THE RELATIONSHIP BETWEEN JAPAN AND ASEAN COUNTRIES IN THE AUTOMOTIVE INDUSTRY THROUGH REGIONAL TRADE AGREEMENTS

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ABSTRACT

These past ten years, the world has seen an increase of regional trade agreements (RTAs) notified to the World Trade Organization (WTO). However, the delay of its multilateral negotiations has caused some nations to pursue bilateral agreements or proceed with dual track approaches. The impacts of RTAs on domestic industries should not be taken lightly. The automotive industry has highly backward and forward linkages to other industries, thus it plays an important role among developed and developing countries.

Looking at the trend of RTAs in East Asia, Japan has decided to conclude an Economic Partnership Agreement (EPA) with ASEAN. First, this research explains the economic background of ASEAN countries, the relationship with Japan according to several timeframes and how AFTA, the first RTA in East Asia, was created. It also looks at Japan's EPAs with Malaysia, Thailand and Indonesia and it was found that these agreements shared similar characteristics, tariff liberalization and technical cooperation in the automotive industry.

To determine the impacts of EPAs on the automotive industry in ASEAN, qualitative and quantitative methods are being used. Through a wide range of literature review, data analysis, case study and fieldwork research, this dissertation discovered important findings, which clearly demonstrate the hypotheses. The research was aimed at assessing the trend of the automotive industry player's market strategies towards globalization and examining the impacts of these trade agreements on protected domestic automotive markets in ASEAN.

Japan utilizes EPAs to create its own production and export base but its significant impacts are on technology awareness and extra trade rather than intra trade in the ASEAN automotive market. ASEAN economic cooperation has helped to motivate Japanese manufacturers to concentrate their production strategies and export the products to the global market. Hence, it contributes to effective policymaking by the individual governments to further facilitate the smoothness of the business environment in the region. The ASEAN Free Trade Area (AFTA) has received poor reviews from several researchers but it provided a foundation for Japanese automakers to build their own production networks in ASEAN.

ASEAN governments are lacking in negotiation and policymaking skills but regional inter-firms cooperation has helped them to better induce domestic reforms. Foreign automotive firms are provided with new business opportunities as more RTAs with non-ASEAN members are concluded. Malaysia has decided to bring forward its own national car brands with the collaboration of a Japanese automaker. However, the local

automotive related suppliers had to struggle in order to compete with Thailand and Indonesia. In the same ASEAN market, Malaysia had to implement protectionist policies, which protect against the competition of foreign automakers. Although, it is important to nurture local industry, there should be a timeframe to end the special treatment of local firms. Technical cooperation in Japan's EPA is one of the solutions for Malaysia to better learn and adopt advanced technology for the local automotive industry. In comparison to Thailand and Indonesia, the liberalization policies in both countries are further attracting foreign investors with or without technical cooperation in EPA.

The automotive industry in ASEAN is supported by government policies, which determine the future export market for global automakers. Stricter Rules of Origin (RoO) designed in RTAs would help to protect local firms and at the same time increase the localization rate to better integrate the regional supplier's networks. RoO are meant to increase FDI in the host country as the rules could promote localization strategies. Hence, ASEAN governments have to take into consideration local automotive firms' problems with different regulations.

The fieldwork research has proven that increased trade openness in Thailand has helped the development of its automotive industry. Thailand's national automotive policy towards foreign investors has contributed to the Japanese automaker's future market strategies. On the contrary, Malaysia has to face new low cost markets such as China and India. With a limited but open market policy, Malaysia could not depend only on export strategies for its national car brands. AFTA and other RTAs would not weaken Malaysian and Indonesian positions, as these are huge opportunities for local companies to increase their level of competitiveness as long as they are given a level playing field with foreign firms.

This dissertation has shown that RTAs have less impact on trade flows as the margin difference between preferential tariffs and MFN tariffs are small. Nevertheless, the goals of concluding RTAs in East Asia are more aligned to foreign affairs and political relationships between countries. The technical cooperation in the agreements is to ensure that the level of technology transfer in critical industries is higher and more beneficial for partner countries. Although the global crisis in 2009 has affected world trade flows, East Asian economies have recovered quickly and the complementation characteristic in the manufacturing industries are contributing to the recovery. It is hoped that this research will be able to fill the gap, so that researchers can better understand the effect of RTAs on prospective industries such as the automotive industry.

DEDICATION

To my husband, Farid Sayuthi and
our children, Haziq Ikhwan & Hazim Waiz

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHS

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

ADB: Asian Development Bank
AEC: ASEAN Economic Community
AFAS: ASEAN Framework Agreement on Services
AFTA: ASEAN Free Trade Area
AIA: ASEAN Investment Area
AICO: ASEAN Industrial Cooperation Scheme
AIJV: ASEAN Industrial Joint Venture
AIP: ASEAN Industrial Projects
AJCEPA: ASEAN-Japan Comprehension Economic Partnership Agreement
AOTS: Association for Technical Overseas Scholarship
APEC: Asia Pacific Economic Cooperation
ASEAN: Association of Southeast Asian Nations
BBC: Brand to Brand Complementation
BIMSTEC: Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation.
CBU: Completely Built Up
CKD: Completely Knocked Down
CLMV: Cambodia, Laos, Myanmar, Vietnam
CMI: Chiang Mai Initiatives
CoO: Certificate of Origin
EAFTA: European Free Trade Association
EOI: Export Oriented Industrialization
EPA: Economic Partnership Agreement
FDI: Foreign Direct Investment
FTA: Free Trade Agreement
GAIKINDO: The Association of Indonesia Automotive Industries
GDP: Gross Domestic Product
GPN: Global Production Network
GSP: Generalized System of Preferences
ISI: Import Substitution Industrialization
JAMA: Japanese Automobiles Manufacturers Association
JCCI: Japan Chamber of Commerce and Industry
JIEPA: Japan Indonesia Economic Partnership Agreement

JMEPA: Japan Malaysia Economic Partnership Agreement
JSEPA: Japan Singapore Economic Partnership Agreement
JTEPA: Japan Thailand Economic Partnership Agreement
JETRO: Japan External Trade Organization
JICA: Japan International Cooperation Agency
JODC: Japan Overseas Development Corporation
MAA: Malaysian Automotive Association
MACPMA: Malaysian Automotive Component Parts Manufacturers
METI: Ministry of Economy, Trade and Industry
MFN: Most Favored Nation
MIDA: Malaysian Industrial Development Authority
MNCs: Multinational Corporations
NAFTA: North America Free Trade Agreement
NIEs: New Developing Economies
NT: National Treatment
OICA: The International Organization of Motor Vehicles Manufacturers
PTA: Preferential Trade Agreement
RTA: Regional Trade Agreement
RoO: Rules of Origin
SMIDEC: Small and Medium Industries Development Corporation
SME Corporation: Small and Medium Enterprise Corporation (Malaysia)
SIRIM: Standards and Industrial Research Institute of Malaysia
TAI: Thailand Automotive Institute
TRIMS: Trade Related Investment Measures
UN Comtrade: United Nations Comtrade
UNCTAD: United Nations Conference on Trade and Development
WTO: World Trade Organization

CHAPTER 1: INTRODUCTION

1.1. Background

Many developing countries began to pursue regional trade agreements in which their share of exports and manufacturing goods production per Gross Domestic Product (GDP) is essential for economic growth. International trade could lead these developing countries to industrialization. Historically, the proliferation of regional integration processes started as early as 1990 among European and North American countries, where each economic bloc was established based on common political and economic goals. As for East Asian countries, there was no large movement toward regional integration until 1992. The ASEAN Free Trade Area (AFTA) was established by a group of ten Southeast Asian countries upon realizing that they were threatened by the economic rise of China and the declining foreign direct investment to their nations. AFTA has created many new opportunities for foreign investors by creating one large market consisting of approximately of 600 million people with an average GDP per capita of US$2,503 (2009).

Multilateral trade negotiations organized by the World Trade Organization (WTO) were stagnant during the Uruguay Round, which led to the proliferation of Regional Trade

Agreements (RTA), particularly in East Asia. The failure of WTO members to reach agreement at the multilateral level has led developing countries to design their own trade agreements in order to improve their market access, receive more technology transfer and increase their negotiation skills to a global level. These multilateral level negotiations were mostly concerned with trade liberalization by stronger countries, which could be disadvantageous to the weaker and poorer countries. The conflicts between developed and developing countries on outstanding issues such as agriculture and market access are some reasons why multilateral negotiations failed. On the other hand, a RTA can be considered to be a “custom-made agreement" and the liberalization can bring profits to both countries. However, there is a need to address important issues before both countries agree to enter into trade agreements. They must recognize the varied objectives of and conduct a detailed study on the effects of a RTA.

Developing countries could open their markets for manufacturing goods and gain greater services access from developed countries. The WTO uses MFN as their fundamental principle. MFN is defined as Most Favored Nation status, which is used to treat other countries equally. Tariff reductions or special treatment given to one country must also be applied equally to other countries. RTA only deals with the participating country by giving them tariff reductions and other trade measures but this is against the principle of MFN. In

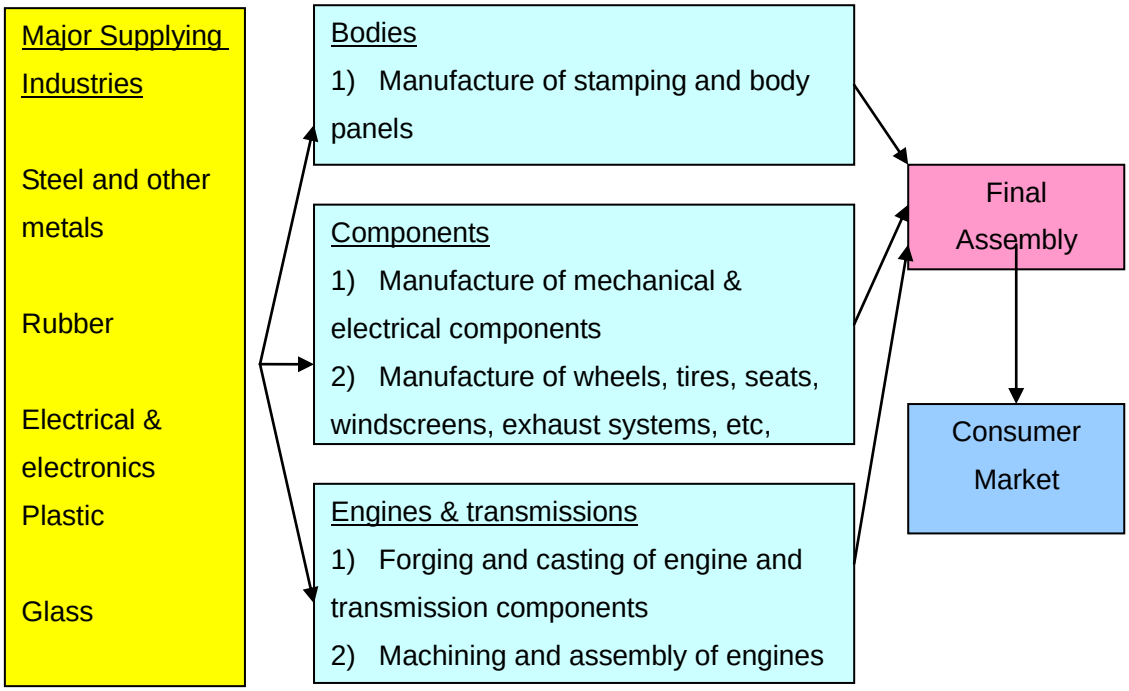
order to not discriminate against non-member countries, RTA member countries need to give the same treatment to other importers after the RTA becomes effective, which is then called the National Treatment (NT).

East Asian countries pursued RTA because it promoted export-oriented policies in order to expand their markets, and thus led to economic growth. It has been known that the Association of Southeast Asian Nations (ASEAN) countries implemented import substitution policies with an approach of protectionism for their domestic industries but the industrialization method changed when these countries followed in the steps of the new industrializing countries (NIEs) by having put into effect various export-oriented policies and successfully outgrew the economic growth. There is no doubt that a certain level of protectionism in the form of non-tariff barriers is essential to nurture these domestic industries but the ASEAN governments need to ensure that foreign multinational firms feel welcome in their host countries, particularly for the Japanese firms.

The automotive industry is known to be of strong interest for countries moving towards industrialization. The significance of the automotive industries in ASEAN can be seen in growth, income, and employment, as well as indirect and direct involvement in many other industries. Furthermore, the automotive industry is considered an “industry within an industry”, where not only parts and components manufacturing industries are involved, but

also raw material production industries, and even the automobile after-sales service industries are included, too (see Figure 1). Thus, any changes in the automotive industry will have similar major effects on other industries, as well. Japanese multinational companies (MNCs) have played important roles in the development of the automotive industry in ASEAN, particularly in Thailand, Indonesia and Malaysia. The dominant market share of the Japanese automakers is more than ninety percent although many U.S. and European automakers began to shift their production to Thailand as an export hub after the 1997 Asian Financial Crisis and also to other Southeast Asian countries because of AFTA's market liberalization.

Figure 1 Organization of Automobile Production

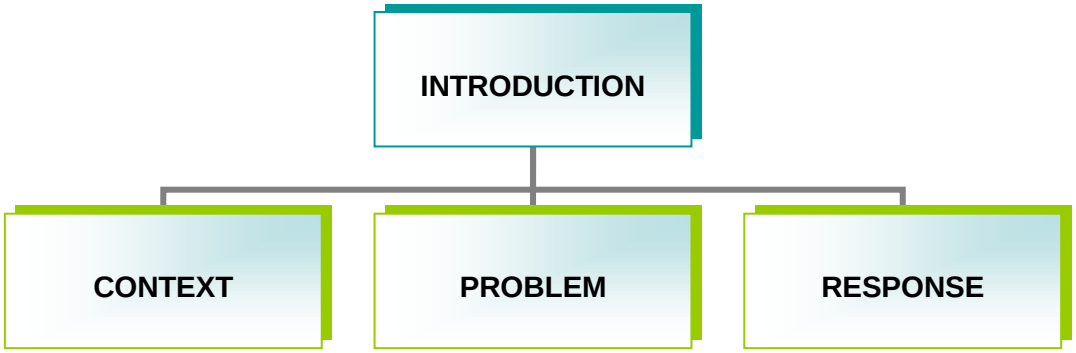


Source: Adapted from Staples (2008)

This chapter describes the introduction to RTAs in ASEAN and the role of automotive industry-related policies in global trade. Since regional trade agreements are common in much of the existing literature, this dissertation will focus more on the automotive industry as, this has not been thoroughly discussed even though it is the largest manufacturing activity for the world's trade. The free trade theory will be introduced in this chapter to clarify the global trend towards manufacturing industries.

The significance of this research is the relationship and the impact of regional trade agreements on the automotive industry in ASEAN countries, which can be seen towards the end of this study. Not only have these agreements functioned as a tariff liberalization framework but they have also acted as WTO Plus, where various pending issues in multilateral negotiations are discussed in any type of RTA. Political and economic connections between Japan and Southeast Asian countries make it interesting to explore from a historical background to the possibility of the creation of an ASEAN Economic Community (AEC) in the future.

Table 1 Elements of Introduction



Source: Booth et al., (2008)

First, this research will examine the historical background of Japanese automotive makers in ASEAN countries and the recent economic conditions in those countries. Financial crises and economic downturns have led countries to become more protectionist, while at the same time they were trying to manage limited liberalization towards the automotive industry. In this chapter, we explain and focus the arguments based on the existing literature on trade liberalization and automotive industrial policies implemented by the governments.

1.2. Hypotheses

This dissertation is based on several hypotheses as the main question relates to two major points of view on the issue of political economy. One of the major topics is about the

automotive industry and the other is free trade. In order to connect both major keywords, the author has decided to state three major hypotheses.

Hypothesis 1:

AFTA alone is not enough to attract foreign and regional investors into ASEAN. Regional and bilateral trade agreements with Japan could enhance the country's attractiveness through economic cooperation.

Hypothesis 2:

Automotive industries in ASEAN are supported by government policies, which determine the future export market for global automakers. Stricter Rules of Origin (RoO) designed in bilateral Economic Partnership Agreements (EPA) would help to protect local firms and at the same time increase the localization rate to a more integrated regional supplier's networks.

Hypothesis 3:

Japan uses Economic Partnership Agreements to create its own production and export base but the impacts are more significant in technology awareness and extra trade rather than intra trade in ASEAN's automotive industry.

1.3. Research Questions and Objectives

This study has several questions that could not be answered by looking at industrial policy and globalization perspectives only. Much of the literature focuses on the trends of trade agreements in East Asia involving Japan, China and ASEAN countries. In this research, the following questions are going to relate to the protectionism of a sensitive industry with liberalization policies influenced by the economic partnership agreement (EPA) with Japan: “Why was the automotive sector mainly discussed and why did it take a longer time to negotiate under Japan’s EPA?”; “How can Thailand, Malaysia and Indonesia protect their own local automotive firms and at the same time open their market to foreign global automakers?”; “How did Japan manage to obtain market access for the automotive sector in these three countries?”; and, “What are the motives of Japan’s EPA partners on signing the agreement and accepting the offer of Technical Cooperation in the automotive sector?” Lastly, some questions will help both public and private sectors in the country to consider a collaboration strategy for the local automotive industry’s development. These inquiries include “Are government to government policies in EPA parallel with the private sector’s market strategies?” and “Why are rules of origin in the automotive sector different in bilateral trade agreements even though the same method was used in ASEAN regional trade agreements (AFTA and ASEAN-Japan Comprehension Economic Partnership Agreements

(AJCEPA)?”

Hence, this research aims to examine the trend of the automotive industry player’s market strategies towards globalization within the context of automakers and parts suppliers in the ASEAN region. In this way, we were able to determine the level of technology transfer in the automotive industry before and after EPAs with Japan were concluded. At the same time, the author’s investigation targeted the impact of AFTA and Japan’s EPA on the automotive industry in ASEAN.

1.4. Methodology

This research combines both quantitative and qualitative methods. Using only a qualitative method, which focuses on using questionnaires to survey participants is time-consuming, expensive and produces a questionably low quality of data (Marsland, Wilson, Abeyasekera, & Kleih, 2001). Thus, a combination of both methods can complement each other’s disadvantages in getting better results. The author has decided to analyze the points below to prove the hypotheses:

1. trade and investments flows before and after AFTA or EPA enters into effect;
2. the views of expatriates on changes in technology transfer between partner countries;

3. policy implementation by the governments related to the content of agreements;

4. responses from local and foreign firms on economic cooperation.

1.5. Definition of Regional Trade Agreement (RTA)

In the WTO, there are many terms for trade agreements such as Regional Trade Agreement (RTA), Preferential Trade Agreement (PTA), Free Trade Agreement (FTA) and Economic Partnership Agreement (EPA). For that reason, the term RTA will be used here to describe any bilateral or multilateral trade agreements, while for Japan's trade agreement, the term Economic Partnership Agreement (EPA) will be used in this dissertation. As in the WTO context, the term RTA is more general, where RTA could be agreements between countries, either intra-region or inter-region. RTA can be related to geographical and cultural proximity, are easy to negotiate, and cover issues not negotiated in the WTO but are crucial to trade, such as competition policy and protection rules. The WTO is considered a free trade institution but there are certain levels of tariffs and protection that are allowed among member countries. The objective of RTAs is specialization of labor and economies of scale. An RTA consists of specific economic cooperation that could contribute to development in information and transport technology. It can shorten the negotiation process and thus avoid higher transaction costs and have fewer procedures. An RTA may serve as building blocks

to the WTO multilateral trade process judging by its complementary functions and the parallel nature of WTO commitments (S.M. & Heng, 2005). Although an RTA itself contradicts WTO rules, the objectives of bilateral trade agreements between two countries are mostly politically motivated, and thus provide wide access to “faster and deeper” rule-making than multilateral negotiations in the WTO (World Trade Report 2011).

1.6. Literature Review

This section reviews the previous literature on the relationship between free trade theory, liberalization in tariffs and regulations, and the automotive industry in general. Discussion on free trade theory has a long history, since the time of Viner (1950). Viner focused on static welfare effects, while other works stressed the effects of political economy (Kono, 2002). Both references have been the core of pro free trade arguments in order for a country to be developed. Two types of arguments exist that influence the decision of regional trade agreements made between two countries. Economic arguments include trade creation or trade diversion, investment opportunities and financial incentives. While under political-economic arguments, there are four factors that have affected the country’s choice of trade strategies; industry players, political groups, economic perspectives, and international factors (Aggarwal, 2006). Some regional trade agreements could lead to

discrimination against non-participating countries and this will relate to the multilateral system's failure to complete its negotiation deals (Kovrigin & Suslov, 2006).

However, the same treatment to all importers for non-RTA members could lead to a high level of competitiveness between local and foreign firms. In the long-term, by creating a regional trade area, it could produce trade and investment expansion. Later, it will put economic pressures on non-participating countries, by which means the area will develop and expand with an increase in membership (Baldwin, 1993, 1997). ASEAN is a regional institution that has expanded from six to ten countries by taking advantage of trade creation in a free-trade area.

There is also literature covering similar perspectives but which occurred in several different countries such as reported by Darby (2009) and Estevadeordal (1999). This dissertation differs from both of those studies, in that it will approach the subject from a different perspective; ASEAN and Japan as a mix of developing and developed countries. Darby (2009) compares the automotive industries of Turkey and Australia with trade liberalization. It concludes that the automotive industry is known as an important industry for developing countries to grow their economic performance in the global market. In general, the development of the automotive industry in one country can be the measure of its industrial level. However, Turkey and Australia have no national car brands to protect, thus

the liberalization in the automotive industry is permitted at a higher level.

According to Takayasu and Mori (2004), it is important for the automobile assemblers and parts manufacturers to provide products that can meet the requirements of international standards. In turn, the efforts would increase their competitiveness level within the global market. Their research argues from the perspectives of trade liberalization and the automotive industry between Japan and ASEAN countries, particularly Thailand and Malaysia, but it did not touch on the protectionist policies of either country.

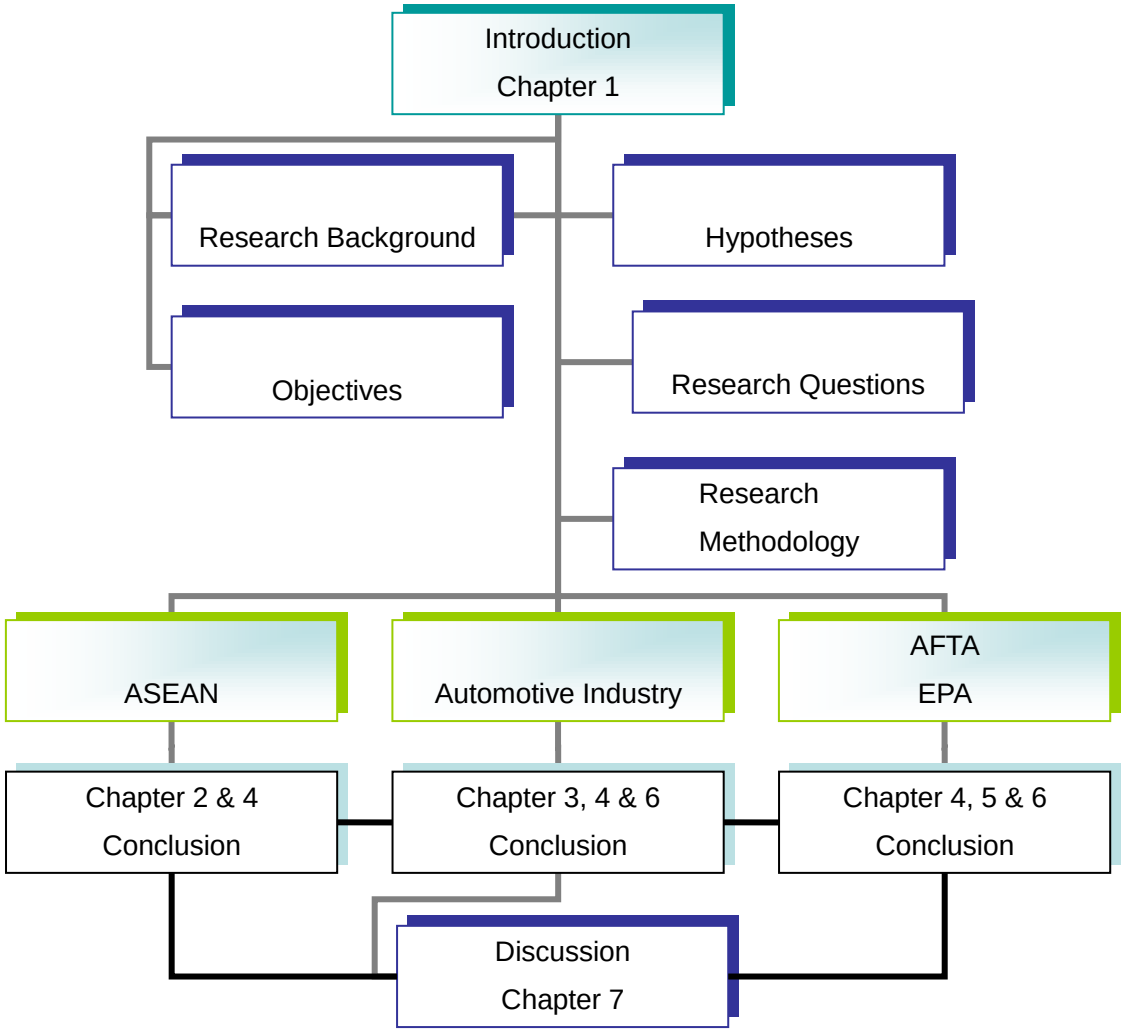
There is some literature that examines trade liberalization and protectionism of the automotive industry such as Fujita (1998), Wonnacott (1996), Manger (2009), Harwit (2001), Onozawa (2008), Lau (2006) and Doner (1991). Fujita (1998) examines the issue from the comparative perspectives of Malaysia and Thailand's automotive industry. The difference of both countries can be seen from the government's intervention in the market and the level of protection for specific firms. This study concludes that Asia Pacific Economic Cooperation (APEC) should play a different role than AFTA and the WTO and become a forum for dialogue for players related to the automotive industry. It focuses more on the governmental role in the automotive industry but without the foreign firm's point of view. On the other hand, Wonnacott (1996) stresses that protection of a nation's automotive industry is a must but the level should not be high with inefficient production of vehicles. This paper suggests that flat

protection should be applied to the automotive industry to encourage efficient production of vehicles. As this dissertation stresses at the end, protection is needed for supporting the survival of local industries and to increase competitiveness through governmental incentives, particularly in the automotive industry.

Manger (2009) argues that preferential trade agreements between developed and developing countries are driven by the demand to attract foreign direct investments to the most cost-effective locations. Japanese and non-Japanese multinational firms in Thailand were politically involved and desperately lobbied within the design of the Japan-Thailand Economic Partnership Agreement (JTEPA). However, this literature does not offer any new perspectives for the roles of the state or the private sector in general industry, though the flow of negotiations in automotive industry between Thailand and Japan was examined lightly in several points. Tiwari et al. (2003), discusses trade liberalization on the manufacturing industry in ASEAN-4 with the role of Japanese FDI, which impacts on employment in this industry. For lower income countries such as Indonesia, employment has been concentrated and for high-income countries such as Malaysia, the pattern was dispersed. Harwit (2001) assesses the WTO's impact on China's automobile industry and concludes that foreign automakers would benefit greatly from trade liberalization in China. China has implemented several protectionist policies in order to nurture their local

automakers. Lau (2006) believes that AFTA has major impact on the global trend of the automotive industry. Lau examined how the AFTA and ASEAN Industrial Cooperation Scheme (AICO) could threaten protectionist policies in Malaysia; future proliferation of preferential trade agreements could increase the intra-trade between ASEAN and non-ASEAN countries. However, no further analysis was done on how Japan's bilateral trade agreements with Thailand or Malaysia have impacted the domestic automotive industry.

1.7. Structure of Dissertation



Source: Arranged by author

This dissertation is organized into six other chapters.

Chapter 2 reviews the historical economic background of ASEAN and includes how ASEAN countries have changed their economic policies from import substitution to export oriented industrialization. It examines the flows of foreign direct investment and trade between ASEAN4 countries and the world. Japan has been the largest investor in ASEAN

and the assemblers have contributed to the growth of this region's economy.

Chapter 3 considers several issues concerning the automotive industry in ASEAN4.This is because the automotive industry in ASEAN follows the same development patterns with early involvement from Japanese automakers. It is interesting to see how Malaysia and Thailand are considered to have successfully developed their automotive industry to an internationally recognized level; Indonesia is receiving the attention from global auto manufacturers because of its large domestic market and in the Philippines the government is trying to encourage the growth of the automotive industry by learning from Malaysia, Thailand and Indonesia.

Chapter 4 explains the background and current developments of the automotive industry in Malaysia, Thailand and Indonesia. We will then determine the impact of Japan's EPA as an "upgrade" of RTA on the local automotive industry in these three countries. It will describe the study of intraregional trade and the early impact of technical cooperation. Finally, it concludes with prospects and challenges that must be accepted by Malaysia, Thailand and Indonesia in preparing their local automotive industries to face the coming age of globalization.

Chapter 5 looks into the main problem of RTAs; different Rules of Origin prevented many firms from using the preferential tariffs, and non-tariff barriers should be liberalized.

This chapter explains the content of Rules of Origin in Japan's EPA with ASEAN countries and shows how to improve the problem. ASEAN uses different rules in order to protect local automotive supporting industries, but at the same time, these firms need to upgrade their competitiveness level under the harmonizing system of Rules of Origin.

Chapter 6 examines fieldwork research done in Malaysia and Thailand and found that automotive related firms in both countries could gain other benefits from concluding an EPA with Japan, which includes technical cooperation particularly in the automotive industry. In the automotive industry, it is essential to increase the quality of automobiles, parts and components and improve worker's skill by learning from foreign automakers, such as Japanese automakers through several channels of technology transfers. This chapter deals with arising issues as discussed in previous chapters and tries to provide the empirical evidence for the argument in this dissertation.

Chapter 7 consists of the Discussion and Summary of findings from this study. It reintroduces the study's background, highlights gaps in previous literature, and shares the results of our investigation and offers recommendations for future researchers.

Some of the government's policies can be interpreted as protectionist measures, particularly to lower the impact of foreign auto manufacturers on domestic firms. Any type of RTA should play an important role to help these developing countries because these

countries may be able to use them as a way to commit to a better mechanism in domestic economic reforms. Thus, this research aims to make an analytical contribution to the literature and position itself in international political economy, particularly in the area of international automotive production networks literature. Hence, the significant findings of this research close the literature gap concerning regional trade agreements and their impact on the automotive industry in ASEAN countries. It approaches this from a non-traditional method, where each chapter contains its own introduction, existing literature and findings with its own conclusion section. The reason for this approach is because each independent chapter could contribute to the reduction of the literature gap in more specific ways. While it might lead the reader to several different conclusions at the end of this dissertation, these conclusions are related to each other and, by the end of this dissertation, will satisfy the hypotheses made at the beginning.

CHAPTER 2: ASEAN ECONOMIC DEVELOPMEMENT

2.1. Introduction

Economic development in East Asia has been associated with structural transformation. ASEAN countries have taken the path of changing economic policies from exporting agriculture products to producing the parts that had been imported from developed countries. The market for the imported products already existed, thus it reduced the risk of creating a new industry. After the workforce could manufacture their own products for the domestic market, the government tried to export the balance to the developed countries while learning new technologies through several channels including foreign direct investment. However, import substitution policies have disadvantages as production was ineffective, and the domestic market was protected and limited (Urata, 1994). Furthermore, the more the domestic market is protected, the more the demand is lowered and is insufficient for the producers to achieve the objective of economies of scale. Foreign direct investment inflows are limited and this led to short-lived technology upgrading and know-how transfers into developing countries. ASEAN has not only gone on the path of import substitution industrialization, but also implemented a dual system with export-oriented policies at the same time.

In the era of regionalism and globalization, ASEAN has transformed from a sovereignty- and politically-based organization to an economic integration-based organization. It can be seen from the prospects of Thailand, Malaysia, Indonesia, Singapore, Brunei and the Philippines as ASEAN 6 (the original members) expanded to ASEAN 10 by including Vietnam, Myanmar, Laos and Cambodia by 1999. The economic integration in this region is becoming a priority to ASEAN as other nations have been focusing their market strategies by looking at competitive advantages prepared by its members. The ASEAN Free Trade Area (AFTA) is one of the initiatives by ASEAN in order to emerge as the centre of the ASEAN Economic Community (AEC), a single market that can offer a better production base integrated with global production networks (GPN). Looking at this background, it is important for ASEAN to strive and strengthen its competitive position by joining the regionalism bandwagon.

This chapter is divided into four timeframes; 1960-1985, 1986-1990, 1991-1997 and 1998 to the present. The purpose of such categories is to clearly explain the differences in historical and economic development such as between import substitution industrialization (ISI), export oriented industrialization (EOI) and regionalism in ASEAN. It explains the background of ASEAN in the early 1960s to the present by including the economic situation, trade and foreign direct investment (FDI), the technology aspect and the relationship with

Japan as its main economic partner.

The lead role in supporting the rapid economic growth in Asia has changed over the course of time from Japan, to East Asian NIEs, then China and now it has moved to ASEAN. Japan leads as the most developed country with the highest technology followed by second tier East Asian NIEs at the end of the 1960s creating an East Asian miracle. ASEAN and China as the third tier depended on foreign direct investment from Japan and East Asian NIEs and specialized in resource-based exports. The fourth tier, which was compromised by Cambodia, Laos, Myanmar and Vietnam (CLMV) countries, are now shifting to take the economic lead in the East Asian economies and they have shown a potential for rapid growth in industrialization (Pak, 2006). Infrastructure development on the part of the ASEAN countries is significantly improved but in terms of quantity and quality, their levels are still below the world's average. In order for them to keep competitive, governments must design and invest in infrastructure development to be sufficient for production.

Table 2 provides some key basic statistics of ASEAN in terms of GDP per capita, growth rate, population, exports and imports between ASEAN and the world. Singapore has the highest gross domestic product (GDP) per capita while Myanmar has the lowest GDP per capita. This implies a wide income disparity among members. Indonesia is the most populous country in ASEAN and it is two times larger than the Philippines, the second most

populous country. In terms of trade flows with the world and within ASEAN, Singapore maintains a high international trade with more than US$216.8 billion in exports. Singapore's position is considered understandable as Singapore has emerged as the financial hub and logistic gate of Southeast Asian countries. Thailand and Malaysia have a similar level of international trade with US$100 billion in exports. Almost all members have high extra-ASEAN trade shares except Laos and Myanmar. This shows that ASEAN has stronger and more vital economic relationship with countries outside ASEAN than the members itself.

Table 2 Main Statistics Indicator for ASEAN

	GDP Per Capita (2008)	GDP Growth Rate (2008)	Population (2009)	International Trade, 2003-2006 average, US$ Millions		Intra-ASEAN Trade, 2008
	(US$)	(%)	Thousand	Export	Import	%
Brunei	37,414	-1.9	406	5,840	1,399	25.8
Cambodia	749	6.7	14,958	2,820	3,657	23.6
Indonesia	2,172	6	231,370	81,350	58,373	24.5
Laos	910	7.5	5,922	533	779	83.7
Malaysia	8,099	4.8	28,306	127,208	102,665	25.7
Myanmar	-	10.3	59,534	3,495	2,003	51.6
Philippines	1,925	4.2	92,227	40,231	46,741	20.7
Singapore	36,378	1.5	4,988	216,982	182,380	27.3
Thailand	3,993	2.5	66,903	102,590	92,770	20.7
Vietnam	1,070	6.3	87,228	29,727	32,248	17.6

Source: World Bank Data Website, ASEAN-Japan Centre Website (accessed on 2 February 2012)

2.2. ASEAN Establishment, Import Substitution Industrialization (1960 - 1985)

During the late 1950s, a significant regional group integration trend occurred around the world. The importance of economic integration in certain trade blocs increased when there was a crisis and there were efforts by neighboring countries to solve it together and create peace and common economic goals. European countries established the European Coal and Steel Community (ECSC) in 1952 to create a common ground for economic development in Europe but in actuality, the objective was to avoid war among European countries (Guibernau, 2011; Guisan, 2011). At first, during the Schuman Declaration in 1950, French Foreign Affairs Minister, Robert Schuman proposed to politically integrate European countries but it seemed difficult to achieve and so instead substituted economic integration as a strategy to prevent further war between France and Germany (Guibernau, 2011; Hackett, 1992).

The very first free trade area was created among Latin American countries in 1960, the Latin America Free Trade Area (LAFTA), which was comprised of eight members and later expanded to thirteen members. Seeing this trend, Southeast Asian countries decided to jump on the bandwagon and, as the main objective, set up their own economic and political bloc to reduce the influences of Soviet and Chinese Communism. American foreign policy in Asia had a significant influence as its alliance with French military forces in the

Indochina region had shown the prospect that communism would take hold in Southeast Asia if they were to be defeated.

Under the common culture and shared identities, Southeast Asian countries decided to form a more cohesive alliance and advance in politically and strategically important objectives. The foundation of ASEAN was when the Philippines, Malaysia and Thailand established the Association of Southeast Asia (ASA) in 1961. Later, Maphilindo was formed in 1963 (the Philippines, Indonesia and Malaysia) but the main concept was more toward "Malay Brotherhood" and the aim was to avoid conflicts between the Philippines and Malaysia (the Sabah territorial dispute). However, Malaysia and Indonesia had a konfrontasi[1] (confrontation) that resulted in Maphilindo being abolished. At the same time, ASA had stopped functioning because of this “cold war” between Malaysia and Indonesia, too. Previous regional organizations such as ASA and Maphilindo failed due to limited participation and disagreements over intra-regional cooperation (Hussey, 1991) but the idea to be unified under one institution had been agreed on. During the First Southeast Asian Ministers Meeting in Bangkok, a “Bangkok Declaration” was initiated and became the foundation of the “ASEAN Way”. ASEAN was established on 8 August 1967 by Malaysia, Thailand, Indonesia, the Philippines and Singapore. The goals of this organization were to

[1] Konfrontasi lasted from 1963 to 1966 and it was lead by Sukarno, the Indonesian President at that time,. It was to prevent the formation of Malaysia as Indonesia feared the British neocolonialism ideology would threaten the region’s freedom and Indonesian security.

promote economic and political development inside the region, maintain stable security and a peaceful environment among countries and to foster social and shared cultural progress. ASEAN has emerged as a regional group among Southeast Asian countries with the external threat from a united communist Vietnam in 1976. Their common, shared fears and collective actions by individual countries were what could bind them into an organization (Buszynski, 1997).

Malaysia gained independence from the British government in August 1957 by establishing The Federation of Malaya. Singapore merged with the Federation of Malaya with Sabah and Sarawak in 1963 but two years later separated from Malaysia. In the 1960s, the political and economic situations in Malaysia were unstable and there were problems in several socio-economic aspects. The entrance of Chinese and Indian immigrants in the manufacturing and agriculture sectors brought some unfortunate multiracial conflict with the existing Malay ethnic people. On 13 May 1969, the Malaysian government declared a state of national emergency because of the riots in Selangor, which were the result of unequal distribution of wealth among Malay and Chinese people. The introduction of the New Economic Policy (NEP) in 1970 had the aim to close the income gap between ethnic groups, Bumiputra (Malays and minority ethnic groups in Sabah and Sarawak states) and Chinese as well as Indians.

Thailand is the only country that has never been colonized despite being squeezed by French colonialism and Japanese imperialism in neighboring countries. Thailand has focused on agricultural products and became the main exporter to the world. However, during the 1980s, Thailand began to industrialize its country, from labor-intensive industries to skill-intensive manufacturing industries. It was found that during this period, the agriculture sector could not compete with the increasing wages delivered by other sectors and more than three million agriculture workers changed their jobs (Coxhead & Plangpraphan, 1999).

Both countries are examples of ASEAN's similar historical backgrounds. Other countries shared the same important role of Chinese businessmen in the early 1960s to 1970s, the dual system of industrialization (ISI and EOI) during the 1980s and the significant role of foreign investment regulations by the governments. According to United Nations Conference Trade And Development (UNCTAD) Statistics data (accessed on 30 January 2012), the Philippines is the only country that had strong economic growth from 1950s but later succumbed to recession from 1980 to 1989 with a GDP growth rate that was just 0.5 percent. Malaysia and Thailand enjoyed a 4.9 percent and 7 percent of GDP growth rate respectively, in the same period.

2.2.1. Economic Trends

During the import substitution industrialization period, the ASEAN countries lacked capital, technology, a highly skilled workforce and infrastructure. Foreign investors and Chinese network capital played the main roles during this period. Chinese and Indian immigrants entered into Southeast Asian countries and worked at plantations (rubber, timber, copper). Chinese immigrants created their own business network around the Southeast Asian countries. Fortunately, they had large amounts of capital, good business management skills and they invested heavily in important industries. Anti-Chinese laws and regulations were implemented in all Southeast Asian countries except Singapore. Mutual understanding between Chinese immigrants and local people were accepted in Thailand and the Philippines because of religious tolerance (Wu, 1983). Since the local people are farmers and fisherman, Chinese immigrants acted as traders between them and buyers.

In Malaysia and Singapore, the majority of Chinese immigrants were heavily involved in primary sectors, such as rubber. However, unlike Singapore, Malaysia discriminated against Chinese immigrants, which led to the May 1969 ethnic riots. Indonesia also had discriminatory treatment of Chinese immigrants in 1974. In Thailand, Chinese immigrants played important roles in trade and financing services. After its independence from Malaysia in 1965, Singapore became the first country in ASEAN to adopt the EOI policy.

Aside from Indonesia, in general all ASEAN members pursued a dual system of import substitution industrialization (ISI) and export oriented industrialization (EOI) policies from the early 1970s (Yoshihara, 1991). ISI or other such inward looking policies can be explained with the historic efforts of Latin American countries in successfully implementing this development theory during the 1950s and 1960s. It is an attempt by developing countries to manufacture imported industrialized goods domestically. It played an active role in protecting and developing infant industries although it was criticized as an inefficient way to use resources in developing a country's economy (Baer, 1972).

Not all ISI policies were successful as can be seen in South Korea and Taiwan. Cronyism and poor management caused the policies to fail as stated by Rasiah (2009). The import substitution policies were mainly implemented in the manufacturing industries. However, the industrialization path did not go well as the trade deficit between ASEAN5 countries and developed countries such as Japan and the U.S. became more serious. The expensive imported products and exchange rates also contributed to the trade deficit gap. ASEAN tried to adopt the ISI approach in heavy industry, but they needed a large market and a lot of capital to absorb the high cost of maintenance. These countries needed to complement and cooperate with each other and through that, each country could establish their own heavy industry policy.

The first ASEAN member to begin implementing ISI policies was the Philippines in the late 1940s. The prewar alliance between the U.S. and the Philippines contributed to the early period of ISI. The Philippine government attracted US foreign investors and managed to accumulate large amount of capital until the mid 1950s. During 1946-1954, U.S. goods were duty free products and it limited the exporting capabilities of local manufacturing firms. The Philippines had no access to advanced technology, lacked expertise, and the manufacturing activities were mainly controlled by U.S. investors (Paul, 2008). Problems started to emerge, where not only income and domestic consumption increased, but also both the volume of imports and the trade deficit surged until it reached the ceiling of foreign exchange reserves. The Philippines created the Incentives Investment Act in 1946 with the same purpose of promoting its import substitution industries. The shift to EOI in the Philippines can be seen during the 1970s. Floating exchange rates in 1971 and the enactment of the Exports Incentive Act in 1972 have been mentioned as the starting point of its export industrialization policies (Council for Asian Manpower & Linnemann, 1987).

Unlike Malaysia, Indonesia and the Philippines, Thailand is an independent country and has been promoting liberalization in their policies since before World War II. In 1959, during the tenure of Prime Minister Sarit, the government-private sector initiative was launched. Its purpose was to attract foreign investors, which converted the government's

action in development policies to more proactive private sectors. Thailand nurtured the private sector's investment, particularly in infrastructure in the early 1970s. During the Oil Shock Crisis in 1973 and 1979, Thailand had a large impact on its economy because compared to Malaysia and Indonesia, Thailand did not have any oil or energy issues to handle internally. In order to survive the crisis, Thailand had to curb the government spending. Thailand announced the Investment Promotion Act in 1960.

After independence, Malaysia has had an economic structure characterized by an emphasis on export products which were from rubber plantations and tin mining. These activities were begun by the former colonial power, Britain. Malaysia implemented its import-substituting industrialization policies in three economic plans, the First Malaya Plan (1956-1960), the Second Malaya Plan (1961-1965) and the First Malaysia Plan (1966-1970). These plans were recommendations from the 1955 World Bank Research Report. The government gave protection to domestic industries against foreign products through high import duties. In the First Malaya plan, it focused on the economic dependence of rubber and tin. In the Second Malaya Plan, the policies were concentrated on diversification of its agriculture industry. The Malaysian government encouraged the domestic companies by stimulating industrial development in the mid-1960s. Malaysia decided to offer more financial incentives including policies of tariff protection of the domestic industry, which is

common among developing countries. Industry regulations were enacted in 1958. The Malaysian government implemented the Pioneer Industries Ordinance in 1958 and the Investment Incentives Act in 1968 in order to promote ISI policies, labor intensive industries and allocate industries to less developed areas (Abdul Kadir, 2005).

In 1971, Malaysia implemented the New Economic Policy (NEP) and suggested that it was intended to enhance the living standard of the Malay peoples and balance the economic power. This policy was based on the employment ratio by race of the population for 20 years. Bumiputera was targeted to hold a 30 percent share of the economy. Furthermore, other Malaysians and foreigners could only hold 30 percent and 40 percent respectively while the Bumiputera held 30 percent of capital ownerships. Malaysia has been characterized by heavy government intervention in the economic and industrialization system. ISI policies were implemented during the 1960s and 1970s, which transformed Malaysia from an agriculture- to manufacturing-based economy.

Singapore has enacted several industrial expansion laws after independence from Malaysia in 1965. They promoted the Investment Act, which was enacted in 1967 and which was to change the country's policies to an export-oriented industrialization strategy.

Indonesia still lagged behind in industrialization compared to Malaysia, Thailand and the Philippines. After independence from the Dutch military, Indonesia failed to recover

either economically or politically because of weak implementation of policy by the government. During the 1950s, Indonesia was dominated by the Dutch and Chinese ethnic business networks. The Benteng Program was implemented in 1950 to protect the interest of the indigenous people and prevent Dutch companies and Chinese businessman from taking over the Indonesian economy. Import licenses were provided to indigenous Indonesian importers under this program but it led to failure when the importers sold these licenses to ethnic Chinese businessmen for faster profits (Thee, 2011). After the anti-Malaysia campaign in 1963 and the anti-Japanese Malari riots in 1974, Indonesia, under the Suharto regime, decided to restrain from attracting more foreign investors (Wood, 2005). Thereafter, the government announced new economic policy priorities, such as Puribumi (indigenous) new foreign investment policies. The foreign capital restriction, other than foreign employment restrictions was enhanced to a 51 percent stake in Indonesia within 10 years.

However, problems arose in Southeast Asian countries such as an increase in imports and the decrease of growth rates in countries that initiated the import-substitution industrialization policies. Lower exports showed weak levels of competitiveness and the trade balance deteriorated. Furthermore, foreign investors were not interested because domestic firms were protected under the policy. It emphasized the continuity of protection

over increasing efficiency, and many unjust political activities existed.

Under import substitution policies, most ASEAN members specialized in exporting raw materials and primary products, and importing intermediate goods from developed countries such as from Europe and the U.S. As shown in Table 3, the manufacturing sector in ASEAN4 increased in comparison to the agriculture sector in terms of the percentage distribution of the GDP. It also implies a significant impact of this sector on the industrialization policies in ASEAN4. The exports share in Malaysia, Philippines and Thailand also showed a dominant share in SITC 5-8, which are chemical and manufacturing products.

Table 3 Industrial Structure of ASEAN4, 1970 and 1980 (%)

	Indonesia		Malaysia		Philippines		Thailand	
	1970	1980	1970	1980	1970	1980	1970	1980
Share of GDP								
Agriculture	47	25	32	23	28	23	28	25
Industry	18	43	25	36	30	37	25	29
Services etc	35	32	43	41	43	40	46	46
Exports								
SITC 0-2,4	62	22	66	47	85	60	77	76
SITC 3	31	74	7	24	2	1	0	1
SITC 5-8	2	4	26	28	9	24	16	20
SITC 9	5	0	1	1	4	16	7	4
Imports								
SITC 0-2,4	14	17	29	16	16	12	10	10
SITC 3	1	16	12	15	11	28	9	31
SITC 5-8	73	67	58	68	69	49	77	55
SITC 9	11	0	1	1	3	11	4	3

Notes: For further explanation of SITC groups, see Appendix C.

Source: Adapted from Yoshihara (1991).

The main characteristic of ISI policy is the protection of domestic industry. In order to invite more foreign investors in the country, ASEAN governments needed to design a policy to attract these investors and increase the export capabilities and competitiveness.

Economic cooperation in the early 1970s and 1980s are based on ISI policies and domestic market expansion. Each member country has their own local content policies, domestic production laws and foreign investment regulations to protect local industries from

competitive foreign multinationals. Thus, these kinds of actions have led to failures in economic cooperation programs established by ASEAN itself.

The ASEAN Industrial Projects (AIP) program was designed in 1977 to complement industries in each country. After much discussion on what kind of industries were suitable and places to set up the factories, five projects were selected by ASEAN. They were the urea projects in Indonesia and Malaysia, the diesel engine project in Singapore, the superphosphate project in the Philippines, and the soda ash project in Thailand. The equity shares were divided so that 60 percent went to the host country and the remaining 40 percent was allocated equally among the other countries. However, only loans from Japan were coming in while the other foreign creditors decided that they would finance nationally-based projects rather than regionally-based projects (Hussey, 1991). The process to set up projects took longer and some of the countries cancelled their projects. Moreover, the selection and approval processes were too complicated and consisted of many procedures. The pricing of products in certain joint venture projects had to be agreed upon as member countries had agreed to give market access to certain products. There were also problems of skepticism among member countries on the main motivations behind the initiatives (Naya & Plummer, 2005). For example, in the first AIP project , Singapore had to cancel its diesel engine scheme due to other ASEAN members believing that Singapore

would benefit too much from the project (Hussey, 1991). Indonesia and the Philippines stated that this project had affected their domestic diesel engine plants.

AIP products were liable to tariff liberalization under the Preferential Trade Agreement (PTA) that was created in the same year. PTA was regarded as successful from the point of view of AIP according to Hussey (1991) because intra-regional trade in ASEAN increased slightly more than before. Tariffs were reduced based on the lists that had been submitted by each country and the products listed were negotiated. Despite having more than ten thousand items in the lists, most of them had little effect on intra-regional trade and the amount of traded goods was a mere 2 percent out of the total trade amount in ASEAN (1983). PTA consisted mainly of products in basic commodities such as food and energy. Thus, these products have little effect on trade flows in ASEAN. In addition, Thailand and the Philippines repeatedly changed their plans before deciding to pull out of the projects because of a lack of their own market research (Severino, 2006).

2.2.2. FDI

Foreign direct investments (FDI) have been an important funding source and have played a pivotal role for developing countries to keep incoming capital stocks in the country. It has been linked to the growth of GDP and trade flows (Thomsen, 1999). There are several

reasons behind the domination of FDI in Asia, particularly those from Japanese firms. Firstly, it is because there was an abundant and low-cost workforce in ASEAN countries and secondly, it is because these countries have low country risk. The stability of the region is convincing and better than any other developing countries and the consistency in policy implementation is an essential environment for the foreign investors. Thirdly, ASEAN has formed a fully equipped infrastructure such as export processing zones. The fourth reason is that many Japanese companies are setting up their subsidiaries in Southeast Asian countries and the production network created by these suppliers' association is attracting more companies to invest in ASEAN.

ASEAN inward flows from 1970 to 1985 are shown in Table 4. In 15 years time, the amount of FDI has increased nearly 5 times to US$2.3 billion in 1985. The percentage of the world's total FDI shows that ASEAN covered more than 4 percent in 1985 compared to 3.45 percent in 1970. The first Oil Shock occurred in 1973 and the effect can be seen in FDI inward flows to ASEAN from 1975 to 1979. The amount reduced by 35 percent to US$1.3 billion in 1979. The other reasons are because of the world economic recession, the Second Oil Shock of 1979, and unstable crude oil prices along with other prices of primary commodities, which were ASEAN countries main exports to the world (T. Aoki, 1995).

Table 4 ASEAN FDI Annual Inward Flows, 1970-1985

	Inward Flows (US$ million)	% of total world
1970	459.94	3.45
1971	559.57	3.92
1972	596.77	4.00
1973	1,245.38	6.03
1974	1,418.29	5.88
1975	2,142.75	8.07
1976	1,560.93	7.09
1977	1,245.83	4.59
1978	1,379.45	4.01
1979	1,698.01	4.01
1980	2,636.12	4.87
1981	3,596.45	5.17
1982	3,624.30	6.24
1983	3,292.77	6.55
1984	2,872.61	5.05
1985	2,316.42	4.15

Source: UNCTAD, author's calculations (accessed on 31 January 2012)

In the early 1980s, ASEAN countries began to change their industrialization policies and invested in building better infrastructure facilities. The percentage share of the world's inward flows to ASEAN increased from 4.0 percent (1979) to 6.6 percent (1983). There were two important economic events between 1970 and 1985. First, the 1975 Oil Crisis that caused wages to become higher in developed countries such as European countries and the U.S. Many foreign MNCs from Europe and U.S. decided to invest in developing

countries such as Asian countries, thus the FDI inflows in ASEAN increased in 1975 and 1976. The second event was in 1982 with President Reagan's era of dollar appreciation, which prompted many U.S. firms to invest in ASEAN countries.

But after the mid 1980s, the Japanese and NIE countries began to increase their investment in ASEAN. The FDI inward flows rapidly expanded after the yen appreciation following the announcement of the Plaza Accord, along with currency appreciation in South Korea and Taiwan (Ariff, et al., 1996) .

2.2.3. Technology

Technology is defined as in a broad sense, which includes technology in production, management expertise, marketing skills, know-how and other assets (Ito & Krueger, 1993). Foreign investments are beneficial for developing countries through technology transfer in the transition from import substitution to export oriented industrialization. From the 1950s to the 1970s, ASEAN countries depended on their previous Dutch, Spanish, British colonial or Japanese imperial ties. During the 1970s, technology transfers were mostly from European and U.S. companies and were concentrated in labor-intensive manufacturing industries and food products. In the 1980s, technology transfers occurred between "South-South" countries (Enos & Yun, 1997). In addition, other than Japan, NIE countries were among the top

investors in ASEAN4, and thus contributed to the technology transfer particularly in electrical and electronics products.

2.2.4. Relationship with Japan

Although development and economic growth are caused by different factors in each country, the path of industrialization is somehow similar with Japan's, which leads to successful stages of industrial development. This explains the urge of ASEAN countries to strengthen the economic relationship with Japan despite their negative war time experiences. In addition, Japan feels a responsibility to assist Southeast Asian countries in their economic development after the failure of Greater East Asian Co-Prosperity Sphere. The Fukuda Doctrine that was announced in 1977 was the starting point of Japanese foreign policy towards Southeast Asia, which promoted peace, mutual trust (in economics and politics) and cooperative efforts to contribute to the prosperity of the region. Moreover, the U.S government influenced the Japanese government to take responsibility for the promotion of security in ASEAN (Stubbs, 1999). Now, ASEAN countries produce manufacturing products to be exported to Japan, the U.S., Europe, and other Asian countries while contributing to the growth of GDP per capita in their own countries.

In the 1960s, Japan relied on ASEAN's import of primary goods and raw materials, in

particular crude oil, while in the early 1970s, Japan began to diversify its supplies and the level of dependence on ASEAN's imports was decreasing. Another reason for the drop is that industrial structures in Japan changed to less-material intensive industries such as the electronics industry (Fukasaku, Plummer, & Tan, 1995). However, in the late 1970s, ASEAN started to move towards industrialization by beginning to import capital and intermediate goods from Japan.

The flow of Japanese investment into ASEAN has helped the industrial sector develop and transformed the trade pattern. By developing a unique industrial cluster and a wide range of assembly and parts manufacturing, interdependent trade between ASEAN and Japan has been increasing year by year. Japanese MNCs have entered into ASEAN markets at the same time the ASEAN governments pursued their industrialization path to a more export-oriented industrialization since 1985. Thus, the dominance of Japan's share in Thai, Malaysian and Indonesian manufacturing industries compared to U.S. and European firms can be understood.

2.3. Emerging ASEAN

2.3.1. Export Oriented Industrialization (1986 - 1990)

During the1980s, up to 1988, the world GDP growth rate showed an increasing trend.

The global economic pattern continued to slowdown from the market crash in late 1987 until end of the 1990s, although there were some high rates of growth in 1994 through 1997, which was driven by the Asian Economic Boom. The same growth pattern can be said of East Asian and Pacific developing countries from 1980 until 1990 (see Appendix A).

As Table 5 has shown, the GDP in ASEAN5 improved and increased significantly from 1986 onwards. Except for the Philippines, all ASEAN5 members managed to maintain positive economic growth until 1990. Export growth in these countries also expanded sharply with double-digit rates from 1987 to 1990. Malaysian export growth change in 1985 was -7 percent and grew to 28.3 percent within three years time. Thailand had the highest export change rate among all other members going from -3.9 percent to 37.6 percent in 1988. The rest of ASEAN5 enjoyed an average of 8 percent export growth change during this period.

Table 5 GDP and Export Growth Rate, 1985 – 1990

	1985	1986	1987	1988	1989	1990
GDP						
Indonesia	2.5	5.9	4.9	5.8	7.5	7.2
Malaysia	-1.1	1.2	5.4	8.9	9.2	9.7
Philippines	-7.3	3.4	4.3	6.8	6.2	2.7
Singapore	-1.6	1.8	9.4	11.1	9.2	8.8
Thailand	4.6	5.5	9.5	13.3	12.2	11.6
Export						
Indonesia	-15.0	-20.4	15.9	12.9	13.2	17.0
Malaysia	-7.0	-9.3	28.3	17.6	18.7	17.4
Philippines	-13.6	4.2	18.5	23.5	10.2	5.7
Singapore	-5.2	-1.4	27.5	37.0	13.9	17.8
Thailand	-3.9	24.5	30.4	37.6	26.8	14.4

Source: Adapted from Aoki (1995)

2.3.1.1. Economic Trends

The import substitution policy was to be continued, while governments pursued export promotion incentives. The reasons were that the local firms had low competitiveness levels (too much protection) and this had negative impacts on the development of infant industries. It also led to poor economic performance in some countries (Okamoto, 1994). During the EOI period (with the dual industrialization path of ISI), ASEAN's industrial structure was concentrated in the manufacturing industry and it has grown significantly compared to other sectors.

Intraregional trade in Asia expanded significantly, with Northeast Asian countries growing competitively in the background of the economic recession in Europe and the U.S. The intraregional trade share in East Asia from 1985 to 2000 was higher than Southeast Asia's share (37 percent to 51.7 percent) (see Table 6). East Asia has a population of more than 2 billion, which accounts for 22 percent of the world total. With its large population, rapidly growing economies, East Asia has the potential to be a powerful foreign-investment led engine in the future.

Table 6 Intraregional Trade Share between Southeast Asia and other countries, 1985 – 1997 (%)

	East Asia	Northeast Asia	South Asia	Southeast Asia	The Pacific
1985	37.0	23.5	2.8	18.7	1.7
1986	34.2	22.8	2.9	17.0	0.7
1987	36.1	24.4	2.8	17.8	1.4
1988	41.4	30.3	2.8	17.6	1.3
1989	42.2	30.4	2.4	17.3	1.3
1990	43.0	29.7	2.6	18.1	0.5
1991	45.9	32.5	3.0	19.5	0.5
1992	47.1	34.4	3.6	19.4	1.2
1993	48.5	34.8	3.2	20.6	0.5
1994	50.5	36.1	3.4	22.6	0.5
1995	52.0	37.0	4.0	22.5	1.2
1996	51.5	36.6	4.2	22.2	1.2
1997	50.8	36.6	3.9	22.0	1.5

Notes:
East Asia comprises Northeast and Southeast Asia.
Northeast Asia consists of the People's Rep. of China; Hong Kong, China; Japan; Rep. of Korea; Mongolia; and Taipei, China.

South Asia consists of Afghanistan, Bangladesh, India, the Maldives, Pakistan, and Sri Lanka.
Southeast Asia comprises Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, The Philippines, Singapore, Thailand, and Viet Nam.
The Pacific comprises Fiji Islands, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu.
Source: Asian Development Outlook (2010)

Meanwhile, the ASEAN Industrial Complementation (AIC) and ASEAN Industrial Joint Ventures (AIJV), a simpler version of AIP, were introduced in 1981. Compared to AIP, AIJV was more reasonable with the scheme covering two only participating countries. The early concept of AIC was based on the plan that each country would be able to concentrate certain automotive parts production to a single place and cooperate to make an ASEAN Car (Shimizu, 1999). This was the first economic initiative for automotive manufacturers in ASEAN, which could have become a major step to turning ASEAN into an automobile export hub. However, many Japanese automakers resisted this plan because they already had their assembly plants in several ASEAN countries. In addition, the protectionist policy implemented by certain countries also prevented the idea of an ASEAN Car from becoming a reality.

At this point, it was said that Mitsubishi Motors Corporation (MMC) had submitted a proposal to replace AIC with another scheme, Brand-to-Brand Complementation Scheme (BBC Scheme) in 1982. The proposal was held back and did not initiate until 1988 because

of the dissatisfaction from Indonesia and Thailand. Malaysia and the Philippines found that this scheme was beneficial to their own national automotive policy and supported this idea. Later, MMC put strong pressure on ASEAN governments, and later the region decided to implement the BBC Scheme, particularly for the automotive industry. The BBC Scheme granted a 50 percent margin of tariff preferences on automotive parts and components traded between member countries. This scheme has allowed the ASEAN Chambers of Commerce and Industries (ACCI) to play an important role by promoting the private sector's utilization of preferential tariffs in ASEAN (Severino, 2006).

The first wave of regionalism in Malaysia occurred before the 1970s, where the manufacturing industry was more focused on food and garments and the second wave was after the 1980s, which concentrated on heavy industry by manufacturing cars and steel. Proton and Perwaja were the two big projects initiated by Prime Minister Mahathir Mohammad (at that time), who believed that the automotive and steel industry could make Malaysia the most industrialized developing economy in Southeast Asia. From 1970 until 1990, manufactured goods as a percentage of total Malaysian exports has risen from 12 percent to 60 percent (Wood, 2005). It was non-resources exports, particularly transportation goods and electrical goods that increased the speed of economic development in Malaysia.

2.3.1.2. FDI

FDI and export trends are related to each other, and the reason behind the large amount of inflows in Malaysia, Thailand and Indonesia is because these three countries imported machinery items and exported intermediate products to Japan and Asian NIEs for the use of MNCs located in their countries. In comparison to Thailand, Indonesia and the Philippines, many MNCs invested in ASEAN4 to import raw materials from their home countries and assembled the products in the host country. Later, these MNCs exported back finished products from the host countries having gained benefits from the inexpensive costs of assembly, utilities and the workforce. Malaysia concentrated on the electrical and electronics industry and other labor-intensive industries to attract investors (T. Aoki, 1995).

Table 7 FDI Inflows in ASEAN4 from the world, 1986 – 1990 (US$ millions)

	1986	1987	1988	1989	1990
Indonesia	258	385	576	682	1,092
Malaysia	489	423	719	1,668	2,611
Philippines	157	415	999	568	550
Thailand	262	354	1,106	1,837	2,575
China	2,244	2,314	3,194	3,393	3,487
ASEAN	2,870	4,422	7,066	7,715	12,821

Source: UNCTAD, author’s calculations (accessed on 31 January 2012)

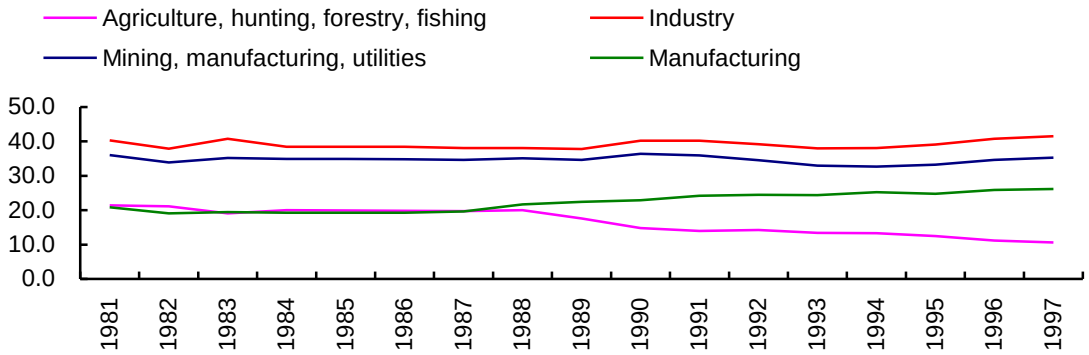
Malaysia and Thailand showed high FDI inflows from 1986 to 1990 compared to Indonesia and the Philippines (see Table 7). Indonesia started to receive more foreign

investments in 1990 with US$1,092 million in investment, while the Philippines managed to attract only US$550 million in the same year. In ASEAN overall, the investment inflow volume was 4 times larger in 1990 (US$12,821 millions) than in 1986 (US2, 870 millions). This implied that ASEAN has the potential and attractiveness to merge to become one large market rather than individual markets vying for foreign investors.

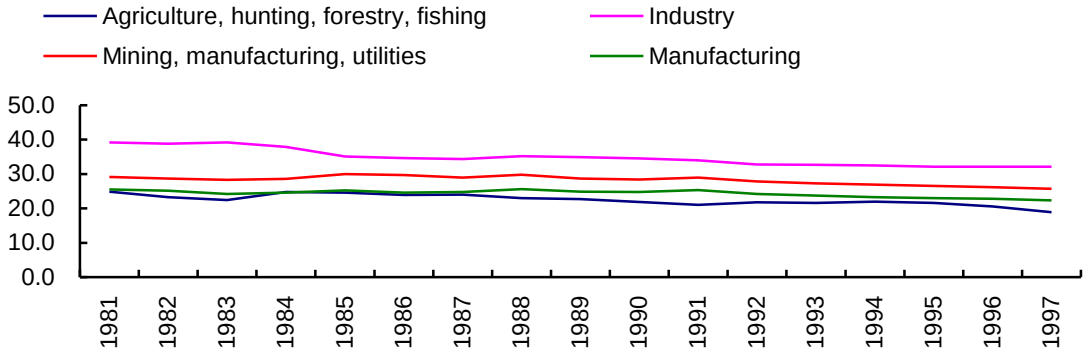
2.3.1.3. Technology

The shift to industrialization by ASEAN countries can be seen from the trend of economic activities in Graph 1 to Graph 4.. Related industrial activities in Malaysia, the Philippines, Thailand and overall in ASEAN have shown a larger share compared to the agriculture and mining sectors. Manufacturing activities in Thailand has increased their share of GDP from 22.6 percent in 1981 to 24.9 percent in 1990 (see Appendix B). All economic activities in the Philippines reduced their shares as the country experienced rising inflation, deteriorating trade flows and growth rates, a growing balance of payments deficit and external debt (Solon & Floro, 1993).

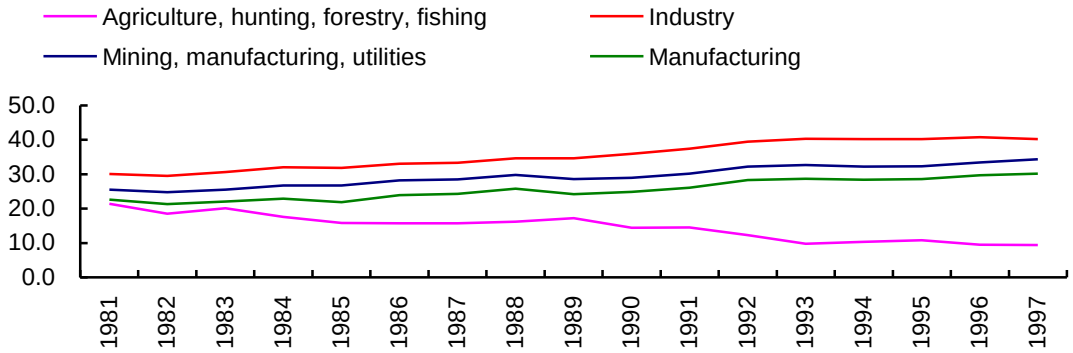
Graph 1 Economic Activities in Malaysia According to GDP Share by percentage, 1981-1997



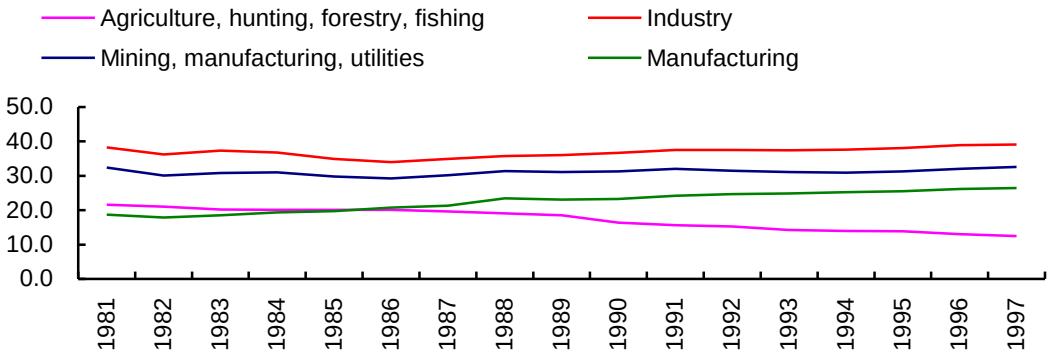
Graph 2 Economic Activities in the Philippines According to GDP Share by percentage, 1981-1997



Graph 3 Economic Activities in Thailand According to GDP Share by percentage, 1981-1997



Graph 4 Economic Activities in ASEAN According to GDP Share by percentage, 1981-1997



Source: UNCTAD, author's calculations (accessed on 31 January 2012).
For full table, see Appendix B.

From 1980 to 1986, exports under SITC 5-8 in ASEAN5 have increased. However, Malaysia has increased its share in SITC 7 (electrical and electronics products) from 11 percent in 1980 to 26 percent in 1986. The production of electrical and electronics parts in Malaysia is dominated mostly by the Japanese and U.S multinational firms. The production of electrical goods destined for exports were from the Free Trade Zones (FTZ) and Licensed Manufacturing Warehouses (LMWs) in Malaysia. It accounted for 87 percent and were mostly the Japanese, U.S. and European multinational firms (Shimizu, 1998).

Technology transfers from Japan to Asia concentrated on South Korea, Taiwan, Thailand and Malaysia for machinery sectors in the 1970s to mid 1980s. In five years time, after the appreciation of the yen in 1985, a sharp increase in the numbers of projects (technology transfers) was found among the Japanese firms in Asia. More than 40 percent

of the projects were conducted during this period. Japanese firms have been attracted to export high technologies to ASEAN (Ito & Krueger, 1993).

2.3.1.4. Relationship with Japan

After the 1985 Plaza Accord followed by the appreciation of the Japanese yen, there were rising costs and a shortage of workers in Japan. Thus, the Japanese manufacturers decided to not depend on domestic demand but focused on outward investments. The demand for parts in ASEAN4 by the Japanese subsidiaries was greatly influenced by the higher yen. Intra-firm trade began to increase thanks to ASEAN economic cooperation projects such as PTA, AIC, the BBC Scheme and AIJV not counting the Japanese supplier's network in ASEAN. Matsushita Electric Company was one of the most successful Japanese electrical firms located in Malaysia and Singapore. It started to design a supply network within the ASEAN region, allocating compressors to Thailand, Indonesia, and fan motors to the Philippines (Shimizu, 1998). In conclusion, the Japanese multinational firms have played a pivotal role in interdependence relationships and the international division of labor among ASEAN4 countries.

2.3.2. ASEAN Expansion and Economic Boom (1991 – 1997)

ASEAN6 economic growth performance in the 1980s attracted the remaining Southeast Asian countries (Vietnam, Myanmar, Cambodia and Laos) to join the association. At first, the motive was more political. The ending of conflict between Cambodia and Vietnam become the aim of ASEAN expansion (Lau, 2006). The expansion of ASEAN from six member countries to ten Southeast Asian countries became reality when Vietnam was accepted in 1995, Laos and Myanmar in 1997 and Cambodia in 1999. Economic growth in the new ASEAN members now known as CLMV is rapidly increasing. In addition to that, ASEAN has provided a market of raw materials from low-income CLMV countries and supplied them with capital, technology and intermediate products (Ariff et al., 1996).

Until the 1997 Asian Financial Crisis, ASEAN4 achieved tremendously high economic growth. ASEAN had been transformed from a colonial regime-based economy into a capital economic society with the introduction of several industrialization policies. However, in order to implement successful industrialization policies, technology, capital, and skilled workers are needed. Since ASEAN has only limited capital, and a large population in the agriculture sector, they had to rely on financial and technological assistance from industrialized countries.

2.3.2.1. Economic Trends

Before the 1997 Asian Financial Crisis happened, ASEAN countries enjoyed extremely high growth rates. Export promotion policies that were introduced by each government from 1986 to 1990s had proven to attract foreign investors. Singapore became the most developed country in ASEAN, whereas Malaysia and Thailand showed a high level of industrialization (see Table 8). The industrialization policies increased the GDP per capita in Malaysia (US$4,747) and Thailand (US$3,019) by 1996 (see Table 9). In contrast with the Philippines, the migration of rural people to more urban areas had a large impact on the growth rate from 1991 to 1997 as well as the per capita GDP (US$1,170) in 1996.

Table 8 GDP Growth Rate of ASEAN 5 and China, 1991 – 1997 (%)

	Indonesia	Malaysia	Philippines	Singapore	Thailand	China
1991	6.6	8.7	-0.7	6.7	7.9	8.0
1992	5.8	8.5	0.0	5.8	7.5	13.2
1993	5.9	8.4	1.0	9.9	7.7	13.5
1994	7.5	9.2	4.4	11.4	9.0	12.7
1995	8.2	9.8	4.7	8.0	9.3	10.5
1996	7.8	10.0	5.8	7.6	5.9	9.6
1997	4.7	7.3	5.2	8.5	-1.4	8.8

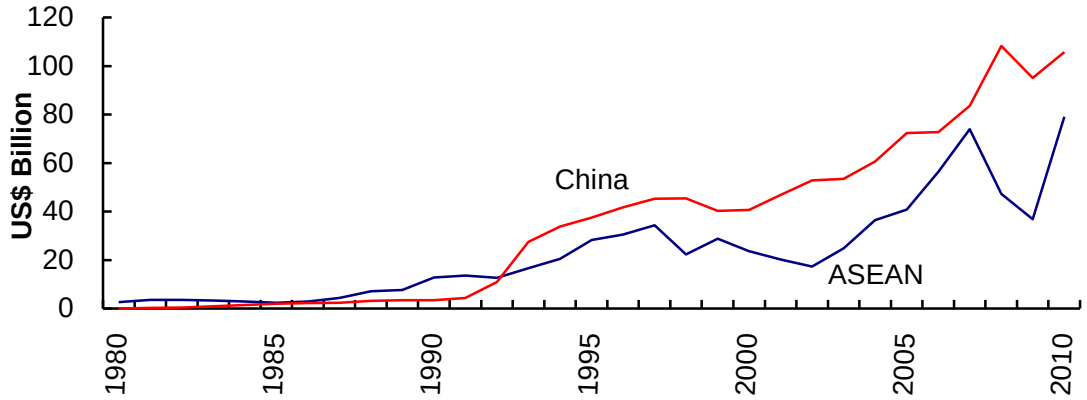
Source: Adapted from Nesadurai & Djiwandono (2009)

Table 9 GDP Per Capita, 1996 & 1997 (US$)

	Indonesia	Malaysia	Philippines	Singapore	Thailand	China
1996	1,124	4,747	1,170	25,796	3,019	703
1997	1,052	4,599	1,137	27,545	2,476	704

Source: World Bank Statistic Data (accessed on 31 January 2012)

Graph 5 China and ASEAN FDI Inflows, 1980-2010



Source: ASEAN-Japan Centre, UNCTAD. Author's calculations (accessed on 10 November 2011

From 1980 to 1991, ASEAN countries received more FDI inflow than China (see Graph 5). However, China began to show its competitiveness in the labor-intensive manufacturing sector from the 1990s. ASEAN began to perceive China as a threat after China surpassed the FDI inflow to ASEAN in 1992 with US$27 billion for China compared to ASEAN with just US$ 17 billion. As a countermeasure to the "Chinese economic threat", ASEAN countries decided to integrate their small domestic markets into one large market (AFTA). In 2003, after the announcement of the Bali Concord II, ASEAN started to see the importance of AFTA as an attractive large market to compete with China. The inflow to ASEAN began to increase from 2003 onwards. As for the Japanese automakers, Chinese factories are producing automobiles for the Chinese market, not for export to the global market in contrast with production facilities in Thailand and other ASEAN countries. This

trend of China Plus One, to avoid larger risk on the producer's side, emerged from the late 1990s.

ASEAN members established AFTA in 1992 with two main motives in mind. The first objective was to create a large market within ASEAN in order to attract more foreign direct investments and the second objective was not only to compete with China but also with other economic blocks such as the European Union (EU) and the North American Free Trade Agreement (NAFTA). Regional trade agreements in Europe and North America [2]presented a challenge to ASEAN countries with the entrance of Mexico and other developing Latin American countries[3] (Thammasāt, 2002). European countries shared the idea of creating a trade area in Europe as a formed common trade policy would have leverage in negotiations with the United States (Whalley, 1998). ASEAN was concerned that the redirection of trade arising from these regional trade agreements could have diverted the attention of foreign investors away from ASEAN, which might have reduced ASEAN's share of the world's market. AFTA's establishment was enhanced by several external and internal factors. The external factors are China's rapid economic growth and FDI increase, the proliferation of regional economic integration globally, a significant increase in the volume of

[2] Although NAFTA was signed in 1994, the idea of creating a free trade area among North American countries has started from Canada-US Free Trade Agreement that was established in 1988. Canada and US decided to invite Mexico in their new trade agreement as the trilateral trade between them presents a large economic bloc for the benefits of their countries.

[3] Other developing North American countries FTAs are Chile-Mexico FTA (concluded in 1991) and Chile-Venezuela FTA (concluded in 1992).

US exports, and APEC's growing influence on the East Asian region. At first, APEC, which was established in 1989, may have been seen as a threat to AFTA's goals as stated in the Bogor Declaration (announced in 1994), the leaders agreed to have common goals on free and open trade and investment for industrialized economies (2010) and developing economies (2020). However, ASEAN leaders stressed that APEC's commitments by 21 member countries could complement and cover the areas where AFTA overlaps.[4] One of the internal factors that prompted the ASEAN community is that they have realized that through close economic cooperation and a shared open market ideology among them, intraregional trade would be increased and thus it could attract more foreign direct investment inflows. AFTA's utilization rate is considered low based on several factors. One of them is that intra-ASEAN trade is smaller than inter-ASEAN trade, which concludes that if member countries have similar industry structures it thus makes it more competitive rather than to just complement each other. Moreover, unstable political situations have led to changes in governmental policies. This created the uncertainty of both the public and private sectors to invest more while it worsened the complex process of economic integration.

Previous ASEAN's economic cooperation plans have failed to increase intraregional trade and investment and until AFTA was formed, any kind of preferential trade agreement

[4] By Special to the Nation by ASEAN Secretariat, "ASEAN and APEC: Complementing Each Other not Competing", Published online on November 13, 2009 http://www.nationmultimedia.com/2009/11/13/opinion/opinion_30116451.php)

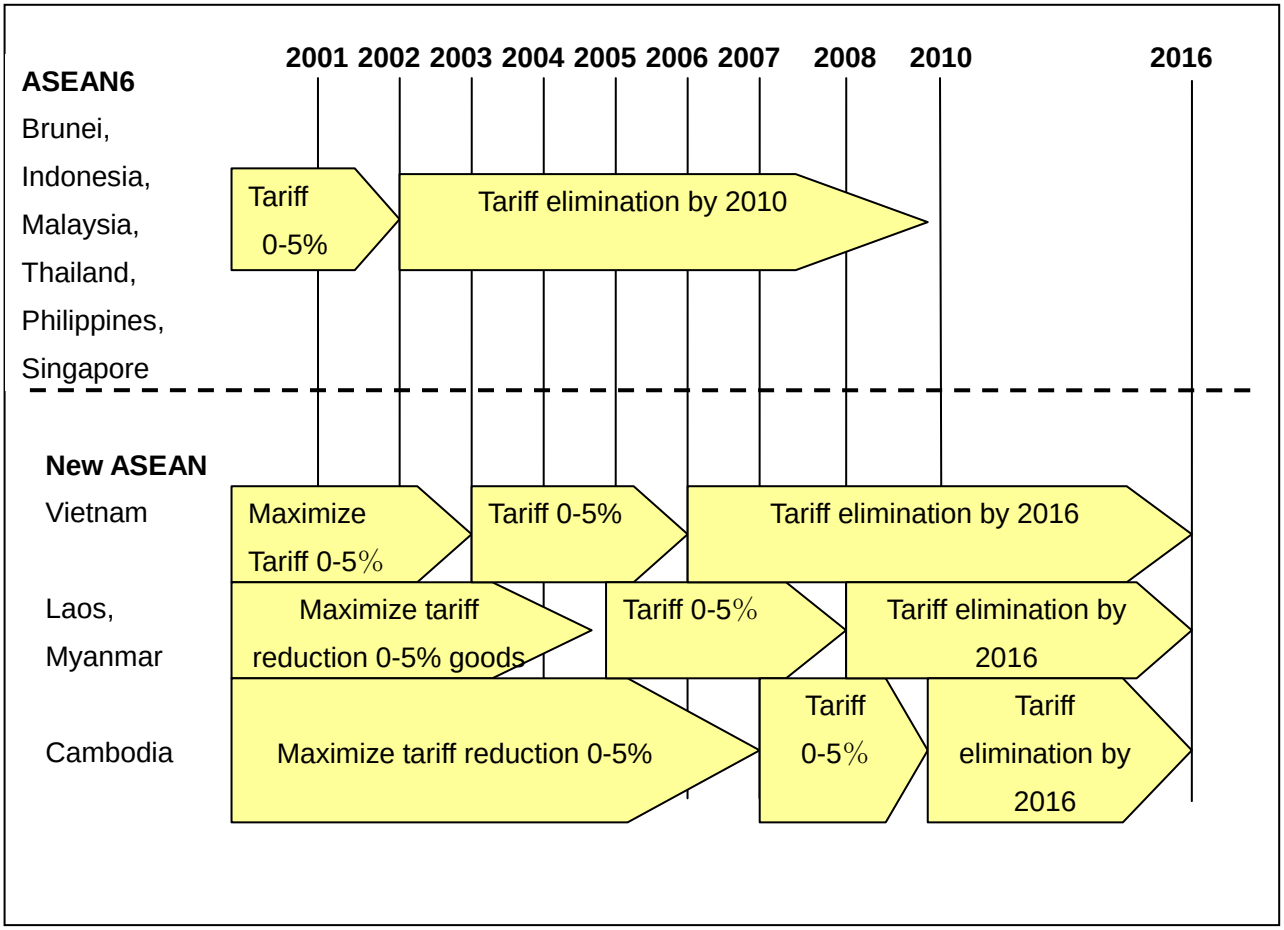
within ASEAN was brushed away by the leaders of member countries (Imada, 1992). ASEAN was considered successful in integrating Southeast Asian countries in the political area but in the economic cooperation area, the effect, either on member's trade or investment flow, was limited.

In January 1992, at the Fourth ASEAN Summit Meeting, which took place in Singapore, all the Heads of State of the member countries agreed to establish the ASEAN Free Trade Area (AFTA). As the "backbone" of AFTA, the Common Effective Preferential Tariff (CEPT) Scheme made sure that tariffs on manufactured goods of intra-trade in ASEAN were reduced to no more than 5 percent by 2008, which was later changed to 2005. All tariffs must be eliminated by 2010 (see Figure 2).

In order to be able to apply for the preferential tariffs, the content of all manufactured goods must be at least 40 percent of ASEAN origin. Three different tracks under the CEPT Scheme were designed to allow for flexible time periods for certain types of products. The fast track covered 15 product groups, the normal track was for the remaining groups with product exclusion groups that allowed for a slower reduction rate until the date targeted by the ASEAN Secretariat. The exclusion groups consisted of sensitive products to protect national security, public morals, human, animal or plant life/health, and to preserve articles of artistic, historic or archaeological value. AFTA compiled an early harvest program from its

CEPT Scheme from the deadline in 2008 bringing them forward to 2005 under industrial cooperation, AICO.

Figure 2 AFTA – CEPT Tariff Elimination Schedule



Source: White Paper (2007), Ministry of Economy, Trade and Industry, Japan as cited in Hamzah (2008)

AFTA requires rule-based integration if it is to be effective (Naya & Plummer, 2005). The objective of AFTA, the first ever regional trade agreement in Southeast Asia, was to strengthen the international competitiveness by local firms against China as well as other

global multinational companies. At the same time, this regional agreement aimed to increase the integration of international division of labor among ASEAN countries.

AFTA has been said to complement industries in ASEAN after the ASEAN Industrial Cooperation (AICO) was initiated in 1996. This economic cooperation is set to speed up the promotion of joint ventures among manufacturing industry players based in ASEAN countries. AICO has looked at the successful points of AIJV and the BBC Scheme. Unlike previous initiatives, AICO let joint venture companies choose their own products to be immediately eligible for the preferential tariffs of no more than 5 percent (AFTA CEPT Scheme) with the approval of participating countries. AICO was established to alleviate the higher cost, and lower efficiency rate of automotive related companies to produce vehicles in a small market. There was greater impact on intraregional trade and investment for the manufacturing industry as well as the automotive industry after AICO was implemented.

AICO is a bilateral complementation scheme launched in 1996 and is aimed at the automotive industry. Participating firms only pay 0-5 percent tariffs if 40 percent of the products originate from within one of the ASEAN member countries. There are 75 exchange programs under AICO; Honda, Mitsubishi, Nissan, Toyota and Denso are leading the development policies in ASEAN (Legewie, 1999; Yusuf, 2004). AFTA and AICO existed as

competition solutions with China's attractiveness for FDI from Japan and other foreign MNCs.

During the early 1990s, the automotive industry in ASEAN showed little progress in automobiles and automotive parts trade compared to world trade. A regional economic arrangement could attract some foreign companies, where an integrated market of several small countries could increase the maximum scale of economies (Yoshimatsu, 2001). AFTA strongly affected Japanese automotive firms (Karikomi, 2001; Nopprach, 2010). Among those effects were that AFTA helped the automotive parts makers to reduce production costs with tariff elimination or reduction, the possibility to get cheaper raw materials in neighboring countries and it also contributed to their effectiveness by finding cheaper labor according to the country's characteristics. For example, Toyota has integrated its main assembly's parts production in Thailand, electrical components in Malaysia and labor-intensive parts such as car accessories are produced in Indonesia and the Philippines. The success of assembly makers is strongly connected to how effectively they make use of local resources by allocating specific part's production facilities in the ASEAN region (Aswicahyono & Titik, 2000).

AICO has successfully attracted intra-trade in auto parts (2003) between Indonesia and Thailand (Nopprach, 2009). More than 80 percent of approved projects in AICO were

from the automotive industry, where it is mostly the Japanese manufacturers that are involved (see Table 10). Although the foreign subsidiaries tried to promote AICO as a way to advance their international production networks to complement the affiliates in other countries, AICO failed to work smoothly because of each state's own national interest.

Table 10 AICO Approved Projects by Industry, 2007

Industry	Number of Projects (percentage)
Automobiles/automotive parts & Components	134 (89%)
Electrical and electronics/machineries	7 (5%)
Others	9 (6%)
Total	150

Source: Adapted from Hamzah (2008)

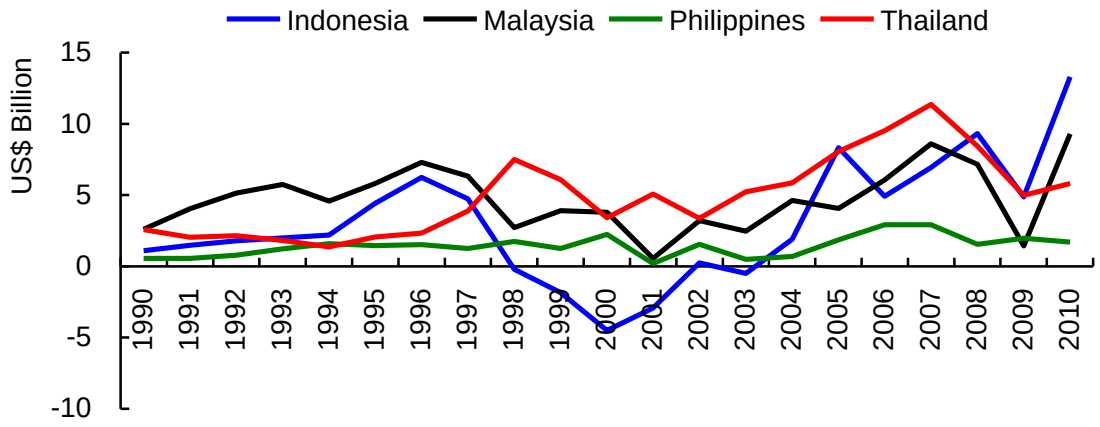
The 'application to approval' timeframe took longer than expected as Thailand, Malaysia, Indonesia and the Philippines were cautious and did not readily process and accept the applications. These problems were more obvious in the auto and auto parts companies. In AICO, it usually took 3 to 4 months from application to approval for successful projects. In Toyota's case, application number 1 (January, 1997) took 22 months, application number 2 (October 1998) took 13.5 months, application number 3 (November 1992) took 10.5 months, application number 4 (July 1999) took 9 months, and the latest

regulations should shorten the time to 3.8 months (T. Aoki, 2001). In addition, AFTA's overall utilization rate is below 30 percent according to Baldwin (2006) and 15 to 20 percent according to Hayakawa et al., (2009) which is greatly different from NAFTA's utilization rate, of 60 percent (Kohpaiboon, 2006). The efforts made by an integrated market towards its liberalization with trade and investment facilitation could increase AFTA realization in the future. The BBC Scheme and AICO were designed to promote intra-ASEAN trade and achieve economies of scale in the auto industry although the utilization rate was rather disappointing. The reason is, each of the ASEAN members were concerned with protecting their own industry (Fujita, 1998).

2.3.2.2. FDI

FDI has also promoted technology transfer, particularly in manufacturing industries within ASEAN (Lee & Tan, 2006). FDI could also increase the international competitiveness level among local firms.

Graph 6 Inward FDI Flows in ASEAN4, 1990 - 2010



Source: UNCTAD, author's calculations (accessed on 10 November 2011)

Graph 6 shows that from 1990 to 2010, inward FDI flows to ASEAN4 showed less than US$ 5 billion on average. However, FDI inflows started to increase significantly with Malaysia and Indonesia being the main recipients from 1993 to 1996. Inward FDI stocks in the ten years from 1990 to 2000 increased at a rate that was more than 4 times the next ten years time (2000-2010) in ASEAN4 countries. The investment flow in the countries before the 1997 Asian Financial Crisis was increasing but dropped sharply after that. After the 'Financial crisis, Thailand received large inflows because its currency (Baht) was kept afloat by the government as one measure to survive the crisis. With the exception of the Philippines, all other countries attracted more than US$10 billion after 2007. Malaysia, on the other hand received less FDI than Indonesia and Thailand but the accumulated amount was still a significant US$101.3 billion in 2010. Intra-ASEAN inflows accounted for 20

percent of the whole of ASEAN direct investments (UNCTAD 2007).

2.3.2.3. Technology

In 1990, Malaysia and Thailand exported 26.1 percent to 34.7 percent respectively in food products. The share decreased to 13.4 percent for Malaysia and 23.7 percent for Thailand (see Table 11). Whereas, particularly in Malaysia and Thailand manufactured products, such as machinery and transport equipment, showed a large share in the volume of exports and imports from 1995 and 1997. The trend was significant in both countries because of electrical, general machinery and automotive parts and components. It also showed that during this period, the technology production on value-added parts was increasing with the investment from Japan and NIE countries.

Table 11 Trade Share for Commodities in Malaysia, Indonesia and Thailand (1990, 1995, 1997)

		1990		1995		1997	
Country	SITC Groups	Export	Import	Export	Import	Export	Import
Malaysia	All food items (0,1,2,4)	26.1	10.2	16.2	7.3	13.4	8.0
	Fuels (3)	18.4	5.4	7.1	2.4	8.2	3.0
	Chemical products (5)	1.6	8.9	3.1	7.5	3.6	7.3
	Machinery and transport equipment (7)	25.8	52.9	55.9	63.0	56.8	62.6
	Other manufactured goods (6 + 8)	18.0	22.6	17.8	19.8	18.0	19.1
Indonesia	All food items (0,1,2,4)	18.9	12.9	22.5	17.1	22.3	15.2
	Fuels (3)	44.0	8.9	25.4	7.4	28.2	9.7
	Chemical products (5)	2.4	15.5	3.4	15.4	4.0	14.2
	Machinery and transport equipment (7)	1.4	42.7	8.4	40.1	9.9	42.2
	Other manufactured goods (6 + 8)	33.3	19.9	40.4	8.7	35.6	18.8
Thailand	All food items (0,1,2,4)	34.7	11.5	25.3	6.9	23.7	8.8
	Fuels (3)	0.8	9.5	0.7	10.7	2.4	9.5
	Chemical products (5)	2.1	10.7	4.4	48.4	4.4	10.2
	Machinery and transport equipment (7)	22.2	42.2	34.0	39.8	39.8	48.2
	Other manufactured goods (6 + 8)	40.1	26.1	35.5	29.7	29.7	23.3

Source: UN Comtrade, author's calculations (accessed on 4 February 2012)

It was the era of a strong relationship between Japan and ASEAN countries if one looks at the development of the electrical and automotive industries in the 1980s and 1990s. With the establishment of AFTA, many foreign multinational companies were beginning to head to Thailand, Malaysia and Indonesia. The governments began to gradually revise any protectionist and interventionist policies in order for the local firms to enhance their competitiveness levels with foreign companies. However, the governments still had to

cushion the impact of liberalization through supporting industries as needed by local firms.

2.3.2.4. Relationship with Japan

The pre-Asian Financial Crisis economic relationship between Japan and ASEAN can be seen from Table 12. It was considered to be strong and growing stronger year by year. The economic cooperation between Japan and ASEAN was strengthened by rapid industrialization and open policies towards Japanese companies. The growing trade flows between ASEAN4 and Japan could be seen from this. Except for Indonesia, ASEAN4 depended on the imports from Japan. In 1995, the imports volume of Malaysian and Thailand surged to US$21,183 million and US$21,622 million in 1995 respectively. During this year, both countries imported machinery and transport equipment (SITC 7) accounting for nearly 70 percent of the total products from Japan (Thailand 66 percent and Malaysia 75 percent). This implies that imports of intermediate goods in the automotive and manufacturing sectors between ASEAN4, and in particular Thailand and Malaysia, had reached a significant point before the Asian Financial Crisis hit the ASEAN region.

Table 12 Exports and Imports Volume between ASEAN4 and Japan, 1991 – 1997 (US$ in millions)

	Malaysia		Indonesia		Thailand		Philippines	
	Export	Import	Export	Import	Export	Import	Export	Import
1991	5,394	9,555	10,767	6,327	5,133	11,037	1,771	2,517
1992	5,475	10,358	10,760	6,014	5,686	11,907	1,745	3,277
1993	6,119	12,541	11,172	6,248	6,300	13,962	1,827	4,282
1994	7,092	15,912	10,929	7,740	7,725	16,435	2,034	5,561
1995	9,352	21,183	12,288	9,217	9,475	21,622	2,747	6,305
1996	10,564	19,225	12,885	8,504	9,372	20,445	3,671	7,578
1997	9,795	17,384	12,485	8,252	8,733	15,974	4,194	7,955

Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

In terms of Japanese direct investment, the amount invested in East Asia accounted for about US$9.6 billion between 1981 to 1985 and surged rapidly to US$17 billion between 1986 and 1990 (Lebedeva, 2009). In the early 1990s, Japanese investment decreased because of the financial instability in the country itself. However, the FDI to ASEAN increased from US$3,312 million in 1995 to US$4,954 million in 1997 compared to China (US3,183 million in 1995 to US$1,862 million in 1997) (Lebedeva, 2009). Nevertheless, FDI to China began to increase and China became the main recipient after ASEAN4 countries were hit by the aftereffects of the 1997 Asian Financial Crisis.

2.4. Impact of Financial Crisis and Growth of Regionalism: 1998 to 2010

Unstable currency and the retreat of foreign investments led to the 1997 Asian

Financial Crisis. This financially contagious crisis had a great impact on the ASEAN economies. Real GDP growth rate dropped from 7.8 percent in 1996 to 0.8 percent in 1999 for Indonesia, the most affected country in ASEAN. The Philippines, Malaysia and Thailand suffered several problems such as high unemployment rates and a decline of growth rates. After the Asian Financial Crisis hit most of the East Asian countries in 1998, the recovery path was slow but it accelerated from 2001 until 2007. The economic recovery can be seen from the year 2000 onwards. On the other side, ASEAN had to face China as the growing competition. The devaluation of the Chinese Yuan has helped its economy to rise tremendously and turned the country to focus on labor-intensive goods production (Nesadurai & Djiwandono, 2009).

2.4.1. Economic Trends

In 2003, ASEAN countries announced the Declaration of ASEAN Concord II, known as the Bali Concord II to enhance the realization of the ASEAN Economic Community. It was the historical turning point of ASEAN to establish one single large market and production base by 2020. The main objective was to regionally integrate the ASEAN market but the leaders were concerned with security and political disparity issues. After the announcement of Bali Concord II, the implementation of AFTA and other economic cooperation programs

such as the ASEAN Framework Agreement on Services (AFAS) and the ASEAN Investment Area (AIA) were strengthened and many countries planned for strategic measures to liberalize regulations for their foreign investors.

After the New Order regime in Indonesia under President Suharto until 1997, the manufacturing industry developed with increased exports to the markets of Asian NIEs and Japan. However, exports in manufactured goods, machinery and vehicles were relatively low compared to other ASEAN4 (Juswanto & Mulyanti, 2003) countries. Indonesian exports were mostly concentrated on labor-intensive manufactured goods, thus in the future the government would need to consider the growth of an advanced skilled workforce and non-resource based industries. Even after the Asian Financial Crisis, the Indonesian economic situation did not fully recover but the exports growth rate rose slightly more than previous year (20 percent in 2010).[5]

ASEAN merchandise trade with the world decreased by 19 percent in 2009 compared to 2008, which was same as the world trend. Exports and imports value in 2009 for ASEAN shows that more than 50 percent of the total merchandise traded (except for Indonesian exports, which were mainly oil products) were from manufactures (see Table 13). The majority of manufactures exports were represented by automotive products and office &

[5], Folkmanis, Jason “Indonesia’s Export Growth May Beat Government’s Target”, Jun 7, 2010 Bloomberg.

telecom equipment (World Trade Report 2011).

Table 13 Merchandise Trade in Exports and Imports of ASEAN, 2009 (%)

Exports				
	All (US$ million)	**Agriculture Products**	**Fuels & Mining Products**	**Manufactures**
Cambodia	4,302	2.9	0.0	97.1
Indonesia	119,646	21.1	36.4	39.1
Malaysia	157,433	13.3	16.3	69.5
Philippines	38,436	8.3	5.8	85.3
Thailand	152,422	18.4	6.2	71.7
Singapore	269,833	2.3	16.3	73.2
Vietnam	57,096	18.7	16.0	64.6
Imports				
	All (US$ million)	**Agriculture Products**	**Fuels & Mining Products**	**Manufactures**
Cambodia	5,876	6.6	6.6	50.8
Indonesia	89,964	12.4	24.1	63.5
Malaysia	123,832	9.9	12.6	75.0
Philippines	45,878	12.2	20.2	67.1
Thailand	133,668	7.0	22.6	67.3
Singapore	245,785	3.6	26.3	66.1
Vietnam	69,949	13.2	13.2	72.2

Source: World Trade Organization (WTO), author’s calculations (accessed on 10 November 2011)

2.4.2. FDI

After the Asian Financial Crisis, ASEAN countries struggled to attract foreign investments and began to liberalize the foreign investment environment. In addition, with the depreciation of the dollar, wages, land and other utilities cost were reduced. The high unemployment rate in the work market made it easier for the investors to build factories in ASEAN countries. World investment to Indonesia increased from 2004 onwards because of the improvement of the economic and political situation compared to the 1990s (see Graph 1). Japanese investment to ASEAN after the crisis dropped sharply but the investment amount to China increased. China became the largest host of Japanese FDI to Asian countries growing from US$4 billion in 2003 to US$6.6 billion in 2005. Japanese FDI in ASEAN countries changed slightly from US$4.1 billion to US$ 4.8 billion in 2005 (Rajan, Kumar, & Virgill, 2008).

Table 14 shows the top ten sources of FDI Inflows to ASEAN from 2008 to 2010. The largest source is from the EU with a 22 percent share among other countries. Japan is the third largest source of FDI to ASEAN, which was an 11 percent share, similar to the U.S. in 2010. Intra-ASEAN investment fell below a 20 percent share of total inflows between 2008-2010, which demonstrates that the FDI relationship between ASEAN and non-ASEAN countries are essential to ensure their interdependent relationships and the level of

competitiveness of the region.

Table 14 Top Ten Sources of FDI Inflows to ASEAN, 2008 - 2010 (%)

Country/region	Share to total inflow (world)			
	2008	2009	2010	2008 - 2010
EU	15	24	22	21
ASEAN	20	14	16	17
USA	7	11	11	10
Japan	9	10	11	10
South Korea	3	4	5	4
Cayman Islands	10	-2	4	4
China	4	10	4	5
India	1	2	3	2
Australia	2	2	2	2
Canada	1	1	2	2
Total top ten sources	73	77	81	78
Others	27	23	19	22
Total	**100**	**100**	**100**	**100**

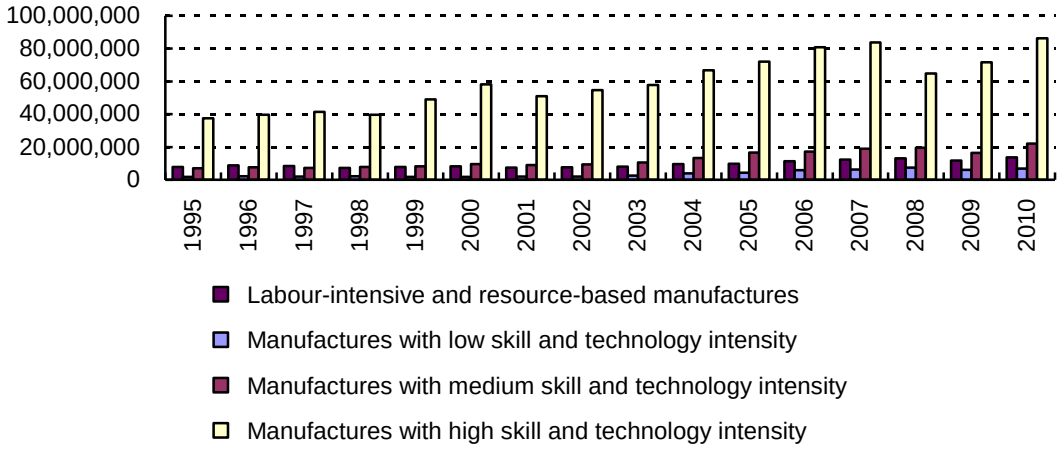
Sources: ASEAN Statistics Website (accessed on 10 November 2011)

2.4.3. Technology

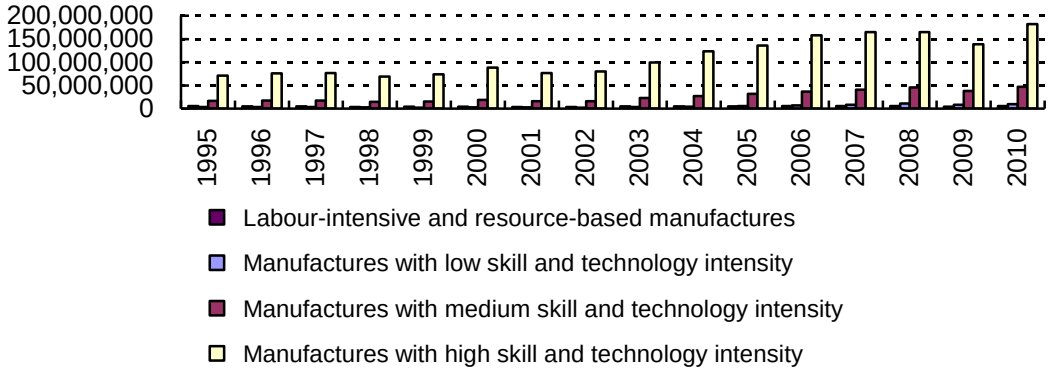
ASEAN4 exports of manufacturing products according to technology intensity are presented in the graphs below. It is apparent that Malaysia led the exports in high technology manufactures from 1995 to 2010 followed by Thailand and the Philippines. Indonesia led the exports of labor intensive and resource based manufactures compared to

other members. Thailand led the group in exporting manufactures, which required medium skill and technology intensity such as rubber and plastic products, motor vehicles, and electrical and non-electrical machinery. It implies that except for Indonesia, all of ASEAN4 countries were catching up to become the exporters of high technology manufactures. However, compared to Singapore (see Graph 8) as the technological leader, the technology intensity levels in Malaysia, Thailand and Philippines were quite low (see Graph 7, Graph 9, Graph 10 and Graph 11). In order to attract FDI to ASEAN, they needed to provide more incentives in the R&D sectors and educate their workforce about the importance of high technology. Funds or grants between the government and public sector would have to be enhanced in the future.

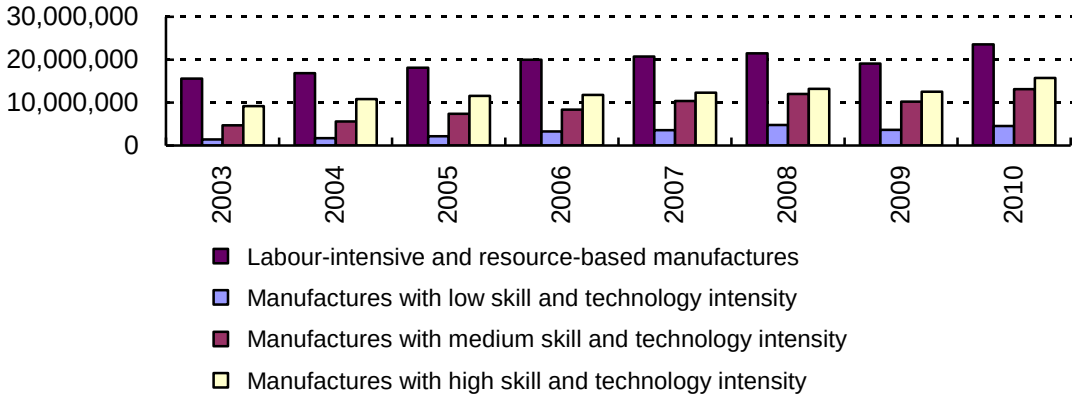
Graph 7 Manufactures Capability of Exports Products in Malaysia, 1995 – 2010 (US$ thousand)



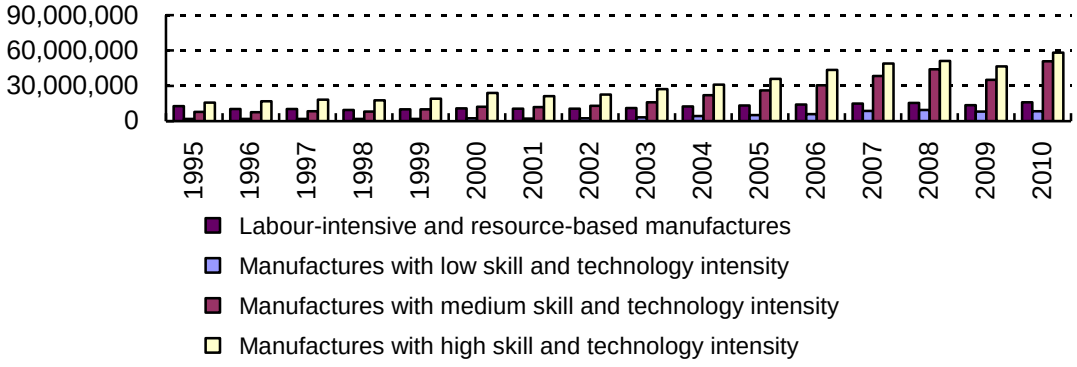
Graph 8 Manufactures Capability of Exports Products in Singapore, 1995 – 2010 (US$ thousand)



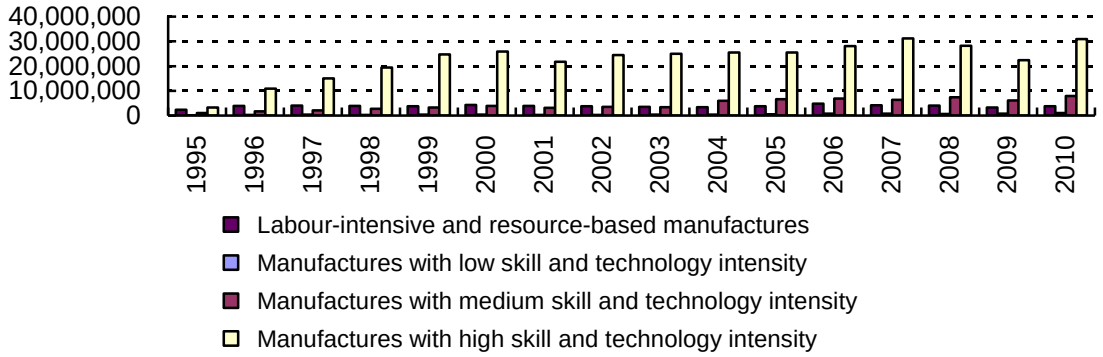
Graph 9 Manufactures Capability of Export Products in Indonesia, 2003 – 2010 (US$ thousand)



Graph 10 Manufactures Capability of Export Products in Thailand, 1995 -2010 (US$ thousand)



Graph 11 Manufactures Capability of Export Products in the Philippines, 1995 -2010 (US$ thousand)



Notes: For more definitions, see Appendix D.

Source: UNCTAD Website, author's calculation (accessed on 31 January 2012)

2.4.4. Relationship with Japan

As shown in the 2007 statistics from ASEAN – Japan Centre Website (see Table 13), the major import items of ASEAN4 from Japan were electrical machinery products such as Thermionic, IC, Audio Apparatus/Telecommunication Apparatus (Indonesia 15.5 percent, Malaysia 31.9 percent, Philippines 35. 8 percent and Thailand 21.7 percent) and machinery equipment (Indonesia 27 percent, Malaysia 15.7 percent, Philippines 17.4 percent and Thailand 23.3 percent). Meanwhile, three major sectors that contributed to the increase of exports to Japan were mineral products (Indonesia 47.7 percent and Malaysia 37 percent), electrical machinery products (Indonesia 5.1 percent, Malaysia 24.6 percent, Philippines 38.2 percent and Thailand 23.7 percent) and wood related products (Indonesia 23 percent).

Here, Japan had a bigger effect on trade expansion in the manufacturing industries, thus bringing greater profits from concluding EPAs with Malaysia, Thailand and Indonesia.

The high share of raw materials and parts that Japan imported from these three countries came through free-tariff importation, thus it shows a large increase in trade value between them (JETRO, 2008). This characteristic was the result of Japanese MNCs in Thailand that imported parts from Japan in order to assemble and manufacture finished products in their own subsidiaries. Later, they exported the products to international markets such as Asian NIEs and Japan. A similar trend can be seen in other ASEAN countries but Thailand had the most remarkable trade flow.

Table 15 Trade Products with Japan, 2007 (percentage)

	Indonesia	Malaysia	Philippines	Thailand
Main Import Product from Japan				
Chemical Products	10.4	7.6	8.9	10.9
Machinery other than Electric	27	15.7	17.4	23.3
Electrical Machinery (Thermionic, IC, Audio Apparatus Telecommunication Apparatus	15.5	31.9	35.8	21.7
Transport Equipment	14.3	12.5	8.2	10.5
Main Export Product to Japan				
Raw materials (Wood, non-ferrous Metal Ore, etc)	23	6.8	16.6	7.6
Mineral Fuels (Petroleum, LNG etc)	47.7	37	0.3	3.2
Manufactured Goods (Iron & Steel, Metal Products, etc)	11.4	9.4	7.6	10.5
Electrical Machinery (Thermionic, IC, Audio Apparatus Telecommunication Apparatus	5.1	24.6	38.2	23.7

Source: ASEAN-Japan Centre Website (accessed on 2 February 2012)

However, a trade deficit between Thailand and Japan occurred when manufacturing items were exported to Japan and at the same time imported from Japan. As one of the ways to solve this kind of trade problem, Thailand decided to increase the exports of other non-manufacturing items such as agricultural products and fishery and forestry products to Japan. Furthermore, Japan has a large market for agriculture, fishery and forestry products but these products are considered highly sensitive to them.

In regards to FDI Inflows to ASEAN, Japan accounts for by far the largest share in Thailand's manufacturing sectors, with 39 percent of 57 billion baht (2008). FDI inflows from Japan to Malaysia accounted for a 12 percent share (US$1,571 million), which made Japan the second largest investor in Malaysia after Australia in terms of value (2008). Indonesia received US$1,365 million FDI from Japan, a share of 9 percent, which, after Singapore, made Japan the largest investor in Indonesia.

Table 16 Japanese FDI Inflows to ASEAN4 and China, 1995 - 2010 (US$ Millions)

	ASEAN4	China
1995	3,312	3,183
1996	3,836	2,317
1997	4,954	1,862
1998	3,553	1,301
1999	339	360
2000	1,684	934
2001	2,920	2,158
2002	2,166	2,622
2003	773	3,980
2004	2,534	5,863
2005	4,276	6,575
2006	6,038	6,169
2007	5,007	6,218
2008	4,043	6,496
2009	3,540	6,899
2010	4,310	7,252

Source: Japan External Trade Organization Website (accessed on 31 January 2012)

Table 16 shows the amount of FDI Inflow from Japan to ASEAN and China from 1995 until 2010. The figure suggests that before the 1997 Asian Financial Crisis, Japanese FDI was focused on ASEAN with more than US$ 3.5 billion yearly. The amount decreased in 1999 not only for ASEAN but also for the NIEs and China as well with US$339 million, US$728 million and US$360 million, respectively. The recovery process from the financial crisis took a long time for ASEAN countries but for China, inflows from the Japanese investors were increased compared to NIE countries. China received US$7.3 billion in 2010 from Japan, 5 percent higher than the NIEs and 68 percent higher than ASEAN. This showed that China attracted more FDI inflow from Japan because of its large domestic market, although Japanese automakers are not using China as their export production base. From the Japanese investors' perspective, the impact of *Endaka* (the appreciation of the yen in relation to other currencies) on the domestic economic situation has driven the multinational firms to allocate their production overseas. ASEAN, too, has emerged as an attractive integrated market from 2004 onwards, particularly after the Bali Concord II was announced.

Table 17 Top Four Industries that received FDI from Japan in 2005 - 2009

Industry	First	Second	Third	Fourth
Indonesia	Transportation Equipment (82,602 million yen)	Finance & Insurance (59,601 million yen)	Petroleum (42,915 million yen)	Mining (23,425 million yen)
Malaysia	Electric Machinery (306,287 million yen)	Finance & Insurance (31,180 million yen)	Chemical & Pharmaceuticals (19,725 million yen)	Precision Machinery (13,012 million yen)
Philippines	Communications (56,693 million yen)	Transportation Equipment (33,720 million yen)	Iron, non-ferrous and metals (31,798 million yen)	Mining (31,031 million yen)
Thailand	Transportation Equipment (266,758 million yen)	Electric Machinery (96,605 million yen)	Rubber & Leather (66,400 million yen)	Iron, non-ferrous and metals (62,357 million yen)

Source: ASEAN-Japan Centre, author's calculations (accessed on 2 February 2012)

Table 17 shows the top four industries that received the largest amount of FDI from Japan between 2005 and 2009. Transportation equipment, electrical machinery and service industries received a large amount of investment from Japan, which explained the dominance of Japanese MNCs, particularly in Malaysia and Thailand. Members of the Japanese Chambers of Commerce and Industry (JCCI)[6] in ASEAN showed an increase in

[6] JCCI is an institution that represents large and small Japanese corporations operating in every industry. This chamber's objectives are to present their opinions on economic issues and to help implement government policies and programs by promoting them overseas.

the number of firms from 3,856 (1998) to 4,758 firms (2009).[7]

Views on RTA in ASEAN differ by country. Although Indonesia has the largest market in ASEAN, with a GDP per capita of US$2,173 (2008)[8], Indonesia had to find effective measures to attract more foreign investors to the country. Meanwhile, Malaysia considered any bilateral trade agreements with great care because of their concern that trade liberalization with any developed country might jeopardize the objectives of their own national policies and sensitive industries. The liberalization should be parallel with the development of domestic priorities such as SMEs' development and capacity building. In Thailand, the liberalization policies are considered to be in place with protectionist policies, where some sensitive sectors are excluded from the bilateral trade agreements with certain countries. In practice, rules of origin also apply to particular products to limit the impact on sensitive products (Asian Development Bank, 2008). After Singapore, Thailand is second ,of all ASEAN countries that sees RTAs as an important agent to enhance competitiveness by fully utilizing natural resources, open new markets and keep FDI inflows. Since AFTA, Thailand has signed bilateral trade agreements with New Zealand, China, India, Australia, Peru, the U.S. and Japan, in addition to two groups; the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and the European Free

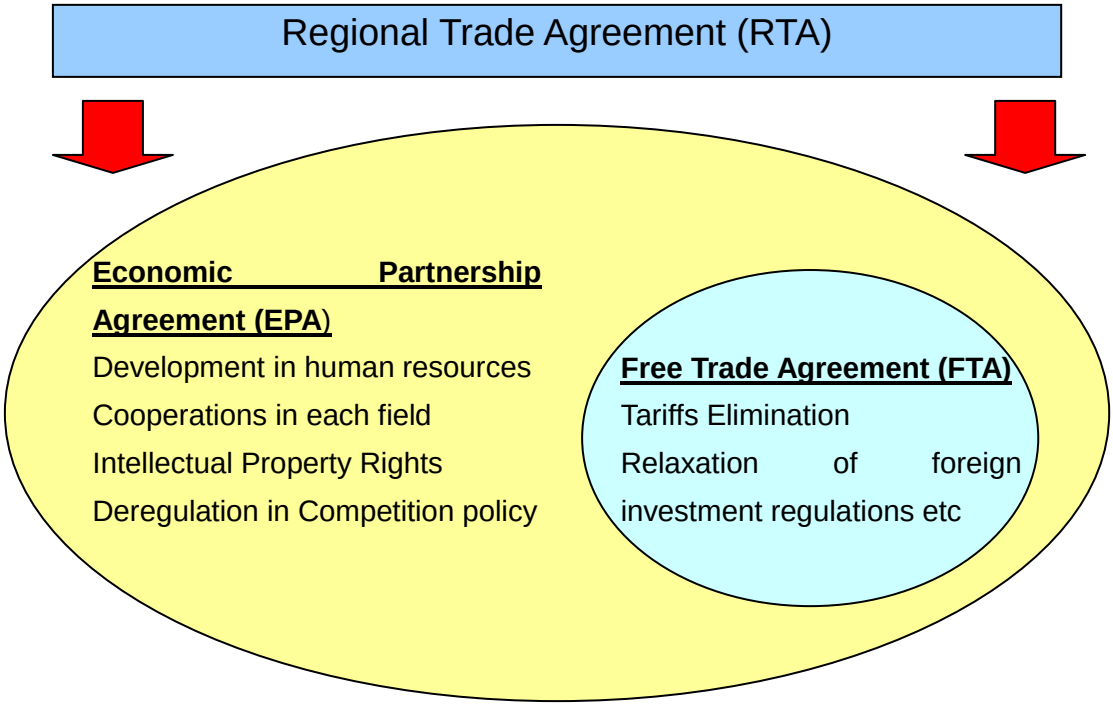
[7] From ASEAN Statistics Homepage, accessed on 2 February 2012.
[8] From UNCTAD Website, accessed on 2 February 2012.

Trade Association (EFTA).

The extensive regional trade agreements signed by ASEAN countries results in a complex and multi layered set of rules such as local contents, shipping regulations, investment regulations and even more obstacles. Japan has been studying these problems and they have come up with a “fairer” and wider coverage of sectors with a win-win solution both to Japan and its trade partners. There are many unique characteristics and differences between RTA/FTA and Japan’s EPA, which is why ASEAN should take full advantage of economic cooperation with Japan (see Figure 3).

According to the Ministry of Foreign Affairs Japan, FTA is an agreement that lowers or eliminates tariff in the trade of goods and liberalizes regulations on foreign ownerships in trade of services, but EPA covers a wider range from trade in goods, trade in services, intellectual property, investment, trade facilitation, technology cooperation and movement on natural persons, among others. An example of this is the Japan Singapore Economic Partnership Agreement (JSEPA), which further promotes economic growth by including investment, the free flow of skilled workers, domestic reforms in customs, rules of origin and technical cooperation between the two countries. The difference between the names of EPA in Japan is also linked with the theory that anti free trade supporters will not be biased against this new kind of FTA (Kovrigin & Suslov, 2006).

Figure 3 Japan's Economic Partnership Agreement (EPA) and Regional Trade Agreement (RTA)



Source: Adapted from Hamzah (2008)

Many RTAs in Asia have an elaborate tariff elimination schedule with long time frames specific to the sensitive sectors in order for the local industries to gradually adjust to its competitive conditions (Dent, 2006). At the early stages of negotiations on sensitive issues in Malaysia, Thailand and Indonesia, the progress of EPAs with Japan was hampered. Either these sectors or those products were excluded, renegotiated, treated with a quota system or exchanged for technical assistance by Japan. Japan has included technical cooperation in EPA as an "exchange card" because they intend to use it to

negotiate liberalization of sensitive sectors (agriculture sectors) that have been requested by the other party. This will increase Japan's negotiating power and its influence in concluding EPAs with developing countries.

Table 18 Completed Japan's Economic Partnership Agreements (EPAs) with ASEAN countries

Agreements	Negotiation Start Date	Signing Date	Effective Date
JSEPA (Japan-Singapore Economic Partnership Agreement)	2001.1	2002.1	2002.11
JMEPA (Japan-Malaysia Economic Partnership Agreement)	**2004.1**	**2005.12**	**2006.7**
JTEPA (Japan-Thailand Economic Partnership Agreement)	**2004.2**	**2007.4**	**2007.11**
JIEPA (Japan-Indonesia Economic Partnership Agreement)	**2005.7**	**2007.8**	**2008.7**
JBEPA (Japan-Brunei Economic Partnership Agreement)	2006.6	2007.6	2008.7
JPEPA (Japan-Philippines Economic Partnership Agreement)	2004.1	2006.9	2008.12
AJCEPA (ASEAN-Japan Comprehensive Economic Partnership Agreement)	2005.4	2008.4	2008.12
JVEPA (Japan-Vietnam Economic Partnership Agreement)	2007.1	2008.12	2009.10

Source: Ministry of Foreign Affairs, Japan Website (accessed 10 November 2011)

Table 18 and Table 19 show the completed EPAs between Japan and ASEAN

countries. JMEPA, JTEPA and JIEPA entered into force from 2006 to 2008, and the early impacts of Japan's EPA can be found from trade and investment within this period. Furthermore, the author found that other than the agriculture sector, the automotive industry related sectors were similarly negotiated in the bilateral trade agreements with Japan. In conclusion, the automotive sector is important to both ASEAN countries and Japan, which should be studied in detail. The study of Japan's EPA with Malaysia, Thailand and Indonesia are based on the fact that the automotive industries were heavily negotiated and protected by these three countries. The protectionist policies in Malaysia, Thailand and Indonesia were implemented to nurture the local manufacturing firms while at the same time, increase the competitiveness level in the globalization era. In addition, the *Keidanren*[9] has supported the idea of Japanese automakers to conclude EPAs with ASEAN and negotiate for liberalization in import tariffs for Completely Built Up (CBU) vehicles (luxury vehicles with large engine capacity), with specialized parts and components as Japanese subsidiaries in ASEAN preferred to buy these from Japan (Manger, 2009).

[9] Keidanren is the Japan Business Federation and it is a comprehensive economic association compromised of 1,281 companies, 127 industrial associations and 47 regional economic associations (as per the Keidanren Website).

Table 19 Comparison in Agreement Contents between JMEPA, JTEPA and JIEPA

	JMEPA	JTEPA	JIEPA
Similarities	Japan – Immediate tariff elimination for tropical fruits, vegetables, forestry products (other than plywood), shrimp and prawns, industrial products, trade in services and technical cooperation, particularly in automotive industries and human resources development. Malaysia, Thailand & Indonesia – Tariff elimination in fruits such as apple, persimmon and pear, industrial products (within 5-10 years), iron and steel products (within 10 years) and liberalization in foreign equity participation in service sectors (health, tourism, education, financial, construction and transport)		
Differences	1. Complete liberalization of automotive & steel is difficult in order to protect own domestic industries. 2. Foreign equity participation is limited in some service sectors due to Bumiputra Policy. 3. Malaysia requested to export more forestry products.	1. Some of automobile engine capacities were being renegotiated and excluded from the agreement. 2. Thailand requested to promote Medical and Hospital Services, etc. 3. Thailand to export more agricultural and fisheries products to Japan.	1. Indonesia to export more labor-intensive products such as textiles and footwear. 2. Main point is to cooperate in human resources development (Nurse, care-giver, hotel & tourism). 3. Japan to concentrate in energy Sector. 4. Concentrate on manufacturing industry with certain protectionist level on local joint-venture automotive assemblers.

Source: Compiled by author from each country's Joint Study Report, Task Force Report and EPAs.

2.5. Conclusion

ASEAN was born from a need to find a solution to political tensions among the Southeast Asian countries. Differences in social and cultural aspects, languages, economic development stages and incomes have slowed the process of integration. It was believed to be a serious problem that the integration was slow at first, which could lead to more policy conflict between member countries. Several economic cooperation programs between them were considered weak so more improvements were made. As it can be seen today, ASEAN has emerged as the most successful developing countries' group in Asia. The dual industrialization system, which can be known as the "ASEAN Path" has made ASEAN an interesting framework in the economic development literature. The ISI policies still existed when the ASEAN countries pursued the EOI policies, which proved that certain industries such as the automotive sector are protected.

There are several characteristics that highlight the different time periods. Each country has shifted from an agriculturally-based economy, to labor intensive manufactures, and now to capital and technology intensive industries. Looking at the income distribution background of ASEAN countries, it is enough to mention that the potential for the market to expand is high, with the condition that infrastructure development must be enhanced by the governments themselves.

Decisions made by ASEAN countries after the 1997 Asian Financial Crisis have proven that member countries need to exist as one institution in order to survive. The political and economic relationship with other East Asian countries such as China, South Korea and Japan determined the importance of ASEAN as a production and export base to advance regional integration through regional trade agreements. ASEAN has been able to provide new market opportunities for MNCs from Japan and China. The creation of AFTA could initiate the expansion of technology upgrading and increase the skills of workforce in ASEAN. Therefore, these positive aspects could prepare both the foreign and local firms to face each other in challenging globalization trends. It is also hoped that FDI from concluded FTAs/EPAs will help the transfer of technology and enhance productivity and economic growth, particularly in the automotive industry.

AFTA has the potential to become a large production and export hub for foreign MNCs in ASEAN, thus it is logical that other East Asian countries such as China, Japan and South Korea are interested to join the trade area in order for their firms to take full advantage of the trade created by AFTA. ASEAN Plus Three and the East Asian FTAs are some of the examples of regional trade agreements and regionalization that could lead to fierce competition between local and foreign firms. Hence, it is compulsory for the ASEAN governments to protect their own local firms with trade measures along with attractive

incentives for foreign MNCs. China has signed an FTA with ASEAN in 2003 and the bilateral trade, along with faster track negotiations, have created a large promising market between China and the ten Southeast Asian countries. The situation can further be explained by the eagerness of the Japanese government to sign its own EPA with ASEAN in December of 2008.

CHAPTER 3: THE ROLE OF JAPANESE AUTOMAKERS IN ASEAN[10]

3.1. Introduction

This chapter considers several issues concerning the Japanese automakers in the ASEAN automotive industry. The same development patterns from early involvement with Japanese automakers are seen throughout the ASEAN automotive industry and so this is worthy of our consideration. It is interesting to see how Malaysia and Thailand are considered to have successfully developed their automotive industry to an internationally recognized level and that Indonesia is receiving the attention from global auto manufacturers because of its potentially large domestic market and in the Philippines, although the market is limited, the government is trying to encourage the growth of its automotive industry by learning from Malaysia, Thailand and Indonesia. These countries are going through the liberalization process but insisted on protecting sensitive industries such as automotive in order to nurture the local SMEs industries and the linkages to other industries. It is important to understand the flow of automotive industry development in ASEAN before engaging with the main problem of the research. After critically reviewing the

[10] This chapter is a revised version of a paper published in Research Note, Jurnal Ekonomi Malaysia (JEM), Universiti Kebangsaan Malaysia, Issue 1, Year 2012.

ASEAN economic development in Chapter 2, this chapter shows the importance of the Japanese automakers' role in ASEAN.

This chapter is divided into two main parts. The first section focuses on the changes in the automotive industries before the 1997 Asian Financial Crisis and second, it goes on to examine the measures by which the governments and automakers faced their globalization challenges. The financial crisis is the turning point for ASEAN as the governments discovered during the crisis that if they implemented high tariff and non-tariff barriers such as local content regulations, import bans on complete built-up (CBU) vehicles and quotas, the local automotive industries would not fully develop and proceed to the next stage.[11] After the crisis, Japanese automakers in ASEAN countries also realized that the existing local and overseas markets could not cover their losses from reduced market demands unless they adopted other strategies such as increasing exports and concentrating on international divisions of labor. Using existing liberalization schemes such as AFTA, the Japanese automakers managed to explore new markets in the ASEAN region with cooperation from the governments.

[11] The first stage is the import of complete vehicles; the second stage is local assembly of vehicles from full units of component parts; the third stage is assembly of vehicles involving local and foreign produced components; and the fourth stage is full-scale manufacture of automobiles (Dicken, 2007).

3.2. Japanese Automakers' Involvement

The early development of the automotive industry in many countries usually starts with learning from other major auto producers overseas. This can be done through technical cooperation, technology transfer, direct investments, joint ventures and acquisition. Japan implemented its protectionist industrial policies from 1936 until 1960s. For the domestic market, the Japanese automakers increased their investments in order to produce price-competitive and energy-efficient vehicles, which resulted in the establishment of many vehicle producers including Mitsubishi Motors, Hino, Honda, Daihatsu, Suzuki and others.

The Japanese government had to reduce and merge the number of automakers through joint ventures to avoid strong pressure from foreign firms as competitors (Doner, 1991; Morales, 1994). In the late 1960s, Japan had ten automakers: the "big two" (Toyota, Nissan), the "medium three" (Mazda, Honda, Mitsubishi) and the "small five" (Suzuki, Subaru, Hino, Daihatsu, and Isuzu). Some of the foreign companies also succeeded in establishing ties with Japanese automakers by joint venture, such as Chrysler and Mitsubishi (1971) and Ford with Mazda (1979). As a result, intergroup competition became fiercer and forced these automakers to seek new markets in Southeast Asia. Japanese automakers began to increase their production in Japan until it reached 25.5 percent of the world's share by 1989 (see Table 20).

Table 20 Automobile Production by Major Producers

	1960		1989		2000	
Thousand units	Production	World Share (%)	Production	World Share (%)	Production	World Share (%)
USA	6,675	51.4	6,823	19.2	5,636	14.2
Europe	5,902	45.4	13,267	37.4	13,882	35.1
Japan	165	1.3	9,052	25.5	8,100	20.5
Korea	n.a.	n.a.	872	2.5	2,361	6.0

Source: Adapted from Staples (2008)

Although China had the highest auto market growth rate, Japan could not increase their overseas production capacity in China because the Chinese government needed technological collaboration and a network of parts suppliers with the Japanese, not the investments in new plants (Shimokawa, 1996). It caused the Japanese automakers to create new international production networks in ASEAN countries. As a result, the Japanese automakers began to internationalize their models, particularly after 1985, during the Plaza Accord and “Endaka”.

Geographic proximity and the occupation by Japanese troops in some of the Southeast Asian countries has encouraged the automotive related firms to invest in ASEAN during the 1960s and 1970s. Besides that, after the war the Japanese manufacturers opened new factories in overseas markets in order for them to resell older and outdated products with used machinery (Furukawa & Schmidt, 2008). Another reason for the

domination of Japanese firms in Southeast Asian countries is that Japan has to find more location-advantaged markets after America and China. The increased cost of raw materials and labor in Japan itself contributed to the dominant share of Japanese multinational firms in Southeast Asia (Nizamuddin, 2008).

Local automotive industries in these countries were developed further with the cooperation between government policies and automakers' market strategies. In order for ASEAN to draw the path to industrialization economies, they needed to rearrange the existing import substitution policy into more parallel export-oriented policies. Developing countries could master a wide range of activities and benefit from an export-oriented strategy (Pak, 2006).

3.3. Development of Automotive Policies

Southeast Asian countries began to introduce ISI policies in the 1970s (some of the other countries did so as early as the 1960s) with the various protection policies in place, such as, banning CBU vehicles, quotas, prohibiting the building of assembly plants and distributing vehicles directly by one-hundred percent owned foreign firms, local content requirements and foreign ownership restrictions. In 1974, Indonesia banned the import of complete built-up (CBU) vehicles to protect its local automotive industry. Indonesia has also

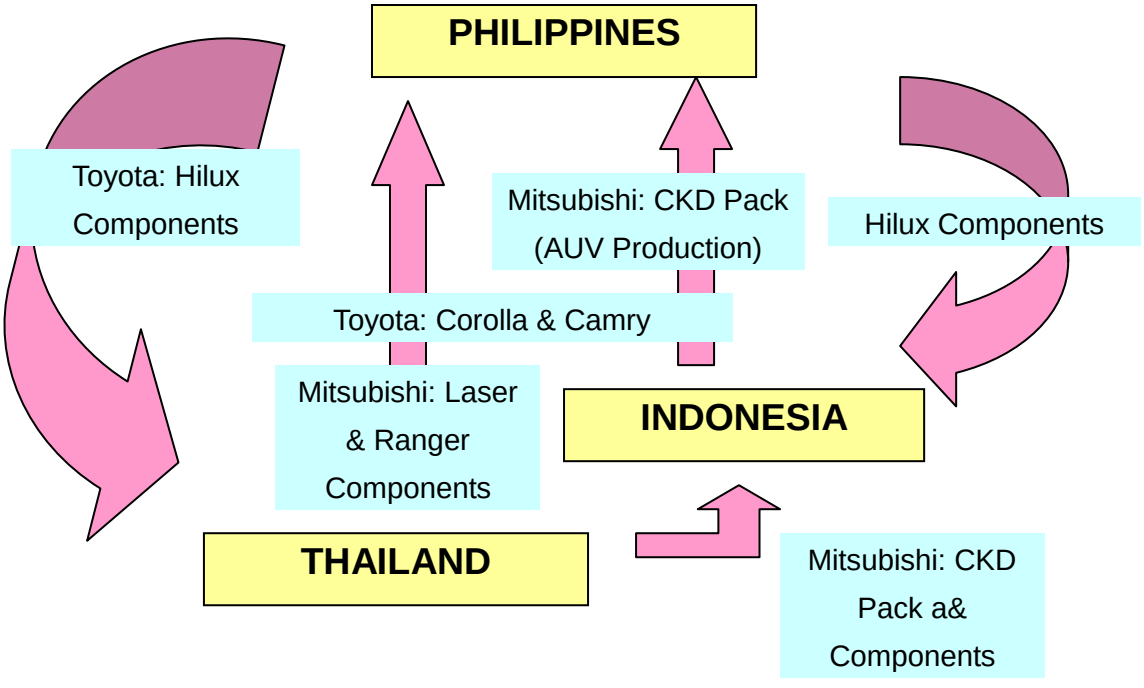
set up regulations for foreign automakers to joint venture with local assemblers in order to sell vehicles in their domestic market. Passenger cars have tariff duties as high as 200 percent compared to commercial cars with only a 5 to 10 percent tariff (Nizamuddin, 2008). In 1993, the rule was abolished but 3 years later, Indonesia implemented its National Car Program. This was due to the fact that Indonesia felt that Japanese manufacturers have delayed their technology transfer (engine and transmission production), which was essential to the development of the automotive industry in Indonesia.

The two main reasons why protection policies were implemented in most of the Southeast Asian countries are backward linkages and nationalism (Wonnacott, 1996). Backward linkages here mean that the automotive industry has a large impact on industries such as steel and rubber, which are important resources to Southeast Asian countries. National pride in home-built automobiles is often connected with protectionist policies in order for them to survive against the foreign competitors.

Since their participation in the BBC Scheme, the majority of Japanese automotive firms have invested in ASEAN in order to reap benefits from initiatives offered by each member country's government. They imported Completely Knocked Down (CKD) units from Japan and assembled them in the host country due to the fact that the importation of complete automobiles were either forbidden or taxed by high tariffs. Historically, the deep

relationship between car manufacturers (private sector) and government (public sector) has contributed to the open market policy (with a certain level of protection for the domestic industry players) in recent trends around the East Asian countries. For example, Toyota has pressured ASEAN governments to initiate several economic cooperation programs (the BBC Scheme, AICO), which could help the deepening of production networks in ASEAN (Staples, 2008).

Figure 4 Toyota and Mitsubishi Intra-ASEAN Production Networks under AICO



Source: Adapted from Staples (2008)

Toyota and MMC Japan are two Japanese automakers that have been actively

involved with the BBC Scheme and the AICO Agreement. Under AICO, their ASEAN production networks have significant impacts on the components distribution between countries and facilitate the intra-ASEAN trade flows (see Figure 4). The development of the automotive industry in ASEAN is interesting as the governments implemented foreign firms' incentives while pursuing protectionist policies to help the local firms survive.

The assembling of CKD units is cheaper than manufacturing CBU vehicles from the major auto-producer's point of view, if the units are produced in large scale. However, compared to 'complete' vehicles, the export market for CKD units is not too competitive because the suppliers have the know-how to assemble specific vehicles for those automakers. In addition, the production of CKD units in Southeast Asia has discouraged the production of parts in the local market (Wonnacott, 1996). In order to prevent the situation from getting serious, many developing countries opted to reduce the number of new assembly plants while giving incentives for automakers (with restrictions at certain levels) to use locally produced parts and components.

3.4. Localization

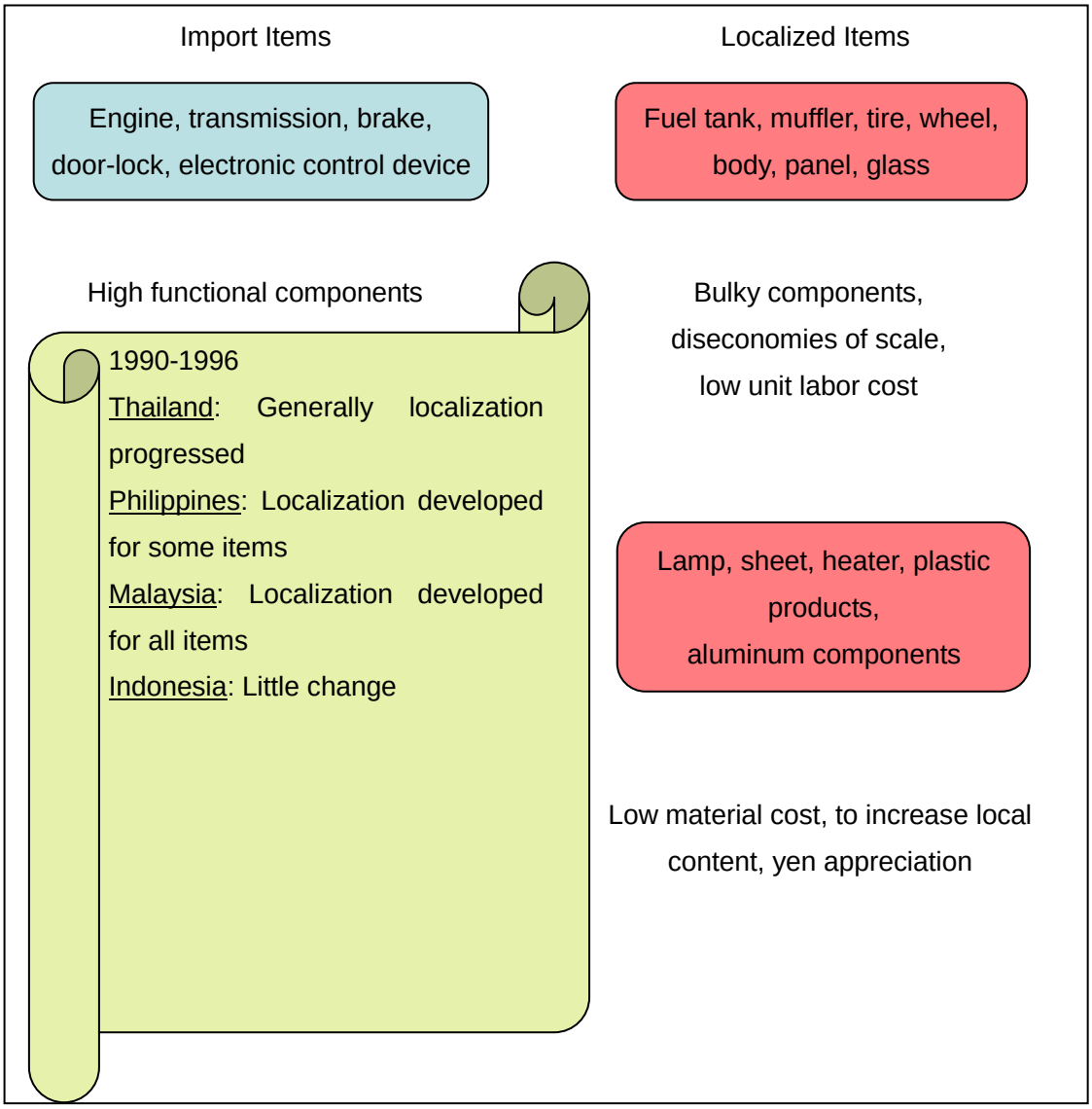
Localization strategies are not a new issue among global automakers. In order to increase firms' competitiveness and reduce the threat from competitors, automakers raced

to look at several drivers before adopting localization strategies. These drivers include the host country characteristics, industry characteristics, company characteristics and market characteristics (Petison & Johri, 2008). The Japanese automakers were patient and cooperated with local automotive related firms for technology transfer and the ASEAN governments for the high tariff policy and local content regulations (Shimokawa, 1996). The Western automakers failed to comply with the regulations and retreated from the ASEAN market in the early 1980s. Furthermore, the Japanese had the experience from CKD to SKD (semi knock down) assembling and succeeded in designing an ASEAN-centered international production network.

The Japanese automakers were not only bringing their operations and building new factories around ASEAN but they also brought the whole parts suppliers network with them. Japanese automakers have a very closed network pattern, which excludes outsiders from joining the network (Furukawa & Schmidt, 2008; Graham & Anzai, 1994). Thus, if the core company decides to set up production plants overseas, the rest of the network will follow. Moreover, the Japanese firms were not inclined to establish new relationships with local suppliers but rather relied on imported parts from Japan. The reason for this is because it takes time to build trust between buyers-suppliers and depends on an assured supply of goods (Belderbos, Capannelli, & Fukao, 2001).

The supporting industry of automobiles production in Thailand was not yet developed during the 1970s (Doner, 1991; Poapongsakorn & Techakanont, 2008; Womack, Jones, & Roos, 1990). As a result, a number of Japanese automotive parts makers were asked by their vehicle assemblers to invest in Thailand. As for Malaysia, the establishment, which included the technology corporation between HICOM Malaysia and MMC to produce Malaysian first national car, the Proton Saga, encouraged the development of the supporting industry. However, most of the suppliers were related to the Japanese subsidiaries instead of local suppliers (Anazawa, 1997).

Figure 5 Parts Production Capability by Country and its Characteristics



Source: Adapted from Shimokawa (2010), Ministry of Economy, Trade and Industry of Japan (1993)

As Figure 5 shows, the localized and export items in automotive industry can be seen from their characteristics. For high functional components such as engine and transmission, ASEAN imports them from Japan, although during the period of 1990-1996, Thailand improved the localization progress. The Philippines produced transmissions for Toyota

Motors in the 1990s and exported them to Thailand, Indonesia and Malaysia (Shimokawa, 2010). Toyota has specialized their car models according to the needs of individual countries as part of their production strategy. Each car model is for each designated market in response to the demand from customers. Automotive products that were localized are bulky parts, diseconomies of scale parts, low unit labor cost, low material cost and parts that needed a higher ratio of local content. Japanese automakers in Malaysia and Thailand had the advantage of the appreciation of the yen before the Asian Financial Crisis to produce parts such as electronic accessories, plastic and aluminum products.

ASEAN governments realized that with China, the EU and NAFTA's growing competition, they could gain some benefit from the close-knit Japanese production networks if one large market was created within the region. Rules of Origin (RoO) in AFTA and Japan's EPA could promote localization strategies for foreign MNCs in ASEAN countries (see Chapter 5). Pressures from Japanese automakers and local firms also pushed ASEAN to come up with several automotive sector related policies, which later helped to shape each country's national automotive policy.

3.5. After 1997 Asian Financial Crisis

After the Asian Financial Crisis and Japan's economic bubble period, as the domestic

market in Japan shrank, these automakers took several drastic measures in order to survive. One of the measures included standardization by using common parts in the same platforms. Production of different models in the same platform can cut costs significantly and it could save capital on new equipment investment (Shimokawa, 2010). The impact on the automotive industry after the severe economic downturn can clearly be seen from the drop of local demand for passenger cars and commercial vehicles. This is true particularly for Malaysian national car producers as they depended on the local market for sales in comparison with Thailand and Indonesia. Currency devaluation also made the imported parts and components more expensive, although Thailand and Malaysia are reported to have achieved a higher localization rate (Fujita, 1998). As a result, the automakers in ASEAN began to promote exports outside of the region (Shimokawa, 2010).

In order to offset the losses in domestic markets after the 1997 Asian Financial Crisis, the Japanese automakers in Thailand particularly tried to increase their exports from existing markets, Japan and Australia, to Southeast Asian markets. Automobile export trends to, Japan and Australia by Southeast Asian countries increased during 1999-2001 and it was significant in passenger cars (Poapongsakorn & Techakanont, 2008; Ueda, 2009). This is because the response from multinational corporations in Thailand mitigated the excess capacity that arose from the crisis (Kohpaiboon, 2006). Imported automotive

parts and components contributed to the increased cost of production and with low demand from local markets, these factors have forced the automakers to take drastic measures such as closing ineffective factories, restructuring management employees and acquired assistance from foreign firms (Farrell & Findlay, 2002).

MNCs depended on the development policy of the host countries in designing their market strategies (Watanabe, 2004). Toyota and Honda are building their factories in China while General Motors (GM), Volkswagen and Hyundai have bases in China and now they are investing in the ASEAN region, particularly Thailand. One of the main reasons is that Thailand's position on liberalizing its automotive industry is that it is already more actively involved in regionalism trends than Malaysia, Indonesia or the Philippines. Thailand's supporting industry already existed, thus it offers an attractive location for global automakers, too.

The Thai government, with pressure from foreign firms, decided to liberalize several investment and foreign ownership regulations in order to assist the recovery from the crisis. The abolition of the local content regulation in 2000 combined with the earlier deregulation of the automobile industry in the early 1990s has managed to transform Thailand from a protected to a more liberalized and competitive industry (Techakanont, 2008; Ueda, 2009).

Although the crisis has made the Japanese automakers in ASEAN countries look for

ways to reduce production costs, the WTO's trade-related investment measures (TRIMS) agreement contributed to the abolishment of protectionist policies such as local content rules, trade-balancing rules, the domestic sales requirement and foreign exchange restrictions. However, these rules posed tougher challenges to the automotive supporting industries in Southeast Asian countries (Fujita, 1998). The full abolishment of protectionist rules means that foreign firms and less-competitive local firms are on the same level playing field.

As explained in Chapter 2, from the late 1980s, ASEAN countries began to implement various incentives to attract foreign investment from all over the world. In exchange for fiscal incentives, infrastructure and economic zones with trade agreements, from the developed countries the ASEAN countries demanded, technology transfer, set thresholds for local content and export output from the foreign firms (Yusuf, 2004).

European and American auto manufacturers entered the Southeast Asian market, particularly Thailand, as early as 1963 (Benz). But the shares were too small in comparison with the Japanese automakers. In the mid 1970s, GM and Ford tried to produce the "Asian Car" but withdrew because of low sales numbers. In addition to that factor, the first oil shock and the Vietnam War were burdening the automakers, but the Japanese managed to survive (Fujita, 1998). The difference between Japanese and German auto companies in

Indonesia was that the Japanese investment's timeframe for returns in Southeast Asian countries was ten to twenty years, which was longer than the Germany automakers (Doner, 1991). Furthermore, the Japanese automakers cost-efficient production method such as Just-in Time and Kanban[12] system contributed to this factor.

During the early 1990s, the Japanese automakers decided to concentrate certain parts and components in a few countries in Southeast Asia and increased their intra-firm trade through complementation schemes (see Table 21). However, non-Japanese automakers (European and American automakers) pursued a different strategy by concentrating the automobile production in one country, Thailand, in order to compete with their Japanese competitors in production concentration (Legewie, 1999). The market share of European and Korean automakers began to increase from 1993 in Thailand, after ASEAN4 managed to achieve a remarkable economic performance among the world's developing countries (Higashi, 1995).

[12] A Japanese term for "visual record". The system is about how to minimize movement of parts delivered by the suppliers and directly used in the production line without having to store in large quantities.

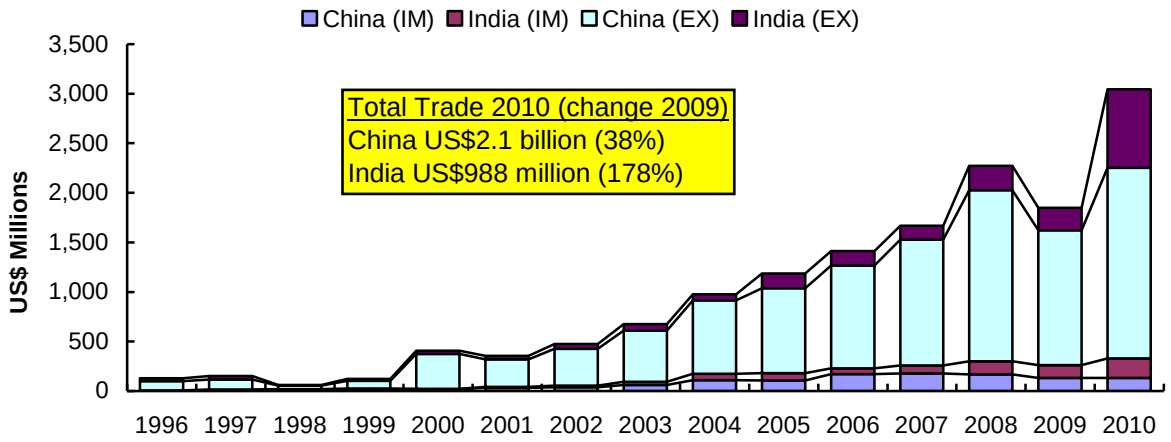
Table 21 Parts Production Pattern by Japanese Automakers

	Toyota	Mitsubishi	Honda	Nissan	Denso
Thailand	Diesel engines, stamping parts	Casting parts, suspensions	Stamping parts	Engine parts, stamping parts	Starters, alternators
Malaysia	Steering gear, suspensions	Steering gear, stamping parts	Plastic production, suspensions	Steering gear, stamping parts	Air-condition relay, flasher
Indonesia	Gasoline engines, cylinder blocks	Engine parts	Cylinder heads, cylinder blocks	Gasoline engines	Compressors, spark plugs
Philippines	Transmissions & its parts	Transmissions	Casting parts	Transmissions, stamping parts	Instrument Clusters

Source: Adapted from Legewie (1999)

In order for the Japanese automakers in ASEAN to compete with non-Japanese automakers in China and India, they had to create another market strategy, which required them to invest in both countries. Unlike Toyota, Honda, Mitsubishi and Nissan, Suzuki decided to enter into the Indian market in 1981 with a joint-venture project with the Indian government, Maruti Suzuki, and currently holds a 70 percent market share (Mukherjee & Sastry, 2002). In China, foreign automakers are required by Chinese regulations to form a joint venture with local automakers and the majority of the foreign automakers produce automobiles for the Chinese market.

Graph 12 China and India Trade Flows with ASEAN4 (HS87)



*ASEAN4 is Indonesia, Malaysia, Thailand and the Philippines.
Source: UN Comtrade, author's calculations (accessed on 10 January 2012)

In order for the ASEAN-located automakers to be competitive in technological advances, manufacturing (*monozukuri*) methods and effective vehicle pricing, they needed to change their perspectives by actively taking part in globalization trends such as regional trade agreements, multilateral negotiations by the WTO and economic cooperation with ASEAN. By depending on AFTA alone, the Japanese automakers might not have enough influence to dominate the market share in global markets.

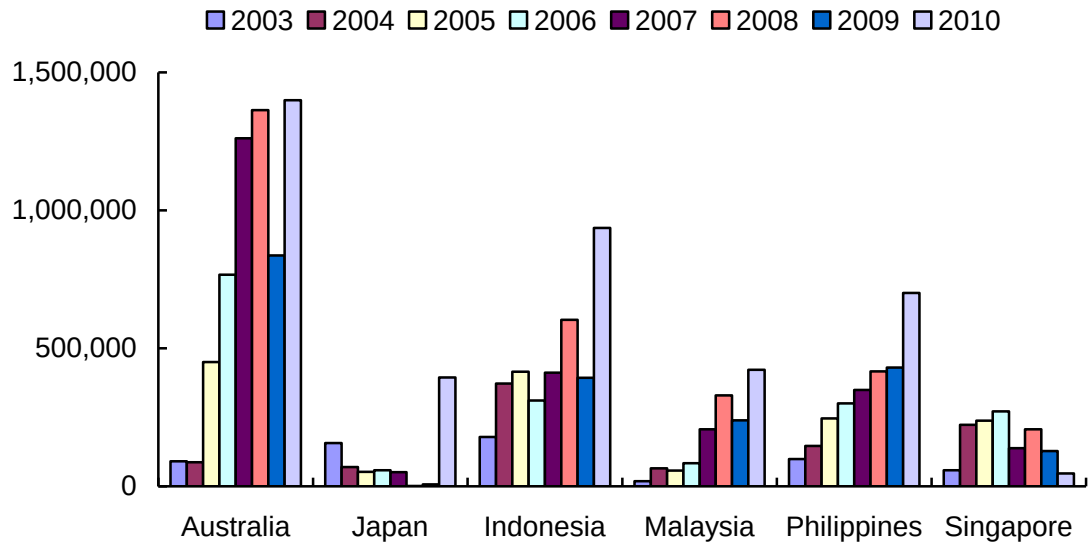
3.6. Liberalization Policy and the Impacts on Automotive Industry

The liberalization process in ASEAN clearly began in the 1990s after AFTA was established. The efforts to develop the auto industry in ASEAN were initiated by a number of

MNCs in order for them to create their own international production networks.

Thailand, as one of the most open ASEAN members in terms of liberalization policies has since signed several RTAs with Australia, New Zealand and India. The Thailand and Australia FTA became effective on January 2005. In this agreement, Australia exempted export tariffs on all automobiles from Thailand but levied a 10 percent tariff on automobiles from Japan. As in graph 10, export volumes from Thailand to Australia increased significantly from US$90 million in 2003 to US$139.9 million in 2010. Japanese automakers in Thailand were beginning to concentrate on their overseas exports from 2000 onwards including to Japan. Compared to 2003, which had an export volume of US$15.6 million, the volume in 2010 (US$39.4 million) had expanded significantly. Export volumes to ASEAN countries such as Indonesia, Malaysia and the Philippines have shown an increasing trend from 2003 to 2008. It decreased in 2009 because of the global crisis but was growing again in 2010. The large share of Thailand's exports to Indonesia in 2010, which grew from US$39.3 million to US$93.6 million, is because both their domestic economic situation and demand from its large market are increasing.

Graph 13 Thailand's Export RTA Partners for Automobiles (US$ thousand)

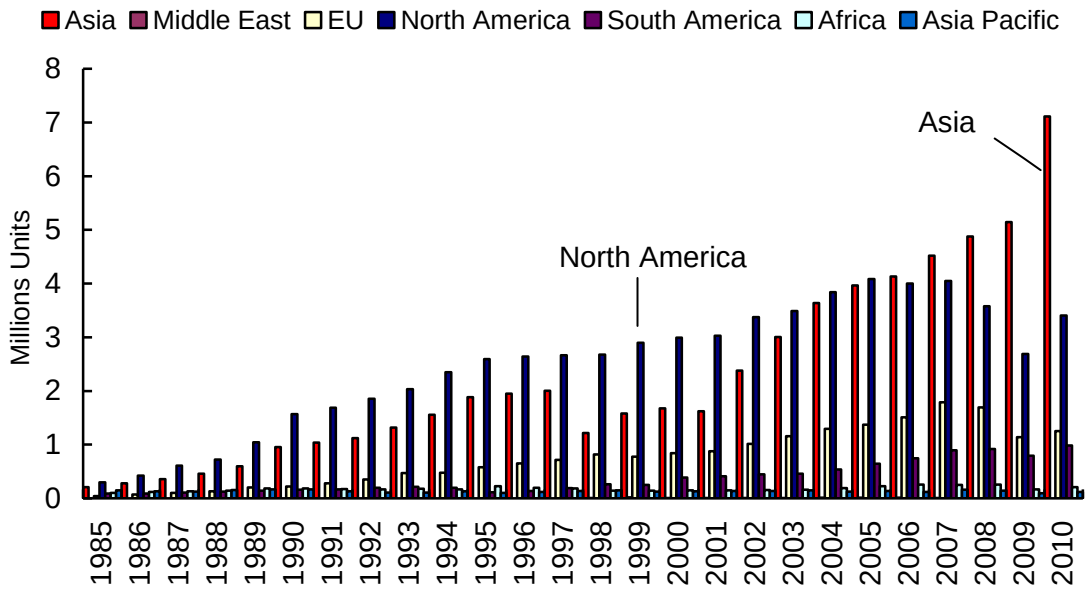


Source: UNCTAD, author's calculations (accessed on 9 November 2011)

According to Graph 14, the trend of overseas Japanese automobiles' production can be seen from 1990s onwards. The total volume in 1985 was less than 890,000 units with 300,000 units being produced in North America and 208,000 units in Asia. Within 10 years, the total volume increased dramatically to 5.5 million units (1995). Japanese automakers have been producing automobiles mainly in North American countries from 1985 until 2006. In 2006, the automobile production volume in Asian countries (4.1 million units) surpassed the North American countries production volume (4 million units), which shows that the Japanese automakers were beginning to concentrate on traditional markets such as ASEAN and emerging economies such as China and India by taking advantage of the integrated market and lower cost perspectives. Japanese overseas automobile production in these two

countries has increased year by year from 9.3 million units (2008) to 18.3 million units (2010) for China and from 2.3 million units (2008) to 3.5 million units (2010) for India.

Graph 14 Overseas Automobiles Production of Japanese Firms



Source: The Motor Industry of Japan, Japanese Automobiles Manufacturers Association (JAMA) (2010)

Globalization has had great effects on the Japanese automaker's market strategies. Coupled with the appreciation of the yen from 2009, Japanese automakers were preparing to significantly transfer production overseas in order to make more profit. Almost 57 percent of the Japanese automobiles were produced in overseas factories.

3.7. Conclusion

The regional economic integration of ASEAN has been successfully supported by balanced participation of the Japanese automakers and government policies. Government support of tax free and industrial zones have encouraged these foreign firms to further develop the automotive industries by transferring appropriate technology and providing employment opportunities for the local labor force. Not only do the automakers have the advantage of economies of scale but ASEAN4 countries have also benefited from the increased automotive trade volume and improvement in people's incomes.

From 2016, AFTA will be fully implemented in all ASEAN countries. Thanks to Bali Concord II, ASEAN countries decided to strengthen the economic cooperation in AFTA and other regional integration agreements. Almost 99 percent of traded products in ASEAN6 were reduced as much as 5 percent, while for new ASEAN countries (Myanmar, Laos, Cambodia and Vietnam), 89.6 percent products were liberalized as per schedule.[13] This could mean that the new ASEAN countries are going to emerge as attractive destinations for foreign investors. To add to this, the geographic proximity with China and the newly-built railway between Kunming, China and major cities in the CLMV countries could facilitate more intra-trade flows between the ASEAN region and China. As globalization proceeds

[13] Ishikawa et al. (2009)," ASEAN Economic Community", JETRO (in Japanese ASEAN keizai kyoudoutai-higashi ajia tougou no kaku to nariuruka-), Tokyo, Japan.

with competitive rivals across the world, developing countries such as Thailand, Malaysia, Indonesia and the Philippines need to find ways to be attractive enough for the foreign MNCs and FDI. It is unfair to cling to foreign firms alone; the states are required to reach a certain level of protecting local firms, particularly auto-related firms. In fact, the large market prepared by ASEAN provided an attractive point to the global automakers, recently.

Global automakers are turning their attention to ASEAN because of the RTAs signed with countries such as Japan, China, India and countries in the Middle East. The change of Asian market strategies is obviously due to the fact that they could form their own regional division of labor in ASEAN and locate specific models and parts to produce in each country. Thailand has become the regional hub for assemblers, Indonesia with its potentially large domestic market has shown an early promising prospective to become new production facilities for Japanese automakers and Malaysia has managed to create their own national car brands with assistance from advanced Japanese technologies. The Philippines on the other hand is liberalizing and looking for the possibility of becoming the production hub of automotive parts and components.

CHAPTER 4: THE IMPACT OF JAPAN'S EPA ON THE AUTOMOTIVE INDUSTRY IN MALAYSIA, THAILAND AND INDONESIA[14]

4.1. Introduction

Regional trade agreements have been proliferating worldwide as intraregional trade increased rapidly since end of the 1980s. Intraregional trade share in total non-oil trade for East Asia increased from 34 percent in 1986/7 to 52 percent in 2006/7 (Prema-chandra & Archanun, 2009). The trends emerged significantly after the 1997 Asian Financial Crisis due to proactive actions by ASEAN, China and Japan such as specific financial packages in the Chiang Mai Initiatives (CMI), the Asian Bond Fund (ABF), regional cooperation in ASEAN+3 and other sub-regional cooperation in ASEAN countries.

Japanese automakers felt relieved to invest in ASEAN, particularly after 2003, when the Bali Concord II was announced. The agreement urged many members to pursue several positive industrial policies towards the integration of the ASEAN market. For example, Thailand was dubbed as the "Detroit of the East" after the announcement of the Bali Concord II.

Advanced Japanese technologies are expected to develop the manufacturing

[14] This chapter is an updated version of Conference Proceeding Paper presented at the 3rd International Conference of Southeast Asia 2009 at University Malaya, Kuala Lumpur (December 2009). The author would like to express her gratitude to Yamaguchi University Foundation for their financial support to attend the conference.

industry, particularly the automotive industries. The share of manufacturing trade in East Asia to the world has increased from 84 percent (1984/5) to 91 percent (2006/7). Although motor vehicles share of intraregional trade in East Asia actually shrank from 28 percent in 1994/5 to 24 percent in 2006/7, the trade share within ASEAN countries increased tremendously by 13 percent higher than 12 years before (Prema-chandra & Archanun, 2009).

This chapter will do a number of things. First, it will review the background and current developments of the automotive industry in Malaysia, Thailand and Indonesia. The reason for looking at Malaysia, Thailand and Indonesia is because Malaysia and Thailand are the past and present, while Indonesia is the future in terms of being able to study the remarkable degree of similarity of the stages of development of the automotive industry with Japanese auto manufacturers playing a pivotal role in said development. The agreements of these three countries with Japan shared similar characteristics (automotive industry) and differ from any other of Japan's EPAs (see chapter 2 and 3). Next, this chapter will determine the impact of Japan's EPA as an "upgrade" of RTA on the local automotive industry in these three countries. This chapter will also look at intraregional trade and technical cooperation. Finally, it concludes with prospects and challenges that must be faced by Malaysia, Thailand and Indonesia in preparing their local automotive industries to

face the coming age of globalization.

4.2. Background of Automotive Industry in Malaysia, Thailand and Indonesia

Chapter 2 and 3 examined the background of the ASEAN economic situation and the significant role of Japanese automakers in the ASEAN automotive industry. The automotive industry is regarded as the benchmark to enter into the next stage of becoming a developed country.

Thailand is more enthusiastic than Malaysia and Indonesia to open their market to overseas investors. As such, Thailand became the most attractive location for the Japanese automakers to start their production networks (Poapongsakorn & Techakanont, 2008). This is agreeable to other non-Japanese automakers, too. Thai government policies have always been tolerant towards foreign automakers and this attracts great interest from global auto manufacturers. The fact that Japanese automakers invented lean manufacturing, "*keiretsu"* (vertical industrial groups) networks and the Just-In-Time delivery system contributed to the faster growth of Thailand's automotive production hub in the Southeast Asian region. Thailand's market has a greater potential to become competitive than the other two countries thanks to the fact that Thailand has no domestic car manufacturers. Many foreign auto manufacturers come to Thailand to establish their regional production base as

Thailand's government offers tax incentives and removes ownership constraints in property and subsidiaries. Thailand can offer these foreign auto manufacturers a more level playing field compared to Malaysia and Indonesia who have been protective towards their own domestic automotive industries. Thailand decided to be more competitive by promoting its own automotive industry to foreign auto manufacturers. Thailand's national car concept, Soluna was initiated by Toyota in 1996 but failed. As a measure to prevent more damage to their own automotive industry, Thailand, Malaysia and Indonesia have also implemented local content regulation policy. However, Indonesia has become gradually liberalized from 2000 onwards.

Japanese automakers entered the Malaysian market from the 1970s, where the alliance between Nissan and locally owned Chinese company, Tan Chong Motor Holdings, was established. Later, General Motors, Honda and Oriental Holdings formed an alliance to assemble Honda, General Motors and Isuzu vehicles. The Bumiputra policy has forced these assemblies to restructure and included some Bumi majority-owned companies (Wad, 2004). At first, Malaysia was considered an attractive location for Japanese investors, partly because of the Look East Policy initiated by the previous Prime Minister of Malaysia, Mahathir Mohammad in 1981. Under the Look East Policy, Japanese companies were favored for this project. Malaysia started the automotive industry during ex-Prime Minister,

Mahathir Mohammad's era, where he agreed to create a heavy industry policy (along with other ISI policies), which led to the establishment of the Heavy Industries Corporation of Malaysia (HICOM) in 1984. However, political pressures on the Bumiputra Policy have somehow discouraged the Japanese automakers from committing to long-term investment in Malaysia, and they decided to allocate the new facilities to neighboring countries.

Proton Malaysia has received special tariffs and subsidies from the governments, which helped the local suppliers to develop between the 1980s and 1990s. MMC Japan developed a new market strategy as part of their company's overseas expansion. MMC Japan was given assurance by the government of Malaysia through Proton that their market share in Malaysia would be dominant in the future. Malaysia decided to develop its own national automobile and steel industry because the imported CKD kits contained less than 18 percent of local content value, even after several years of assembling completed vehicles domestically (Machado, 1989). Malaysia pursued the establishment of its second national car, Perodua with technology collaboration with Daihatsu Japan.

Now, these three countries have different markets for the automotive industry, which is clearly understood by studying the market trends. Indonesia also established a national car project in 1996, Timor Putra Nasional, which was a joint venture with Kia Motor Corporation of Korea. The project failed during the Asian Financial Crisis and was

abandoned by both companies. The Indonesian automotive market is predominantly a domestic-oriented market, where commercial vehicles are better suited for the public. Due to its poor road conditions and flexible carrying capacity, commercial vehicles and multipurpose vehicles (MPV) are selling better than sedans or compact cars. However, commercial vehicles particularly are also difficult to export, thus limiting the economies of scale in production.

Thailand has already specialized in one-ton pick-up trucks and passenger cars. Thailand also concentrated its industrial incentives to promote the production of one-ton pick-up trucks as a way to protect and nurture the supporting industries. In 2007, Thailand decided to introduce the "eco-car" concept, which will began its gradual production from October 2009. Honda, Suzuki and Nissan with seven other companies presented investment submissions on the "Eco-Car" project. Thailand has also offered excise duty reduction on E20[15] vehicles and for all eco-cars. After looking at the stiff competition from China and India, Thailand changed its automotive policy from producing small vehicles to eco-cars. Meanwhile, Malaysia has announced its National Automotive Policy (NAP)[16],

[15] A blend of fuel containing 80 percent gasoline and 20 percent ethanol.

[16] At the time this paper was written, the Malaysian government had reviewed the NAP and just come out with a new and more liberalized policy. The announcement included 1) termination of open Approved Permits (AP) by 2015, 2) prohibition to import used cars from 2015 and used automotive parts and components from June 2011, 3) A scrappage scheme of old vehicles and mandatory inspection for vehicles aged 15 years old or older, 4) Full ownership of manufacturing licenses for passenger vehicles with an engine capacity 1,800cc and above, and priced not less than RM150,000, 5) Incentives for local assembly and manufacturers of hybrid and electric vehicles with their components, 6) A new strategic partnership between Proton and a globally-established original equipment manufacturer (OEM) (The Star Online, October 29, 2009).

which will likely pose challenges to Thailand but at the same time could also benefit Thailand's part manufacturers (*Daily Express*, October 27, 2005). Proton launched its first MPV in the Indonesian market in July 2009. This strategy benefits Malaysia as Indonesia has a sizeable middle class and is predominantly an MPV market (*The Malaysian Insider*, May 29, 2009).

Market liberalization can be competitive among Malaysia, Thailand and Indonesia. Foreign auto manufacturers such as Japan and Europe are interested to invest in the "eco-car" production program in Malaysia and Thailand. However, Thailand has been offering more incentives and tax relief than Malaysia to global auto manufacturers. In June 2008, Volkswagen decided to venture its first eco-car production plant in Thailand after long consideration between Thailand and Malaysia (*The Nation*, June 11, 2008).

A comparison research on Malaysian and Thai automotive industries found that these two countries had similar development patterns in the early years, but these patterns evolved to different processes after the government intervention in policies (Fujita, 1998). Private firms in Thailand hold important roles in the government's liberalized policies towards globalization. However, in Malaysia, due to the political role of the Bumiputra (indigenous people in Malay language) policy, the local automotive industry expanded by being given protection policies from the government. This led to tough challenges for the

Malaysian national car firms in the future, as they have to face many more competitive automakers in comparison to Thailand.

Table 22 World Automobile Production and Market Share in 2010

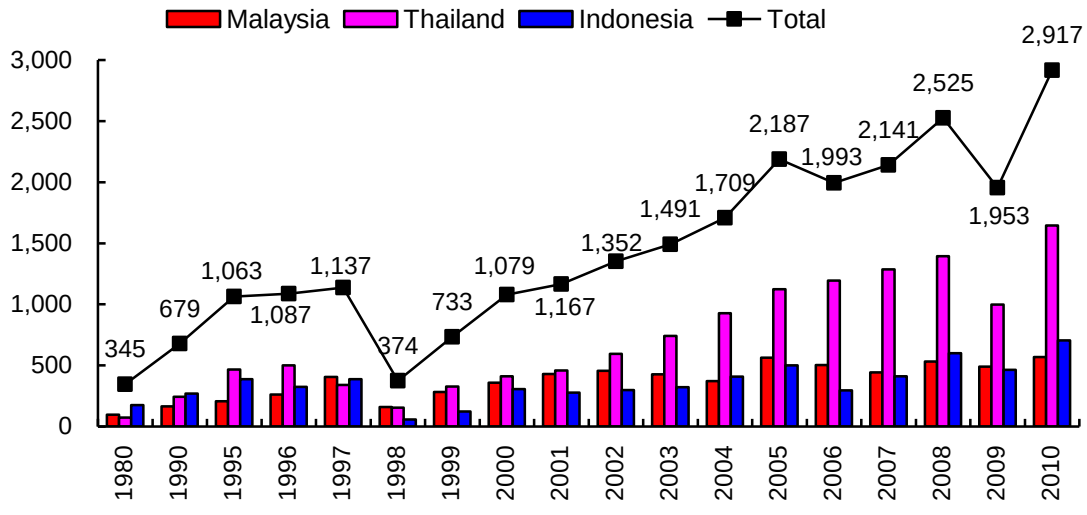
	2010 (units)	Market Share (2010)	Market Share (2000)
World	77,857,705	100.0%	100.0%
Japan	9,625,940	12.4%/	17.4%
South Korea	4,271,941	5.5%	5.3%
China	18,264,667	23.5%	3.5%
India	3,536,783	4.5%	1.4%
Indonesia	702,508	0.9%	0.5%
Malaysia	567,715	0.7%	0.5%
Thailand	1,644,513	2.1%	0.7%
Philippines	65,625	0.1%	n.a
Vietnam	36,286	0.0%	n.a

Source: The International Organization of Motor Vehicles Manufacturers (OICA) Website (accessed on 10 November 2011

As shown in Table 22, the world automobile production reached 77.9 million units in 2010, a 26 percent increase from 2009. East Asian countries producing automobiles for the world market have increased, as well. China has the largest number of automobiles produced in its country with 18.3 million units. Japan and South Korea are regarded as traditional automobile producers in East Asia, and have 9.6 million units and 4.3 million units, respectively. ASEAN countries accounted for 3 million units, which is a 3.9 percent share of

the world market. Thailand has increased its production volume by 64.6 percent in 2009 to 1.6 million units in 2010. Indonesia produced 702,508 units and Malaysia, 567,715 units in 2010. The Philippines and Vietnam have shown fewer than 100,000 units in 2010 because of the small market prospects there and other challenges that still remain in both countries. In terms of market share, China has grown from 3.5 percent in 2000 to 23.5 in 2010. The same goes for India and Thailand with both market shares of world production increasing to 4.5 percent and 2.1 percent respectively. This implies that China, India and ASEAN as the newcomers in automobile production are significant in the world automobile production and their capabilities should not be ignored. Thailand has the lion's share compared to Malaysia and Indonesia because of the Japanese automakers role and its national automotive policy.

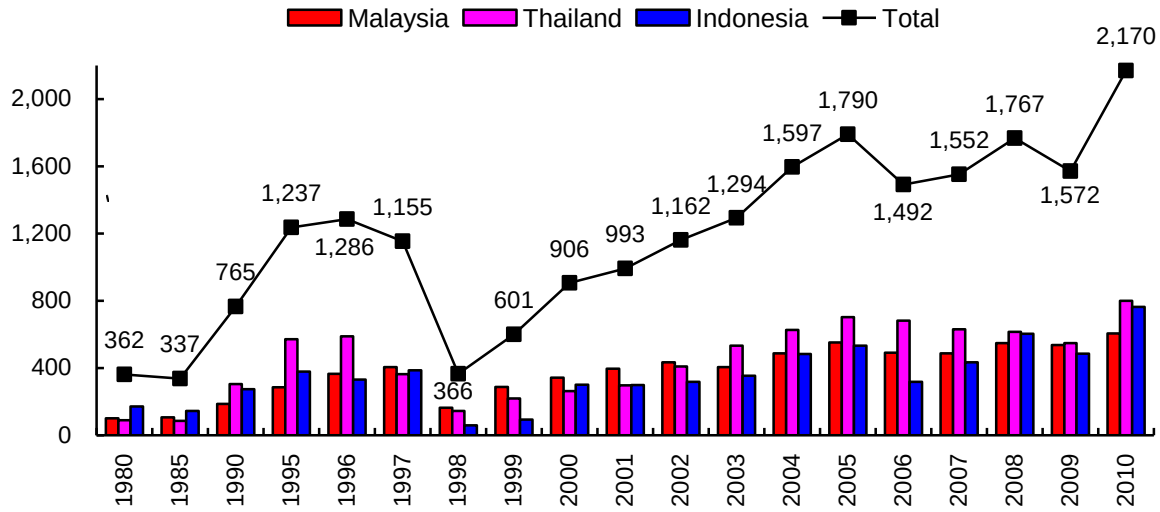
Graph 15 Automobiles Production in Malaysia, Thailand and Indonesia (Thousand Units)



Source: ASEAN-Taiwan Automotive Parts Industry (2000), OICA, The Association of Indonesia Automotive Industries (GAIKINDO) and Malaysia Automotive Association (MAA) Websites, author's calculations (accessed on 10 November 2011)

Graph 15 shows that from 1980 to 1995, the total production volume of Malaysia, Thailand and Indonesia increased dramatically from 345,262 units to 1,063,102 units. In 1998, the total volume dropped by 67 percent compared to 1997 because of the Asian Financial Crisis, with Indonesian automobile production decreasing from 388,837 units in 1997 to 58,079 units in 1998. After the economy recovered, these three countries increased their production by 47 percent in 2000 and surged to more than 2 million units in 2007. Thailand has continued to grow its production in 2010 with 1.6 million units, Indonesia with 704,715 units and Malaysia with 567,715 units, although there was a sharp drop in 2009 by 23 percent overall.

Graph 16 Automobiles Domestic Sales in Malaysia, Thailand and Indonesia (Thousand Units)



Source: OICA, GAIKINDO, Thailand Automotive Institute (TAI), MAA Website, author's calculations (accessed on 10 November 2011)

A similar trend can be seen from Malaysia, Thailand and Indonesia sales production from 1980 to 2010 as shown in Graph 16. Total sales of Malaysia, Thailand and Indonesia in 1995 increased significantly with 4 times more sales than the total sales in 1985. Although sales of automobiles in 1998 decreased from 1.2 million units to 366,219 units, Malaysia and Thailand quickly recovered and continuously increased the volume until 2005 with 552,316 units and 703,432 units respectively. Indonesian automobiles sales in 1999 were 93,814 units and surged to 533,917 units in 2005. Thailand's domestic sales declined in 2008 by 3 percent and Malaysia's sales slightly expanded with a 13 percent change due to new models launched by national cars, Proton and Perodua in early 2008. The Scrappage

Scheme offered to all 10-year-old car owners, where they can buy new cars from national brands, also contributed to the increase of domestic sales in Malaysia (*WordsAuto.Com*, Mar 16, 2009). In 2010, Thailand had the highest domestic sales (800,357 units) and Indonesia (605,156 units) sales were 26 percent higher than Malaysia.

One of the reasons behind the surge of sales is because of the low interest rate offered by finance banks combined with better economic condition in regional areas. Indonesians were also in a rush to buy cars in order to avoid the new progressive tax, which went into effect on August 18, 2009 (*The Jakarta Post*, September 9, 2009). Indonesia, with a population of 230 million people has the largest population of limited high-income households able to own a car among the three countries. Many global automakers are drawn to new markets such as Indonesia as the country has shown a strong consumer demand and also because of AFTA's zero-tariff access to other ASEAN countries. Although Indonesia has a promising future, possibly becoming the largest production hub in ASEAN, the state interventionist and protectionist policies are still extant. Thus, it requires the government to take a step forward in liberalizing its automotive industry. One distinguishing characteristic that differentiates Malaysia and Indonesia is that Malaysia produced 91 percent more passenger vehicles than commercial vehicles and Indonesia produced 69 percent more 4X2 non-sedan vehicles including Multi-Purpose Vehicles (MPV) and Sport

Utility Vehicles (SUV).

Table 23 Exports Value for Automobiles (HS8703), Automotive Parts and Accessories (HS8708) (US$ Million)

	Type	2005	2006	2007	2008	2009	2010
Malaysia	8703	104	151	174	197	145	232
	8708	373	424	542	577	553	763
	Total	**477**	**575**	**716**	**774**	**698**	**995**
Thailand	8703	2,161	2,921	3,854	5,288	4,091	7,028
	8708	2,120	2,500	3,398	4,095	3,003	4,156
	Total	**4,281**	**5,421**	**7,252**	**9,383**	**7,094**	**11,184**
Indonesia	8703	246	366	839	1,234	629	1,027
	8708	758	909	923	1,088	844	1,175
	Total	**1,004**	**1,275**	**1,762**	**2,322**	**1,473**	**2,202**

Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

Table 23 shows the export value of HS8703 (motor vehicles for transport of persons – except buses) and HS8708 (parts and accessories for motor vehicles) in Malaysia, Thailand and Indonesia from 2005 until 2010. Thailand's exports volume (US$4.3 billion) was 8 times higher than Malaysia (US$477 million) and 4 times higher than Indonesia with US$1 billion. In 2010, Thailand increased its exports volume to US$11.2 billion, Indonesia increased to US$ 2.2 billion while Malaysia's increase was less than US$1 billion. In addition, Thailand also had a large share of the automotive parts and components (US$4 billion in 2010). Malaysia exported more automotive parts and accessories than motor vehicles to the world

earning US$763 million compared to automobiles exports, which brought in US$232 million in 2010. Malaysian policy places less priority on exporting vehicles assembled in the country to the world as it shows a lower volume compared to Thailand and Indonesia. Indonesia at first had a small share of the exports volume of automobiles but the volume increased from just US$246 million in 2005 to US$1 billion in 2010. The exports value for parts and accessories also rose rapidly from US$758 million in 2005 to more than US$1 billion in 2010. In sum, Thailand has emerged as an important production hub for the automotive industry but Indonesia has the potential to also become one as foreign investors are taking advantage of various labor intensive supporting industries and its large domestic market. Meanwhile, Malaysia might have to go a long way before it becomes known as a main exporter in the automotive industry of Southeast Asia because of the limited competition among local and foreign manufacturers back home.

4.3. The Impact of Japan's EPA on the Automotive Industry

The success of certain RTAs depends on whether the partners are able to negotiate sensitive industries to gain maximum trade advantage in the agreements. The exclusion of sensitive industries in RTAs is permissible but it must be parallel with the national industrial policies and its objectives. Japan and ASEAN countries have products of differing

comparative advantage, thus it leads to the rise of trade patterns, where there is an exchange of liberalization in manufacturing products for liberalization in agricultural products. This is called “inter-industry trade” from a point of view of an RTA negotiator.[17]

Japan’s EPAs with Malaysia, Thailand and Indonesia are important for the automotive industry to achieve economies of scale – reducing cost of production by investing to establish production factories near the target market, ventures into the next generation vehicles with eco-friendly concepts and hybrid cars, and brings cheaper but better quality cars to automobile markets in Asia.

Japan's standards in the automotive industry are considerably higher and stricter than other countries’ standards. Thus, the impact of an EPA with Japan in the automotive sector will not weaken the industry players but will rather enhance the competitiveness level. It will lead to national policy adjustments and structures.

It is essential for the automotive industry of ASEAN countries, particularly Malaysia, Thailand and Indonesia, to be ready to face global competition. The first step is signing a trade agreement with Japan, as it is the strongest country in terms of the automobile manufacturing industry. ASEAN countries can expect to open new markets for foreign investors, improve technologies and productivity through comprehensive and speedy

[17] Asian Development Bank (ADB) Report 2008.

diffusion of Japanese innovations in the manufacturing sector. Japanese firms also could expect new business chances in ASEAN markets. The automotive industry in Malaysia is mainly driven by its government's policies, while Thailand is driven by private sectors such as American and Japanese auto manufacturers. Active roles by Nippon Keidairen (Japan Business Federation) have pushed the Japanese government to sign regional trade agreements with important partners in Southeast Asian countries.

Table 24 is the summary of the tariff reduction and elimination schedules, which were agreed on in JMEPA, JTEPA and JIEPA. The tariff items can be divided into two categories; automotive parts and automobiles.

Table 24 Tariff Reduction and Elimination Schedule for Malaysia, Thailand and Indonesia for Automotive Sector under Japan's EPA

	Type	JMEPA	JTEPA	JIEPA
Parts	CKD	Immediate	2011 (Sensitive parts by 2013)	2012
	Non CKD	2010	2010	2012
Automobiles (CBU with Engine Capacity)	Exceeding 3000 cc	2010	Reduce from 80 to 60% by 2009. To renegotiate again in 2010	2012
	2000 – 3000 cc	2011	To renegotiate again in 2013	Reduce to 0-5% by 2012
	Others	2015		

Source: Ministry of Foreign Affairs, Japan Website (accessed on 10 November 2011)

From here, it shows that that all three countries are looking forward to enhancing

competitiveness and market expansion in the automotive industry, particularly Malaysia, where immediate tariff elimination applies to all CKD automotive parts. These parts, which are mainly high value added and engines, are compulsory to assemble automobiles for automotive makers in Malaysia and export them to the world market, particularly Japan, America and Europe. Local assemblers that procure parts from Japan are enjoying the benefits from this EPA but at the same time they have to face the challenge of higher standards of Japanese designs, quality, brand, price, and fuel efficiency. Hence, they need to sustain their position in the domestic market. The national automotive policy also played the main role in this negotiation of JMEPA, where Malaysia still depends on imported engines from Japan. The renegotiation schedule in JTEPA showed that Thailand has protected its automobile production industry in the country, while Indonesia choose to gradually liberalize its automotive industry by 2012 due to demands from local assemblers.

It is argued in the Asian Development Bank (2008) report that a longer phase-in period means a longer wait until the full benefits of the RTA can be achieved and differences in the phases in would lead to inappropriate increases in some effective protection rates. Like the case of Malaysia, which produces two national cars (Proton and Perodua), Malaysia tried to limit the impact of the EPA by gradually reducing the import duty on cars with an engine capacity below 2000cc by 2015.

Automobiles with engine capacity of 1500cc and 1800cc hold the largest share in the Malaysian market. In 2007, Perodua retained its position as the largest seller in the domestic market (33 percent) while Proton's share is 24 percent with 118,134 units sold. Toyota was third with a 17 percent share (81,993 units). The tariff reduction by 2012 only applies to automobiles that do not compete with Malaysian national car models. Due to the global economic crisis, many customers opted for smaller engine-capacity cars or more fuel-efficient cars.

According to the Japanese Automobile Manufacturers Association (JAMA)'s website (accessed on 30 November 2011), the quality of Thailand automotive parts is the best among ASEAN countries. The signing of JTEPA can benefit the Japanese automotive makers by producing higher quality and more cost-competitive vehicles. Thailand hosts not only Japanese automakers but also non-Japanese (U.S and European) automakers because of the Thailand-US Treaty of Amity since the end of the Cold War. One of the reasons why Japan formed an EPA with Thailand is because Japan's position in Thailand is unfair compared to U.S and European companies. Thus, it explains the reluctance of Thailand to reduce import tariffs for vehicles with an engine capacity under 3000cc because of pressures given by non-Japanese automotive manufacturers.

Table 25 Export Share (%) of Complete Vehicles, Auto Parts & Accessories to the World

Year	Malaysia		Indonesia		Thailand	
	Motor Vehicles	Parts & Accessories	Motor Vehicles	Parts & Accessories	Motor Vehicles	Parts & Accessories
2002	37	63	6	94	46	54
2003	19	81	7	93	45	55
2004	27	73	21	79	44	56
2005	22	78	24	76	50	50
2006	26	74	29	71	54	46
2007	24	76	48	52	53	47
2008	25	75	53	47	56	44
2009	21	79	43	57	58	42
2010	23	77	47	53	63	37

Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

Malaysia has been promoting the manufacture of auto-parts and accessories for its own national car industry and many supplier development programs were established in order for them to improve parts' quality, productivity and move from a lower-tier to a top-tier position. Many global automakers have decided to outsource their auto parts from Japanese parts' manufacturers in Southeast Asian countries for their cheap cost in wages and utilities, which can be seen from the larger share of export value in parts and accessories from these three countries (see Table 25). The trend is most significant in Malaysia, where more than 70 percent of auto-related exports are from parts and accessories since 2003 until 2010. Most of the parts and accessories are electrical-related products such as car audio and

design-in accessories. However, Malaysia has a lower share in exporting vehicles produced and assembled in local factories to the world.

Meanwhile, Indonesia has reduced its exports of automotive components and shifted to exporting more of the complete motor vehicles from 2007 and the share increased from an 8 percent share in 2002 to a 47 percent of the total automotive sector's exports in 2010. One of the reasons is because the auto manufacturers were producing a higher volume of vehicles for domestic markets and at the same time began to export vehicles to neighboring countries. While Thailand is known as the largest production base for commercial vehicles and good quality auto-parts, the export share between them is nearly identical from 2002 until 2007. After 2008 until 2010, exports of complete vehicles increased to 63 percent of the total automotive sector's exports to the world, which can be explained by the growing investments from global automakers to Thailand to become the Detroit of Asia in the future.

The automotive parts and components industry is more important to Malaysia than to Thailand, as the production and assembling of passenger cars and pick-up trucks have significant impacts on its automotive industry. On the other hand, Indonesia is beginning to create a promising market for the overall automotive sector as the increasing shares showed its economic growth parallel to its strong consumer demand.

In conclusion, the immediate tariff elimination in JMEPA has some positive impact to

the Malaysian export of automotive parts. Indonesia has set the tariff reduction of 0-5 percent by 2012 and it will see a larger increase of export value in motor vehicles than in parts and accessories. Thailand may expect a slower impact as the tariff reduction scheduled for automobiles and parts will only be reduced by 2012 as agreed in the JTEPA. Because of AFTA, Malaysia, Thailand and Indonesia will become attractive production and export hubs for foreign automakers, particularly to the Japanese automakers.

4.4. Economic Cooperation in EPA

Economic cooperation in the automotive sectors under JMEPA, JTEPA and JIEPA is aimed to lift the capabilities and enhance the competitiveness of local companies. The Malaysia-Japan Automotive Industry Cooperation Program (MAJAICO) was initiated under JMEPA with 10 sub-programs in November of 2006. Japanese experts in the automotive industry were sent to various Malaysian companies to teach the Japanese Lean Production System and within 5 years (i.e., by 2010), 150 companies were expected to benefit from this program. However, at the end of 2010 only 75 local companies managed to graduate from this program.[18] Local staffs from Proton, Perodua and the Standard and Industrial Research Institute of Malaysia (SIRIM) were sent for training in Japan to acquire skills through on-site

[18] Interview with participant 7 as explained in Chapter 6.

jobs and learn to design press and die for automotive parts and components. The Advanced Technology Centre in Shah Alam, Malaysia has developed new training modules under the supervision of Japanese experts to train the trainers and upgrade the worker's skills for the development of the automotive industry. As a result, under MAJAICO, the local automotive manufacturers successfully reduced the defect ratio during painting of aluminum parts from 42 percent to 8 percent in only six months technical assistance. In addition, the inventory systems of these firms have improved; where previously 2,480 pieces per hour from the total stock were used it was reduced to 180 pieces per hour with up to a 90 percent improvement rate. In production of parts, one worker is now able to produce 31 pieces per hour compared to 21 pieces per hour before the firms took part in MAJAICO programs (*NNA Asia*, November 4, 2008). More details on MAJAICO are discussed in Chapter 6.

Automotive activities in Thailand are more focused on assembling rather than research and development (R&D), product development and marketing. Aiming to become the Detroit of Asia, Thailand agreed with the Japanese government to formulate two main projects under JTEPA, the "Japan-Thailand Steel Industry Cooperation Program" and the "Automotive Human Resources Development Institute". Thailand's steel industry is considered a sensitive sector to open up to negotiation but through JTEPA, Thailand hopes to increase their workers knowledge and know-how in the steel industry by cooperating with

Japan to support education for Thai steel engineers and strengthen the technological basis to improve the quality of its domestic produced steel.

JIEPA has more unique characters than either JMEPA or JTEPA, where the pact is concentrated on the energy development sector and the movement of natural persons. Japan and Indonesia also concluded in the agreement to jointly collaborate in the “Initiative for Manufacturing Industry Development Center” to enhance competitiveness in the manufacturing industry.

4.5. Automotive Industry and Trade with Japan

The ASEAN market has long been dominated by Japanese auto manufacturers with their highly efficient and cost competitive characteristics among the global players. Japanese (Toyota) lean production innovation was stated to be one of the major reasons why Ford’s mass production failed to occupy the top major shares in the ASEAN market (Nag & De, 2008). Toyota gained the top market share in Thailand and Indonesia with 44 percent and 35 percent shares respectively (see Table 26). In Malaysia, Toyota garnered third place after Proton and Perodua with a 19 percent share. However, Proton depended on Mitsubishi Motors Corporation’s technology and Perodua is a joint partnership with Daihatsu, hence Japanese automakers still hold the top position. Other than the Malaysian

domestic market, Japanese car brands have grabbed the top places in Thailand and Indonesian markets with more than 90 percent in each country. In sum, Japanese auto manufacturers will find that it is profitable to expand their business in Southeast Asian countries as the market share will continue to surge along with new model lineups.

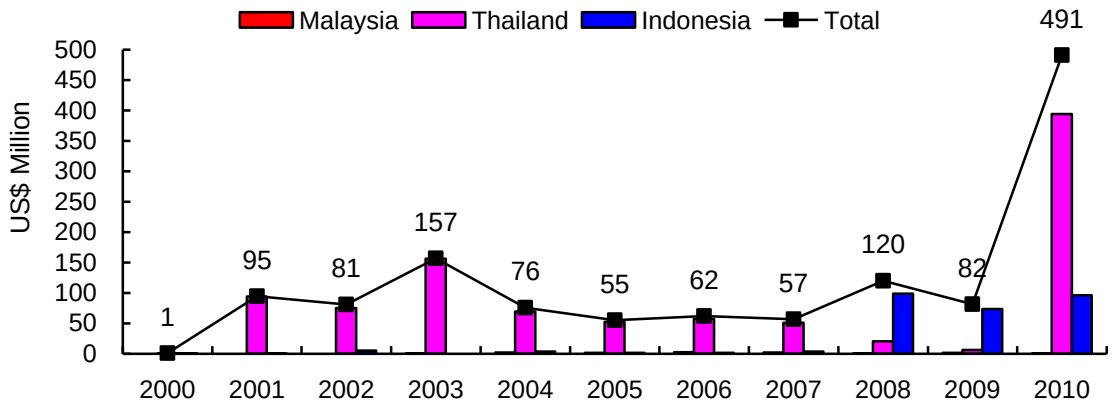
Table 26 Share of Japanese Car Brands in Malaysia, Thailand and Indonesia

Brand Name	Malaysia (2008)	Thailand (2007)	Indonesia (2008)
Toyota	19	44	35
Mitsubishi	1	4	14
Daihatsu	1	n.a	13
Suzuki	1	n.a	12
Isuzu	1	24	4
Nissan	6	3	5
Honda	6	9	9

Source: GAIKINDO, Ernst & Young (2008)

When Japan negotiated its EPA with Malaysia, Thailand and Indonesia, the main objective was to strengthen the economic relationship through trade promotion with countries that have higher tariff rates. Malaysia, Thailand and Indonesia have high MFN tariffs for machinery and transport equipment (*James* & Ramstetter, 2005).

Graph 17 Exports of Automobiles (HS8703) to Japan



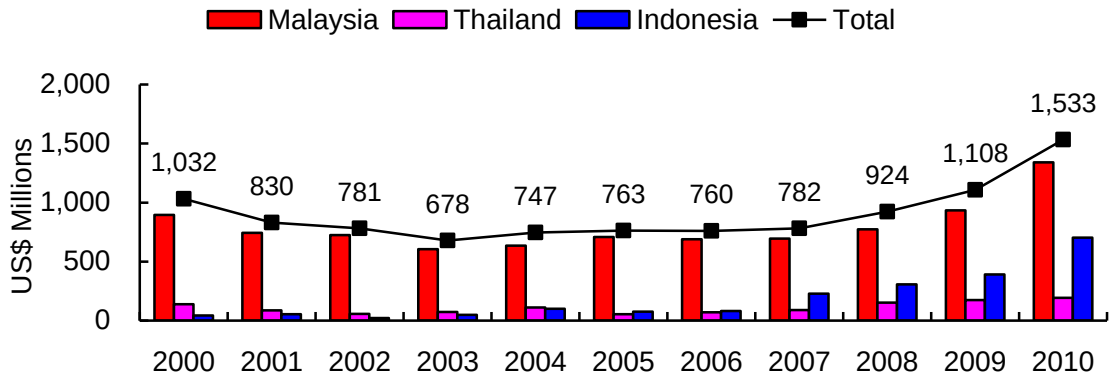
Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

Impact from Japan's EPA can also be seen from the trend of export and import value under two categories, automobiles and automotive parts. Total exports to Japan vary year by year but the export value in 2010 of US$491 million increased significantly more than the previous year.

As it can be seen from Graph 17, Indonesia took Thailand's top place to export automobiles to Japan in 2008 and 2009 with US$99 million and US$74 million respectively. One of the main reasons is because PT Astra Daihatsu Motor Indonesia agreed to supply 18,000 units of 1500cc Toyota's pickups and minibuses to Japan from 2008 onwards (*People's Daily Online*, February 6, 2008). In 2010, Thailand exported automobiles to Japan with the highest value in recent years (US$394 million), which surpassed the peak point in 2003 of US$156 million. However, the increasing trend in Thailand, Malaysia and Indonesia has no direct impact from EPA because it has been known that Japan has no import tariffs

on automobiles and automotive components. However, this data implies that Japanese automakers in Malaysia, Thailand and Indonesia have been "reverse importers"[19] to the Japanese market.

Graph 18 Imports Volume of Automobiles (HS8703) from Japan

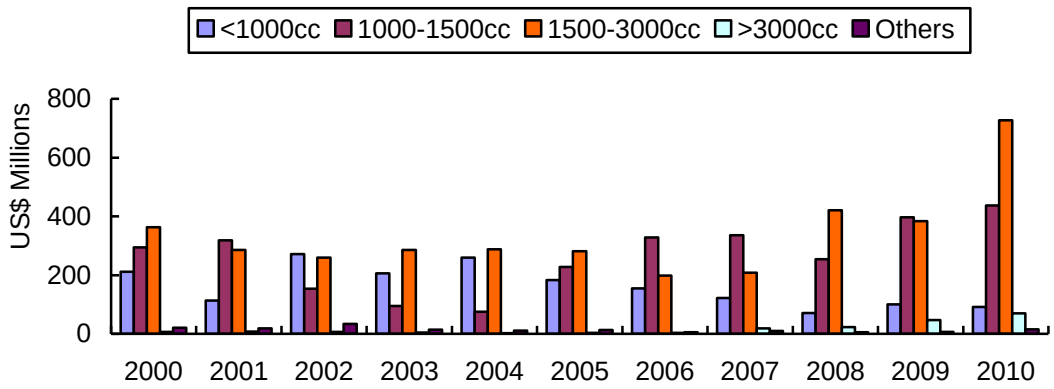


Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

Graph 18 shows that for these three countries, the total import value from Japan in 2010 of US$1.5 billion increased compared to 2000. In 2010, Malaysia had the highest import value (US$1.3 billion) in comparison to Thailand and Indonesia. Indonesia has shown a significant increase from US$44 million in 2000 to US$703 million in 2010. Recent financial and economic global crises have not had a big impact on the import volume of automobiles from Japan.

[19] Reverse Imports are imports from overseas subsidiaries to the headquarters in their own country (Staples, 2008).

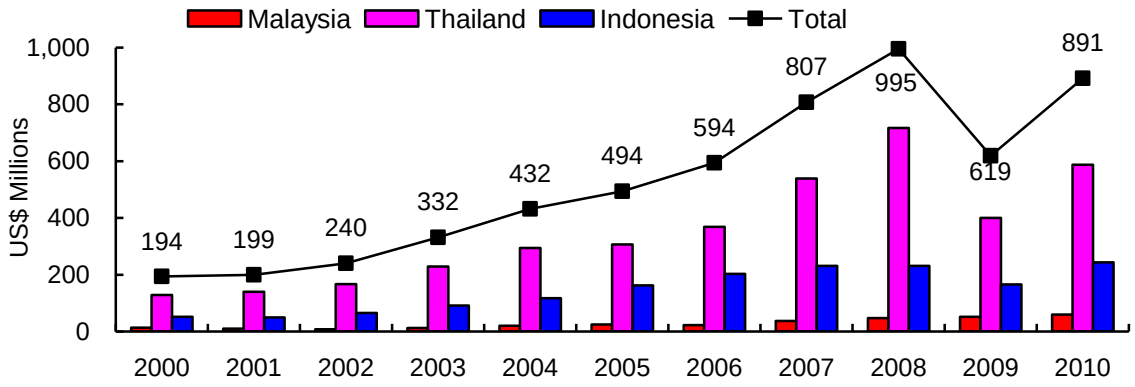
Graph 19 Vehicles Imported from Japan According to Engine Capacity (Malaysia)



Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

The two major import categories for Malaysia from 2000 to 2010 were vehicles with an engine capacity of 1500cc to 3000cc and those with an engine capacity of 1000cc to 1500cc (Graph 16). Interestingly, these two categories collided with the Malaysian national car brand, Proton, which produces 1300cc to 2000cc car models. The importation of complete built-up vehicles is permissible for the Approve Permit (AP) owners, a controversial import license system by the Malaysian government to local vehicle importers. Malaysian vehicles with an engine capacity exceeding 3000cc had gained an import growth in 2010 that was 2 times higher than the import value in the previous year. The strong economic base among Malaysian people may have diverted their preferences from vehicles with a lower engine capacity to those with a higher engine capacity with value added vehicles.

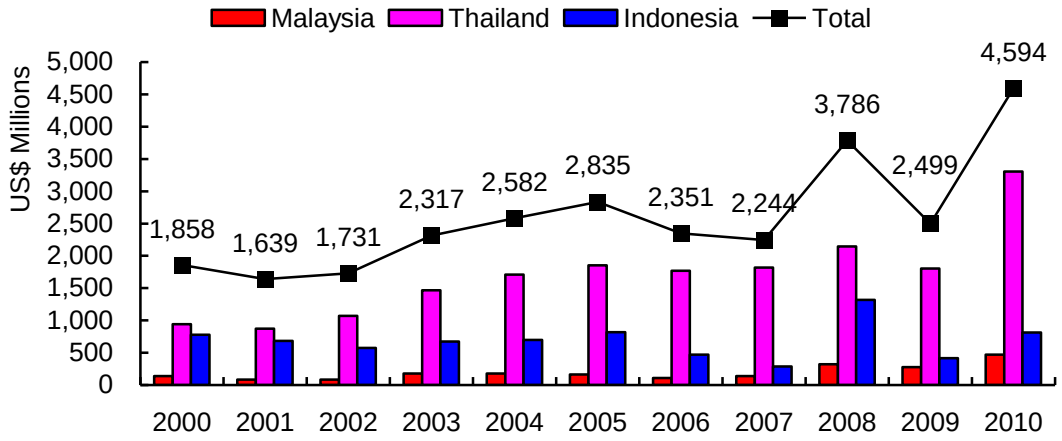
Graph 20 Exports Volume of Automotive Parts and Accessories (HS8708) to Japan



Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

As for exports of automotive parts and accessories for vehicles (HS8708) in Graph 20, total exports increased in value from US$194 million (2000) to more than 5 times higher with a value of US$891 million (2010). Exports from these three countries to Japan decreased in 2009 due to the global crisis after enjoying a high export level in 2008 (US$995 million). In 2010, Thailand had the largest export amount with US$588 million (66 percent), Indonesia had exports worth US$244 million (27 percent) and Malaysia exported goods worth US$60 million (7 percent). Comparing between 2002 and 2010, the volume of Thailand's exports increased three-fold and this shows that Thailand and Japan's trade relationship in the automotive industry is strong and vibrant.

Graph 21 Imports Volume of Automotive Parts and Accessories (HS8708) from Japan



Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

As shown in Graph 21, total of imports value is marked by an increasing trend from 2001 until 2005 with an average growth of 15 percent year on year. In 2008, the value expanded tremendously by 68 percent compared to previous year with more than US$3 billion in imports. In 2010, the imports volume from Japan surpassed US$4.6 billion within 2 years, which explained the open and dispersed international production networks between the three countries and Japan. Thailand shows the highest import value for automotive parts and accessories from Japan from 2000 until 2010. The increase of import value in 2010 was also contributed to by the fact that Thailand imported many engine parts, gearboxes, and drive axles from Japan. Malaysia had the lowest import value for automotive parts and accessories from Japan but it has nevertheless been increasing slowly since 2007. The sudden increase in Indonesian imports of parts and accessories follows the same trend as

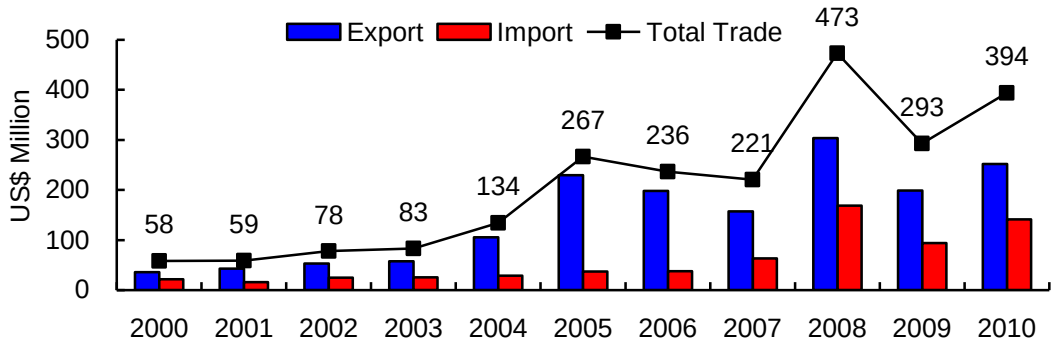
the increase in the export of automobiles to Japan in 2008. The growth in the assembly sector has increased the demand for parts and components. However, Indonesia has low local content in pickup trucks (40 percent) and passenger cars (10 percent). The more they depend on imported parts, the higher the production and operation costs will be. It is essential for the Japanese automakers to restructure their production networks to be localized.

4.6. Automotive Trade among Malaysia, Thailand and Indonesia

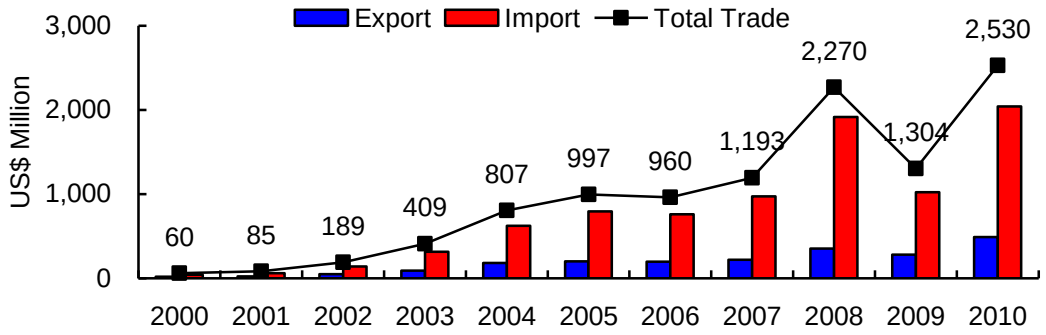
The stiff competition in the automotive markets among Thailand, Malaysia and Indonesia has shown the global auto manufacturers the need to gain benefits from existing RTAs in ASEAN. Previously, the German automaker, Volkswagen was expected to join partnership with Proton in 2004 but the talks failed because the Malaysian government disagreed with Volkswagen's ideas in transforming the national cars policy (*Bloomberg.com*, August 22, 2009). In 2011, Volkswagen invested US$140 million to set up its first manufacturing plant in Indonesia, where the government supported Volkswagen by providing tax incentives. JIEPA has also benefited Volkswagen with the long-term plan to use the Indonesian plant to supply automotive parts and complete vehicles to Japan (*The Wall Street Journal*, May 7, 2009). Unless the Malaysian government changes its

automotive policy to invite more foreign auto manufacturers, other ASEAN countries will grab the chances to host them as globalization rapidly grows.

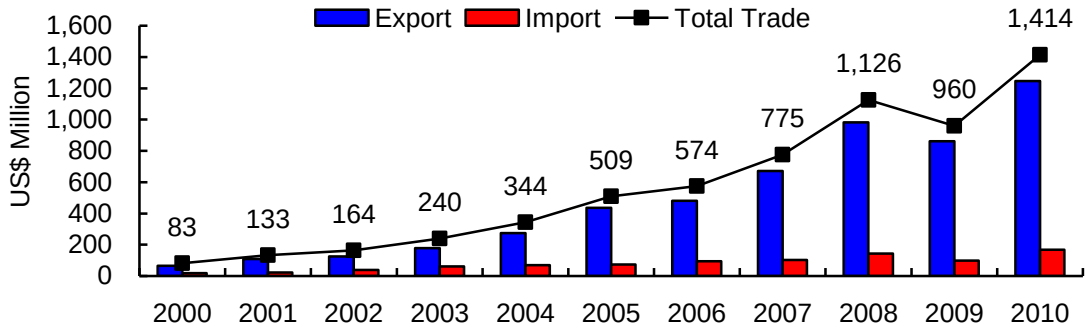
Graph 22 Indonesian Trades with Malaysia (HS87: Automotive Sector)



Graph 23 Indonesian Trades with Thailand (HS87: Automotive Sector)



Graph 24 Thailand Trades with Malaysia (HS87: Automotive Sector)



Source: UN Comtrade, author's calculations (accessed on 10 November 2011)

As shown in Graph 22, Graph 23 and Graph 24 , from 2003 until 2010, inter-regional trade on vehicles other than railway and tramway vehicles and the related parts (HS87) expanded significantly among Malaysia, Thailand and Indonesia. From 2000 to 2010 the trade between Thailand-Malaysia is stronger than trade between Thailand-Indonesia or Indonesia-Malaysia. But Thailand and Indonesia showed increased trade interdependence from 2002 (US$189 million) to 2010 (US$ 2.5 billion). Indonesia depended on imports of automobiles and automotive parts from Thailand because of the Japanese automakers and the national automotive policies in each country. The deepening trade interdependence between Indonesia and Thailand is growing at a nearly identical rate as the trade expansion of the two countries with Japan. Meanwhile, Indonesian export volume to Malaysia increased dramatically from US$58 million in 2000 to US$394 million in 2010. Thailand's

trade with Malaysia also expanded from US$83 million in 2000 to more than US$1.4 billion in 2010. In 2008, the import share of automotive parts for Thailand and Indonesia was 80 percent of the total ASEAN imports value from Japan, compared to a 59 percent share in 1998. This suggests that in the future, there will be a strong connection between automotive supporting industries in Thailand and Indonesia with Japanese auto manufacturers.

As a whole, the direct and significant impacts of Japan's EPA on exports are limited but it indicated there would be an increase of imports from Japan and trade activities within ASEAN countries. Other than Japan's EPA technical cooperation, Japanese auto manufacturers provided major assisting programs to the automotive industry and their supporting industries such as the electrical and electronics industry and the steel industry by joining the partnership with local auto manufacturers (technology transfer) and participating in the regional technical agreement and upgraded the skill training for the local employees. In 2008, Toyota established a new R&D Centre in Thailand for Toyota workers around the ASEAN countries to improve their skills in producing a better quality vehicle.

4.7. Prospects and Challenges

ASEAN is becoming more important as one of the main players in the global automotive industry. With Thailand as the automobile and automotive parts production hub

in Southeast Asia, neighboring countries such as Malaysia and Indonesia will benefit from the complementary production networks under the pivotal role of the Japanese multinational companies'. Japanese automotive part makers located globally will have to compete with the emerging auto manufacturers from China and India, particularly in producing high-quality but cost-effective vehicles and parts. Thus, signing free trade agreements with ASEAN countries will ensure Japanese auto manufacturers to enhance their products' competitiveness in the world market. At the same time, they could indirectly contribute to raising the competency of automotive industry workers in ASEAN and provide new opportunities for local supporting companies to supply automotive parts of better quality for less cost. Furthermore, through elimination of tariffs on auto parts and raw materials to produce auto parts, Japan hopes to facilitate a win-win situation with ASEAN countries by giving support in technical assistance and capacity building to the manufacturing industry.

With China's rapid economic growth and large population, it seems inevitable that China has become the largest automobile market in the world. So far, Chinese auto manufacturers such as Chery Automobile and Geely Automobile have plans to invest in new assembly plants in Indonesia. Geely Automobile decided to change their location to Indonesia after they scrapped their plan in Malaysia due to rejection from the government because of it being in direct competition to Proton (*South China Morning Post*, September

28, 2006).

Nonetheless, a number of challenges remain. As liberalization of the automotive market in Asia widens, it presents a threat to the local car manufacturers. Malaysia protects not just its own national cars, Proton and Perodua, but also their own auto parts local suppliers, too. In order for these local suppliers to survive in the era of global liberalization, they need to come out with innovative, cost competitive and quality parts by collaborating with other foreign manufacturers in R&D development, invest in the training of workers and most of all create a new marketing strategy in ASEAN and the global market. Pressure from other auto manufacturers increased the competitiveness of local auto manufacturers when AFTA was fully implemented in 2010.

Indonesia too has many obstacles before its automotive industry can develop to the same level as Malaysia and Thailand. Infrastructure development and its prosperous large domestic market can contribute to the economic growth and to reducing the poverty gap in Indonesia. An underdeveloped logistic infrastructure is one of the major challenges faced by the government as improvement in this area will increase the efficiency of the Just in Time system (JIT: delivery at accurate time) of Japan's auto manufacturers.

Japanese investors are concerned about Thailand's political instability, which at the moment has no real impact on the companies' profits but in the long term, the new

government has to change or extend the implementation of the old government's policies. The economic growth will be slowing down, hence reducing the spending by consumers.

Small medium enterprises (SMEs) in ASEAN countries are facing even bigger challenges as the market gradually liberalizes. Chances to survive in the era of globalization are small if the government in each country does not support nor create a suitable investment environment, or incentives for R&D development and intellectual property rights. Implementation of positive industrial incentives like Thailand initiated could bring out the most advantageous points for other ASEAN members. By creating a technical group among parts maker, they could stand out in producing innovative automotive parts. Other than that, SMEs should also standardize parts for the automotive sectors and other sectors such as electrical and electronics, as well as machinery, and the more their parts are used in other sectors, they could save costs by producing them in quantity.

4.8. Conclusion

It is impossible to see the full impact of Japan's EPA on the automotive industry in Malaysia, Thailand and Indonesia within the first two or three years after the agreements took effect. Thus, the author felt that this chapter could only contribute to some of the early fact-findings.

This chapter has come to several conclusions. First, the trade performance between Japan and its EPA partners is increasing year by year. However, JMEPA had less impact on the automotive sector than JTEPA and JIEPA. It is either that the impacts on trade are short-lived or only a few Japanese automotive firms fully utilize the EPA between Japan and Malaysia (because of the Malaysian government's National Automotive Policy). For Thailand, the market and government policies are open to foreign auto manufacturers. Thus, the impacts are significant, particularly on imports of parts from Japan and exports of complete vehicles to Japan. Thailand and Indonesia have the potential to become the export and production hubs of the global automotive industry.

Second, Japanese suppliers for the automotive manufacturers tend to relocate their factories to be near the assembly plants. Hence, intraregional trade between Malaysia, Thailand and Indonesia in automotive parts and components is expanding with inter-firm relations in R&D development and the technical training of workers. It is government's role to ensure that automotive investors feel welcomed in the country by providing a stable investment environment, attractive tax and other incentives, and transparency. By opening the market to foreign investors, local companies should enhance their competitiveness via joint-ventures through FDI and technology transfers.

Finally, if the WTO decisions are considered legally binding, then an EPA is

considered to be a contract for the Japanese government (Kotera, 2007). Local automotive companies may not be aware of the economic cooperation under Japan's EPA and efforts should be made in order for them to fully take part in the programs and contribute to the success of an EPA.

Although RTAs are promoting free trade and trade without borders among developed and developing countries, the policies are not fully liberalized. The existences of Rules of Origin in most trade agreements are but one of the protectionist policies put in place to nurture the domestic industries. The impacts of RTAs are limited because of these rules and regulations but foreign and local firms should not look upon the rules as obstacles for liberalization. Chapter 5 will discuss more about Japan's EPA and Rules of Origin and why these rules are important for ASEAN countries.

CHAPTER 5: RULES OF ORIGIN AND THE AUTOMOTIVE SECTOR IN JAPAN'S ECONOMIC PARTNERSHIP AGREEMENTS[20]

5.1. Introduction

Rules of Origin (RoO) are a necessary and important part of regional trade agreements. As RTAs are increasing, so are RoO. RoO are a set of discriminative regulations but they must exist in any kind of trade agreement. Governments must categorize the imported products between domestic and foreign origin, and among these foreign products, the origin of the products will determine whether importers can apply for MFN treatment or preferential tariff treatment (Falvey & Reed, 1998). However, with the proliferation of regional trade agreements notified to the World Trade Organization (WTO), RoO are designed according to the negotiations between partner countries. The differences in these rules also created possible trade distortions known as 'Spaghetti Bowl' problems as popular economist, Jagdish Bhagwati characterized it. Dieter (2007) and Roberts and Wehrheim (2001) explain in their arguments, that RoO are considered to be one of the hidden protectionist instruments in RTAs.

[20] This chapter is an updated and published version of refereed paper in the International Journal of Economics and Finance Studies, Vol 2 No 1, 2010.

Japan has been investigating the complex rules and regulations in EPAs and they have come up with “fairer” and wide-coverage sectors with a win-win situation both to Japan and its trade partners. The manufacturing industry is expected to become more developed through the advanced Japanese automotive technologies. The involvement of Japanese multinational enterprises in various economic cooperation programs within ASEAN has proven that Japan’s presence in the automotive regional production networks is important for the future of East Asian economic integration. The main question that this chapter tries to answer is whether or not East Asian countries should standardize the existing sets of RoO in order to increase the utilization of preferential trade agreements with other partner countries. RoO have a great impact on the Japanese automotive production network when EPAs come into effect. This section analyzes the RoO in Japan’s EPA and in automotive lines, as well.

5.2. Existing Literature

In order to explain the latest trend of RoO, this chapter will look at some of the literature on this subject. Without RTAs, stringent RoO cannot attract enough foreign direct investment into their countries although some studies found that stringent RoO can also boost investment (Estevadeordal, Lopez-Cordova, & Suominen, 2006). The quality of a trade agreement can be measured by looking into several factors but the most important

factor is the degree of openness in the domestic market. RoO are found to reduce the utilization rate of all kinds of regional trade agreements. This has been shown by Cadot, et al. (2007), where their argument concluded that restrictive RoO caused the utilization rates to be lower as can be seen in most of the EU and U.S. regional trade agreements.

Krishna (2005) has also stressed that restrictive RoO are a result of higher imports although this chapter concludes that restrictive RoO could lead to investment in the long term. Foreign firms may be motivated to set up a location for their facilities that produce intermediate products within the preferential trade of area. Japanese auto manufacturers with their highly efficient and cost competitive characteristics have long dominated the ASEAN market among global players. Japanese auto manufacturers found that it is profitable to expand their business in Southeast Asian countries, as the market share will continue to surge along with new model lineups.

Krueger (1993) and Krishna & Krueger (1995) as cited in Estevadeordal, Harris & Suominen (2009) explain that RoO are used by RTA members to secure the partners' markets for the exports of its own intermediate products. Moreover, RoO have the potential to increase domestic sourcing and governments could use RoO to encourage investments in certain high value added and high employment sectors as discussed by Jensen-Moran (1996), Hirsch (2002) as cited in Estevadeordal, Harris & Suominen (2009).

The voluminous literature on the subject of regional trade agreements and RoO showed complicated regulations that must be applied to all imported products. Most of the discussions are about NAFTA and the EU's RoO but very few discuss East Asian trade agreements containing RoO. The existing literature about the importance of automotive industries in the U.S and EU markets are extensive but few discussions can be found on the significant relationship between RoO and the automotive industry in East Asia. In order to have a better understanding of RoO under Japan's model of free trade agreements, the next section will explain Japan's approach to the rules.

5.3. Japan's Economic Partnership Agreements and Rules of Origin

Preferential rules of origin can be divided into two categories; wholly obtained or produced (WO) products and non-wholly obtained or produced products. It is easier to obtain the origin country of WO products because they contained no other materials from other countries. For non-wholly obtained or produced goods, the origins are based on any or a combination of three methods. These three are Change in Tariff Classification (CTC), Value-Added (VA) and Specific Processing (SP).

The CTC method only deals with a little administrative work and the liberalization level can be altered from a change in heading to a change in subheading or items.

According to Estevadeordal (1999) and Estevadeordal, et al. (2009), studies, which were based on NAFTA's RoO, indicate the change at the level of chapter is more restrictive than change at the level of heading and change at the level of heading is more restrictive than change at the level of subheading. While for the VA method, fluctuation in raw material prices and exchange rates, uncertain delays and the inspection of a part's origin could contribute to a complex RoO. The VA method is more problematic than the CTC method as cost, time and administrative work are involved, and thus only large companies could manage the VA method in their trading process. In the case of the SP method, it must deal with technological innovation and chemical changes, and thus can hinder the full utilization of certain RTAs. The efforts to harmonize and standardize RoO by Japan can be found in the contents of its agreements with partner countries, with the latest agreement being signed between Japan and Switzerland (2008).

In June 1989, during the Uruguay Round, Japan had proposed to harmonize and standardize preferential and non-preferential regulations in RoO and mechanisms of trade dispute settlements (Wulf & Sokol, 2005). Thus, in order to better support the existing multilateral trading system, Japan chooses to follow similar VA rules in AFTA when signing EPAs with ASEAN countries. This way, Japan can proceed with the harmonization of RoO in East Asia. Furthermore, this action will promote smooth trade facilitation at customs'

procedures, particularly in the automotive industry, where the Japanese related automotive firms implemented the Just-In-Time delivery system in their Southeast Asian production facilities.

Japan is constantly concerned over the implementation of TRIMS but they decided to include utilization of VA rules in the RoO chapter of regional trade agreements with ASEAN. According to the Joint Study Group Report of JMEPA, the Japanese side requested the RoO chapter to be based on CTC rules for all industrial products but the Malaysian side considered that although they are familiar with VA rules, the CTC approach would not be the basic approach to RoO chapter in JMEPA. While Japan-Singapore EPA has complex RoO, most of the products are using the simple change in heading in CTC system. However, Japan's agreements with Thailand and Malaysia have the same complex rules as in Japan-Mexico EPA because the involvement of several sensitive products in the agreements.

Table 27 is a summary of the concluded EPA and their content in RoO chapters. In order to cover the non-EPA members such as Myanmar, Cambodia and Laos, Japan decided to sign the first multilateral trade agreement with ASEAN (ASEAN-Japan Comprehensive Economic Partnership Agreement; AJCEPA) in 2007. The only significant difference is its RoO chapter; the Cumulation Rule for ASEAN-Japan produced materials.

Japan tries to follow similar approach by AFTA with regional value added percentage of no less than 40 percent.

Table 27 Content of RoO in Japan's Economic Partnership Agreement

EPA	Rules of Origin
Singapore Malaysia Thailand Indonesia Brunei Philippines Vietnam ASEAN	1. CTC or VA Rules, ASEAN Cumulation Rule 2. Permits the use of material in non-EPA partners but ASEAN member countries. 3. Two-Step Rule – under AJCEP Agreement. 4. Issuance of "third-country invoice" is acceptable
Mexico	CTC and VA Rules (Same as NAFTA 50-65 percent for natural resources, footwear and auto/auto parts)
Switzerland	Self-Certification of CoO

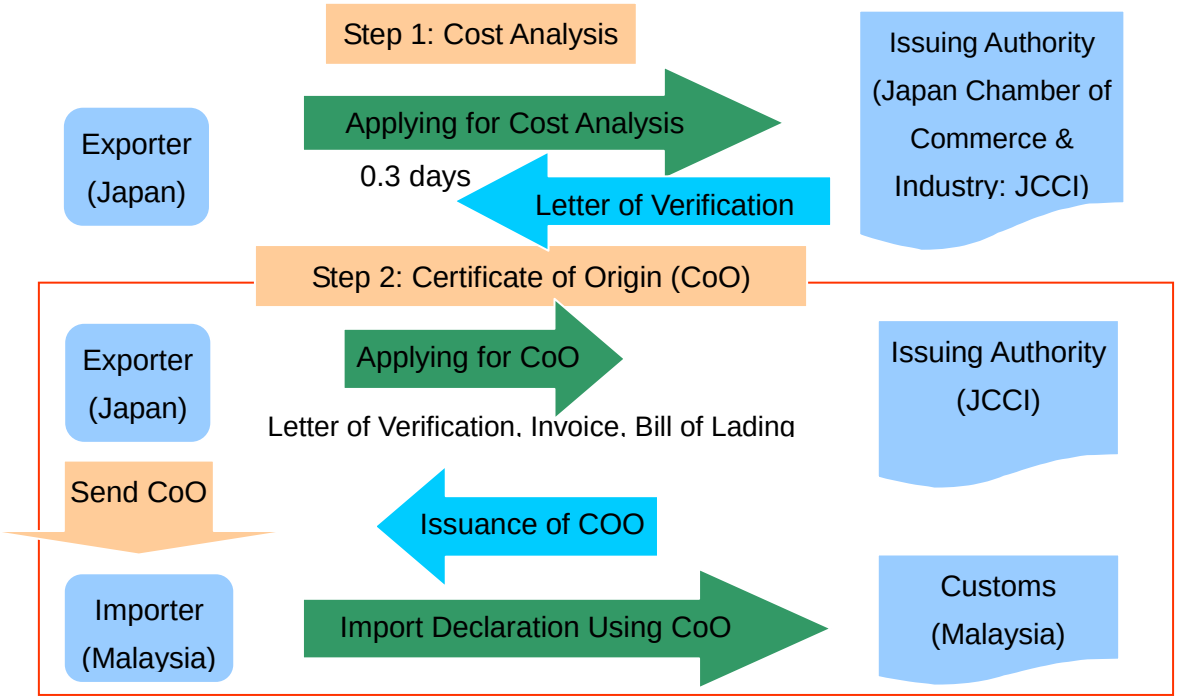
Source: Japan Customs, Ministry of Foreign Affairs, Japan Websites (accessed on 10 November 2011)

The increasing trend of bilateral trade agreements with Southeast Asian countries has made partner countries consider the Cumulation rules method as an important issue. Cumulation rules are divided into three types; bilateral, diagonal and full. AFTA adopted the full Cumulation rules, which allows for more economic integration among member countries (Brenton, 2003). It is an advantage for developed countries to outsource labor-intensive production process to low wages labor countries in developing or less-developed countries.

Japanese automakers played a significant role in achieving economies of scale in their automobiles output and cost efficiency. Hence, Japan decided to include the ASEAN Cumulation Rule in the AJCEPA under the RoO Chapter to further promote intra-firm trade in ASEAN production networks.

The existing bilateral trade agreements have showed that different rules will create a stumbling block among member countries. The turning point was when Japan signed the first bilateral trade agreement with Switzerland as one of the European countries. The significance of the Japan-Switzerland EPA (JSFTEPA) is that Japan looked for Swiss to be a good model in following its user-friendly and systematic RoO. Switzerland has adopted an improved system of RoO, which comprised of self-certification of origin by the approved exporters in an invoice for consignments. This will save both money and time for the exporters as the declaration can be issued at the time of export or retrospectively after exportation. Japan will consider the RoO system in JSFTEPA for the future regional trade agreements with other countries.

Figure 6 Flow Chart of Certificate of Origin Issuance in JMEPA



Source: Japan External Trade Organization (JETRO) Website (accessed on 10 November 2011)

Some types of Certificate of Origin (CoO) have implications for trade facilitation among exporters and their governments. In JMEPA, the “two step system” is implemented where the exporters need to apply CoO from the issuing authority in Japan (Japan Chamber of Commerce and Industry) (see Figure 6). They have to bear the cost and time, too, unlike the “self-certification system” model where, certified authorities are involved, importers will bear the certificate issuance cost and the system will reduce the exporter’s burden (Lazaro, Medalla, & others, 2006). Furthermore, the “two step system” could create rent-seeking activities between customs officials and importers or exporters.

5.4. Comparison of Rules of Origin in Automotive Sector

RoOs are negotiated as an independent chapter in the agreement proving that all the goods under several industries are closely monitored to see the liberalization level. In this way it could be known which industry is very much liberalized by the partner country and which industry is being protected with stringent RoO. Trade negotiators took into consideration each product's specialties from both the political and economic impact but in turn, it will create incentives for the industry players to push rules of origin to provide greater protection in their favor (Chase, 2007).

Table 28 Comparison in RoO Chapters within the Automotive Sector

HS Code	JIEPA	JMEPA	JTEPA	JPEPA
8702 (Buses)	CTC, 40% VA	50% VA	40% VA	40% VA
8703 (MV for transport of people other than 8702: Passenger Vehicles includes wagons, racing cars)		60% VA		
8704 (MV for transport of goods: trucks)		50% VA	CTC, 40% VA	
8705 (Special purposes MV)		CTC, 40% VA		
8706 (Chassis fitted with Engines)		CTC, 40% VA		
8708 (Parts and accessories of MV)		-	CTC & 40% VA	CTC & 40% VA
8711 (Motorcycles)		60% VA	40% VA	40% VA

* MV is Motor Vehicles, CTC is Change in Tariff Classifications, VA is Value Added.
Source: Compilations of JMEPA, JIEPA, JTEPA and JPEPA's RoO Chapters.

Malaysia has been protecting its domestic automotive market due to pressures from the industry lobbyists to develop supporting suppliers under Malaysian national carmakers, Proton and Perodua. Thus, there are non-consistent RoO in the automotive lines in JMEPA. JTEPA and JPEPA have the same rules for HS8702, HS8703, until HS8706 respectively (see Table 27). The reason for this is that these categories represent pick-up trucks and motor vehicles for transport of goods and they are their largest markets. Higher local content is better to attract investments from foreign firms with a package of low labor costs and incentives offered by the host governments. In JMEPA, Malaysia has set a higher local content of 50 percent for HS8702, HS8704 because HS8702 is a public transport type passenger motor vehicle and HS8704 are motor vehicles for transport of goods. HS8703 and HS8711 have a 60 percent VA because HS8703 is motor vehicles for transport of persons and HS8711 is motorcycles, both of which represent the markets of Proton and Perodua and the national motorcycle brand, MODENAS. However in JTEPA, Thailand only set 40 percent VA on both categories. Malaysia eliminated the tariff for HS8708 (parts & accessories for vehicles of HS8701 to HS8705) unlike Indonesia, Thailand and the Philippines, where the rules are CTC and 40 percent VA. Malaysia liberalized its auto parts industry to keep trade for automotive parts from Japan flowing smoothly without high transaction costs. The CTC and 40 percent rules are considered strict and the Philippines

and Thailand only allowed parts that were produced in their own countries. It is a way to protect their supporting industries and to prevent a third party from exporting parts to Thailand and Philippines using the preferential tariffs.

5.5. Conclusion

The importance of RoO is not only important from an economic aspect, but also from the technological and political aspects. The design of RoO will have an effect on the partner's trade and investment flows. Japan's intention to conclude various trade agreements with ASEAN countries is because of ASEAN's changed policy towards regionalism, maximizing the consistency with AFTA and lowering the transaction cost for Japanese multinational firms. Although RoO are important, their complexity and the lack of knowledge among Japanese firms have made the EPAs' utilization rate lower than expected. Some RoO in the automotive sector can imply the country's way to open its domestic market. For example, in JMEPA, the Malaysian side had set a higher local content percentage to its automobile and motorcycle categories in order to cushion the impact from RTA and nurture the local supporting industry. Not all Japanese products could enter the Malaysian market because of local content regulations unless the products were mostly produced in that country.

Finally, Japan is looking for the possibilities to simplify the RoO in its bilateral trade agreements by concluding a multilateral trade agreement with ASEAN as a region. Japan hopes that ASEAN cumulative rules will further assist their multinational firms to obtain the most efficient economies of scale, particularly in the manufacturing industry. In the future, the harmonization of RoO will contribute to a better market-driven economic integration in East Asia through this localization policy. As it can be seen today, Thailand is the only ASEAN country that successfully balances the open market concept with strict RoO in JTEPA. Thailand and Indonesia are liberalizing their manufacturing, particularly the automotive industry, but at the same time are implementing several protectionist policies to protect and nurture their local supporting industries. In conclusion, RoO has repressed the economic effects of Japanese EPA on the automotive industry but these rules could lead to the transfer of production bases from Japan to ASEAN countries in order to take advantage of the parts origin (economies of scale).

CHAPTER 6: THE RELATIONSHIP BETWEEN JAPAN'S EPA AND AUTOMOTIVE INDUSTRY

- FIELDWORK RESEARCH IN MALAYSIA & THAILAND -

6.1. Introduction

This chapter discusses fieldwork that was organized to find out the impact of regional trade agreements such AFTA and Japan's EPAs on the automotive industry in Malaysia and Thailand. This fieldwork combined open-ended and semi-structured interviews with carmakers, policy makers and suppliers,. This research indicated that the liberalization of tariffs and non-tariff barriers could help local automotive industry players to develop through the effectiveness of trade agreements.

The main content of trade agreements with Japan are trade liberalization and technical cooperation in the automotive industry. But the main effect has occurred in the latter. Local firms are participating in these programs in order to improve product quality, processes quality, market access and company's profits. However, many domestic and Japanese automotive firms located in Malaysia and Thailand found out that they have no major effects on their business for several reasons. The reasons why some of these firms do

not use preferential tariffs in several FTAs are because most of the agreements have different rules and regulations, smaller margins from tariffs, weaker responses from domestic firms and no standardization in procedures (Ganeshan Wignaraja, Rosechin Olfindo, Wisarn Pupphavesa, Jirawat Panpiemras, & Ongkittikul, 2010; Hayakawa et al., 2009; Takahashi & Urata, 2010).

This chapter tries to explain that automotive related firms in Malaysia and Thailand could gain other benefits from concluding an EPA with Japan. In the automotive industry, it is essential to increase the quality of automobiles, parts and components and improve workers' skills by learning from foreign automakers such as technology collaboration with Japanese automakers through various channels of technology transfer. This chapter deals with the arising issues as discussed in previous chapters and tries to provide the empirical evidence for the argument presented in this dissertation.

6.2. Scope of Fieldwork

This chapter mainly deals with two major keywords associated in the dissertation; EPA and FTA. The Economic Partnership Agreement (EPA) is what the Japanese government classified the WTO's Free Trade Agreement (FTA) in order for them to differentiate a wider role of their trade agreement model, which includes technical

cooperation, intellectual property, movement of skilled labor, custom procedures and many more WTO-Plus issues.

6.2.1. Economic Partnership Agreement

All of Japan's EPA whether it is bilateral with specific ASEAN countries or a multilateral agreement with ASEAN in general are discussed in this dissertation. The Economic Partnership Agreement (EPA) is different from a Free Trade Agreement (FTA) and this chapter analyzes the impact of EPA from perspective of technical cooperation as its significant characteristic. Japan's EPA will be viewed as one of the ways of economic cooperation or technical assistance (TA) to partner countries.

6.2.2. Automotive Industry

The automotive industry in this chapter is focused on Japanese, Malaysian and Thailand's assemblers and part suppliers in general. Two ASEAN member countries, Malaysia and Thailand are involved and a case study of these two countries was conducted.

6.3. Methodology

Before the fieldwork research began, a pilot research was conducted by analyzing

statistical data, press releases and annual reports of major Japanese automakers that have subsidiaries in Malaysia and Thailand. This was performed to help the author understand the overseas operation strategies, and from the pilot research the author was able to collect important points to be discussed during the interview sessions with expatriates (managers and researchers) from the automotive industry. The methodology of this fieldwork research is explained in Appendix E.

6.4. Limitation

Due to limited time and budget constraints, the author decided to focus the fieldwork research only on automotive related firms in Malaysia and Thailand. The author could not provide full transcriptions of all interviews due to privacy concerns of the participants involved. However, consents from all interviewees were gained beforehand to avoid any ethical research problems in the future. The background of all participants is provided in Appendix F.

A week before the fieldwork date, a factory visit to one of the Japanese manufacturer's factory in Thailand was canceled because there were no production lines running on that day. The problem was caused by a parts shortage due to the Tohoku Earthquake and Tsunami, which occurred on March 11, 2011. During the interviews, some

of the participants expressed their worries and views on this disaster, as well.

Companies identified in the fieldwork were contacted through email and telephone calls as follow-up. It took some time to contact firms in Thailand due to language barriers in comparison to Malaysia. Another problem concerning the language barrier is that all the interviews were conducted in Japanese and Malay language, so the transcription and analysis were based on the author's best possible understanding. The time allocation was longer as the documents needed to be translated into English.

The "pass-along" effect occurred at early stages, where some of the telephone calls to respective persons-in-charge were passed to another person because he/she was unable to make the decision to be interviewed and the other person was also unavailable because of the nature of the work that referred the author to another officer, and so on.

6.5. Results and Analysis

In the interviews, one set of questions (see Appendix G) was given to each participant but because of their limited knowledge in certain areas, only a certain number of views were obtained and could be used in this analysis. The interviews were carried out according to the flow of the participants' way of answering questions; therefore some of the research objectives were unable to be achieved.

6.5.1. AFTA

During the interviews, several questions were asked about the participants' opinion on AFTA/AICO/JMEPA/JTEPA and the impact on their companies. For larger foreign firms, the impacts were significant, while for local companies, it depended on the target markets (Participant 5). The higher utilization rate of AFTA among large firms was attributed to three factors; large export volumes due to tariffs preference, own exports department to deal with RTA regulations and complications, and origin accumulation is a requirement in their production network (G. Wignaraja, Lazaro, & DeGuzman, 2010). However, small firms are using lower MFN and the Generalized System of Preferences (GSP) tariffs to export to European and US markets.

Table 29 Participant's views on AFTA

Participant	Views
1	n/a
2	1. AFTA & AICO have close connection with the automotive industry. Previously, the ASEAN market was protected by each country, but thanks to AFTA, one large market was created. 2. Many job opportunities were created.
3	1. AFTA's tariff liberalization helps Japanese automakers in ASEAN protect their shares from Korean, U.S. and European automakers. 2. Automobiles production volumes grew in ASEAN market.
4	n/a
5	1. No significant impacts because the Malaysian market is limited and protected. 2. It is all depends on the implementation timing for Malaysian local suppliers.
6	AFTA helps Japanese automakers to produce automobiles intensively in one place by utilizing the full benefits of infrastructure, tariffs reduction, incentives and cheap labor.
7	1. AFTA promotes Thailand to create more jobs in the market and maximizes the production capacity for export volumes. 2. For Indonesia, due to its large population and rapid economic growth, the increase of motorization spread is going to be quick in the future.
8	n/a

Source: Compilation from interviews

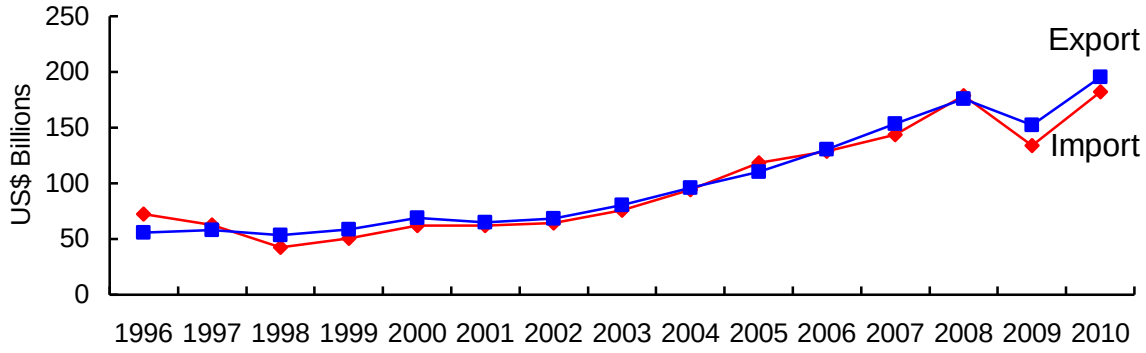
From the compilation of interviews and the author's own observations, there are several issues that have to be resolved by ASEAN members in order to develop their own automotive industry. Since AFTA was implemented in ASEAN, market shares have increased, many job opportunities in the auto industry were created, manufacturers saved on transportation costs and utilities, and most importantly, economies of scale in this industry are obtained through the possible expansion of exports. On the other side, for local suppliers in Malaysia (Participant 5), the company viewed the Malaysian position as weaker than Thailand's because the Malaysian government failed to fully implement AFTA and take full benefits from AICO during the early years of this economic cooperation. Thailand has become the hub for the automotive industry in ASEAN and many cannot deny that the measures taken by the Thai government in supporting foreign automakers after 1997 Asian Financial Crisis were correct. This was also because Thailand has no national car brands that need to be heavily protected by the government. Though the market is still expanding, local suppliers of Malaysia must compete with foreign automakers.

6.5.2. Degree of openness in local automotive market

Malaysia and Thailand embarked on industrialization policies through their manufacturing industries from the 1960s. The difference between the two governments is

that the Malaysian government took the lead role as producer and investor by creating its own national car brands, but Thailand let the foreign automakers such as the Japanese automakers and their suppliers play important roles in this industry although some protectionist policies still existed during the 1990s (Fuangkajonsak, 2006). The protectionist policies are still in existence even today. Unlike Thailand and Indonesia, Malaysia has been protecting its own automotive industry because of pressure from the national carmakers Proton and Perodua and their local suppliers. In 2006, the Malaysian government decided to introduce the National Automotive Policy (NAP), the objectives of which are to adjust the regulations and helps Malaysia become a manufacturing hub for the automotive industry. However, NAP was widely criticized because of issues that arose such as the approved permit (AP) system that was being wrongly used by local importers and protectionist of national cars. NAP was being considered for review by the end of 2011 in order for the policy to be in line both with developments by automakers and global trends.

Graph 25 Trade Flows in Thailand after 1997 Asian Financial Crisis



Source: United Nations Comtrade, author's calculations (accessed on 31 January 2012)

Table 30 Thailand's Investment from Japan, 1999 – 2010

Year	No. of Application Approved	Amount of Investment (Million Baht)
1999	188	27,000
2000	282	107,300
2001	257	83,400
2002	215	38,400
2003	260	97,000
2004	350	125,900
2005	354	171,796
2006	353	115,200
2007	330	164,323
2008	324	106,155
2009	243	58,905
2010	342	100,305

Source: Board of Investment Thailand, Bank of Thailand Website (accessed on 31 January 2012).

Since the 1997 Asian Financial Crisis, Thailand has shown their open policies

towards foreign investors with low tariffs and attractive incentives, and these have enabled the country to become one of the most productive centers for manufacturing and exporting automobiles to the global market. Trade in Thailand increased significantly from 2002 onwards with the export volume totaled at US$195 billion and import volume totaling US$182 billion in 2010. Investment from Japan to Thailand from 1999 through 2010 showed that the number of applications approved has risen from 188 to 342 with an investment amount of 100 million Baht in 2010 (Table 30).

Table 31 Summary of Incentives in Thailand

Tax and Cost Incentives	Non-Tax Incentives
1) Exemption of import duty on machinery	1) Permission to bring in foreign workers
2) Up to 8 years exemption of corporate income tax	2) Own land, hold majority shares or all shares in promoted projects
3) 50 percent reduction of corporate income tax for 5 years	3) Take or remit foreign currency abroad
4) Double deduction from transportation, electricity and water cost	
5) Up to 5 years exemption of import duty on raw materials	

Source: Board of Investment, Thailand Website (accessed on 31 January 2012).

Most of the auto suppliers decided to contribute to manufacturing automobiles in Thailand to take advantage of the cheap labor and duty exemptions on raw materials, machinery items and because of the positive industrial policies by the government itself. This can be seen from the fact that the government has acted positively to develop a strong foundation for the automotive industry and its open policies (no national car brand promoted). Many investors are attracted to Thailand because of the government's consistent investment policies and competitive labor cost and skills in manufacturing industries. Some of the foreign firms have invested billions to build factories and to bring in machinery to Thailand and set up long-term strategy plans with Thailand as their export base. The summary of Thailand's incentives, either tax or non-tax incentives, in Table 31 shows the government's intention to develop a strong base for manufacturing and supporting industries by giving privileges particularly on location.

Table 32 Thailand FTA Partner Countries

	Import using FTA (US$ Million)					Percentage of total imports				
	2005	**2006**	**2007**	**2008**	**2009**	**2005**	**2006**	**2007**	**2008**	**2009**
AFTA	3,546	3,106	3,053	4,439	4,069	15.4	12.3	11.2	13.8	15.1
ASEAN-China FTA	21	99	378	649	1,487	0.2	0.7	2.3	3.2	8.7
Thai-India FTA	37	45	35	37	39	2.9	2.8	1.7	1.4	2.2
Thai-Australia FTA	476	474	437	457	409	14.7	13.8	11.4	8.9	10.7
JTEPA, AJCEPA	-	-	48	2,121	2,144	-	-	0.9	6.4	8.5

Source: JETRO World Investment Report (2010)

Thailand has participated vigorously in the RTA trend, particularly with ASEAN related preferential trade agreements since 2000. According to Ganeshan, Wignaraja et al. (2010), 49 percent of Thailand's electronics export is through RTA's, with China as the largest export partner (39.1 percent). ASEAN and Australia are the major partners in automobiles and automotive parts with a 54 percent share from the overall automotive sector's exports. Among exports items are diesel, gas-powered trucks and 1500 to 2000 cc engine capacity automobiles.

Compared with other RTAs in Table 32, the imports amount using preferential tariffs in JTEPA and ASEAN-Japan CEPA have increased significantly from US$48 million to US$2.1 billion (45 percent), while ASEAN-China FTA increased its amount from US$21 million in 2005 to US$1.5 billion (2009) with an 8.7 percent share of Thailand's total imports. AFTA shows the largest share in total imports (15 percent) for Thailand. Automotive parts and components are the main products traded in AFTA as in JTEPA and Thailand-Australia FTA (JETRO, 2010). The announcement of the Detroit of East plan in 2001 and the establishment of the Thailand Automobile Institute further explained the government and private sector cooperation in developing the local automotive industry with an active role for Japanese automakers (Busser, 2011).

Table 33 Participants' views on JMEPA or JTEPA

Participant	Views
1	n/a
2	Impact of JTEPA on automotive industry in Thailand is the availability to obtain raw materials from outside Thailand more cheaply, particularly for steel related materials.
3	Any RTA with ASEAN will benefit manufacturers because of the cost reduction from tariffs liberalization. Concentrate production in Thailand and Indonesia.
4	n/a
5	We try to utilize programs in JMEPA 100 percent and use the Japanese face as the marketing brand in our products.
6	RTAs help to discover and invest freely in countries that have the cheapest cost as well as good quality so that we can provide better automobiles to customers.
7	Programs in JMEPA are not sustainable without long term plans by the government itself. Malaysia needs to look into problems in the national automotive policy first.
8	MAJAICO's implementation needs to be parallel with Malaysian labor skills and the urge to learn the technology.

Source: Compilation from interviews.

Most of the participants stated in the interviews that RTAs are beneficial for them in terms of cost and technology transfer. These companies do not feel threatened by the globalization effects from free trade agreements although Participant 3 did argue that some protection policies are needed in certain economic blocks such as AFTA for multinational companies operating in ASEAN countries (to maintain market shares). The concluding partner countries should be given more priorities or advantages than outsiders with zero tariffs in traded products. The technology transfer program under JTEPA and JMEPA such

as MAJAICO and the Steel Cooperation Program are discussed further in the next section.

6.5.3. Japan's EPA's Technical Corporations

Malaysia Japan Automotive Cooperation Industries (MAJAICO)

Since the establishment of MAJAICO in 2006, the Malaysian government viewed this program as successful and it has managed to educate local firm's top management officers and engineers about production processes such as Lean Manufacturing System (LMS) and business negotiation skills. This program ended in June 2011 but it will be continued under supervision of the Malaysian Automotive Institute (MAI) with Malaysia-Japan capital investment. Fifteen Japanese experts will be reduced to eight people in five years time, wherein their job function will be to advise local engineers in the future. Eighty seven local companies have graduated from the MAJAICO program and some of the changes can be seen such as cleaner and better factory environments, increased production efficiency, exportation to China and factories being set-up in Thailand and Indonesia (Participant 8).

In spite of many positive responses in the mass media, participant 7 expressed his opinion that MAJAICO is limited as it took a longer time for Japanese companies to be involved in the Malaysian automotive parts industry and five years was not sufficient. Furthermore, the knowledge of technology and the comprehension skills among Malaysian workers is low. The urge to learn new technology is questionable, while research and development efforts in the automotive industry in Malaysia are also considered insufficient and need to be addressed at the policymakers' level.

Table 34 MAJAICO Program in Details

	Program Name	Details	Malaysian Side	Japanese Side
A1	Automotive Technical Experts Assistance Program	Dispatch Japanese Experts to vendors	SMIDEC	JODC
A2	Enhancement of Mould and Die Center in Malaysia	Dispatch Japanese experts to train SIRIM staff	SIRIM	JODC
A3	Capacity Building for Auto Parts Suppliers in the area of VTA	Establishment of vehicle type approval system facility	Road Transport Department	METI
B	Automotive Skill Training Center in Malaysia	Develop 171 modules for specialized training course	Ministry of Human Resources	JETRO
C	Automotive Skill Training Center in Japan	Dispatch auto company staff to Japan	Ministry of Human Resources	AOTS
D	Establishment of a Components and Parts Testing Center in Malaysia	Improve SIRIM capacity through mutual Dispatches	SIRIM	JICA
E	Business Development Program	Exchange of trade missions in both countries	MACPMA	JETRO
F1	Cooperation in Automotive Market Information	Regular and ad hoc exchange of industry information	MIDA	JAMA
F2	Consultation in Joint-Venture Contracts	Assist Malaysian company to form JV	MIDA	JAMA
F3	Cooperation in Auto Exhibition for Malaysian Auto manufacturers	Trade exhibitions and seminars in both countries	MATRADE	JETRO

JODC stands for Japan Overseas Development Corporation, AOTS stands for Association for Technical Overseas Scholarship, JICA is Japan International Cooperation Agency, MACPMA is Malaysian Automotive Component Parts Manufacturers, METI is Ministry of

Economy, Trade and Industry, Japan, MIDA is Malaysian Industrial Development Authority, SMIDEC is Small and Medium Enterprise Corporation (Malaysia)
Source: "Survey on Comparison of Backgrounds, Policy Measures and Outcomes for Development of Supporting Industries in ASEAN", Vietnam Development Forum (VDF) 2010, GRIPS, Tokyo.

However, some programs under MAJAICO in JMEPA received poor responses based on the interviews with participant 5. According to participant 8 as a professional in MAJAICO, there are eighty-seven companies that took part in the program arranged by this organization. However, the number is still small compared to the number of local automotive related firms in Malaysia. This problem may be caused by lack of understanding of the contents of regional trade agreements as well as a lack of seminars by the government to attract more local manufacturers to utilize Japan's EPAs.

Japan-Thailand Steel Industry Corporation Program

There is not enough information gathered for this program as only one interview touched on Thailand's steel issues. Raw material suppliers should be included in this interview sample but due to time constraints, the author decided to use secondary information. From Participant 2's information, the Japan-Thailand Steel Industry Program is on the right track. Japan's JFE Steel Corporation has decided to open Thailand's first continuous galvanizing line for automobile production in Rayong Province in order to meet automakers demand to procured steel sheet locally.[21] Another automotive related cooperation within JTEPA, the Automotive Human Resource Development Project (AHRDP), is not discussed in this dissertation because this cooperation program is more into human

[21] From press release at http://www.jfe-steel.co.jp/en/release/2010/101022.html

resources development. Compared to MAJAICO, which is more into government-centered programs, AHRDP's main supporters are JICA, JETRO, AOTS and Japanese suppliers.

6.5.4. Differences in regulations

The differences in tariff classifications create extra cost for the importers, which add to the product's price. AFTA uses HS Code 2002 for tariffs classification while Japan's EPAs use HS Code 2007. From next year, the HS Code Classification will be changed to 2012 and this will cause several problems to importers. The differences in regulations of imported products have included additional costs such as wages of professionals to deal with custom's procedures and the cost associated with changing business strategies to comply with RoO (Kawai & Wignaraja, 2009).

Participant 2 mentioned in the interview that ASEAN governments must address differences in tariff classification, as it will only increase cost and hinder small firms from using preferential tariffs. The conversion table is one example of additional costs in the production process. He also explained that smaller firms cannot afford the additional cost, thus authorities in charge of both countries trade system have to fill in the forms. Rules of Origin (RoO) are different in the automotive sector between JMEPA and JTEPA as previously discussed in Chapter 4. In addition, JTEPA uses HS-4 digits and AFTA uses HS-6 digits in the CTC Rules of Rules of Origin (RoO) Chapter as stated in each agreement.

Some of the Japanese firms had expressed their concern about the method of calculation for applying Certificate of Origin (CoO). According to the interview with Participant 2, Free On Board (FOB) price must be revealed in applications for preferential

tariffs in JTEPA and JMEPA but in Japan, there is no need to write the FOB price. The revelation of the FOB price to authorities in charge of CoO issuance will lead to increased production cost, which can be a competitive trick among companies. 14.9 percent of the surveyed Japanese firms in Thailand regarded CoO as an obstacle and 21.1 percent said that RoO may be an obstacle in the future, while 20.2 percent of auto/auto parts firms perceived RoO to be a problem to their firms (Kawai & Wignaraja, 2009).

Improvements to AFTA and Japan's EPAs tariffs regulations and the RoO system could increase the utilization rate among firms in ASEAN. The improvements could include self-certification of CoO, reduction of value content and adopting a standardization year for the HS Code.

6.5.5. Underdeveloped supporting industries

Automobile manufacturing is a difficult process with 30,000 parts that need to be assembled from start to the completed product. Thus, it requires parts makers from various industries such as screw makers, steel and aluminum makers, tire makers and many more to produce their products in mass production to attain economies of scale. Domestic suppliers in Malaysia have several problems that need to be resolved before entering the export market. The poor quality of parts are passed from the raw material suppliers as the delivery of defects were passed to Tier 4, Tier 3 (mostly) all the way through until the end of supply chain (i.e., the carmaker) without performing quality control from one point to another point (Participant 7). Quality defects from suppliers can cause a production line stoppage at the carmaker's factory, which later results in loss of profits. Some of the weaknesses of the

supporting industries have been identified in several publications include negative automotive trade balances resulting from high levels of protection policies and by reliance on major components from Japan due to the fact that locally produced components failed to meet the global standards' quality and price (Yusuf, 2004).

6.5.6. Slower cost reduction process

As explained by Participants 6 and 7, the cost price has more impact on the level of competitiveness among Malaysian local suppliers. According to the current situation of a national car company, the cost per unit is 15 percent higher than Indonesia (Participant 7). There are about 100 local suppliers in Malaysia but most suppliers are not cost competitive with other industries due to the fact that the major cost composition is from foreign purchased materials or maintenance. This can be seen in the way Japanese automakers select their local suppliers. There is a strict procedure by Japanese assemblers, where they will first select suppliers on the basis of price information and then consider whether each supplier is able to meet their requirements of quality, delivery dates and other criteria. One of the surveys done in July, 2001 in Thailand found that assemblers are targeting cost reductions of 30 percent, the same as targets in Japanese factories (Yusuf, 2004). This set the standard international price higher and seems unachievable for some local suppliers to reduce cost price.

6.5.7. Poor Capacity Building among Malaysian

Free trade creates more employment in various industries. The Malaysian workforce

has been depending on the manufacturing industries since the 1980s. Malaysian manufacturing industries contributed 70 percent of the total exports and 30 percent of the total employment. In 2007, there were around 3.3 million people engaged in the manufacturing industries, but the share keeps declining due to globalization. The automotive industry in Malaysia has employed workers in manufacturing automobiles, trailers, semi-trailers, and automotive components and accessories.

Table 35 Workers Employed in Manufacture of Motor Vehicles and Parts in Malaysia (Unit: persons)

Year	Motor Vehicles	Parts and Accessories with its engines
2001	15,907	21,256
2002	21,438	22,812
2003	19,179	25,860
2004	23,435	24,320
2005	22,541	26,729
2006	20,995	23,382
2007	21,794	22,246
2008	25,038	21,713
2009 (Jan-Jul)	22,931	21,961

Source: Department of Statistics Malaysia (accessed on 1 September 2011)

Workers engaged in the manufacture of motor vehicles steadily increased from 2006. But on the other hand, workers in the manufacture of automotive parts and components decreased between 2003 and 2004, had a 12 percent growth rate in 2006 and reduced again in 2007 and 2008 (2.3 percent) (see Table 35). One of the reasons for this was because Malaysia had increased the import value of automotive components from Thailand (30 percent) and Japan (101 percent) in comparison to 2007.

Compared to Thais and Indonesians the Malaysian people have a high level of

education but according to participants 2, 7 and 8, their science and technology awareness level is insufficient for the country to be dependent on manufacturing automobiles.

As participant 8 mentioned in the interview, Malaysians are too dependent on foreign workers thus, the skilled workers in the automotive industry are not sufficiently nurtured and it will become a problem for fundamental industry in future. Although MAJAICO has prepared several programs to educate workers, the capacity building requires more than nationalism among Malaysians. Employing foreign workers from Bangladesh or Nepal is cheaper than hiring local workers but this also comes as a package with low product quality. Malaysians must acknowledge that to make good cars, skilled workers are one of most important factors.

Problem solving skills such as skills in machines' maintenance is an issue for Malaysia as the local companies were not involved in the process of designing parts and fabricating dies unlike Thailand and Indonesia (Participant 7). They had to call foreign experts to solve problems with the machines as most of the dies were bought from overseas suppliers.

6.5.8. Technology Transfer

In this chapter, the author decided to use a broad definition of technology transfer, which includes technology assistance (TA) or technology cooperation that describe any exchange of foreign technology to local firms or subsidiaries located in Malaysia and Thailand. Technology transfer from foreign to local firms occurred long before free trade agreements in East Asia were signed. This subject has long been discussed in other

literature (Lee & Tan, 2006). Some of the technology transfer channels can be from Official Development Assistance (ODA), Foreign Direct Investment (FDI), international trade of goods and services, or other technical cooperation tools. The Japanese automakers have been investing in ASEAN since World War II, particularly in the machinery industries. Indirectly, technology spillovers from Japanese FDI have had a significant impact on local firms. At the same time, ASEAN countries have been transforming from agriculture-based economies to manufacturing-based economies. Many local suppliers are receiving technology transfer from the assemblers, particularly from Japanese assemblers. Even AICO was considered as AFTA's Early Harvest Program for technology transfer because many Japanese automakers took part in this scheme and joint-ventured with local firms as one of AICO's conditions (K. Aoki, 2004). Any kinds of EPA with Japan can increase technology transfer or technical cooperation in the automotive industry as well as facilitating investments in other supporting industries. Malaysia and Thailand depend on FDI for technology transfers and domestic investments encourage both countries to pick-up technological know-how from abroad to boost production growth (Lee & Tan, 2006).

From the interviews with the eight participants, only three companies have technology cooperation with Japan. However, many problems arise before technology transfer issues can be successfully resolved in Malaysia and Thailand. In Malaysia, the cost and quality aspects are still low and this led to a position of relatively weak competitiveness in the automotive industry (participant 7). Job-hopping is one of the problems faced by foreign firms in terms of skilled workers in the automotive industry. The Malaysian government should deal with this problem with such means as policy implementation to

prevent engineers from changing jobs from the automotive industry to a different industry (participant 7).

Lack of intellectual knowledge of automotive technology among a company's top management has led to weaker connections between foreign and local firms. Most of the top management officials were involved in the early stages of buying technologies from foreign firms but the workers that usually need to learn the production process have no access to involvement in learning the new technology.

Table 36 Participants' views on whether their companies have technology cooperation with local or foreign companies

Participant	Views
1	No
2	n/a
3	Yes (Thailand)
4	Yes (Malaysia)
5	Yes (Japan and South Korea)
6	n/a
7	Yes (Japan)
8	n/a

Source: Compilation from the author's interviews

Most of the participants said that they have technology cooperation with local firms (see Table 36). For Participant 5, technology cooperation in this company started with TA from Japanese companies in Japan. Their relationships within the automotive industry were initiated by government aid to assist in nurturing local automotive related companies. The company has managed to get another TA from South Korean companies as well. Interestingly, their connection with the Japan counterpart is called the "sushi connection"

and the connection with their South Korean counterpart is called the “kimchi connection” (Participant 5). According to participant 7, workers are trained and learn about new skills from Japan for several weeks. They come back to their workplace in Malaysia to train the workers under their supervision. Not only do workers learn about advanced technology from the line (On the Job Training: OJT), but also an in-house training is essential for new workers. A new technical education center was set-up in-house to train these new workers for a week before they can begin working in the factory.

6.5.9. Localization Strategies

Localization here can be defined as parts that had been produced by foreign companies are now sourced from domestic firms operating in that country itself. Not only parts are involved but in terms of services and processes, they too could be categorized as localization products in strategies to reduce cost as the ultimate objective. It should be noted that during the interviews that most participants expressed their opinions that it is difficult to determine what the definition of localization actually is in the automotive industry because during production, some of the major sub-parts are imported from Japan and the suppliers are actually trading companies only.

The benefits of localization strategies are:

- It can help the assemblers to meet JIT supply of local assembly,
- reduces their risks with foreign exchange
- reduces production cost by increasing local content
- shortens the time lag between launch of new models in the advanced countries

markets and their introduction in East Asia (Yusuf, 2004)

- Higher local content can enhance further technology transfer as discussed in (Rasiah & Yun, 2009)

- It breaks the traditional concept of the Japanese suppliers' network. Japanese automakers have suppliers' association and build their own keiretsu (suppliers own association) network by excluding outsiders to protect and monopolize profits (Sako, 1996).

Table 37 Participants' views on localization strategies in their companies or based on observations

Participant	Views
1	n/a
2	Localization percentages are based on car models.
3	1. High value added parts have low localization percentage. 2. Local or foreign companies should be determined by the origin of major sub-parts.
4	n/a
5	1. Raw material suppliers are from Japan because we cannot find reliable local suppliers. 2. We considered that local trading companies that buy from foreign makers are foreign companies so the percentage is quite low.
6	1. Localization strategies are done not just in auto parts but also in human resources aspect. 2. 40 percent are from ASEAN countries and from that volume, 80 percent of them are from Thailand.
7	Yes. One of the company's objectives is to maximize the localization percentage by giving technical assistances to the local suppliers.
8	He mentioned that MAJAICO will help local companies to increase their parts quality to enable them to supply globally (Lean Manufacturing).

Source: Compilation from the author's interviews.

All the participants in this study said that localization might be defined differently. The definition can be parts sourced within the ASEAN region or parts that have been totally produced in the country where the assemblers are located. Participant 3 stressed that suppliers must be categorized by their major sub-parts' origins. Participant 5 explained that their suppliers are trading companies operating in Malaysia that purchase raw materials from Japan or South Korea. Thus, if they considered these trading companies as foreign suppliers, the localization percentage in the company would be quite low. However, for Participant 7 the company's objective is to increase the local content percentage in their car models by giving technology assistance to their suppliers, thus the possibility to change from a foreign to a local supplier is there. MAJAICO is one of the institutions involved in JMEPA that helps local suppliers to increase their chances to supply products globally.

Table 38 Parts Sourcing in Company (6)

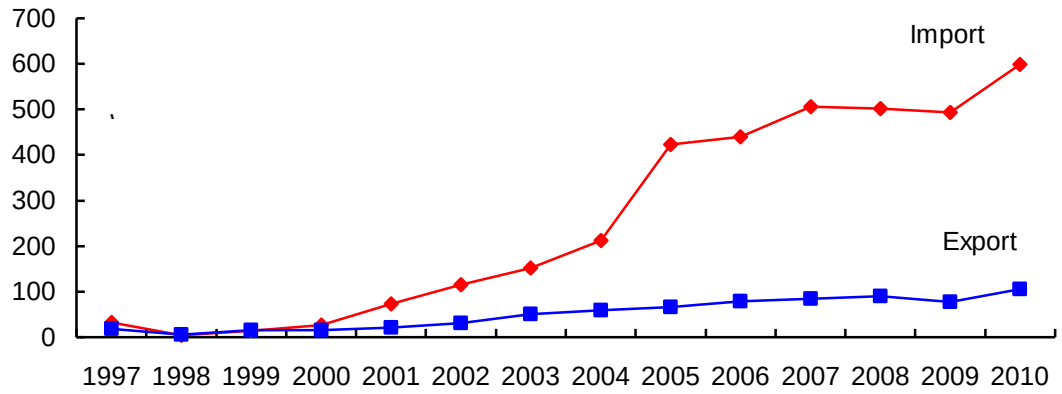
Source	By Value
Local Parts	40 percent
Multi Source Parts	45 percent
- (ASEAN :Thailand)	- (80 percent)
Japan	15 percent

Source: Data from interview with Participant 6

In Company 6, most of the local and multi-source parts are from ASEAN. About 40 percent of these parts have been localized and 45 percent are from multi-source parts (ASEAN). The localization rate is quite high in multi-source parts from Thailand-produced parts, which accounts for 80 percent of that proportion (see Table 38). This is because Thailand has been a competitive production base for automotive parts and AFTA also

played a significant role in localization strategies among automakers in ASEAN.

Graph 26 Malaysian Import & Export with Thailand for automotive parts and components (US$ Million)



Source: UN Comtrade, author's calculations (accessed on 31 January 2012)

Intra-trade between Malaysia and Thailand can be seen from Graph 26. From 2004 until 2010, Malaysian import volume for automotive parts and components from Thailand has increased significantly from US$212 million to US$598 million, and accounted for 5.8 percent of the total imports from Thailand. Malaysia also shows an increase in its exports amount, which totaled US$105 million in 2010, compared to US$18 million in 1997. As a result of growing imports in automotive parts and components from Thailand, the overall trade deficit has widened dramatically, reaching US$493 million in 2010. This also shows that Malaysia and Thailand use AFTA effectively in increasing bilateral trade between both countries.

6.6. Conclusion

Thailand and Malaysia have gone through several transformations in the automotive

industry. Thailand has become the”Detroit of the East” as many major foreign assemblers and automotive suppliers made Thailand their export centers. The liberalization policies along with active participation in RTA have proven to be successful. However, some of their protectionist policies are still in place to nurture the local supporting industries. For Malaysia, the limited domestic market has forced Proton and Perodua to export their brands overseas. However, the competitiveness level of both national cars is questionable as to whether they could survive or not in the “trade without borders” era. Several Malaysian programs to support local suppliers and upgrade skills among the workforce should be emphasized. The localization method is one of the opportunities given by the foreign firms in order for local companies to increase their technology capabilities and R&D centers set up by foreign firms could also help ASEAN, particularly Malaysia to expand their trade and entrepreneurial development.

At the time AFTA was established, only selected products in the automotive sector were liberalized, while the rest still had high tariffs to protect domestic industries. Suppliers have to increase their level of competitiveness in quality and cost by creating closely tied relationships with global automakers. These connections will enable the local suppliers to gain technology and knowledge from various companies and broaden their perspectives towards exporting to other markets such as China and India. It is more difficult for raw material suppliers to change their market strategies due to the lack of reliability and availability of supplies in the local market. Furthermore, the soaring prices in raw materials makes the players this industry seek for more cost-effective high technology in production, particularly from Japan. The Man Power Development Program should be implemented

among local firms. Local automakers should be involved with parts' manufacturing, which includes knowledge from die makers and the development processes to increase problem-solving skills. At this stage, the commitment from management level is very important. AFTA and other EPAs between Japan and ASEAN countries are playing important roles in increasing bilateral trade of automobiles, automotive parts and components between Malaysia and Thailand. The relationship between Japanese automakers in ASEAN and their localized suppliers' network is now strengthened.

CHAPTER 7: DISCUSSION AND SUMMARY

7.1. Introduction

In this, the final chapter of this dissertation, we will include some summaries of the background information, findings of the research problems, a statement of the results and unexpected outcomes from this study. In the last section, implications and recommendations for future research are discussed. The focus of this dissertation is to examine the trends of regional trade agreements signed between Japan and ASEAN countries whether bilateral or regional. The particular focus is on the automotive industry development in Malaysia, Thailand and Indonesia as these countries have been receiving major foreign direct investment from Japanese auto manufacturers for several decades.

7.2. Background information

This dissertation has been concerned with the “open market” policies and the protectionist policies implemented by several developing countries to maintain the inflows of foreign capitals or to prioritize development in the local automotive industry in the future. The highlights are not from either the globalization or regionalization trends in East Asian countries but it shows how the automotive industry in ASEAN has evolved in order for both the foreign and local companies to survive in this competitive era.

7.3. Statement of results

The research set the following hypotheses:

Hypothesis 1:

AFTA alone is not enough to attract foreign and regional investors into ASEAN. Regional and bilateral trade agreements with Japan could enhance the country's attractiveness through economic cooperation.

Hypothesis 2:

Automotive industries in ASEAN are supported by government policies, which determine the future export market for global automakers. Stricter Rules of Origin (RoO) designed in bilateral EPAs would help to protect local firms and at the same time increase the localization rate to a more integrated regional supplier's networks.

Hypothesis 3:

Japan uses Economic Partnership Agreements to create its own production and export base but the impacts are more significant in technology awareness and inter-trade than intra-trade in ASEAN's automotive industry.

Table 39 Summary of Hypotheses, Methodologies and Results

	Hypothesis 1	Hypothesis 2	Hypothesis 3
Chapter	2 & 3	3 & 5	4 & 6
Methodology	Literature Review & Case Analysis	Literature Review & Case Study	Literature Review & Fieldwork
Result	ASEAN, AFTA, Japan's EPA and domestic industry	Protectionism, trade openness level	Technology transfer through economic cooperation, trade and investment flow

ASEAN countries have gone through several economic transitions, from import substitution industrialization, to dual system with export oriented industrialization into attracting foreign investors to ASEAN by promoting a large market under AFTA. The differences in ASEAN such as socio-economic, income distribution and political ideology have not prevented ASEAN countries from integrating their market without interfering with each other's national interest. Economic cooperation such as AFTA and AICO has helped to motivate Japanese manufacturing firms to concentrate their production strategies in ASEAN and export the complete products to the global market. Hence, it contributes to the effective policymaking by the individual governments to further facilitate the smoothness of business environment in the region.

AFTA had received poor reviews from several researchers (due to lower ASEAN intra-trade flows) but it had provided a foundation for Japanese automakers to build their own production networks in ASEAN. ASEAN governments are lacking in

negotiation and policymaking skills at the global level, but regional inter-firm cooperation has helped them to better induce domestic reforms. Foreign automotive firms in ASEAN are provided with new business opportunities as more RTAs with non-ASEAN members are concluded. ASEAN served as an export base for the Japanese multinational firms. Overall, it is a “win-win” situation for Japan and ASEAN countries.

There are different ways to adopt technology in the automotive industry, which is considered a long-term industrialization plan by Southeast Asian countries. Malaysia decided to bring forward its own national car brands with the Japanese automaker’s collaboration. However, the local automotive related suppliers had to struggle in order to compete with Thailand and Indonesia. In the same ASEAN market, Malaysia had to implement protectionist policies (such as the AP system, high import and excise duties) on foreign automobiles. Although, it is important to protect and nurture local industry, there should be a timeframe to end the special treatment of the local automotive industry players. Technical cooperation in Japan’s EPA is one the solutions for Malaysia to better learn and adopt advanced technology for local automotive firms. In comparison to Thailand and Indonesia, the liberalization policies in those two countries with no national car brands to protect, are further attracting foreign investors with or without the technical cooperation in EPA. However, they also have some protectionist policies supporting local industries although these industrial policies are not as apparent when compared to Malaysia. The Malaysian government should consider foreign oriented policies in the future.

The inclusion of the Rules of Origin in this dissertation is because in every regional trade agreement, there must be a chapter detailing the Rules of Origin. Therefore, RoO is essential to the discussion in this study of regional trade agreement effectiveness. Rules of Origin may be considered to be an obstacle for ASEAN-based manufacturing firms to use preferential tariffs but the government-to-government efforts in improving the situation can be seen from the regionalization trends today. There should be seminars for the smaller automotive parts suppliers in order for them to learn the advantages of RoO. RoO are meant to increase foreign direct investments in the host country as the rules could promote localization strategies for multinational firms. Hence, ASEAN governments have to take into consideration the problems of local automotive firms with different regulations. This is to make sure that RoO in AFTA and other RTAs have advantages in smoother trade and investment flows.

The fieldwork in this research has proven that greater trade openness (with a few protectionist policies still in place) in Thailand has helped the development of the automotive industry. The Thai government's automotive policy towards foreign assemblers and suppliers has contributed to the Japanese automaker's future market strategies. On the other hand, Malaysia has to address the challenge of new low cost markets such as China and India. With a limited but open market policy, Malaysia could not depend on the export strategy for its national car brands, Proton and Perodua. Thus, the Malaysian national automakers need to be able to take advantage of adopting the latest automotive technology such as electric vehicles and robotics technology. The

Malaysian government could focus on research and development (R&D) in the manufacturing industry (especially knowledge-intensive sectors). AFTA and other bilateral trade agreements would not weaken Malaysia‘s position, as these are huge opportunities for local companies to increase their level of competitiveness as long as they are given a level playing field with foreign firms.

This dissertation has shown that regional trade agreements have less impact on trade flows as the margin difference between preferential tariffs and MFN tariffs are small. Nevertheless, the goals of concluding bilateral or regional trade agreements in East Asia are more focused on foreign affairs and political relationships between countries. Technology aid from Japan to ASEAN countries can be done with Japanese Official Development Assistance (ODA) and indirect spillovers of FDI without negotiations on technical cooperation. The technical cooperation in the agreements is to ensure that the level of technology transfer in critical industries is higher and more beneficial for partner countries. Although the global crisis in 2009 has affected the world trade flows, East Asian economies have recovered quickly and the complementation characteristics of the manufacturing industries are believed to have contributed to this recovery.

7.4. Limitations

The literature review in Chapter 1 took a very difficult turn for the author as the existing papers examined the variables terms from only one perspective: either from the

point of view of industry or policy and politics, or from an economic points of view. It is hoped that this dissertation will be able to fill the gap, so that researchers will be able to understand the effect of regional trade agreements on prospective yet protected industries such as the automotive industry. We hope to show the researchers in this area a new direction in terms of political economics research studies.

While efforts were made to include some of the Japanese automakers operating in Indonesia and Malaysia in the fieldwork research, Thailand has a high level of concentration of Japanese firms with the government's policy towards their automotive industry, and as the study was aimed at the impacts of free trade ideology on certain sectors such as the automotive sector the fieldwork reflected this. The findings in this dissertation are not necessarily representative of the position of other foreign automakers in ASEAN countries. This study attempts to cover most of the questions on the impact of regional trade agreements on the automotive industry through trade liberalization and technical cooperation either directly or indirectly, and the highest concentration of foreign automakers in ASEAN countries are Japanese.

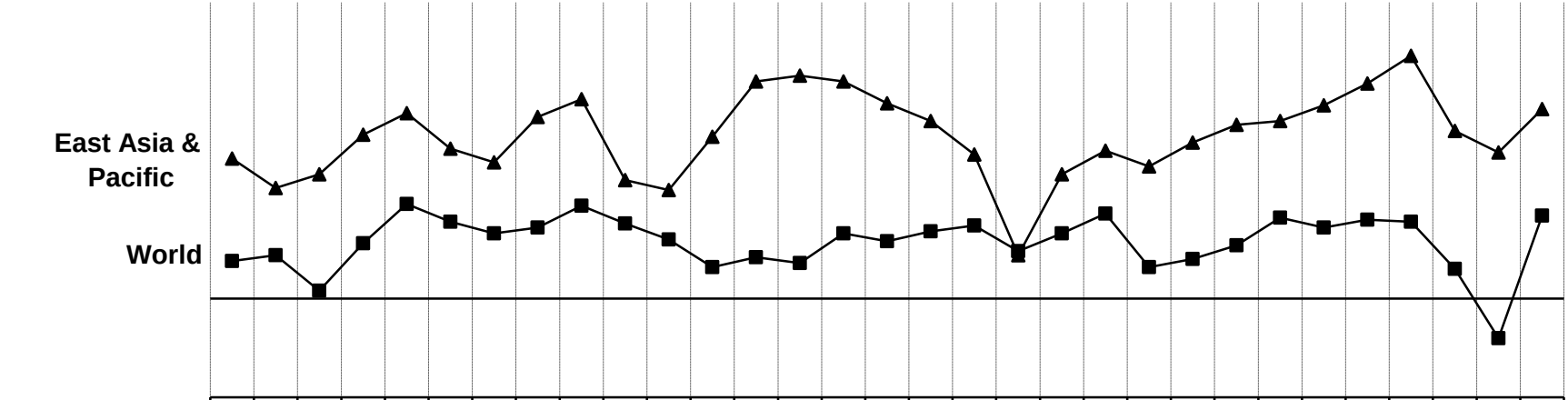
7.5. Recommendation For Future Research

Last but not least, this study needs stress that although there is voluminous literature about the automotive industry in ASEAN, the economic development gap causes the analyses of the countries to be uneven. Future research should therefore concentrate on the investigation from the position of each individual country as well as

from assemblers or parts suppliers. It would be interesting to compare the impact of other RTAs on other industries such as the electrical and electronics industry. Other foreign manufacturers in ASEAN countries could have different market strategies in comparison with the closely-knit Japanese production network.

APPENDICES

Appendix A Gross Domestic Products (GDP) Growth Annual, 1980 -2010 (%)



	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
World	1.9	2.2	0.4	2.8	4.8	3.9	3.3	3.6	4.7	3.8	3	1.6	2.1	1.8	3.3	2.9	3.4	3.7	2.4	3.3	4.3	1.6	2	2.7	4.1	3.6	4	3.9	1.5	-2	4.2
East Asia & Pacific	7.1	5.6	6.3	8.3	9.4	7.6	6.9	9.2	10	6	5.5	8.2	11	11	11	9.9	9	7.3	2.2	6.3	7.5	6.7	7.9	8.8	9	9.8	11	12	8.5	7.4	9.6

* East Asia and Pacific are for developing countries only
Source: The World Bank Data

Appendix B Economic Activities according to GDP Share by percentage, 1981-1997

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Malaysia																	
A	21.4	21.1	19.1	20	19.9	19.8	19.7	20	17.6	14.8	14	14.2	13.4	13.3	12.5	11.2	10.6
B	40.3	37.9	40.8	38.5	38.5	38.5	38.1	38.1	37.8	40.2	40.2	39.2	38	38.1	39.1	40.8	41.5
(C)	36	33.9	35.2	34.9	34.9	34.8	34.6	35.1	34.6	36.4	35.9	34.5	33	32.7	33.2	34.6	35.3
(D)	20.9	19.1	19.5	19.3	19.3	19.3	19.6	21.7	22.4	22.9	24.2	24.5	24.4	25.2	24.8	25.9	26.2
Philippines																	
A	24.9	23.3	22.4	24.8	24.6	23.9	24	23	22.7	21.9	21	21.8	21.6	22	21.6	20.6	18.9
B	39.2	38.8	39.2	37.9	35.1	34.6	34.4	35.2	34.9	34.5	34	32.8	32.7	32.5	32.1	32.1	32.1
(C)	29.1	28.7	28.3	28.6	30	29.7	29	29.8	28.7	28.4	29	27.8	27.3	26.9	26.5	26.2	25.7
(D)	25.5	25.1	24.2	24.6	25.2	24.6	24.8	25.6	24.9	24.8	25.3	24.2	23.7	23.3	23	22.8	22.3
Thailand																	
A	21.4	18.5	20.1	17.6	15.8	15.7	15.7	16.2	17.2	14.4	14.5	12.3	9.8	10.3	10.8	9.5	9.4
B	30.1	29.5	30.6	32	31.8	33.1	33.3	34.6	34.6	35.9	37.4	39.5	40.3	40.2	40.2	40.8	40.2
(C)	25.5	24.8	25.5	26.7	26.7	28.2	28.5	29.8	28.6	29	30.2	32.2	32.7	32.2	32.3	33.4	34.4
(D)	22.6	21.3	22.1	22.9	21.9	23.9	24.3	25.8	24.2	24.9	26.1	28.3	28.7	28.4	28.6	29.7	30.2
ASEAN																	
A	21.6	21	20.2	20.1	20.1	20.1	19.6	19.1	18.5	16.4	15.6	15.3	14.2	14	13.9	13	12.5
B	38.3	36.2	37.3	36.8	34.9	34	34.9	35.8	36	36.7	37.5	37.5	37.4	37.6	38.1	38.9	39.1
(C)	32.4	30.1	30.8	31	29.8	29.2	30.2	31.4	31.1	31.3	32	31.5	31.1	30.9	31.3	32	32.6
(D)	18.7	17.9	18.5	19.4	19.7	20.8	21.3	23.5	23.1	23.3	24.2	24.7	24.9	25.2	25.5	26.2	26.4

Notes: A (Agriculture, hunting, forestry, fishing), B (Industry), C (Mining, manufacturing, utilities), D (Manufacturing). C share is of B and D share is of C.
Source: UNCTAD, author's calculations (accessed on 10 November 2011)

Appendix C SITC Numbers and Descriptions

SITC

0 Food and Live Animals

1 Beverages and tobacco

2 Crude materials, inedible except fuels

3 Mineral fuels, lubricants and related materials

4 Animal and vegetable oils, fats and related materials

5 Chemical and related products, not elsewhere specific (n.e.s).

6 Manufactured goods

7 Machinery and transport equipments

8 Miscellaneous manufactured articles

9 Commodities and transactions not classified elsewhere in the SITC

Appendix D Definitions of Manufactured goods by Degree of Manufacturing

Groupings

Labor -intensive and resource-based manufactures	Manufactures with low skill and technology intensity
Leather	Pig iron & spiegeleisen, sponge iron, powder & granu
Manufactures of leather, n.e.s.; saddlery & harness	Ingots, primary forms, of iron or steel; semi-finis.
Furskins, tanned or dressed, excluding those of 8483	Flat-rolled prod., iron, non-alloy steel, not coated
Cork manufactures	Flat-rolled prod., iron, non-alloy steel, coated, clad
Veneers, plywood, and other wood, worked, n.e.s.	Flat-rolled products of alloy steel
Wood manufacture, n.e.s.	Iron & steel bars, rods, angles, shapes & sections
Paper and paperboard	Rails & railway track construction mat., iron, steel
Paper & paperboard, cut to shape or size, articles	Wire of iron or steel
Textile yarn	Tubes, pipes & hollow profiles, fittings, iron, steel
Cotton fabrics, woven	Structures & parts, n.e.s., of iron, steel, aluminum
Fabrics, woven, of man-made fabrics	Metal containers for storage or transport
Other textile fabrics, woven	Wire products (excluding electrical) and fencing grills
Knitted or crocheted fabrics, n.e.s.	Nails, screws, nuts, bolts, rivets & the like, of metal
Tulles, trimmings, lace, ribbons & other small wares	Tools for use in the hand or in machine
Special yarn, special textile fabrics & related	Cutlery
Made-up articles, of textile materials, n.e.s.	Household equipment of base metal, n.e.s.
Floor coverings, etc.	Manufactures of base metal, n.e.s.
Lime, cement, fabrica. constr. mat. (excluding glass, clay)	Motorcycles & cycles
Clay construction, refracto. construction materials	Trailers & semi-trailers
Mineral manufactures, n.e.s.	Railway vehicles & associated equipment
Glass	Ships, boats & floating structures
Glassware	Sanitary, plumbing, heating fixtures, fittings, n.e.s.
Pottery	Lighting fixtures & fittings, n.e.s.
Furniture & parts	
Travel goods, handbags & similar containers	
Men's clothing of textile fabrics, not knitted	
Women's clothing, of textile fabrics	
Men's or boy's clothing, of textile, knitted, croche.	
Women's clothing, of textile, knitted or crocheted	
Articles of apparel, of textile fabrics, n.e.s.	
Clothing accessories, of textile fabrics	
Articles of apparel, clothing access, excluding textile	
Footwear	
Baby carriages, toys, games & sporting goods	

Manufactures with medium skill and technology intensity	Manufactures with high skill and technology intensity
Materials of rubber (pastes, plates, sheets, etc.)	Hydrocarbons, n.e.s., & halogenated, nitr. derivative
Rubber tyres, tyre treads or flaps & inner tubes	Alcohols, phenols, halogenat., sulfonat., nitrat. der.
Articles of rubber, n.e.s.	Carboxylic acids, anhydrides, halides, per.; derivati.
Vapour generating boilers, auxiliary plant; parts	Nitrogen-function compounds
Steam turbines & other vapour turbines, parts, n.e.s.	Organo-inorganic, heterocycl. compounds, nucl. acids
Internal combustion piston engines, parts, n.e.s.	Other organic chemicals
Engines & motors, non-electric; parts, n.e.s.	Inorganic chemical elements, oxides & halogen salts
Rotating electric plant & parts thereof, n.e.s.	Metallic salts & peroxysalts, of inorganic acids
Other power generating machinery & parts, n.e.s.	Other inorganic chemicals
Agricultural machinery (excluding tractors) & parts	Radio-actives and associated materials
Tractors (excluding those of 71414 & 74415)	Synth. organic colouring matter & colouring lakes
Civil engineering & contractors' plant & equipment	Dyeing & tanning extracts, synth. tanning materials
Textile & leather machinery, & parts thereof, n.e.s.	Pigments, paints, varnishes and related materials
Paper mill, pulp mill machinery; paper articles man.	Medicinal and pharmaceutical products, excluding 542
Printing & bookbinding machinery, & parts thereof	Medicaments (incl. veterinary medicaments)
Food-processing machines (excluding domestic)	Essential oils, perfume & flavour materials
Other machinery for particular industries, n.e.s.	Perfumery, cosmetics or toilet prepar. (excluding soaps)
Machine-tools working by removing material	Soaps, cleansing and polishing preparations
Mach.-tools for working metal, excluding removing mate.	Fertilizers (other than those of group 272)
Parts, n.e.s., & accessories for machines of 731, 733	Polymers of ethylene, in primary forms
Metalworking machinery (excluding machine-tools) & parts	Polymers of styrene, in primary forms
Heating & cooling equipment & parts thereof, n.e.s.	Polymers of vinyl chloride or halogenated olefins
Pumps for liquids	Polyethers, epoxide resins; polycarbonate, polyesters
Pumps (excluding liquid), gas compressors & fans; centr.	Other plastics, in primary forms
Mechanical handling equipment, & parts, n.e.s.	Waste, parings and scrap, of plastics
Other non-electr. machinery, tools & mechan. appar.	Tubes, pipes and hoses of plastics
Ball or roller bearings	Plates, sheets, films, foil & strip, of plastics
Appliances for pipes, boiler shells, tanks, vats, etc.	Monofilaments, of plastics, cross-section > 1mm
Transmis. Shafts	Insecticides & similar products, for retail sale
Non-electric parts & accessor. of machinery, n.e.s.	Starch, wheat gluten; albuminoidal substances; glues
Electric power machinery, and parts thereof	Explosives and pyrotechnic products
Apparatus for electrical circuits; board, panels	Prepared addit. for miner. oils; lubricat., de-icing
Equipment for distributing electricity, n.e.s.	Miscellaneous chemical products, n.e.s.
Electro-diagnostic appa. for medical sciences, etc.	Office machines
Household type equipment, electrical or not, n.e.s.	Automatic data processing machines, n.e.s.
Electrical machinery & apparatus, n.e.s.	Parts, accessories for machines of groups 751, 752
Motor vehicles for the transport of persons	Television receivers, whether or not combined
Motor vehic. for transport of goods, special purpo.	Radio-broadcast receivers, whether or not combined
Road motor vehicles, n.e.s.	Sound recorders or reproducers
Parts & accessories of vehicles of 722, 781, 782, 783	Telecommunication equipment, n.e.s.; & parts, n.e.s.
Prefabricated buildings	Cathode valves & tubes
Articles, n.e.s., of plastics	Aircraft & associated equipment; spacecraft, etc.
	Optical instruments & apparatus, n.e.s.

	Instruments & appliances, n.e.s., for medical, etc.
	Meters & counters, n.e.s.
	Measuring, analysing & controlling apparatus, n.e.s.
	Photographic apparatus & equipment, n.e.s.
	Cinematographic & photographic supplies
	Cinematograph films, exposed & developed
	Optical goods, n.e.s.
	Watches & clocks

Source: UNCTAD Statistics Website (accessed on 2 February 2012)

Appendix E Methodology in Detail

Fieldwork and in-depth interviews

According to Bernard (2000), there are four types of interviews; informal, unstructured, semi-structured and structured interviews. For this research, the author has decided to combine open-ended and semi-structured interviews because these methods are the most suitable to conduct as the semi-structured interview has a written list of questions that could be referred to and most of the respondents are professional in their fields and open-ended interviews give opportunities to the respondents to freely express their opinion and views toward issues approached by the interviewer. It extends the degree of openness and flexibility to improve data gathering (Marsland, Wilson et al. 2001). There is limited time allocated for each respondent, thus the author has to efficiently make use of the time given. All interviews were recorded using a recorder and notes were taken during the sessions. The interviews were transcribed, after the author returned from Malaysia to Japan. The author was keen to conduct this fieldwork to explore the connection between the economical impacts of a RTA on the auto industry by practical observation.

Field notes were used when the interviewer talked to the respondents while at the same time the session was being recorded. During factory visits, notes were taken to ensure the interviewer understood the production processes and could add questions to ask the respondents based on the observation.

All interviews were conducted for about one hour. Prior to the interviews, a set of questions was sent to the participants so that they could prepare the information needed. Two interviews were done before guided tours through the factories, which offered the

opportunity to ask questions to get further information on other aspects and increase the author's understanding of production process in the automotive industry.

Five major Japanese and Malaysian automotive companies were able to be visited by the author herself. Each visit took about half a day and some of them included company presentations, factory visits and interviews. Mainly, Japanese experts in the automotive industry, managers, and officers in charge of the Product Planning Department were interviewed to directly get fresh information and views of today's trends.

In addition to those, two automotive parts suppliers were also interviewed. One Japanese automotive related professional working under the program of the Japan-Malaysia Economic Partnership Agreement (JMEPA) was interviewed, as well. After the visits to each firm, the author received company pamphlets containing product descriptions, annual reports and presentation reports. These data were analyzed before a summary of the report was made, which was later followed up by mail to the person interviewed in order to ensure the correct understanding of their views on certain topics.

Some of the raw data on a company's strategies and background were given on that day, which the author had to first analyze. Most of the data were from the participants while the statistics data are from international trade organizations' websites.

Appendix F Background of the Participants

Participant 1:

He is the Managing Director of Company A. He founded this company because of his interest in making die and molds. Participant 1 received his training in an American company, which trained some Taiwanese employees before training him with other Malaysian staff. By starting from only one medium sized machine, he began to take orders to make die, jigs and fixtures. Company A was established in 1997, where the Asian Financial Crisis has just started at that time. This company received financial assistance from the government by registering with the Ministry of Finance Malaysia. The capital of this company is quite large; hence with the combination of government aid and his own capital, they survived the Asian Financial Crisis. This company is in Malaysia and originates as a local firm.

Participant 2:

He is a Japanese officer in the Japanese government's related organization in charge of East Asian RTAs. He has published several papers on free trade agreements, East Asian economic situations and monitored ASEAN countries economic policies for several years. The company's origin is Japan and he is located in Thailand's branch.

Participant 3:

He is a Japanese top management level officer in charge of creating a well-known

automaker's strategies for the ASEAN market. Not only does he have vast knowledge of the automotive industry in Asia, he also helps to oversee the market's future in ASEAN countries. The company's origin is Japan and the factory is located in Bangkok, Thailand.

Participant 4:

He is a Japanese expatriate working for a national carmaker. He has knowledge of production technology and previously worked with a well-known Japanese automaker in Japan. Although the author's research is more focused on trade agreements and relationships with the automotive industry in ASEAN countries, he stated some valuable opinions on problems with the national carmaker's management system. The company's origin is Malaysia and he is located in Malaysia, too.

Participant 5:

The interview was done in the presence of two management level Malaysian officers. The company supplies parts to national automakers and the ASEAN market. The company has subsidiaries in Thailand and has deep connections with a Japanese part's maker and Korean suppliers. They are now eyeing the Indonesian and Indian market. The company's origin is Malaysia and it is located in Malaysia.

Participant 6:

He is a Japanese automotive expert in a Japanese multinational automaker in ASEAN. He is in charge of production and the interview only touched a little on free trade agreements.

However, the author felt that technical aids are mostly involved between this company and local workers whether in management or at the production level. The company is a joint venture between Malaysia and Japan and its location is in Malaysia.

Participant 7:

He is a Japanese managing director of a joint-venture (Japan and Malaysia) national automotive company. His knowledge is more towards the management and production level. Previously, he worked with a well-known Japanese automaker in China. This company is located in Malaysia.

Participant 8:

He is a Japanese expatriate in the MAJAICO program. Most of the interview's content is about the level of technology education, human resources and changes in the local automotive industry in Malaysia. This company is located in Malaysia but is operating under the agreement between the Japanese and Malaysian governments.

Appendix G Survey Question

RELATIONSHIP BETWEEN JAPAN AND ASEAN COUNTRIES IN THE AUTOMOTIVE SECTOR THROUGH REGIONAL TRADE AGREEMENTS

FIELDWORK

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Dear Sir/ Madam,

Thank you very much for participating in my PhD Dissertation Research Project 2011 titled

“ Linking Automotive Industry with Free Trade Agreements (FTA) – A Case Study on Japan and ASEAN-“. This questionnaire cum open-ended interview is a totally value-free survey for the participants to express his or her views on several issues. This interview is going to be an important part of my PhD dissertation and the outcome of this research project could contribute to the growth of the automotive industry’s research.

Research Background:

During these past 10 years, the world has seen an increase of regional trade agreements notified to World Trade Organization (WTO). However, the delay of multilateral negotiations has caused some countries such as Japan to pursue bilateral agreements or proceed with dual track negotiations. Government to government negotiations are based on responses from both policymakers and industry players. The impacts of FTA/EPA on domestic industries should not be taken lightly. As the automotive industry has highly backward and forward linkages to other industries, it plays an important role in trade negotiations, particularly among developed and developing countries. Historically, since the 1960s, Japan and ASEAN countries have deep political and economic connections. Therefore, this study will cover the agreements along with the impact on the automotive industries in Thailand, Malaysia, Indonesia and the Philippines.

Research Objectives:

(i) To asses the trend of automotive industry player’s market strategies towards globalization.

(ii) To find out the level of technology transfer in the automotive industry before and after free trade agreements were concluded.

(iii) To investigate the impact of free trade agreements on the automotive industry.

Achievements in International Conference Participation:

1) Third International Conference on Southeast Asia (ICONSEA) December 2009 at Malaya University, Kuala Lumpur. My paper was titled “The Impact of Japan’s EPA on Automotive Industry in Malaysia, Thailand and Indonesia” (Conference Proceeding).

2) International Conference on Social Sciences (ICSS) October 2010 at Izmir, Turkey. My paper was titled “Rules of Origin and Automotive Sector in Japan’s Economic Partnership Agreements”. This paper was selected to be published in the International Economic and Finance Studies Vol. 2, No. 1, 2010

Please find the attached page of abstracts of the above papers for your reference.

QUESTIONS

Personal Information

1. Name:
2. Designation:
3. Age (optional):
4. Company:

5. City/Country:

Working Experiences

6. Have you worked in other countries?
7. How many years have you been involved in this industry?
8. Has your company dealt with any ASEAN countries for the past 3 years in the automotive industry?

ASEAN Free Trade Area (AFTA) and Japan's Economic Partnership Agreement (Japan-Malaysia EPA, Japan-Thailand EPA)

9. Are you familiar with AFTA or other free trade agreements?
10. What do you think about the impact of AFTA/AICO/JMEPA on your company so far?
11. Can you explain in what way AFTA/JMEPA bring advantages/disadvantages to your company?
12. If AFTA did not exist, what might change in your company's international expansion strategies?
13. What are the problems in AFTA /JMEPA and is it easy to understand the procedures?
14. Vietnam's automotive industry will be completely liberalized as AFTA comes fully into effect in 2018. What is your view on that matter?
15. What are the significances of AFTA and other FTAs in the automotive sector?
16. Is your company aware of the content of Japan's EPA, particularly in the automotive sector?

17. Can you give me your view on the general impact of Japan's EPA on the automotive industry here?

Technology Cooperation in Automotive Industry

18. How many local suppliers and foreign suppliers are dealing with your company? Can you give me the percentage of each type? How about localization strategies in your company?
19. Does your company support your suppliers by giving training/financial support/advice?
20. What is your opinion on the technology transfer between Japan and local companies here after Malaysia signed the Economic Partnership Agreement (EPA) with Japan?

21. Other issues such as China and its influences on your company and problems in export/import including dealing with various regulations in FTA/EPA (for example Rules of Origin, Customs Procedure).

Additional comments or opinions:

_____

_____

_____

_____

I appreciate your kind interest in my research project. For your benefit, please sign the

consent section below in order to keep your record private and only to be used for research purposes. Please provide your email address so that I can send you the complete analysis from this interview for your agreement on the content. All the sensitive information in this interview will be completely anonymous. Thank you for your cooperation and kind attention.

“Hereby, I give my consent for the information and comments I shared to be only used for the indicated research purposes.”

Date *: _____*

Email Address *: _____*

Name and Signature: _____

( )

BIBLIOGRAPHY

Abdul Kadir, K. (2005). *Investment Incentives - Malaysia's Perspectives-*. Paper presented at the Workshop on Improving the Investment Climate in Indonesia.

Aggarwal, V. (2006). *Bilateral trade agreements in the Asia-Pacific : origins, evolution, and implications*. New York ;;London: Routledge.

Anazawa, M. (1997). Technology Transfer in the automobile industry in Malaysia: PROTON and vendors. *Shogakutoukyu, 47*(4), 119-154.

Aoki, K. (2004). *Seisaku teigen Nihon no tai Ajia keizai seisaku : aratana keizai kankei no kōchiku ni mukete*. Tōkyō: Nihon Hyōronsha.

Aoki, T. (1995). *ASEAN Economic Dynamism (in Japanese ASEAN yakudō no keizai)*. Tōkyō: Waseda Daigaku Shuppanbu Shohan.

Aoki, T. (2001). *AFTA-ASEAN Economic Integration Real Situation and Prospects (in Japanese ASEAN jiyū bōeki chiiki: ASEAN keizai tōgō no jitsujō to tenbō)*. Tōkyō: JETRO.

Ariff, M., Arndt, H. W., Robert Curry, J., Igusa, K., Imada-Iboshi, P., P.J.Lloyd, . . . (ed), J. T. (1996). *AFTA in the changing international economy*. Singapore: Institute of Southeast Asian Studies.

Aswicahyono, H., & Titik, A. (2000). Understanding the Patterns of Trade in the ASEAN Automotive Industry (Vol. WPE056): Centre for Strategic and International Studies, Jakarta, Indonesia.

Baer, W. (1972). Import Substitution and Industrialization in Latin Amercia: Experiences and Interpretations. *Latin American Research Review, 7*(1), 95-122.

Baldwin, R. (1993). *A domino theory of regionalism*: National Bureau of Economic Research.

Baldwin, R. (1997). The causes of regionalism. *World Economy, 20*(7), 865-888.

Baldwin, R. (2006). Managing the Noodle Bowl: The Fragility of East Asian Regionalism *CEPR Discussion Paper*: CEPR.

Belderbos, R., Capannelli, G., & Fukao, K. (2001). Backward vertical linkages of foreign manufacturing affiliates: Evidence from Japanese multinationals. *World development, 29*(1), 189–208.

Bernard, H. (2000). *Social research methods : qualitative and quantitative approaches H. Russell Bernard*. Thousand Oaks Calif. [u.a.]: SAGE Publication, Inc.

Booth, W. C., Colomb, G. G., & Williams, J. M. (2008). *The craft of research*: University of Chicago Press.

Brenton, P. (2003). Notes on Rules of Origin with Implications for Regional Integration in South East Asia. *World Bank*.

Busser, R. (2011). 'Detroit of the East'? Industrial Upgrading, Japanese Car Producers and the Development of the Automotive Industry in Thailand. *Asia Pacific Business Review, 14*(1), 29-45.

Buszynski, L. (1997). ASEAN's New Challenges. *Pacific Affairs, 70*(4), 555-577.

Cadot, O., de Melo, J., & Portugal-Perez, A. (2007). Rules of origin for preferential trading arrangements: implications for the ASEAN Free Trade Area of EU and US experience. *Journal of Economic Integration, 22*(2), 288-319.

Chase, K. A. (2007). *Industry Lobbying and Rules of Origin in Free Trade Agreements.* Paper presented at the International Studies Association 48th Annual Convention,, Chicago, Illinois.

Council for Asian Manpower, S., & Linnemann, H. (1987). *Export-oriented industrialization in developing countries*. [Singapore]: Published for Council for Asian Manpower Studies Manila by Singapore University Press.

Coxhead, I., & Plangpraphan, J. (1999). Economic boom, financial bust, and the decline of Thai agriculture: was growth in the 1990s too fast? *Chulalongkorn Journal of Economics, 11*(1), 76–96.

Darby, J. (2009). Liberalisation and Regional Market Integration: Turkish and Australian Automotive Sector Experience Compared. *World Economy, 32*(3), 460-478.

Dent, C. (2006). *New free trade agreements in the Asia-Pacific*. Basingstoke [England] ;New York :: Palgrave Macmillan/Economic & Social Research Council.

Dicken, P. (2007). *Global shift : the internationalization of economic activity*. New York: Guilford Press.

Dieter, H. (2007). Transnational Production Networks in the Automobile Industry. *Notre Europe, 58*.

Doner, R. F. (1991). *Driving a bargain : automobile industrialization and Japanese firms in southeast Asia*. Berkeley; Los Angeles; Oxford: University of California press.

Enos, J., & Yun, M. (1997). Transfer of Technology: An Update. *Asian-Pacific Economic Literature, 11*(1), 56-66.

Estevadeordal, A. (1999). *Negotiating preferential market access: The case of NAFTA*: Institute for the Integration of Latin America and the Caribbean.

Estevadeordal, A., Harris, J., & Suominen, K. (2009). Multilateralising Preferential Rules of Origin Around the World *Working Paper* (Vol. I37): IDB.

Estevadeordal, A., Lopez-Cordova, J. E., & Suominen, K. (2006). How Do Rules of Origin Affect Investment Flows?: Some hypotheses and the case of Mexico. In I.-A. D. B. (INTAL) (Ed.), *INTAL Working Papers*.

Falvey, R., & Reed, G. (1998). Economic effects of rules of origin. *Review of World Economics, 134*(2), 209-229.

Farrell, R., & Findlay, C. (2002). Japan and the ASEAN-4 automotive industry. *East Asian*

Economic Perspectives, 24.

Fuangkajonsak, W. (2006). *Industrial Policy Options for Developing Countries - The Case of the Automotive Sector in Thailand and Malaysia.* Tufts University, The Fletcher School.

Fujita, M. (1998). Industrial Policies and Trade Liberalization-The Automotive Industry in Thailand and Malaysia. In K. Okura (Ed.), *The Deepening Economic Inde-pendence in the APEC Region*. Tokyo: Institute of developing Economies.

Fukasaku, K. e., Plummer, M. e., & Tan, J. e. (1995). *OECD and ASEAN economies : the challenge of policy coherence*. Paris ;Washington D.C.: Organisation for Economic Co-operation and Development ;;OECD Publications and Information Center [distributor].

Furukawa, S., & Schmidt, G. (2008). *The Changing Structure of the Automotive Industry and the Post Lean Paradigm in Europe : Comparisons with Asian Business Practices*. Fukuoka: Kyūshū Daigaku Shuppankai.

Ganeshan Wignaraja, Rosechin Olfindo, Wisarn Pupphavesa, Jirawat Panpiemras, & Ongkittikul, S. (2010). How Do FTAs Affect Exporting Firms in Thailand. *Asian Development Bank Institute (ADBI) Working Paper Series No. 190*.

Graham, E. M., & Anzai, N. T. (1994). The myth of a de facto Asian economic bloc: Japan's foreign direct investment in East Asia. *The Columbia Journal of World Business, 29*(3), 6-20.

Guibernau, M. (2011). The birth of a united Europe: on why the EU has generated a 'non-emotional' identity. [10.1111/j.1469-8129.2010.00477.x]. *Nations and Nationalism, 17*(2), 302-315.

Guisan, C. (2011). From the European Coal and Steel Community to Kosovo: Reconciliation and Its Discontents. *JCMS: Journal of Common Market Studies, 49*(3), 541-562.

Hackett, C. (1992). *Jean monnet : the path to european unity*. [S.l.]: Saint Martin'S Press.

Hamzah, H. Z. (2008). *Regional Trade Agreements in East Asia: ASEAN and Japan Relationship (in Japanese Higashi Ajia ni okeru chiiki boueki kyoutei - ASEAN to nihon no kankei wo chuushin toshite) Unpublished Thesis.* Yamaguchi University.

Harwit, E. (2001). The Impact of WTO Membership on the Automobile Industry in China. *The China Quarterly*(167), 655-670.

Hayakawa, K., Hiratsuka, D., Shiino, K., & Sukegawa, S. (2009). Who Uses Free Trade Agreements? *ERIA Discussion Papers, 22*.

Higashi, S. (1995). The Automotive Industry in Thailand: From Protective Promotion to Liberalization. In IDE-JETRO (Ed.), *Spot-Survey* (Vol. 3): IDE-JETRO.

Hussey, A. (1991). Regional development and cooperation through ASEAN. *Geographical Review*, 87-98.

Imada, P. (1992). *AFTA : the way ahead*. Singapore: ISEAS (Institute of Southeast Asian Studies).

Ito, T. e., & Krueger, A. O. (1993). *Trade and protectionism* (Vol. 2). Chicago: University of Chicago Press.

James, W. E., & Ramstetter, E. D. (2005). Trade, Foreign Firms, and Economic Policy in Indonesian and Thai Manufacturing: East-West Center, Economics Study Area.

Japan, M. o. T. E. a. I. (1993). *ASEAN sangyō kōdoka bijon = Prospects and challenges for the upgrading of industries in the ASEAN region*. Tōkyō: Research Institute of Economy, Trade and Industry.

JETRO. (2010). *World Investment Report 2010 (Kaigai shijō no arata na furontia kaitaku ni muketa nihon kigyō no gurōbaru senryaku)*. Tōkyō: Jetro.

Juswanto, W., & Mulyanti, P. (2003). Indonesia's manufactured exports: A constant market shares analysis. *Jurnal Keuangan dan Moneter, 6*(2), 97-106.

Karikomi, S. (2001). AFTA's Development and the Impact on Japanese Companies (in Japanese AFTA no shinten to nihon kigyou ni ataeru eikyou). *Fuji Souken Ronshu, 5*.

Kawai, M., & Wignaraja, G. (2009). The Asian'Noodle Bowl': Is it Serious for Business. *Asian Development Bank Institute (ADBI) Working Paper Series No. 136*.

Kohpaiboon, A. (2006). Thai Automotive Industry: Multinational Enterprises and Global Integration. In D. P. Series (Ed.), (Vol. 004): Economic Research and Training Center.

Kono, D. Y. (2002). Are Free Trade Areas Good for Multilateralism? Evidence from the European Free Trade Association. *International Studies Quarterly, 46*(4), 507-527.

Kotera, A. (2007). Integration of East Asia: Non-economic benefits deserve greater attention (translation from Japanese). *Keizai Kyoushitsu*.

Kovrigin, E., & Suslov, D. (2006). Japanese FTA Policy in Asia Pacific: Current Situation and Perspectives. *The Seinan Law Review, 39*(3), 19-68.

Krishna, K. (2005). *Understanding rules of origin*: National Bureau of Economic Research Cambridge, Mass., USA.

Lau, T. (2006). Distinguishing fiction from reality: the ASEAN Free Trade Area and implications for the global auto industry. *University of Dayton Law Review, 31*(3), 453-476.

Lazaro, D. C., Medalla, E. M., & others. (2006). Rules of Origin: Evolving Best Practices for RTAs/FTAs. *Discussion Papers*.

Lebedeva, I. (2009). Japan-East Asia: New Stage of Economic Cooperation. *The Keizai Gaku, Annual Report of the Economic Society, Tohoku University, 70*(2), 1-16.

Lee, H. H., & Tan, H. B. (2006). Technology Transfer, FDI and Economic Growth in the ASEAN Region. [10.1080/13547860600923593]. *Journal of the Asia Pacific Economy, 11*(4), 394-410.

Legewie, J. (1999). Manufacturing Strategies for Southeast Asia after the Crisis: European, US and Japanese Firms. *Business Strategy Review, 10*(4), 55-64.

Machado, K. G. (1989). Japanese Transnational Corporations in Malaysia's State Sponsored Heavy Industrialization Drive: The HICOM Automobile and Steel Projects. *Pacific Affairs,*

62(4), 504-531.

Manger, M. (2009). *Investing in protection : the politics of preferential trade agreements between North and South*. Cambridge UK ;;New York: Cambridge University Press.

Marsland, N., Wilson, I., Abeyasekera, S., & Kleih, U. (2001). A methodological framework for combining quantitative and qualitative survey methods. *Combining Quantitative and Qualitative Survey Work: Methodological Framework, Practical Issues and Case Studies*.

Morales, R. (1994). *Flexible production : restructuring of the international automobile industry*. Cambridge [England]: Polity Press.

Mukherjee, A., & Sastry, T. (2002). Recent developments and future prospects in the Indian automotive industry: Research Paper, International Motor Vehicle Program.

Nag, B., & De, D. (2008). Integration of small and medium-sized enterprises in international production networks: the automotive industry in Asia. In M. Mikic (Ed.), *Emerging Trade Issues for Policymakers in Developing Countries in Asia and the Pacific* (pp. 24): Trade Policy Section, Trade and Investment Division, UNESCAP.

Naya, S., & Plummer, M. (2005). *US-ASEAN Free Trade Agreements and Its Implications for East Asian Regionalism*. Paper presented at the ASEAN+3 and the Future of Regionalism in East Asia.

Nesadurai, H. e., & Djiwandono, S. (2009). *Southeast Asia in the global economy : securing competitiveness and social protection*. Singapore: Institute of Southeast Asian Studies ;S. Rajaratnam School of International Studies.

Nizamuddin, A. M. (2008). Declining Risk, Market Liberalization and State-Multinational Bargaining: Japanese Automobile Investments in India, Indonesia and Malaysia. *Pacific Affairs, 81*(3), 339-359,332-333.

Nopprach, S. (2009). Location Choices for Japanese Firms in the Asian Automobile Industry. *Thammasat Economic, 27*(3).

Nopprach, S. (2010). Comparative Advantage in the Asian Automotive Industry. *Global COE Hi-Stat Discussion Paper Series, 132*.

Okamoto, Y. (1994). Impact of Trade and FDI Liberalization Policies on the Malaysian Economy. *The Developing Economies, 32*(4), 460-478.

Onozawa, J. (2008). Liberalization of Malaysian Automotive Industry and Technical Cooperation with Japan (in Japanese Mareshia jidousha no jiyuka to nihon ni yoru jidousha sangyou kyouryoku). *Kokusai Boueki to Toushi, Winter*(74).

Pak, Y. n.-c. l. (2006). *Economic liberalization and integration in East Asia : a post-crisis paradigm*. Oxford ;;New York: Oxford University Press.

Paul, H. (2008). Situating the Philippine Political Economy: Import-Substitution Industrialization in Comparative Perspective. *Kasarinlan: Philippine Journal of Third World Studies; Vol 4, No 4 (1989)*.

Petison, P., & Johri, L. M. (2008). Localization drivers in an emerging market: Case studies from Thailand. *Management Decision, 46*(9), 1399-1412.

Poapongsakorn, N., & Techakanont, K. (2008). The Development of Automotive Industry Clusters and Production Networks in Thailand. In I. Kuroiwa & T. M. Heng (Eds.), *Production networks and industrial clusters : integrating economies in Southeast Asia*. Singapore: ISEAS Publishing.

Prema-chandra, A., & Archanun, K. (2009). Intra-regional Trade in East Asia: The Decoupling Fallacy, Crisis, and Policy Challenges: Australian National University, Economics RSPAS.

Rajan, R. e., Kumar, R., & Virgill, N. (2008). *New dimensions of economic globalization : surge of outward foreign direct investment from Asia*. Hackensack NJ: World Scientific.

Rasiah, R., & Yun, H. A. (2009). Industrializing Southeast Asia. *Journal of the Asia Pacific Economy, 14*(2).

Roberts, M., & Wehrheim, P. (2001). Regional trade agreements and WTO accession of CIS countries. *Intereconomics, 36*(6), 315-323.

S.M., T., & Heng, T. M. (2005). Bilateral `WTO-Plus' Free Trade Agreements: The WTO Trade Policy Review of Singapore 2004 *The World Economy*.

Sako, M. (1996). Suppliers' associations in the Japanese automobile industry: collective action for technololgy diffusion. *Cambridge Journal of Economics, 20*(6), 651-671.

Severino, R. (2006). *Southeast Asia in search of an ASEAN community : insights from the former ASEAN secretary-general*. Singapore: ISEAS.

Shimizu, K. (1998). Intra-ASEAN Economic Cooperation, 1976-1987: Setbacks and Changes in ASEAN's Strategy for Collective Import Substituting Industrialization for Heavy and Chemical Industries. *Economic Journal of Hokkaido University, 27*, 81–113.

Shimizu, K. (1999). The Proposal and Implementation of the Brand to Brand Complementation Scheme: Intra-ASEAN Economic Cooperation, 1987-1995; An Analysis of Relations between Foreign Direct Investment, Multinationals and Intra-Economic Cooperation. *Economic Journal of Hokkaido University, 28*, 95-116.

Shimokawa, K. (1996). Restructuring and Global Strategy of the Japanese Automobile Industry and Its Perspective. *Keiei Shirin, 32*(4), 47-62.

Shimokawa, K. (2010). *Japan and the global automotive industry*. Cambridge;New York: Cambridge University Press.

Solon, O., & Floro, M. S. (1993). The Philippines in the 1980s: A Review of National and Urban Economic Reforms. *World Bank Working Paper, TWURD, 1*, 1–78.

Staples, A. (2008). *Responses to regionalism in East Asia Japanese production networks in the automotive sector*. Houndmills, Basingstoke, Hampshire [England] ;;New York :: Palgrave Macmillan.

Stubbs, R. (1999). War and Economic Development: Export-Oriented Industrialization in East

and Southeast Asia. *Comparative Politics, 31*(3), 337-355.

Takahashi, K., & Urata, S. (2010). On the Use of FTAs by Japanese Firms: Further Evidence. *Business and Politics, 12*.

Takayasu, K., & Mori, M. (2004). The Global Strategies of Japanese Vehicle Assemblers and the Implications of the Thai Automobile Industry. In M. A. A. S.Yusuf, K. Nabeshima (Ed.), *Global Production Networking and Technological Change in East Asia*. Washington DC: Oxford University Press.

Techakanont, K. (2008). *Productive Integration in ASEAN: A Thailand Perspective-Lessons from Asia and Europe for MERCOSUR*. Paper presented at the International Seminar on Productive Integration: Lessons from Asia and Europe for Mercosur, Brazil.

Thammasāt, M. (2002). *Thammasat review* (Vol. 7): Thammasat University.

Thee, K. W. (2011). Understanding Indonesia: the Role of Economic Nationalism. *Journal of Indonesian Social Sciences and Humanities, 3*(0), 55–79.

Thomsen, S. (1999). Southeast Asia: The Role of Foreign Direct Investment Policies in Development. In O. Publishing (Ed.), *OECD Working papers on international investment* (Vol. 1999/1).

Tiwari, P., Syamwil, I. B., & Doi, M. (2003). Spatial pattern of Japanese manufacturing industry in four ASEAN countries. *Papers in Regional Science, 82*(3), 403-415.

Ueda, Y. (2009). The Origin and Growth of Local Entrepreneurs in Auto Parts Industry in Thailand. *Center for Contemporary Asian Studies (CCAS), 25*.

Urata, S. (1994). Trade Liberalization and Productivity Growth in Asia--Introduction and Major Findings. *The Developing economies, 32*(4), 363-372.

Wad, P. (2004). Transforming industrial relations: the case of the Malaysian auto industry. *CLARA Working Paper, 12*, 235.

Watanabe, T. (2004). *The Era of East Asian Economic Partnership (in Japanese Higashiajia keizai renkei no jidai)*. Tōkyō: Tōyō Keizai Shinpōsha.

Whalley, J. (1998). Why Do Countries Seek Regional Trade Agreements *The Regionalization of the World Economy* (pp. 63-90): University of Chicago Press.

Wignaraja, G., Lazaro, D., & DeGuzman, G. (2010). *FTAs and Philippine Business: Evidence from Transport, Food, and Electronics Firms*: Asian Development Bank Institute.

Wignaraja, G., Olfindo, R., Pupphavesa, W., Panpiemras, J., & Ongkittikul, S. (2010). How Do FTAs Affect Exporting Firms in Thailand. *Asian Development Bank Institute (ADBI) Working Paper Series No. 190*.

Womack, J., Jones, D. T., & Roos, D. (1990). *The machine that changed the world : the story of lean production -- Toyota's secret weapon in the global car wars that is revolutionizing world industry*. New York: Free Press.

Wonnacott, P. (1996). The Automotive Industry in Southeast Asia: Can Protection Be Made Less Costly? *World Economy, 19*(1), 89-112.

Wood, R. S. (2005). *Strategies of Development: Indonesia and Malaysia 1960–present.* Paper presented at the SAIS I-Dev. Integrating Seminar.

Wu, Y.-l. (1983). Chinese Entrepreneurs in Southeast Asian. *American Economic Review, 73*(2), 112-117.

Wulf, L., & Sokol, J. B. (2005). *Customs Modernization Handbook*. Washington DC: World Bank.

Yoshihara, K. (1991). *Southeast Asian Economy (in Japanese: Tōnan Ajia no keizai)*. Tōkyō: Kōbundō Shohan.

Yoshimatsu, H. (2001). Preferences, interests, and regional integration: the development of the ASEAN industrial cooperation arrangement. *Review of International Political Economy, 9*(1), 123 - 149.

Yusuf, S. (2004). Competitiveness Through Technological Advances. In S. Yusuf, M. A. Altaf & K. Nabeshima (Eds.), *Global production networking and technological change in East Asia*. Washington D.C.: World Bank.

List of Websites

ASEAN Statistics

http://www.aseansec.org/19230.htm

ASEAN-Japan Centre

http://www.asean.or.jp/ja/

Board of Investment Thailand (BOI)

http://www.boi.go.th/index.php?page=index&language=en

Department of Statistics Malaysia

http://www.statistics.gov.my/portal/index.php?lang=en

Japan Customs

http://www.customs.go.jp/

Japan External Trade Organization (JETRO)

http://www.jetro.go.jp/indexj.html

Japanese Automobiles Manufacturers Association (JAMA)

http://www.jama.or.jp/

Malaysian Automotive Association (MAA)

http://www.maa.org.my/

Ministry of Economy, Trade and Industry, Japan

http://www.meti.go.jp/

Ministry of Foreign Affairs, Japan

http://www.mofa.go.jp/mofaj/

Thailand Automotive Institute (TAI)

http://www.thaiauto.or.th/index_eng.asp

The Association of Indonesia Automotive Industries (GAIKINDO)

http://www.gaikindo.or.id/

The International Organization of Motor Vehicles Manufacturers (OICA)

http://www.oica.net/

United Nations Comtrade

http://comtrade.un.org/

United Nations Conference Trade and Development

http://www.unctad.org/Templates/Page.asp?intItemID=1584&lang=1

World Bank

http://www.worldbank.org/

World Trade Organization (WTO)

http://www.wto.org/