Research Institute for ASEAN and East Asia

The objective of this paper is to present an overview of the studies under an ERIA Research Project "Deepening East Asian Economic Integration" conducted FY2008, mainly with the aim to support ASEAN's endeavor to establish the ASEAN Economic Community (AEC). The first part of the project was devoted to develop quantitative measures to provide several snapshots of the progress in selected key policy pillars in the AEC Blueprint, namely services liberalization, trade facilitation and investment liberalization. In order to facilitate the on schedule implementation of the AEC Blueprint, it is highly recommended to maintain, update and expand these quantitative measures as they are effective tools to visualize the progress in policy reforms consistent with the AEC Blueprint. The second part of the project consists of econometric studies on the impacts of globalization/economic integration on the performance of firms using micro data from manufacturing surveys in selected East Asian countries. The issues investigated include key aspects of economic integration such as the impact of fragmentation, learning-by-exporting, vertical and horizontal spillovers, and firms' response to policy reforms. Based on the findings in this project, we present several policy recommendations and future research agenda to further the economic integration in East Asia.

1. Introduction

1.1. Deepening East Asian Economic Integration in the Midst of the Global Economic Crisis

The current economic climate, in which the financial crisis in the United States triggered a global economic crisis, carries the risk that there will be renewed questioning of the benefits of open, liberal trading regimes and of pursuing integration of economies with the global or regional trading system. Virtually no single country can avoid this global economic downturn. East Asia is no exception. The export markets in the United States and Europe have shrunk rapidly and dramatically and the sudden decline of exports has been severely undermining economic growth of East Asia. This rapid expansion of economic crisis is a negative aspect of globalization, and unfortunately we are observing a rise of protectionist arguments. This is an important juncture at which to recall the very significant benefits accruing to East Asia from past globalization and to find new ways to demonstrate and confirm those benefits.

The remarkable economic growth in East Asia during the last decades has been underpinned by the development of international production networks. During the process, the huge demand in the United States has undeniably been an indispensable driving force for East Asian economies, especially in the recovery process from the Asian financial crisis. Although intraregional trade in East Asia has been increasing (Ozeki 2008), the US economy is still too influential to be underestimated. Since the economic crisis has spread all over the world, global collective actions are necessary and this was the urgent agenda in G20 summit in London in April 2009.

Against this backdrop, East Asia, as a region of close economic linkage, should

collectively take urgent actions to cope with the global economic crisis. It is crucially important that such short-term measures should be designed consistently with medium and long term goals toward deepening economic integration in East Asia as a whole. The reduction of barriers to trade in goods and services will facilitate more efficient use of economic resources partly through further development of production networks in the region. This in turn is expected to generate employment opportunities in less developed countries, have positive effects to narrow development gaps, and pave the way for East Asia to be a seamless business space with growing regional demand.

East Asia has already been making significant progress in *de jure* economic integration using a number of instruments including trade agreements between subsets of members and the initiatives toward the ASEAN Economic Community for the ASEAN member countries. Most of the trade agreements in the region include elements that go beyond trade and look toward 'deep' economic integration in the sense that virtually all of them intend to include provisions on trade facilitation, services liberalization, investment liberalization and facilitation, economic cooperation, and reforms and harmonization of domestic rules and regulations, in addition to the reduction and elimination of tariffs. This momentum toward a more liberal and open economic regime should be maintained or accelerated.

1.2. The ASEAN Economic Community

ASEAN has been emerging as the hub of both the production networks and the trade agreement networks in East Asia (Soesastro, 2008). The ASEAN Economic Community (AEC), in particular, is a new and innovative initiative to deepen the degree of economic integration within the hub. With the goal of establishing AEC by 2015,

ASEAN member countries adopted the AEC Blueprint as a binding document on 20 November 2007. This is a very significant step for ASEAN in the sense that ASEAN has moved from an integration driven by de facto economic processes to an integration driven by clearly defined end goals and timelines.

The AEC Blueprint is organized along AEC's four main characteristics, namely: (a) a single market and production base; (b) a highly competitive economic region; (c) a region of equitable economic development; and (d) a region fully integrated into the global economy. The fourth characteristic indicates the "open" nature of ASEAN's pursuit of regional economic integration (open regionalism). The AEC Blueprint, therefore, provides a useful and operational basis for developing the agenda of deepening economic integration in the wider East Asian region as well. In this regard, the successful establishment of the AEC can be a significant step toward deeper economic integration in East Asia as a whole.

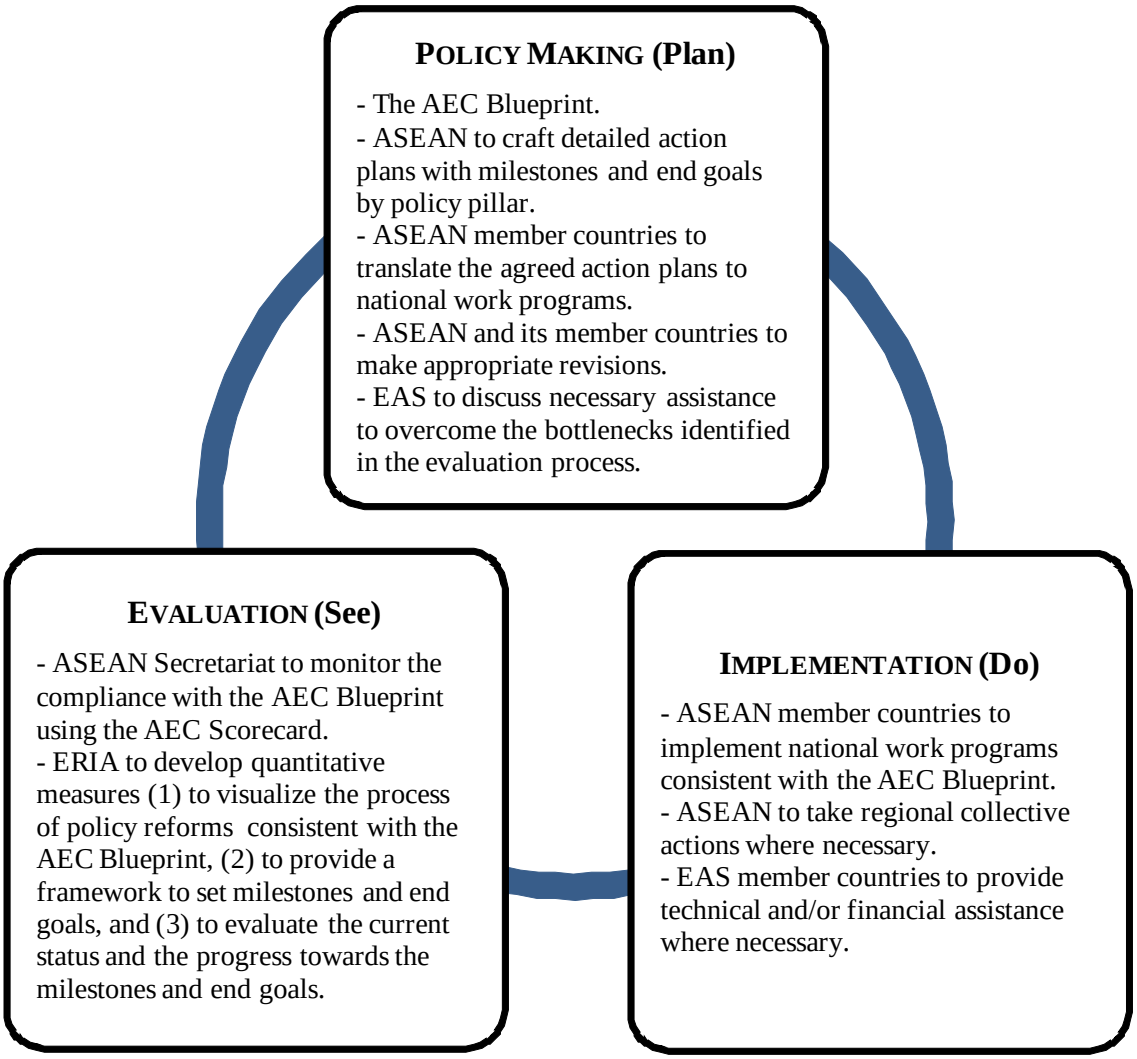
The AEC Blueprint is comprehensive. It identifies 17 "core elements" of the AEC and delineates 176 priority actions to be undertaken within a strategic schedule of four implementation periods (2008-2009, 2010-2011, 2012-2013, and 2014-2015). The implementation mechanism as envisaged in the AEC Blueprint consists of the following elements: (a) relevant sectoral Ministerial bodies to be responsible for the implementation of the Blueprint and for the monitoring of commitments under their respective purview; (b) the ASEAN Economic Ministers (AEM) to be in charge of economic integration in the newly established Council of ASEAN Economic Community (as stipulated in the ASEAN Charter) and also accountable for overall implementation; (c) the High Level Task Force (HLTF) to assist the AEM; (d) regular consultation meetings with stakeholders to be organized by the AEM; (e) a progress

report on the implementation of the AEC to be prepared by the ASEAN Secretary General for relevant Ministerial meetings and the Summit; and (f) the ASEAN Secretariat to review and monitor the compliance with the AEC Blueprint. Of key importance to the successful implementation of the AEC Blueprint is the clear separation between policy making (HLTF and AEM) and the monitoring of implementation (ASEAN Secretariat). For this purpose, the ASEAN Secretariat has been tasked with developing the AEC Scorecard to monitor the progress of the AEC Blueprint, covering all provisions in the AEC Blueprint.[1]

Such an approach is highly valuable in itself but in addition it will be important to complement this AEC Scorecard with quantitative measures in order to facilitate the on-schedule implementation of the AEC Blueprint. Figure 1 illustrates a cyclical process consisting of policymaking, implementation, and evaluation. As of now, ASEAN has already adopted the AEC Blueprint as a binding document. However, a feature of the AEC Blueprint at this stage is that some goals remain vaguely defined, and "milestones" are still missing (Soesastro 2008). In addition, the comprehensiveness of the AEC Blueprint, though a desirable feature in itself, makes it difficult to visualize the current status of member countries with respect to each element of the AEC Blueprint. In order to address these shortcomings, quantitative measures can be a useful tool as they would facilitate the visualization of the wide-ranging initiatives in the AEC Blueprint and provide stakeholders with a common and objective information base on the current status of each member country, the milestones and end goals for key elements of the AEC Blueprint.

[1] The AEC Scorecard is being developed as a check list of actions that are specified in the AEC Blueprint, and the first version is planned to be reported to the ASEAN Economic Ministers' Meeting in 2009.

Figure 1. A Cyclical Process toward Establishing the AEC



Source: Authors.

The quantitative measures presented in this report are designed (1) to visualize the process of policy reforms consistent with the AEC Blueprint, (2) to provide a framework under which milestones and end goals for each element can be defined, and (3) to evaluate the current status and the progress towards the milestones and end goals. Of crucial importance is to visualize the whole process in a consistent framework, for example, an axis starting with "the current status" and ending with "the end goal", with appropriate "milestones" in between. This visualization would enable the ASEAN

Secretariat to monitor effectively the compliance with the AEC Blueprint by member countries. In addition, quantitative measures can be used for econometric studies to investigate the impact of policy reforms implied by the AEC Blueprint, and thereby provide important indications of how to prioritize the wide-ranging policy reforms in the AEC Blueprint.

1.3. The Outline of the Project

This project has two key purposes. First it aims to illustrate how quantitative measures can complement the AEC Scorecard being developed by the ASEAN Secretariat.[2] Building on the studies in the previous phase of this project (2007-8), we focus here on three key elements of the Blueprint: services liberalization, trade facilitation, and investment liberalization[3] and describe how to capture the current state of policy across countries and the over-time change within countries. A second aim is to show, using microeconomic data at firm and industry level, the impact of integration and liberalization of the basic units of the economy.

In Part I of the study, financial services (banking and insurance), healthcare and medical professional services are selected for in-depth investigation to develop restrictiveness indexes (Chapter 2 of this report, Dee 2009). Healthcare is one of the priority sectors identified in the AEC Blueprint[4] and has never been analyzed

[2] This attempt is one of the core missions of ERIA, to "support ASEAN's endeavor to build the ASEAN Economic Community and support its role as the driver of the wider economic integration," (The Statement on the Establishment of ERIA), in the inaugural meeting of the Governing Board of ERIA, June 3, 2008.

[3] These quantitative measures as a whole can be termed as an ERIA version of the AEC Scorecard (ERIA/AEC Scorecard). However, in order to distinguish our measures with the AEC Scorecard being developed by the ASEAN Secretariat, we refrain from emphasizing the term in this report.

[4] The twelve sectors are: (1) agro-based products; (2) automotive; (3) e-ASEAN; (4) electronics; (5) fisheries; (6) healthcare and healthcare products; (7) textiles and apparel; (8) wood-based products; (9) rubber-based products; (10) tourism; (11) air travel; and, (12) logistics.

previously while financial services are supposed to be liberalized by 2015 using the ASEAN minus X formula[5]. In the trade facilitation field, we develop restrictiveness indexes for customs procedures and for logistics. We also indirectly estimate the efficiency of trade facilitation regimes using an index of trade costs based on cif/fob differentials (Chapter 3, Findlay 2009). For investment liberalization, Urata and Ando (2009) developed a quantitative measure to assess the restrictiveness of FDI policy by sector and by mode of restriction (Chapter 4). Chapter 5 presents detailed tables which contain background information to develop quantitative measures in Chapters 2 to 4.

To explore the second purpose of the study, the research presented in Part II of this report gives new and detailed views of how important closer integration can be. Based on innovative micro-data analyses on selected East Asian countries, the chapters demonstrate the tangible benefits at the level of firms, from engaging in export trade and from being part of networks of inward FDI. It is recommended that this line of study should be conducted more intensively to deepen understanding of the impacts of economic integration on corporate activities, and thereby to design more effective and efficient policy reforms.

The remainder of this chapter is organized as follows. Section 2 provides snapshots of ASEAN member countries with respect to key elements in the AEC Blueprint; services liberalization, trade facilitation, and investment liberalization, using a summary of findings from Part I (Chapters 2 to 5) of this project. Section 3 summarizes key findings in Part II (Chapters 6 to 12) of this project. Based on the discussion in Sections 2 and 3, we present policy recommendations and future research agenda in Sections 4 and 5.

[5] See Article 22 and Annex 1 'Financial Services Sub-sectors Identified for Liberalisation by 2015' of the AEC Blueprint (ASEAN 2008).

2. Snapshots of ASEAN Member Countries Heading for the AEC

Quantitative measures presented in this section make a contribution to ASEAN by providing evaluation mechanisms of policy progress that are designed to ensure objectivity and comparability[6]. Our quantitative measures visualize the current status of ASEAN member countries in selected key elements of the AEC Blueprint, enable identification of policy areas where additional policy reforms and resource allocation is required and, thereby, facilitate the successful and on-schedule implementation of the AEC Blueprint. One very basic recommendation emerging from our work on developing the quantitative measures is that the cyclical process of 'policymaking-implementation-evaluation' as illustrated in Figure 1 should be continued until the successful establishment of the AEC by 2015.

2.1. Services Liberalization

Regarding services liberalization, we developed quantitative measures regarding the restrictions on trade in (1) medical professional services, (2) health services, and (3) financial services (banking and insurance). In an ERIA test-run project in FY2007, background studies on financial services, logistics, distribution, business services, postal/courier, and maritime services were carried out largely based on detailed analysis of official sources on regulations and trade policies (AJRC-ANU 2008; NZIER 2008). The important innovation in the present studies is that data were collected using questionnaires that were completed by researchers in each of the ASEAN countries.

[6] Detailed discussion, including the method of construction, and policy implications are presented in the papers collected in this volume (Dee 2009; Findlay 2009; and Urata and Ando 2009). Further details are reported in Chapter 5 of this report, Dee and Dinh (2009), Sourdin and Pomfret (2009), Hollweg and Wong (2009), and de Dios (2009).

For this purpose we drew on the network of research institutes that support ERIA and were able to bring in-country expertise to the task. This provides information based on policies that are actually being implemented in each country rather than only information contained in published versions of legislation and regulations. In the concluding section we are therefore able to bring out policy conclusions not only from the content of the research but also from the method and to make recommendations on how to carry this work forward in the future.

The health services sector is one of the thirteen priority integration sectors (PIS) in the AEC Blueprint but is an area in which it is intrinsically difficult to design milestones or benchmarks to measure progress. Our approach has been to separate medical services (broadly covering services provided by individual health professionals including medical and dental professionals, midwives, nurses, physiotherapists and paramedics) and health services provided in an institutional setting (including hospital services, medical laboratories, ambulance and residential health care other than hospitals). Questionnaires were designed to enquire about the actual implementation in areas that broadly match the types of barriers that were used in previous studies. This allows a description of the frequency of restrictions by ownership (foreign or domestic) and by mode of delivery (Mode 1 to 4).[7] Note that the indexes presented below show higher numbers for more restrictive regimes and that they capture a simple measure of the prevalence, or frequency, of restrictions.

[7] GATS (General Agreement on Trade in Services) defines the 4 modes of services supply as follows. In Mode 1 (cross border), a user in country X receives services from abroad through its telecommunications or postal infrastructure. In Mode 2 (consumption abroad), nationals of country X have moved abroad as tourists, students, or patients to consume respective services. In Mode 3 (commercial presence), the service is provided within country X by locally established affiliates, subsidiary, or representative office of a foreign-owned and foreign-controlled company. In Mode 4 (movement of natural persons), a foreign national provides a service within country X as an independent supplier or employee of a service supplier.

2.1.1. Medical Professionals

Table 1 presents the restrictiveness indexes regarding medical professional services.

Table 1. Restrictions on Trade in Medical Services by Profession and Mode of Delivery (%)

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	AVERAGE
Consumption abroad (Mode 2)	0	0	0	0	0	50	0	0	0	0	**5**
MEDICAL (TOTAL)	**31**	**21**	**36**	**33**	**50**	**64**	**38**	**7**	**14**	**15**	**31**
Commercial presence (Mode 3) – Professional service firms	0	0	40	40	20	60	0	0	0	0	**16**
Inward movement of natural persons (Mode 4) – Individual professionals	75	25	50	75	50	75	75	0	50	0	**48**
Outward movement of natural persons (Mode 4) – Individual professionals	0	50	0	50	50	50	50	0	0	50	**30**
Inward movement of natural persons (Mode 4) – Intra-corporate transferees	20	40	20	60	100	100	60	20	20	60	**50**
Cross-border trade (Mode 1)	67	0	100	33	33	67	0	0	0	0	**30**
Ownership	25	0	7	25	10	33	25	0	17	0	**14**
Regulation – licensing	25	50	100	25	25	75	25	25	38	50	**44**
Regulation – restrictions on operation	44	22	44	0	72	61	44	11	0	0	**30**
DENTAL (TOTAL)	**31**	**21**	**36**	**33**	**50**	**64**	**29**	**7**	**14**	**15**	**30**
Commercial presence (Mode 3) – Professional service firms	0	0	40	40	20	60	0	0	0	0	**16**
Inward movement of natural persons (Mode 4) – Individual professionals	75	25	50	75	50	75	75	0	50	0	**48**
Outward movement of natural persons (Mode 4) – Individual professionals	0	50	0	50	50	50	0	0	0	50	**25**
Inward movement of natural persons (Mode 4) – Intra-corporate transferees	20	40	20	60	100	100	60	20	20	60	**50**
Cross-border trade (Mode 1)	67	0	100	33	33	67	0	0	0	0	**30**
Ownership	25	0	7	25	10	33	25	0	17	0	**14**
Regulation – licensing	25	50	100	25	25	75	25	25	38	50	**44**
Regulation – restrictions on operation	44	22	44	0	72	61	22	11	0	0	**28**
PARA-MEDICAL (TOTAL)	**31**	**21**	**36**	**33**	**50**	**64**	**29**	**7**	**17**	**15**	**30**
Commercial presence (Mode 3) – Professional service firms	0	0	40	40	20	60	0	0	0	0	**16**
Inward movement of natural persons (Mode 4) – Individual professionals	75	25	75	75	50	75	75	0	50	0	**50**
Outward movement of natural persons (Mode 4) – Individual professionals	0	50	0	50	50	50	0	0	0	50	**25**
Inward movement of natural persons (Mode 4) – Intra-corporate transferees	20	40	20	60	100	100	60	20	20	60	**50**
Cross-border trade (Mode 1)	67	0	100	33	33	67	0	0	0	0	**30**
Ownership	25	0	7	25	10	33	25	0	17	0	**14**
Regulation – licensing	25	50	50	25	25	75	25	25	38	50	**39**
Regulation – restrictions on operation	44	22	44	0	72	61	22	11	11	0	**29**

Source: Excerpt from Table 1 in Dee (2009).

From the table it can be observed that there is considerable variation in the frequency of restrictions for *medical professional services* across countries but there is a broad tendency for countries with more transparent regulatory regimes to have lower prevalence of restrictions. There is relatively little variation within countries across the different categories of medical profession, that is similar restrictions appear to cover

many categories. This should make progress in liberalization easier to achieve since there is less need for case-by-case consideration across the different medical services.

On the other hand, there is considerable variation in restrictions by mode of delivery with Mode 4 the most restricted and Mode 1 also frequently restricted. Mode 4 restrictions need to be addressed by extending and redesigning mutual recognition agreements on foreign professional qualifications while Mode 1 (and to some extent Mode 2) restrictions could be made less problematic if the mobility of health insurance could be addressed. This might also be tackled by consultation and coordination on international recognition of standards.

There is significant scope to remove discrimination against foreign suppliers but also scope to remove restrictions that impact both domestic and foreign suppliers. As argued elsewhere (AJRC-ANU, 2008), the economic impact of non-discriminatory barriers is very significant and needs to be the focus of policy attention just as much as those affecting only foreign entrants.

2.1.2. Healthcare Services

For institutionally provided health services the pattern of restrictions is similar to those for medical professional services (Table 2). By comparison with medical professional services, the regulatory barriers are skewed to penalizing foreign suppliers rather than affecting domestic and foreigners equally.[8] Across both medical services and health services most ASEAN countries have come close to achieving the AEC Blueprint objective of allowing 70% foreign ownership (with some country exceptions)

[8] See tables 2 and 4 in Dee (2009). The average indexes of medical professional services are 12 for domestic providers and 34 for foreign providers; whereas comparable indexes for healthcare services are 3 and 38 respectively.

but there are restrictions on commercial presence limiting entry, legal form and scope of operations of foreign firms. Dee (2009) points out that there are other mechanisms for establishing quality control (discussed further below) and these entry barriers are inefficient and economically costly.

Table 2. Restrictions on Trade in Health Services by Service and Mode of Delivery (%)

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	AVERAGE
Consumption abroad (Mode 2)	0	0	0	0	0	50	0	0	0	0	**5**
HOSPITAL (TOTAL)	**31**	**13**	**45**	**30**	**48**	**77**	**39**	**0**	**31**	**9**	**32**
Commercial presence (Mode 3)	43	0	29	29	14	71	57	0	43	0	**29**
Movement of natural persons (Mode 4) – intra-corporate transferees	20	40	60	60	100	100	60	0	60	40	**54**
Cross-border trade (Mode 1)	67	0	100	0	33	67	0	0	0	0	**27**
Ownership	38	0	10	0	15	50	0	0	26	0	**14**
Regulation	17	17	67	33	67	83	33	0	0	0	**32**
MEDICAL LABORATORY (TOTAL)	**28**	**13**	**45**	**26**	**48**	**77**	**30**	**4**	**22**	**9**	**30**
Commercial presence (Mode 3)	43	0	29	14	14	71	57	0	43	0	**27**
Movement of natural persons (Mode 4) – intra-corporate transferees	20	40	60	60	100	100	60	20	20	40	**52**
Cross-border trade (Mode 1)	0	0	100	0	33	67	0	0	0	0	**20**
Ownership	38	0	10	0	15	50	0	0	26	0	**14**
Regulation	17	17	67	33	67	83	0	0	0	0	**28**
AMBULANCE	**28**	**13**	**74**	**22**	**46**	**77**	**22**	**4**	**22**	**9**	**32**
Commercial presence (Mode 3)	43	0	71	0	14	71	29	0	43	0	**27**
Movement of natural persons (Mode 4) – intra-corporate transferees	20	40	100	60	100	100	60	20	20	40	**56**
Cross-border trade (Mode 1)	0	0	0	0	0	67	0	0	0	0	**7**
Ownership	38	0	50	0	15	50	0	0	26	0	**18**
Regulation	17	17	83	33	67	83	0	0	0	0	**30**

Source: Excerpt from Table 3 in Dee (2009).

2.1.3. Financial Services

In financial services, there is again variation across countries (Table 3). In *banking* the most prevalent restrictions are on foreign ownership and the movement of intra-corporate transferees and on commercial presence. As a result, restrictions in the banking services fields are still discriminatory against foreigners. Dee (2009) discusses other research that suggests that some regulations may actually have been

raised over the period since the Asian financial crisis although the main factor driving this has been some increase in restrictions on the scope of activities permitted to banks. Policy discussion on the region-wide views of the appropriate limitation on the scope of activities for banks will, no doubt, be required as a response to the G20 proposals for new bank regulations in the aftermath of the global financial crisis and this would be an opportunity to establish benchmarks in this area.

In *insurance* there is little variation of restrictions across different insurance products while the pattern across countries is similar to that in banking. Foreign ownership restrictions are not as prevalent in insurance as they are in banking, though cross-border trade in insurance is widely restricted. Dee (2009) shows that the costs of these restrictions are very significant and the benefits of removing them would be considerable.

Table 3. Restrictions on Trade in Financial Services by Service and Mode of Delivery (%)

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average
Macroeconomic policies	0	0	0	0	0	50	25	0	50	0	**13**
BANKING (TOTAL)	**35**	**21**	**20**	**41**	**44**	**88**	**36**	**11**	**42**	**46**	**39**
Consumption abroad (Mode 2)	0	0	0	0	0	100	100	0	0	50	**25**
Commercial presence (mode 3)	17	14	25	38	52	90	36	9	49	49	**38**
Cross-border trade (Mode 1)	50	17	8	75	33	72	33	0	0	50	**34**
Movement of natural persons (Mode 4)	59	64	38	25	6	89	50	28	51	41	**45**
Ownership	8	8	17	50	80	100	57	17	67	55	**46**
Regulation	67	17	0	0	50	100	0	17	67	22	**34**
LIFE INSURANCE (TOTAL)	**31**	**16**	**21**	**29**	**20**	**85**	**21**	**7**	**37**	**31**	**30**
Commercial presence (mode 3)	26	3	23	6	9	71	18	0	33	25	**21**
Cross-border insurance trade (Mode 1)	50	50	50	100	100	100	50	0	50	100	**65**
Consumption abroad (Mode 2)	0	0	0	50	0	100	50	0	0	0	**20**
Movement of natural persons (Mode 4)	59	64	38	25	6	100	50	28	51	41	**46**
Ownership	0	0	10	35	35	100	0	0	26	0	**21**
Regulation	50	25	0	75	25	100	0	25	50	50	**40**
MEDICAL INSURANCE (TOTAL)	**31**	**22**	**21**	**29**	**20**	**85**	**22**	**7**	**37**	**34**	**31**
Commercial presence (mode 3)	26	3	23	6	9	77	18	0	33	25	**22**
Cross-border insurance trade (Mode 1)	50	50	50	100	100	100	50	0	50	100	**65**
Consumption abroad (Mode 2)	0	0	0	50	0	100	100	0	0	0	**25**
Movement of natural persons (Mode 4)	59	64	38	25	6	100	50	28	51	41	**46**
Ownership	0	0	10	35	35	100	0	0	26	0	**21**
Regulation	50	75	0	75	25	75	0	25	50	75	**45**
PROPERTY INSURANCE (TOTAL)	**31**	**22**	**27**	**30**	**20**	**85**	**21**	**7**	**37**	**31**	**31**
Commercial presence (mode 3)	26	3	23	6	9	71	18	0	33	25	**21**
Cross-border insurance trade (Mode 1)	50	50	50	100	100	100	50	0	50	100	**65**
Consumption abroad (Mode 2)	0	0	0	100	0	100	50	0	0	0	**25**
Movement of natural persons (Mode 4)	59	64	38	25	6	100	50	28	51	41	**46**
Ownership	0	0	10	35	35	100	0	0	26	0	**21**
Regulation	50	75	50	75	25	100	0	25	50	50	**50**
REINSURANCE (TOTAL)	**31**	**22**	**21**	**52**	**20**	**82**	**19**	**7**	**37**	**31**	**32**
Commercial presence (mode 3)	26	3	23	31	9	71	18	0	33	25	**24**
Cross-border insurance trade (Mode 1)	50	50	50	100	100	100	50	0	50	100	**65**
Consumption abroad (Mode 2)	0	0	0	100	0	100	0	0	0	0	**20**
Movement of natural persons (Mode 4)	59	64	38	25	6	100	50	28	51	41	**46**
Ownership	0	0	10	100	35	100	0	0	26	0	**27**
Regulation	50	75	0	75	25	75	0	25	50	50	**43**
BROKING (TOTAL)	**31**	**22**	**24**	**63**	**20**	**82**	**19**	**7**	**32**	**31**	**33**
Commercial presence (mode 3)	26	3	23	50	9	71	18	0	24	25	**25**
Cross-border insurance trade (Mode 1)	50	50	50	100	100	100	50	0	50	100	**65**
Consumption abroad (Mode 2)	0	0	0	100	0	100	0	0	0	0	**20**
Movement of natural persons (Mode 4)	59	64	63	100	6	100	50	28	51	41	**56**
Ownership	0	0	10	50	35	100	0	0	26	0	**22**
Regulation	50	75	0	63	25	75	0	25	50	50	**41**

Source: Compiled from Tables 5 and 6 in Dee (2009).

Note: Macroeconomic policy refers to whether there are capital controls or not.

2.2. Trade Facilitation

Trade facilitation has been a vital topic of policy concern for many years. It is

clear that improving efficiency in the range of areas broadly captured by trade facilitation is an unambiguous gain to the trade efficiency and competitiveness of countries. While the East Asian region has made improvements, there is much more that can be done.

The research conducted for this study contributes important ideas for the development of simple, effective measures of progress in achieving ASEAN's goals, and they offer important snapshots of ASEAN member countries regarding several aspects of trade facilitation (Findlay 2009; Sourdin and Pomfret 2009; Hollweg and Wong 2009). In addition, Findlay (2009) presents valuable additional evidence from business surveys that identify the frequency and severity of a list of common border barriers in the priority goods and services sectors (de Dios 2009). A separate survey of logistics providers also identified frequent and significant border barriers relating specifically to the logistics industry.

The quantitative measures on trade facilitation developed in this project consist of several elements: (1) a restrictiveness index in logistics (indicating the extent to which there are barriers to the entry into and efficient operation of the logistics industry itself), (2) an index giving the extent to which customs procedures present barriers to business and (3) an overall index relating to the efficiency of trade facilitation derived from the gap between cif (customs insurance and freight) inclusive prices at the point of import and fob (free-on-board) prices at the point of departure.

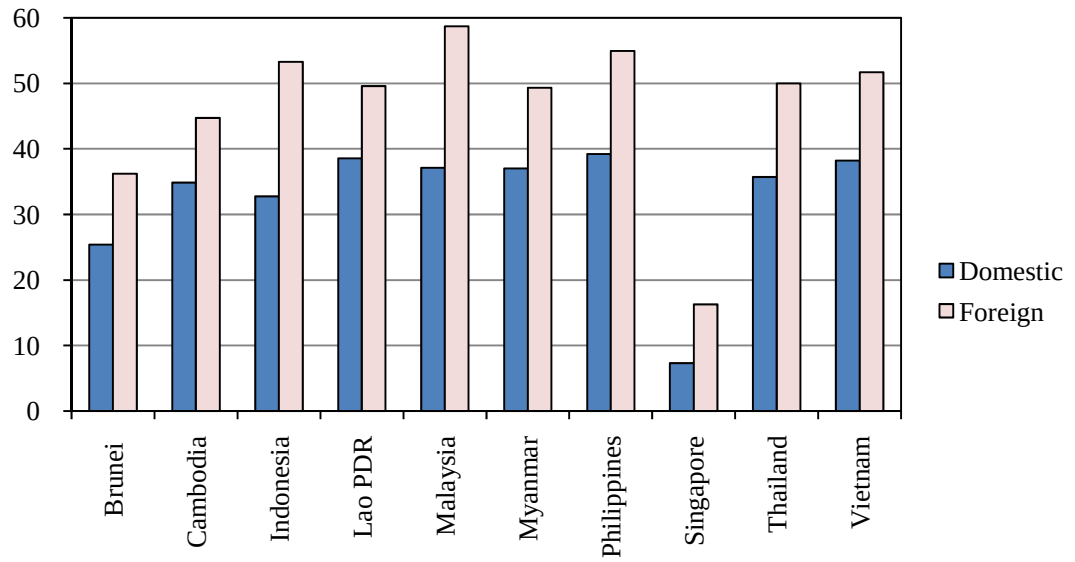
2.2.1. Logistics Restrictiveness Index

Figure 2 gives a snapshot relating to restrictiveness in the logistics sector (one of the priority services sectors) and the barriers that exist to the entry into and operation of

logistics services. This is the first time an overall index has been developed to cover all the sections of the logistics industry (maritime, aviation and road transport). This index is conceptually similar to those compiled for other service sectors (e.g. in Dee (2009), although it has been compiled using desk-based research on available statements of regulations and policy, not on in-country information. In the case of the logistics restrictiveness index the different elements of barriers to cross-border trade and to domestic entry are weighted to create a domestic index and foreign index including the *additional* elements for discriminatory barriers against foreigners. The "foreign" bar in Figure 2 shows the total of all the elements applying to domestic entrants as well as the additional ones applying only to foreigners.

Findlay (2009) shows that the extent of restrictions on trade in logistics services, and particularly those that apply in a discriminatory fashion to foreign logistics providers, is linked to the perceived performance of the logistics sector so reduction in restrictiveness should be linked to an improvement in performance. Large differences exist in the regulatory environment for logistics of the ASEAN+6 economies. Many of these economies are open to trade in logistics services, while others are relatively restrictive. The average score for the domestic index is 29 and for the foreign index it is 41 so regulations are still discriminatory. Vietnam, Laos, India, the Philippines and to a lesser extent Thailand have relatively high scores on the domestic index (over 30% above the mean). While all countries have higher indexes on foreign participants, Indonesia, Philippines, China, and Malaysia have particularly high scores on additional discriminatory barriers. Findlay (2009) also points out that "the degree of restrictiveness falls as per capita income rises, but even at lower levels of income there is a range of values of the scores."

Figure 2. Logistic Restrictiveness Index



Sources: Findlay (2009) and Hollweg and Wong (2009).

Using the detail of the components of the index, Findlay (2009) is able to identify areas where particular countries could focus attention: Malaysia on investment; Indonesia, Vietnam, Philippines and Malaysia on maritime services; Indonesia, Philippines and Malaysia on aviation; and Thailand and Malaysia on road transport.

One element of the logistics restrictiveness index is so important for all aspects of trade facilitation that it is separately presented here in Table 4.[9] Table 4 again shows a large variation across countries, with the exceptionally low score for Singapore (15) indicating the regional best practice in customs procedures. Higher income ASEAN countries show better performance than CLMV countries. This index also shows a strong negative correlation with the customs sub-index of the Logistic Performance

[9] The data in Table 4 is a subset of the data used in compiling the logistics restrictiveness index in Figure 2. See Hollweg and Wong (2009) for details.

Index (LPI) by World Bank, indicating that the fewer customs restrictions faced by logistic suppliers, the better the perceived customs performance within that country (Findlay 2009, Figure 4 in particular).

Table 4. Logistics Restrictiveness Index on Customs Procedures

	Weights	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average
Overall Index	**1.000**	**46**	**57**	**50**	**65**	**45**	**64**	**53**	**15**	**49**	**53**	**50**
Customs documents	0.082	63	116	58	100	74	100	84	42	37	74	**75**
Customs signatures	0.082	29	57	18	92	16	n.a.	24	8	41	55	**38**
Import licensing	0.082	50	50	50	100	50	100	100	0	50	100	**65**
Local language	0.014	0	100	0	100	0	0	0	0	0	100	**30**
Customs inspections	0.082	1	12	12	1	6	56	32	3	9	14	**15**
Import restrictions	0.014	25	25	25	25	25	100	25	25	50	25	**35**
Customs Electronic Data Interchange	0.082	50	100	50	100	50	50	50	0	50	50	**55**
Harmonized Commodity Description and Coding Systen	0.075	50	50	50	50	50	100	50	0	50	50	**50**
Possibility of a review for imports	0.068	50	50	62	50	25	100	50	33	100	43	**56**
Customs operating hours	0.041	50	50	50	50	100	50	100	0	100	50	**60**
Customs brokerage services	0.027	50	50	100	100	100	100	100	0	100	50	**75**
Customs clearance	0.068	100	20	32	0	34	90	36	22	38	29	**40**
Customs procedures time	0.068	47	52	48	100	32	25	32	8	27	47	**42**
Customs charges or fees	0.041	34	41	35	100	23	n.a.	42	23	36	42	**42**
Improper penalties or fees	0.054	0	50	100	0	50	50	0	0	0	0	**25**
Discriminatory fees or inspection practices	0.041	0	0	50	0	50	0	0	0	50	50	**20**
DeMinimis level	0.082	100	100	94	100	82	100	100	67	96	100	**94**

Source: Findlay (2009) and Hollweg and Wong (2009).

Note: Re-calculated based on the data from Hollweg and Wong (2009). Unavailable data (n.a.) are excluded in calculating 'overall index' and 'average'.

The logistic restrictiveness index in Figure 2 and customs procedures index in Table 4 are compiled from the information on the policy environment, whereas LPI is based on a survey of operators such as global freight forwarders and express carriers. The strong correlation between the two indexes supports the validity of our logistic restrictiveness indexes. A reduction in the restrictiveness indexes, by relaxing customs regulations and liberalizing the logistics sector, can reasonably be expected to improve the business perception of the performance of customs and logistic services. There is a large difference in the cost of developing our indexes compared with the LPI, since the

latter requires large scale business surveys so it is strongly recommended that the ASEAN Secretariat maintains and updates the logistic restrictiveness index to monitor the progress in trade facilitation initiatives as required by the AEC Blueprint.

2.2.2. Trade Cost Estimates

The research framework underlying much of ERIA's research, developed in Kimura (2008), emphasizes the importance of reducing services link costs to further the development of production networks in East Asia, because these are seen as promising ways to pursue deepening economic integration and narrowing development gaps in the region. Despite the conceptual significance, it is difficult to measure services link costs in a comparable fashion. Services link costs include all the costs incurred to connect fragmented production blocks, including transportation costs (both domestic and international), insurance, tariffs, other regulatory charges, and so on.

In this project, Sourdin and Pomfret (2009) developed a useful measure of trade costs, which is conceptually close to services link costs. They first compute an 'unadjusted index' of trade costs based on the raw cif/fob import data available from Australian trade statistics with partner countries, then estimate an 'adjusted index' by controlling for the changes in commodity composition of trade by running a regression with exporter-commodity fixed effects (Table 5).

Here, a significant decline of trade costs and their standard deviations can be observed since 1990. This implies that trade costs have been converging towards the best practice level set by Singapore.

Table 5. Trade Costs (Adjusted Index) in Terms of cif/fob Differences

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average	Standard Deviation
1990-94	524.0	313.6	428.6	346.2	339.6	606.0	415.0	272.2	351.2	611.4	420.8	148.3
1995-99	410.2	487.2	358.8	377.0	263.2	404.8	311.2	225.4	300.8	394.6	353.3	111.5
2000-04	226.0	323.4	277.0	234.4	195.0	224.2	189.6	157.0	237.4	233.0	229.7	71.0
2005-07	135.0	283.0	232.0	136.0	172.3	98.7	203.7	130.3	223.0	166.7	178.1	69.3

Source: Sourdin and Pomfret (2009).
Note: The indexes use the estimates for Singapore in 2007 as the basis (100.0). Standard deviation is calculated annually across countries, and then averaged over the period.

An advantage of this index is that it provides a useful single-number measure of trade costs. In addition, this index is easy to update when new statistics are released and it is possible to expand the coverage of countries as necessary. There are, however, some drawbacks. First, this approach cannot capture trade costs in terms of time or possible behind-the-border restrictions, both of which are key aspects of trade facilitation. By contrast with the logistics restrictiveness index, this index cannot be linked to specific policies. Despite these shortcomings, it is recommended that this index should be maintained and updated as a quick measure of the progress in trade facilitation. In addition, by conducting similar exercises using trade statistics from other countries, we can check the robustness of the proposed index and refine the index further.

2.2.3. Implications from Business Surveys

In addition to the above analyses, Findlay (2009) and de Dios (2009) discuss key issues for trade facilitation in ASEAN based on a business survey conducted by the ASEAN Secretariat in cooperation with the Australian government (AADCP-REPSF Project No.06/001).

The main conclusion is that border procedures continue to be pervasive and cumbersome and critically affect both goods and services businesses across ASEAN. The procedures themselves are numerous and must be reduced, rationalized and streamlined, a need that has been enunciated for years now, and acted upon only slowly. The ASEAN Single Window program illustrates this difficulty, since at this stage national Single Windows have still not been fully realized in all member countries[10]. The completion of the national Single Window program is obviously a priority.

Aside from the procedures per se, the manner of implementation has transformed certain procedures into formidable barriers, particularly those that allow wide discretion in application. Traders who have more to gain from unofficial payments favor this environment, and Customs personnel benefit privately from the arrangement but the total welfare loss to the community is likely to far exceed these private gains and these practices should be ended.

2.3. Investment Climate in ASEAN

Foreign direct investment (FDI) has contributed to enabling East Asian countries to achieve high economic growth through enabling various networks such as production, sales, procurement, and information networks of foreign multinational corporations (MNCs). Attracting FDI has therefore become an important policy priority for the governments of many countries. ASEAN has been quite successful in attracting FDI after the slowdown following the Asian financial crisis, though it lags behind China.

[10] Singapore has completed the implementation of its National Single Window (NSW). Malaysia, Philippines, Indonesia, Thailand and Brunei are expected to complete the NSW in 2009. Other ASEAN members are expected to complete by 2012. Pilot projects are underway to test the connections between National Single Windows (http://www.miti.gov.my/storage/documents/bb6/com.tms.cms.document.Document_49a3fec9-c0a81573-84808480-1cdc005c/1/MITI%20WEEKLY%20BULLETIN%20(Vol.%2030)%2004%20Februari%202009.pdf).

Various factors influence the attractiveness of the host country for FDI inflows[11] but one of the most important factors is a country's FDI policy regime. The chapter by Urata and Ando (2009) analyzes the FDI environment of the ASEAN countries on the grounds that identifying impediments to FDI would provide useful information to policy makers interested in attracting FDI. The coverage of impediments to FDI in their study includes not only the FDI policies, but also the elements of implementation and enforcement of these policies that are critical to FDI facilitation.

2.3.1. An Assessment of FDI Policy

In order to evaluate the FDI policy regime, Urata and Ando (2009) examine documented FDI policies using information such as FDI Laws focusing on six aspects: market access or right of establishment, national treatment, screening and approval procedure, restrictions on boards of directors as well as foreign investors, and performance requirements (Table 6) and by sector (21 sectors, Table 7) [12]. To shed more light on the actual FDI policy environment, the study adds information on barriers to FDI, available from the survey compiled by the Japan Machinery Center for Trade and Investment (JMC). Use of information provided by companies reveals the true impediments to FDI rather than merely the statements of policy in official documents.

Tables 6 and 7 illustrate wide variations in the restrictiveness of FDI policies among the ASEAN countries, ranging from Singapore (12.5), the least restrictive country, to Myanmar (48.3), the most restrictive country, with the average score of 31.5. We observe a negative correlation between income levels and the restrictiveness of FDI

[11] For example, see Urata (2006) for the determinants of FDI inflows in East Asian countries.

[12] Original data are compiled through close collaboration with project members from research institutes in ASEAN member countries and provided in Table A3.1 in Urata and Ando (2009).

policy, albeit there are notable exceptions in Malaysia and Brunei. Compared with a similar study by Urata and Sasuya (2007), the average score for ASEAN countries (31.5) implies that ASEAN countries have reasonably liberalized FDI policy regimes[13].

Table 6. Restrictions on FDI Policy by Mode

	Weight	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average
Overall Index	**1.0**	**39.4**	**29.7**	**27.3**	**38.7**	**41.0**	**48.3**	**21.9**	**12.5**	**25.2**	**31.5**	**31.5**
Market access	0.4	24.3	14.0	31.0	40.1	40.6	45.3	25.7	16.5	42.2	33.8	**31.4**
National treatment	0.2	79.5	39.5	5.0	29.8	82.8	39.2	18.8	5.2	0.0	26.2	**32.6**
Screening & appraisal	0.1	43.4	75.0	76.2	66.5	23.6	69.6	11.2	13.7	8.5	36.4	**42.4**
Board of directors	0.1	59.0	0.0	5.0	32.9	37.7	39.2	51.9	25.0	2.4	28.6	**28.2**
Movement of investors	0.1	18.0	75.0	52.5	46.3	10.9	75.7	4.3	4.8	62.7	46.9	**39.7**
Performance requirement	0.1	18.0	11.7	5.0	21.4	9.5	39.2	10.7	4.8	10.0	15.2	**14.5**

Source: Urata and Ando (2009).

Note: Original data are transformed so that the higher the numbers, the higher the restrictions, and vice versa, in order to facilitate the comparison with other elements of our quantitative measures.

By mode of restrictions, the most serious impediments are found to be the lack of transparency and complicated/delayed processing in screening and appraisal procedures regarding FDI application, particularly in Indonesia, Cambodia, Myanmar, and Lao PDR. Regarding market access, which is considered the most important part of FDI policy, Myanmar, Thailand, Malaysia, and Lao PDR impose tighter restrictions. The lack of national treatment is a serious problem in Malaysia and Brunei.

[13] The results from the investment provisions in signed FTAs for selected countries are, after converting to the comparable format, 11.9 for the United States, 22.2 for Singapore, 23.0 for Australia, 24.8 for Japan, 30.1 for Korea, 32.7 for Chile, 37.3 for Mexico, and 38.0 for Canada. See Table 3 in Urata and Susaya (2007).

Table 7. Restrictions on FDI Policy by Sector

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average
All sectors	**39.4**	**29.7**	**27.3**	**38.7**	**41.0**	**48.3**	**21.9**	**12.5**	**25.2**	**31.5**	**31.5**
Agriculture, forestry and fishing	24.0	20.0	25.7	11.0	26.0	100.0	37.5	2.5	32.0	19.0	**29.8**
Mining and quarrying	22.6	40.5	38.1	11.0	39.0	100.0	35.5	2.5	21.7	17.5	**32.8**
Manufacturing	23.9	20.0	44.8	31.4	23.2	57.5	13.5	5.0	14.3	7.0	**24.1**
Electricity, gas, steam and air conditioning supply	100.0	35.0	20.5	58.0	52.5	100.0	19.5	100.0	28.0	37.5	**55.1**
Water supply; sewerage, waste management and remediation activities	100.0	27.5	20.5	11.0	64.3	15.0	22.0	2.5	28.0	13.5	**30.4**
Construction	34.3	35.0	20.5	100.0	25.7	15.0	11.0	2.5	28.0	49.5	**32.2**
Wholesale and retail trade; repair of motor vehicles and motorcycles	20.0	35.0	12.5	11.0	36.5	15.0	13.0	6.5	28.0	61.5	**23.9**
Transportation and storage	36.0	32.0	32.5	22.8	40.0	49.0	37.5	16.0	28.0	34.0	**32.8**
Accommodation and food service activities	20.0	20.0	12.5	11.0	74.2	100.0	9.5	2.5	28.0	8.5	**28.6**
Information and communication	24.5	31.0	21.3	42.2	52.5	100.0	23.0	10.4	28.0	45.0	**37.8**
Financial and insurance activities	29.0	30.0	19.3	26.0	44.5	100.0	14.5	10.0	33.0	16.0	**32.2**
Real estate activities	20.0	62.5	16.5	26.0	70.0	15.0	40.0	32.5	28.0	8.5	**31.9**
Professional, scientific and technical activities	28.1	28.0	38.1	26.0	25.1	15.0	47.5	9.6	28.0	26.0	**27.1**
Administrative and support service activities	20.0	22.0	14.5	22.6	23.3	43.3	25.0	3.2	28.0	13.0	**21.5**
Public administration and defence; compulsory social security	100.0	20.0	100.0	70.0	47.5	100.0	26.0	2.5	28.0	100.0	**59.4**
Education	29.0	35.0	32.5	11.0	47.5	15.0	40.0	42.5	28.0	19.0	**30.0**
Human health and social work activities	29.0	35.0	32.5	11.0	47.5	15.0	15.0	5.0	28.0	63.0	**28.1**
Arts, entertainment and recreation	46.8	35.0	20.5	100.0	73.7	15.0	14.0	2.5	22.8	100.0	**43.0**
Other service activities	46.7	20.0	24.5	100.0	47.5	15.0	5.0	6.3	28.0	18.5	**31.2**
Activities of households as employers; undifferentiated goods and services producing activities of households for own use	24.5	20.0	12.5	100.0	0.0	15.0	5.0	2.5	7.0	2.0	**18.9**
Activities of extraterritorial organizations and bodies	50.0	20.0	12.5	11.0	0.0	15.0	5.0	2.5	7.0	2.0	**12.5**

Source and Note: Same as Table 6.

A sectoral comparison reveals the expected result that public administration (59.4) and energy related sectors (55.1) are the most restricted sectors. Compared with the manufacturing sector (24.1), services sectors are characterized by higher restrictions, for example, information and communication (37.8), transport and storage (32.8), and finance and insurance (32.2). Based on these findings and the importance of services sectors in ASEAN countries, Urata and Ando (2009) stress "the provision of greater market access to foreign companies can contribute to an improvement of allocative and technical efficiency in these countries. A fear of market domination by competitive foreign companies, which is justified, should be dealt with by appropriate competition policy."

2.3.2. Importance of FDI Facilitation

Although Tables 6 and 7 provide a useful snapshot of FDI policy regimes in ASEAN countries, it cannot by itself capture all elements of the overall investment climate in the region. To fill the gap, Urata and Ando (2009) also analyze the FDI environment by referring to business surveys conducted on Japanese firms in 2005 and 2008 to capture the important aspect of FDI facilitation.

The key findings are that ASEAN countries as a whole have improved their investment climates, shown in the decline in the number of incidents reported as preventing FDI. However greater improvement is observed in issues related to FDI liberalization, than in the issues on FDI facilitation. In general the barriers to FDI facilitation are regarded as more numerous and more than half the problems are in the two categories of "institutional problems (lack of transparency in policies and regulations)" and "implementation problems" such as delayed or complicated procedures. Underdeveloped infrastructure, inflexible labor market conditions, and taxation problems are also identified as problems. There is a clear message that consistency, clarity and simplicity in design and implementation of regulations and policies would make a major improvement to the investment climate. The data from the Japanese survey is consistent with the picture derived from the broader Doing Business data and points to the need to improve the FDI facilitation climate. It would be useful to have similar survey data from other country's firms also.

2.4. Discussion

We have presented several snapshots of ASEAN member countries (Tables 1 to 7) based on the underlying detailed work reported in separate chapters. Except for Table

5 these are all snapshots, at one point in time, giving only current cross-country comparisons. The most important aspect of the quantitative measures is, however, their use as an indication of progress towards goals, not as a ranking across countries. To facilitate implementation of the AEC Blueprint it will be necessary to update these tables so as to check the progress over time. In a sense, the studies presented in this report are the beginning of a process.

The advantage of our quantitative measures is that they are transparent and verifiable and can be used publicly as a tracking device for policymakers. They add additional value to any internal verification that might be done in ASEAN which is likely to focus on tracking compliance with agreed policy changes. Such tracking is useful in itself but cannot provide individual country policymakers with easy to interpret indicators of how much progress they are making.

There is still much to be done to expand the scope, and improve the quality of our quantitative measures, in addition to the regular updating work that is needed to make the indexes useful for tracking progress. The coverage of services sector should be expanded in consultation with the ASEAN Secretariat. In addition, to fill the gap between the policy reforms required by the AEC Blueprint and the actual outcomes perceived by firms, a well-designed business survey could be an important tool and that is one of the policy recommendations discussed below. There is also important value that can be added for policymakers by using our quantitative measures as part of econometric studies to investigate the economic impact of the policy reforms included in the AEC Blueprint. At present our quantitative measures provide only a rough guide to which areas of liberalization should be tackled first. The indexes mainly represent the frequency of restrictions and do not capture fully the economic

significance of restrictions. In more detailed studies some judgments have been made about the severity of restrictions, and this is included in the weighting applied to the different restrictions. However, a much more accurate view of the economic cost of restrictions (and the benefit of the removal thereof) requires estimation of the impact that restrictions have on costs and prices. Such studies can then provide a well-informed guide to prioritize policy measures. This would be an important step to facilitate the on-schedule establishment of the AEC along the Blueprint.

3. Micro-data Analyses on the Impacts of Economic Integration on the Performance of Firms

Part II of this report contains surveys of micro-data analyses and four original econometric studies using micro-data in selected East Asian countries.

The nature of corporate activities has changed rapidly in this era of globalization. Although the development experience of East Asia provides reasonable evidence of the benefit of economic integration, and there is a widely accepted view that a more open trade and investment regime is desirable, there still remains persistent negative argument against economic integration and globalization. Such argument claims that the benefits of economic integration tend to be distributed unevenly among economic agents in favor of big players. The result of that argument can be a tendency towards protectionism. The risk of protectionism is again rising against the backdrop of the global financial crisis.

In order to further economic integration in East Asia in this difficult time it is

important to address squarely negative arguments against globalization. In designing policy reforms that would enable deepening economic integration it is useful to clarify the impact of economic integration on corporate activities. There is no one-size-fits-all prescription. The key word here is *heterogeneity*. East Asian countries vary significantly in many aspects; the level of economic and institutional development, the size of their economies, factor endowments, and so forth. Even within a single country, firms are heterogeneous in many aspects; products, sizes, factor intensities, management skills, and market orientation. It is, therefore, natural to expect the impacts of, and the attitudes toward, globalization or economic integration to differ significantly among countries and even among firms in a country.

This is the reason for the importance of micro-data analyses. Compared to other regions such as OECD countries, micro-data for East Asian countries have not yet been fully investigated. This is in part because of their confidential nature and in part because of the quality of the data but the available literature, though still limited, reveals interesting characteristics of East Asia. These studies can be a rich source of policy implications for the effective design of policy measures to pursue deepening economic integration and to narrow development gaps.

Hayakawa *et al*. (2009) provides an extensive survey of the literature on the impact of globalization or economic integration on the performance of corporate activities, classifying the literature into 13 categories[14]. These studies indicate that the issues of immediate interest can differ by country, depending on the industrial structure and the

[14] (1) Selection in investing and exporting, (2) to which countries/regions, (3) entry mode choice, (4) selection in dead or surviving firms, (5) selection in the number of varieties, (6) from what products to what products, (7) from what resources to what resources, (8) impacts of exporting and outward FDI, (9) impacts of inward FDI, (10) impacts of agglomeration, (11) decomposition of production, (12) decomposition of resources, and (13) decomposition of productivity.

stages of economic development. To provide more detail for the ASEAN group of countries Part II of this project conducted 5 econometric studies, summarized in sections 3.1 to 3.4. In addition, country-based surveys of micro-data analyses were compiled for Indonesia, Vietnam, and Australia, as a basis for future extensions of micro-data analyses[15].

3.1. Gains from Fragmentation

The remarkable economic growth of East Asia has been accompanied by the development of international production networks. International production networks in turn have been developed through the expansion of international trade and FDI in the region. In particular, production fragmentation[16] has been a key phenomenon in the process. However, the benefits of production fragmentation have never been directly measured empirically at a detailed level. Kimura *et al* (2009) make the very first attempt to capture empirically the gains from fragmentation at a firm-level.

By using firm-level data of the manufacturing sector in Japan, Kimura *et al* (2009) first present some facts on capital-labor ratios (KL ratios) in Japanese MNEs. They find that Japanese affiliates in developed countries have higher KL ratios than those in East Asian countries, while KL ratios in Japanese MNEs' home activities do not show clear differences between those with affiliates in East Asia and those in developed countries. As a result, the gap in KL ratios between home and overseas activities is larger in the MNEs with affiliates in East Asian countries. Based on these findings, Kimura *et al* (2009) claim that Japanese MNEs investing in East Asia aim to utilize

[15] Aswicahyono (2009) for Indonesia, Pham (2009) for Vietnam, and Wong (2009) for Australia.

[16] Production fragmentation is a corporate strategy to pursue total cost reduction, in which a "firm properly divides a factory into multiple production blocks and places them in various locations with different location advantages" (Kimura *et al*. 2009).

low-priced labor and cut out production blocks on the basis of factor intensities. Next, they investigate econometrically how such a gap in KL ratios is related to MNEs' performance. They find that "the larger the gap in capital-labor ratios between MNE's home and overseas activities, the higher their profitability" (return on assets) and labor productivity. This finding implies that, by separating production blocks so as to widen the gap in KL ratios between those blocks, firms can enjoy more benefits from production fragmentation. East Asia is a particularly suitable region for such separation, compared with other regions such as Europe, because of the huge disparities between areas within the region. In order to obtain greater gains from fragmentation in this region it is crucially important for MNEs to design carefully how to separate their production processes.

3.2. Learning-by-exporting

Whether learning-by-exporting effects can improve firms' productivity is a crucial question not only for researchers but also for policy makers. The presence or absence of learning-by-exporting effects has important implications for the appropriate policy stance toward 'openness'.

Hahn and Park (2009) examine this issue using plant-level panel data on the Korean manufacturing sector from 1990 to 1998, carefully controlling for self-selection[17] in export market participation using propensity score matching[18]. They found clear and robust empirical evidence for the learning-by-exporting effect. Firms can, of course, improve their productivity through various channels but the implication of this finding

[17] A statistically significant relationship between productivity and export market participation does not automatically imply the existence of leaning-by-exporting effects, as it can be a result of self-selection through which only productive firms can enter into export markets.

[18] For details of propensity score matching, see section 3 of Hahn and Park (2009).

is that exporting is one important channel for raising productivity.

Hahn and Park (2009) further find that "the effect is more pronounced for firms that have higher skill-intensity, higher share of exports in production, and are small in size." The skill-intensity result seems to support the view that "absorptive capacity" matters to achieve knowledge spillover from exporting activity. The implication is that policy makers should go beyond the neoclassical orthodoxy of unconditional opening and focus on policies to improve absorptive capacity.

3.3. FDI Spillovers

Attracting FDI has been high on the policy agenda in developing countries in East Asia based on the expectation that multinational enterprises (MNEs) would bring in much-needed capital, accompanied by employment opportunities, new production technologies, marketing techniques, management knowhow, and other benefits. In addition to these direct effects, the host countries have looked for FDI spillovers, through which domestic firms could improve their productivity, because this is the most promising path to assure long-term economic growth. Although developing countries in East Asia are often viewed as successful cases of FDI policies, the empirical evidence on the existence of FDI spillovers is still limited[19]. Policy makers in those countries have repeatedly expressed serious concerns over the lower-than-expected FDI spillovers.

Kohpaiboon (2009) investigates the existence of vertical and horizontal FDI spillovers, using an unbalanced panel dataset from the manufacturing survey of

[19] This does not mean that FDI policies in East Asia have been unsuccessful. On the contrary, they have been largely successful to provide the host country various opportunities to participate in international production networks.

Thailand over the period from 2001 to 2003. One of the most important findings is that "positive horizontal spillovers are found only in an industry operating in relatively liberal environment." This leads the author to conclude that FDI liberalization has to go hand in hand with trade liberalization because tariff reduction must reach a certain threshold level in order to realize the gains from FDI spillovers.

Relaxing the restrictive assumption of identical horizontal spillovers (which was imposed to obtain significant evidence of vertical spillovers in previous literature[20]) Kohpaiboon (2009) fails to find significant evidence for vertical FDI spillovers. Although it is reasonable to expect vertical FDI spillovers through backward linkages, the empirical evidence is still mixed. Kohpaiboon (2009) attributes this ambiguity to a measurement problem[21]. The empirical evidence available so far indicates that the *magnitude* of backward linkages by itself is not a significant determinant of vertical FDI spillovers. Policy makers should, therefore, look carefully at the *quality* of backward linkages which must be based on economic concerns rather than government regulations such as local content rules. This implication is of particular importance now as we observe a rise of economic nationalism and protectionism against the backdrop of the global economic crisis.

[20] See for example, Javorcik (2004) and Blalock and Gertler (2008). Indeed, Kohpaiboon (2009) reproduced the similar result with the restrictive assumption, but avoids referring the result as it is viewed as biased.

[21] In empirical analyses, the variable for backward linkages is usually compiled from input-output tables. This quantitative measure may not reflect the effective linkages between MNEs and domestic firms.

3.4. Firms' Response to Policy Reforms

3.4.1. The Impact of Liberalization on Plant Entry

The response of domestic firms to policy reforms is always a concern for policy makers. Narjoko (2009) addresses this issue by focusing on the extent and the determinants of plant entry in the Indonesian manufacturing sector over the period from 1993 to 1996. The period was chosen because of the significant trade and investment policy reforms between 1992 and 1994 initiated in response to the poor investment climate in Indonesia[22].

Narjoko (2009) finds weakly significant evidence *against* the conventional belief that liberalization in trade and investment will lead more domestic firms to enter the market. Both descriptive and econometric analysis indicates variation across industries in the impact of the liberalization. While there is evidence of an increase in plant entry rate in, for example, the textile-and-garment industries, it was not so in machinery and transport-equipment industries. The author attributes the findings to the possibility that the remaining non-tariff barriers (NTBs), including a protective industrial policy, offset the expected positive impacts from tariff reduction. His argument is reinforced by the finding that displacement entry was not as large as the extent of replacement entry, which implies that some inefficient plants still survived despite the liberalization policies. This further implies that the tariff reduction by the middle of the 1990s was not sufficient to induce credible competitive pressure.

[22] Pangestu (1996). Since the middle of the 1980s, the larger and more developed ASEAN countries (Thailand, Malaysia, and Indonesia in particular) have been in fierce competition to attract FDI. Therefore, delays in one country's liberalization could be perceived as a *relative* decline of investment climate.

3.4.2. Maximizing the Benefits from FTAs

While there is a view that concluding bilateral or plurilateral FTAs is a step toward a more open trade regime, the uncoordinated process has been generating side effects, amongst them the so-called "spaghetti bowl" syndrome. This is a particular problem in East Asia, where FTAs have proliferated rapidly and bilateral and plurilateral FTAs are intricately overlapped. As a result, it is often argued that FTAs in East Asia have not been fully utilized and the expected gains from FTAs have not been realized. In order to maximize the benefits from FTAs, it is essential to understand the actual utilization ratio and its determinants.

Hiratsuka *et al* (2009) is a pioneering attempt to conduct a rigorous econometric analysis to investigate the determinants of FTA utilization. Using firm-level data of Japanese foreign affiliates operating in six countries in ASEAN[23] for the period from 2006 to 2008, they found:

(1) The larger the affiliate, the more likely it is to utilize FTAs, implying that the opportunity to enjoy the benefits of FTAs is uneven, in favor of large firms. This implies that there may be fixed cost to start to utilize FTAs, and affiliates with a smaller number of employees and a small volume of transaction may not be able to cover the cost out of the expected benefits from utilizing FTAs.

(2) There is a negative relationship between the share of imports with zero tariffs outside of FTAs and the utilization of FTAs. Under some investment promotion schemes, for example, Japanese affiliates are eligible for tariff exemptions on imported inputs. IT-related products, as a case in point, are tariff-exempt under the Information Technology Agreement (ITA). Needless to say, if MFN tariffs are

[23] Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

zero, there is virtually no incentive to utilize FTAs.

(3) There is a significant inverse U-shaped relationship between FTA utilization and the share of local inputs[24]. Interestingly, they find the percentage of local inputs that maximizes the utilization of FTAs is around 40%, depending on the specification, which coincides with the regional value content requirement under the CEPT scheme.

(4) FTA utilization differs by industry. FTAs are more utilized in textile and automobile industries, and less in plastic products and electrical products.

(5) FTA utilization differs by the country of location. Japanese affiliates in the Philippines and Vietnam are less likely to utilize FTAs, due probably to the higher administrative costs for FTA utilization.

All these findings are statistically significant and contain important implications for policy makers wanting to promote the utilization of FTAs. Hiratsuka *et al*. (2009) differ importantly from the previous literature, where *ex post* evaluation of FTAs has largely been based on anecdotal evidence and descriptive analyses. However, a caveat still remains. A limitation of this study is that the coverage is of Japanese affiliates only. A number of foreign affiliates from various countries also operate in ASEAN countries, and in order to obtain a more precise picture of the current status of FTA utilization it is important to conduct a large scale business survey covering firms operating in ASEAN countries regardless of the country of origin.

[24] The rationale behind this inverse U-shaped relationship is as follows. The more local inputs an affiliate has, the more likely for the affiliates to meet the condition to utilize the CEPT scheme, which requires at least 40% regional value contents. On the other hand, an extremely large share of local inputs can discourage the utilization of FTAs when the affiliate imports the limited remaining inputs.

3.5. Discussion

These micro-data analyses reveal important policy implications for deepening economic integration.

Production fragmentation and the subsequent development of production networks are key phenomena behind deepening economic integration. From the viewpoint of firms, production fragmentation is a strategy to improve competitiveness by reducing total production costs. The home country of the firm therefore faces a dilemma. Industrial hollowing out, and the subsequent decrease in employment opportunities in the home country, may be negative consequences of production fragmentation. Yet Kimura *et al* (2009) find that production fragmentation can be a source of improving profitability and productivity of the firm. Their results also suggest that "the closer to Japan the host country is, … the significantly better the performance." That is, geographical adjacency among East Asian countries can be another source of higher profits and productivity. The results from the study by Kimura *et al* (2009) thus provide strong supporting evidence that East Asian countries will benefit by further development of production networks.

Although the difference in factor endowment is a key factor, it is not a sufficient condition for production fragmentation to take place. Firms make decisions on whether they undertake fragmentation strategy by comparing the expected gains from fragmentation and the necessary costs, that is, the costs for service links and network set-up (Kimura 2008). Unfortunately, some labor abundant countries with lower KL ratios, where there should be an advantage to locating production blocks, are often characterized by poor business environments in terms of rules and regulations, institutions, physical infrastructure and so on. These are key factors affecting services

link costs and network set-up costs. From the viewpoint of more-developed countries, providing official assistance to the less-developed countries to improve their business environments is a promising investment because it can provide firms of the donor country opportunities to enjoy gains from fragmentation.

At the same time, less-developed countries should improve their investment climate by extending FDI liberalization and strengthening facilitation, developing infrastructure and improving institutional capacity with the support of more-developed countries, as these strategies would pave the way to establishing an effective linkage with the growing production networks in East Asia.

4. Policy Recommendations

4.1. Tracing the Progress toward the AEC

In order for ASEAN to achieve the ambitious goal to establish the AEC by 2015, the AEC Blueprint must be steadily implemented in line with the schedule. For this purpose, the implementation mechanism must be improved to ensure member countries comply with the AEC Blueprint. A useful tool to aid this process would be one that allowed policy makers to visualize the progress in an objective and comparable format.

This is the objective of the quantitative measures developed in this project. Tables 1 to 7 provide first snapshots of ASEAN member countries with respect to key policy areas; services liberalization, trade facilitation, and investment liberalization. They were designed and compiled to ensure objectivity and comparability, and thereby enable policymakers (1) to capture the current status of remaining barriers to trade by country,

by mode, and by sector, (2) to define the detailed target and milestones in each policy action with reference to the regional best practice, and (3) to facilitate the implementation process through peer pressure.

There remains much to be done to extend the quantitative measures. The coverage is still limited. ERIA should expand the scope through close consultation with the ASEAN Secretariat. Feedback from policymakers will also improve the quality and usefulness of the quantitative measures.

4.2. General Policy Directions

In the current climate a commitment to maintaining the momentum toward a more liberal and open economic regime is essential. The research presented in this report contains ample evidence of the benefits to be derived from further liberalization. Further, as a strategy to ensure the benefits from closer integration with particular relevance to the East Asian region, the development of production networks should be supported through the reduction of services link costs and network set-up costs. For this purpose, ASEAN countries should maintain the steady progress in trade and investment liberalization, and accelerate the initiatives toward services liberalization, trade facilitation and investment facilitation outlined below.

4.3. Services Liberalization and Legitimate Regulation

The services subsectors focused on by Dee (2009), where quality and safety of service provision is so important, draw attention to the fact that there are legitimate objectives of regulation. The considerable benefits to be gained from services

liberalization have to be set against these legitimate objectives. The focus of the policy recommendations set out here is, therefore, on the mechanism to establish the minimum regulatory standards that would achieve the legitimate objectives and on ways to remove regulations that are unnecessarily burdensome. Detailed policy recommendations in this field are as follows.

- Beyond taking up the suggestions in the Singapore Roadmap in health services, the ASEAN countries should work together to establish satisfactory regimes for regulating and enforcing acceptable quality standards, both for individual professionals and for healthcare institutions. The aim would be to establish *minimum acceptable* quality standards. This need not involve establishing the same standards in each country. Quality already varies enormously across the region and, as elaborated in Dee (2009), this can be an efficient mechanism for encouraging those who can afford to pay for higher quality services to self-select and to contribute more to the cost of their care.
    - Having a "ladder" of quality standards across the region would (i) put a floor under standards, providing a benchmark for standards that were not more burdensome than necessary, and (ii) also provide a viable alternative for the replacement of standards that were discriminatory against foreign providers.
- Strengthen the existing Mutual Recognition Agreements for medical practitioners, dental practitioners and nurses to remove the potentially arbitrary ability for professional bodies or other authorities to impose "any other requirements" that they choose beyond those recognizing qualifications and competence.
- Commit to multilateralising the already liberal regimes for Modes 1 and 2 and improve the use of Mode 2 by improving the mobility of health insurance. This

latter recommendation is also related to achieving the AEC Blueprint goals in financial services although some lack of mobility of insurance comes from the decisions of the providers themselves, not from policy.

- Pay attention to removing non-discriminatory barriers as well as those that restrict business activities of foreigners. This enhances the gains from liberalization for domestic providers and reduces the risk that they will simply be hurt by foreign competition.
- In financial services the ambition should be to remove the barriers identified in the study to zero (since they exclude prudential regulations which would, of course, be maintained). Significant barriers to cross-border trade (Mode 1) still exist in financial services and removing them would be an important mechanism to facilitate trade. The most likely platform for Mode 1 trade is the internet so encouraging trade of this kind does require improved consumer protection coordination between countries and education of consumers about the risks and their rights.
- Facilitate the movement of persons, particularly inter-corporate transferees and individual skilled professionals. Since ASEAN has an interest in the rest of the world adopting more liberal Mode 4 it should also be prepared to be more liberal in return.
- Maintain and update the restrictiveness indexes on financial and health services restrictions over time.

4.4. Trade Liberalization and Facilitation

Although East Asia has been making significant progress in trade liberalization,

there are more to be done to gain more from the existing initiatives by fine-tuning trade policies and agreements. In addition, ASEAN should accelerate the efforts toward trade facilitation along the ASEC Blueprint. Following is the list of policy recommendation from our project, though not exhaustive.

- Make the best use of the existing policy frameworks and trade agreements. In particular, the size of firms is identified as a determinant of FTA utilization (Hiratsuka *et al*, 2009) so special attention should be paid to SMEs and policies developed to increase their utilization of existing policies, for example, by preparing modules and templates for value-added accounting (Meddala 2009).
- To reinforce the leaning-by-exporting effects, appropriate policies to enhance 'absorptive capacity' should be taken (Hahn and Park 2009). On the basis of current research results, the main determinant of capacity appears to be the human capital level of firms so this would be an appropriate policy focus. Further research may reveal other determinants of absorptive capacity.
- In the customs area, reinforce the commitments to, and monitor the implementation of, National Single Windows as a prerequisite to the ASEAN Single Window.
- Accelerate the efforts toward streamlining and harmonizing customs procedures, starting with the Customs declaration form (or Single Administration Document: SAD), as 'customs documents' is identified as one of the major impediments to trade facilitation (Table 4).
- ASEAN Customs authorities should report regularly, and in a comparable manner, on clearance time through customs, noting the target of 30 minutes.
- Develop a web-based databank of trade regulations that is regularly updated.

- Maintain and report the Hollweg-Wong logistics restrictiveness index for all countries in each year, and recalculate the adjusted Sourdin-Pomfret cif/fob ratio for all countries each year using Australian import data while at the same time examining (i) the opportunities to use import data of other ASEAN trading partners for this purpose (e.g. Japan), and (ii) the scope to use ASEAN export data for this purpose. If these data are not currently available develop the capacity to collect cif/fob data for intra-ASEAN trade.

4.5. Investment Liberalization and Facilitation

FDI has been an indispensable driving force for most of the countries in East Asia to achieve remarkable economic growth for decades. In order to further economic integration through the development of production networks, policymakers in East Asia are recommended to consider the followings:

- Data on FDI liberalization by mode of restrictions shows there are improvements possible in the following countries:
  - Market access: Myanmar, Thailand, Malaysia, and Lao PDR.
  - Screening and appraisal procedure: Indonesia, Cambodia, Myanmar, and Lao PDR
  - National treatment: Brunei and Malaysia.
- Investment liberalization in the services sector should be accelerated, with an appropriate competition policy.
- To promote FDI liberalization, the ASEAN countries should use various existing frameworks, such as WTO/GATT's TRIMs agreement, BITs, and FTAs. In particular, ASEAN should define the details of the ASEAN Comprehensive

Investment Agreement.

- To improve FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve human resources engaged in the implementation and enforcement of FDI policies. Possible multilateral and regional sources of technical assistance in this area are the UNCTAD, OECD and ERIA.
- An effective monitoring mechanism to track improvements in implementation of FDI liberalization and facilitation objectives should be established in collaboration between the ASEAN Secretariat and ERIA.
- Investment liberalization should be accompanied by steady progress in trade liberalization since research shows that the benefits from FDI are greatly affected by the trade regime (Kohpaiboon 2009).

4.6. Regional Cooperation in Statistical Policy

As summarized in section 3, micro-data analyses can be a rich source of important policy implications. It is desirable to conduct more research in this direction, as it is a promising way to design more effective and efficient policies regarding economic integration. For this purpose, we recommend the following[25].

- The use of micro-data should be open and rule-based for researchers. It has been obvious that micro-data analysis provides invaluable information to policy makers. However, the number of countries in which micro-data are accessible is still limited. In ASEAN, for example, Singapore and Malaysia do not permit research use at all. In Japan, customs data are never available at the firm level.

[25] For details, refer to Hayakawa *et al* (2009).

- The basic items included in statistics should be internationally standardized at least to a certain extent. Items to be considered include tangible assets, employment, procurement, ownership information, firms' overseas activities, and other elements identified in Hayakawa et al (2009).
- Firm-level data should be consistent and convertible. It is important to be able to link one set of firm-level data in a year with that data in other years, by firm. That is, the firm-level data should have a firm identification code identical through years. Furthermore, it is desirable that the firm identification code is convertible to that in other firm-level data. Where surveys are conducted they need to be designed on the assumption that they will be linked with other existing micro-data.
- Governments should improve the quality of micro-data. It is important not only to raise collection rates but also to decrease unanswered items, i.e. missing values. It would be desirable to make a survey mandatory for firms. Face-to-face interaction in collecting information is also effective.

5. Further Research Agenda

5.1. Tracing the Progress toward the AEC

As proposed in the previous section, the quantitative measures developed in this project should be maintained and updated to monitor the progress towards the AEC Blueprint. For this purpose we need to extend our research project to conduct the following further studies:

- Update the current version of quantitative measures on services liberalization

(medical professionals, healthcare, banking, and insurance services), trade facilitation (logistic restrictiveness index and trade cost estimates), and investment liberalization (FDI policy) in the same format.

- Improve the quality of the quantitative measures by (1) receiving and reflecting on feedback from policymakers, (2) conducting additional studies on trade cost estimates (as in Sourdin and Pomfret 2009) using trade statistics from other countries, and (3) investigating the relationship between the quantitative measures, the various existing surveys of perceptions on business environment and actual economic activities (trade and investment statistics).
- Expand the scope of the restrictiveness indexes for services liberalization. Services subsectors in the Priority Integration Sector (PIS), such as e-ASEAN, tourism, air travel, and logistics[26], are the likely candidates, but the selection will be made in close consultation with the ASEAN Secretariat.
- Begin the econometric analysis of the economic impact of different barriers to services trade to help set priorities on which policies to tackle first in the move to greater liberalization and to help build concrete objectives for the AEC Blueprint process.

5.2. Micro-data Analyses on the Impacts of Economic Integration

In order to design effective and efficient policies regarding economic integration it is important to deepen our understanding of the heterogeneous impacts of economic integration on the activities and performance of the business sector. As summarized in

[26] Among them, air travel and logistics are already incorporated in the logistic restrictiveness index (Figure 2). However, it is desirable to re-compile the index in the same format as other services sectors to facilitate comparability and consistency.

section 3 of this paper, micro-data analysis is a promising, perhaps the only available, method for this purpose. This line of study should be continued and expanded to include more countries.

Future research should attempt to replicate the analyses in previous studies using micro-data of East Asian countries[27]. Most available literature analyses developed countries and there are few papers on East Asian developing countries. In addition, since *de facto* economic linkages are stronger in East Asia than in other regions, empirical results are expected to differ from those in previous studies.

Another strand of research that might be of keen interest to East Asian countries is on the determinants of the degree of FDI spillovers. We already know that MNEs' nationality is one of the sources of heterogeneity in the magnitude of the spillover that domestic firms receive, but we do not know why. As a next step, we need to examine what sort of firm nationality characteristics yields such heterogeneity. Previous studies have analyzed the heterogeneity of spillover effects in domestic firms' input-output relationship with MNEs but they are forced to look only at input-output relationships at the industry level due to data limitations. That is, they confirm that domestic firms in industries having a close input-output relationship with the industries in which there are many foreign-owned firms, receive larger spillover effects. More direct examination is needed to analyze closely such heterogeneity of spillover effects. If the required data are available, we can directly examine whether or not domestic firms that supply their products to, or purchase inputs from, foreign-owned firms obtain larger spillover effect.

As pointed out in subsection 4.6, micro-data are either not available or not accessible in some countries in East Asia, and the quality and the content of the data

[27] For more details on the research proposal in this and next paragraph, see Hayakawa *et al* (2009).

differ significantly by country. In order to enable research to make a significant contribution to policy, we urge the governments of East Asian countries to provide access to micro-data to ERIA research projects.

5.3. Linkage between Real and Financial Economic Integration in East Asia

Given the backdrop of the global economic crisis, and as Asian economies become more globalized and complex, there is an urgent need to pay greater attention to the interdependencies between the real and financial sides of the economy.

The linkages between the two are apparent. In both 1997-98 and 2007-08, what was initially a financial crisis has eventually impacted trade and the real sector. The transmission channels of financial effects to the real economy are varied. In part they may be due to wealth, or balance sheet, effects from decreasing capital values of assets. They may also be transmitted by severe credit crunches caused by problems in the banking sector or other capital markets. These are likely to have particularly serious effects on SMEs and on trade. At the same time, weaknesses in the real sector raise non-performing losses, thus threatening the viability of the financial sector. Whatever the starting point of the crisis, the complex interactions between the real and financial sides of the economy can lead to a vicious downward spiral.

Of particular importance in the Asian region, financial integration is linked with the integration of the real economies. Developments in the real sector, patterns of trade and investment flows, the degree of synchronization of business cycles, and the manner in which industry is financed are important drivers of financial integration and are, therefore, factors in the appropriate design of financial arrangements, including currency arrangements.

Despite all of this, there remains a tendency among policymakers and academics to study the real and financial dimensions of the regional economies separately. There is an important job to be done providing coherent research on the links between these elements of the regional economy so that well-informed policy can be made in both spheres.

As noted above, there is still an open debate about the major transmission mechanisms running between the financial and real sides of economies. One important element in understanding the linkages is a clear picture of the way in which the real sector is financed, that is, the extent to which it depends on internal sources of funds versus external and, amongst the external, which sources are most important. Surprisingly these questions are not well researched for the Asian region although there is a well-established, counter-intuitive finding for developed economies that the major source of finance is internal not external (Mishkin, 2006). The implications of the way in which industry is financed for the linkage between the financial sector and the real sector are profound. If, for example, the major source of finance for industry is internal (retained finance), then our understanding of the role of banks and capital markets is altered and the transmission of financial shocks must be re-examined.

There is a vibrant debate about how to measure accurately the sources of finance (see Corbett *et al*. 2004 and Hackethal *et al*. 2004). Some methods require detailed firm or industry-level balance sheet and accounting data. A useful exercise will be to discover whether comparable cross-country data is available within the region and to make recommendations about what should be collected if it is not. Even in the absence of comparable micro financial data, however, much can be done using National Income Accounts and these will already be available in a standardized form for most

countries within the region. Some studies embodying the best methodology for establishing the sources of industrial finance do exist for a small number of Asian countries (Japan, Korea and Thailand). Given ERIA's connection with its Research Institute Network it would be very well placed to extend these studies to other countries in the region and, using them, to shed light on linkages between financial shocks and real ones.

There is also important work still to be done to understand the extent and pattern of financial integration in the region and how it is linked to the trade and production patterns. Many other organizations in the region have research agendas focused on enhancing regional financial integration, looking at the building of regional bond markets, currency swap arrangements and the development of a regional currency. However the research that is linked to these agendas rarely examines the manner in which these developments would impact on the real side of the economy. So a focus by ERIA on that element of the effect of closer financial integration would complement, not duplicate, the research done by other agencies.

The research agenda that we propose here would begin with a series of workshops for researchers, policymakers and the business community to contribute to a better understanding of the interactions between the financial and real (mainly trade) dimensions of integration in Asia and to introduce the methodology and explore the data needs that would enable a clear understanding of what is distinctive about the financial structure of the region's economies. The workshops can be held more than once and in different countries depending on the interests of host institutions and ERIA partners.

The following is a tentative, though not exhaustive, list of topics to be covered.

I. Real Sector Financial Structure

1. How is industry financed in Asia: an overview.
2. The links between real investment and finance.
    a. Does finance constrain investment?
    b. Does finance affect the growth and volatility of investment and output?
3. The role of FDI in supporting investment and vertical specialization and production networks.
    a. The role of FDI in trade in financial services.
4. Financial structure and corporate governance: what's the link?
5. Financing infrastructure: the future of multilateral and public-private partnerships.
6. Impact of financial crises on financial structure: lessons from the Asian crisis for the global financial crisis (bank finance versus others, impact on trade finance, etc).
7. Does regional exchange rate volatility matter for regional trade and FDI?

II. Real Effects of Regional Financial Integration: Extent, Measurement and Effects

8. Examining the extent of real and financial integration in Asia.
    a. Measurement and interpretation.
    b. The impact of financial integration on production fragmentation and intra-Asian trade.
9. Do regional FTAs enhance regional financial integration?
10. Business cycle synchronization: what drives it and what role for financial integration?
11. Links between openness of financial markets, financial integration and barriers

to trade in financial services.

12. Regional M&A activity – is it related to financial integration?

III. Changes in the Financial Sector and Implications for Regulation

13. New financial technology and financial systems.
14. Regional regulatory structures: how to coordinate to support closer financial integration?
15. Are prudential regulations barriers to trade in financial services and closer financial integration?

5.4. ERIA Business Survey

As demonstrated in subsections 2.2 and 2.3 above, business surveys can be a rich source of additional information on how the changes in policy environment are *perceived* by business sectors. Although the degrees of liberalization can be measured by the official information such as laws and regulations, it is more difficult to measure the degrees of *facilitation* based on publicly available information. Therefore, we recommend conducting a region-wide business survey, tailored to meet the mission of ERIA to support ASEAN's efforts to establish the AEC, taking advantage of the Research Institute Network of ERIA.

5.5. Development Strategies for Maritime Southeast Asia

Southeast Asia is highly diverse in geographical conditions; countries in the Eurasia continent (including a landlocked country), countries consist of a number of islands, small countries, and so on. The diversity in geographical conditions can be a cause of income disparity as it affects the nature and the speed of economic development.

The remarkable economic growth of Southeast Asia has been sustained by the development of production networks in the manufacturing sector. Deepening economic integration through the development of production networks can be a promising development strategy for the regions with location advantages such as proximities to existing industrial agglomerations and factor endowment complementary to the adjacent regions. For example, Cambodia has such location advantages as it locates between the largest and one of the fastest-growing industrial agglomerations in the region (Bangkok and Ho Chi Minh City respectively), and is endowed with abundant inexpensive labor. Therefore, an industrial corridor connecting Bangkok and Ho Chi Minh City through Phnom Penh can be an effective strategy to deepen economic integration while narrowing development gaps in the region by mobilizing the agglomeration and dispersion forces of economic integration (Kimura and Kobayashi 2009).

However, production networks have not extended fully to maritime Southeast Asia such as the states of Sabah and Sarawak in Malaysia and many parts of Indonesia and the Philippines mainly because of their geographical disadvantages. Such regions without effective linkages to the existing production networks are in general lagged behind in many aspects of economic development. Therefore, it is important to design a development strategy tailored for maritime Southeast Asia, taking their location advantages and disadvantages into consideration. We first need to investigate whether the above mentioned development strategy based on production networks is applicable to maritime Southeast Asia as well. For this purpose, we also need to identify (1) existing and potential industrial agglomerations, (2) the frontier of production networks, and (3) the current status and the development plans of logistic infrastructures in the

region. In addition, the research should include a careful review of existing sub-regional initiatives such as BIMP-EAGA (Brunei Darussalam, Indonesia, Malaysia, and the Philippines, East Asia Growth Area) and IMT-GT (Indonesia, Malaysia, and Thailand, Growth Triangle).

5.6. International Movement of Natural Persons

International movement of natural persons has been increasingly an integral part of the economic landscape in East Asia, especially in the age of deepening economic integration.

The most prevailing form of international migration is from less developed countries to more developed countries in search for employment opportunities and higher wages. The number of skilled workers, such as managers, professionals, and engineers, working in foreign countries has also been increasing in parallel with globalizing economic activities. Despite the prevalence of international migration, our understanding on the economic impacts and political implications thereof are still limited mainly because of the lack of comprehensive and consistent statistics on the international movement of natural persons.

Economic development in general entails structural adjustment, and economic integration is expected to accelerate the process. International migration, if appropriately managed, can serve as a buffer to mitigate the costs of structural adjustment. In order to promote economic integration in East Asia, therefore, it will be more important to design an effective mechanism to manage international movement of natural persons. For this purpose, ERIA is recommended to launch a comprehensive research project on this issue.

References

Association of Southeast Asian Nations (ASEAN) (2008). *ASEAN Economic Community Blueprint*, ASEAN Secretariat, Jakarta.

Athukorala, P. (2006). 'International Labour Migration in East Asia: Trends, Patterns, and Policy Issues', *Asian-Pacific Economic Literature*, **20**(1): 18-39.

Australia-Japan Research Centre, Crawford School of Economics and Government, the Australian National University (AJRC-ANU) (2008). *Services Liberalization in East Asia: Financial, Logistics, and Distribution Services*, ERIA Related Joint Research Project Series 2007, No.3, IDE-JETRO, Chiba.

Aswicahyono, Haryo (2009). 'A Survey of Micro-data Analyses in Indonesia', Chapter 12 of this report.

Blalock, G. and Gertler, P. J. (2008). 'Welfare Gains from Foreign Direct Investment through Technology Transfer to Local Suppliers', *Journal of International Economics,***74**: 402-421.

Corbett, J., Edwards, J., Jenkinson, T., Mayer C. and Sussman O., (2004). "A Response to Hackethal and Schmidt (2003) 'Financing Patterns: Measurement Concepts and Empirical Results', SSRN, http://papers.ssrn.com/sol3/papers.cfm?abstract_id =493623.

Dee, P. (2009). 'Services Liberalization toward the ASEAN Economic Community', Chapter 2 of this report.

Dee, P. and Dinh, H. (2009). 'Barriers to Trade in Health and Financial Services in ASEAN', *ERIA Discussion Paper*, No.2009-11. Paper prepared for the supporting study on "Services Liberalization toward the ASEAN Economic Community", ERIA, Jakarta.

Findlay, C. (2009). 'Trade Facilitation', Chapter 3 of this report.

Hackethal, A. and Schmidt, R. H (2003) 'Financing Patterns: Measurement Concepts and Empirical Results, SSRN (http://papers.ssrn.com)

Hahn, Chin Hee and Park, Chang-Gyun (2009). 'Learning-by-exporting in Korean Manufacturing: A Plant-level Analysis', Chapter 8 of this report.

Hayakawa, K., Kimura, F., and Machikita, T. (2009). 'Firm-level Analysis of Globalization: A Survey', Chapter 6 of this report.

Hiratsuka, D., Hayakawa, K., Shiino, K., and Sukegawa, S. (2009). 'Maximizing

Benefits from FTAs in ASEAN', Chapter 11 of this report.

Hollweg, C. and Wong, M. H. (2009). 'Measuring Regulatory Restrictions in Logistic Services', *ERIA Discussion Paper*, No.2009-14. Paper prepared for the supporting study on "Trade Facilitation toward the ASEAN Economic Community", ERIA, Jakarta.

Javorcik, B. S. (2004). 'Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages', *American Economic Review* **94**(3): 605-27.

Kimura, F. (2008). 'The Strategic Framework of Deepening Integration', in Hadi Soesastro (ed.), *Deepening Economic Integration in East Asia: The ASEAN Economic Community and Beyond*, ERIA Research Project Report 2007 No.1-2, Chapter 1: 3-23.

Kimura, F., Hayakawa, K. and Matsuura, T. (2009). 'Gains from Fragmentation at the Firm Level: Evidence from Japanese Multinationals in East Asia', Chapter 7 of this report.

Kimura, F. and Kobayashi I. (2009). 'Why is the East Asia Industrial Corridor Needed?' *ERIA Policy Brief*, No.2009-01, ERIA: Jakarta.

Kohpaiboon, A. (2009). 'Vertical and Horizontal FDI Technology Spillovers: Evidence from Thai Manufacturing', Chapter 9 of this report.

Meddala, E. M. and Balboa, J. (2009). 'ASEAN Rules of Origin: Lessons and Recommendations for Best Practice', , *ERIA Discussion Paper*, No.2009-15, a paper prepared for the supporting study on "Theoretical, Empirical, and Practical Considerations for an Ideal ASEAN Rules of Origin (RoO) Framework", ERIA, Jakarta.

Mishkin, F (2007). *The Economics of Money, Banking and Financial Markets 8th e*, Addison Wesley, Chapter 1.

Narjoko, D. A. (2009). 'Plant Entry in a More Liberalised Industrialisation Process: An Experience of Indonesian Manufacturing during the 1990s', Chapter 10 of this report.

New Zealand Institute of Economic Research (NZIER) (2008). *Services Liberalization in East Asia: Business, Postal/Courier, and Maritime Services*, ERIA Related Joint Research Project Series 2007, No.2, IDE-JETRO, Chiba.

New Zealand Institute of Economic Research (NZIER) (2009). 'Theoretical, Empirical, and Practical Considerations for an Ideal ASEAN Rules of Origin (RoO) Framework: Preliminary Assessment', a paper prepared for the supporting study

on “Theoretical, Empirical, and Practical Considerations for an Ideal ASEAN Rules of Origin (RoO) Framework”, ERIA, Jakarta.

Pangestu, M. (1996). *Economic Reform, Deregulation, and Privatization: the Indonesian Experience*, CSIS, Jakarta.

Pham, Thien Hoang (2009). ‘A Survey of Micro-data Analyses: Assessment of FDI Spillover Effects for the Case of Vietnam’, Chapter 13 of this report.

Soesastro, Hadi (2008). ‘Implementing the ASEAN Economic Community (AEC) Blueprint’, in Hadi Soesastro (ed.), *Deepening Economic Integration in East Asia: The ASEAN Economic Community and Beyond*, ERIA Research Project Report 2007 No.1-2: 47-59.

Sourdin, P. and Pomfret, R. (2009). ‘Monitoring Trade Costs in Southeast Asia’, , *ERIA Discussion Paper*, No.2009-12. Paper prepared for the supporting study on “Trade Facilitation toward the ASEAN Economic Community”, ERIA, Jakarta.

Urata, S. and Ando, M. (2009). ‘Investment Climate Study on ASEAN Member Countries’, Chapter 3 of this report.

Urata, S. and Sasuya, J. (2007) ‘An Analysis of the Restrictions on Foreign Direct Investment in Free Trade Agreements’, RIETI Discussion Paper Series **07**-E-018, forthcoming in Christopher Findlay and Shujiro Urata (eds.) *Free Trade Agreements in Asia Pacific*, World Scientific, Singapore.

Wong, M. H. (2009). ‘A Survey of Micro-data Analyses in Australia’, Chapter 14 of this report.