AFTA in the Dynamic Perspective of Asian Trade:
Towards A Closer Cooperation between ASEAN and Korea, Japan and China

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Abstract:
This paper attempts to assess the effect of AFTA in the dynamic context of East Asia. It showed that intra-ASEAN trade has indeed expanded but ASEAN trade with non-partner countries in East Asia such as Korea, China and Japan has expanded at a higher rate. The effects of AFTA on FDI inflows also has not been recognized so far. While AFTA is contributing to the increasing confidence and stability of ASEAN countries, its effects on the development of these countries are not as important as the dynamic interdependence between ASEAN and other East Asian economies. A stronger cooperation of ASEAN+3 is therefore highly desirable.

JEL classification codes: F15, O53.
Key words: Trade creation effect, trade diversion effect, international competitive index, export similarity index, ASEAN+3
1. Introduction:

In January 1992, at the summit meeting of the Association of Southeast Asian Nations (ASEAN), the establishment of an ASEAN Free Trade Area (AFTA) was decided with the participation of all six-member countries (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand). This agreement provided for the elimination of tariffs and non-tariff barriers within 15 years from January 1993 (revised later to start from January 1994), with the completion date set at 2008. Until then, tariffs will be reduced to less than 5%. The main instrument of tariff liberalization under AFTA is the Common Effective Preferential Tariff (CEPT). The CEPT scheme will cover manufactured goods and processed agricultural products. Given the rapid development of regional cooperation in North America and Western Europe, the 1995 ASEAN summit meeting decided to move the deadline for the elimination of trade barriers forward to the year 2003, and the coverage of the CEPT scheme was extended to unprocessed agricultural products, as well as services. Facing the deterioration of the regional economic situation following the financial crisis in 1997, the summit meeting of ASEAN in December 1998 decided to speed up the trade liberalization by accelerating the time-frame to 2002, with the hope of making ASEAN a more attractive environment for foreign direct investment (FDI).¹


¹ One of the major economic purposes for the establishment of AFTA was to attract more FDI to maintain high economic growth. For a more detailed discussion on the background and issues regarding the establishment of AFTA, see Tan (1996), Bowles (1997), Chia (1997), Plummer (1997), and Chia (1998).
Compared to other free trade areas, AFTA is very unique. It has at least three special features. First, AFTA was created at a time most member-countries enjoyed a fairly high economic growth rate, characterized by rapid export-oriented industrialization. Second, AFTA is located in a wider dynamic region, characterized by rapid region-wide structural changes. Changes in the comparative advantage structure of Japan, Korea, Taiwan and other economies in East Asia have generated markets for products of ASEAN countries, which are lesser developed, and induced direct investment flows from the former economies to the latter. During the rapid growth process, ASEAN countries have benefited greatly from such regional externalities. Third, ASEAN countries however are also facing the rapid emergence of China, a giant in almost the same development stage and with the same factor endowments. While the development in Japan and the newly industrializing economies (NIEs) have provided a complement to growth in ASEAN, the relationship between ASEAN and China may be characterized as competition.

This paper attempts to provide an initial assessment on the trade effect of AFTA in the dynamic context of the East Asian economy in the 1990s, which is characterized by the three points cited above. After a short discussion on a theoretical framework for analyzing a free trade area (Section II), and on the implementation of the CEPT scheme (Section III), the paper will show, in Sections IV and V, that while the existence of AFTA is useful for raising allocative efficiency in member countries, the intra-ASEAN trade is not as important as the interdependence between ASEAN and the rest of East Asia. Also, while the growth of China is not necessarily generating a zero-sum game with ASEAN, it is essential for ASEAN countries to upgrade their industrial structures to benefit more from the opportunities provided by the emergence of China. We will also argue that further cooperation among ASEAN, Japan, Korea and China (ASEAN+3) is essential for enhancing the dynamic development in the region.

2. The economics of a free trade area in the context of ASEAN

By eliminating trade barriers among member countries, the free trade area (FTA) removes discrimination between partner countries and domestic firms. As a consequence, relatively inefficient domestic production will decrease in favor of partner country production. This results in trade creation. However, the FTA creates a new discrimination between imports from partner countries and those from non-partner countries. Imports from partner countries therefore may replace
more efficient non-partner products in the home market. This is a trade diversion. The net trade effect of a FTA will depend on the degree of trade creation compared to the degree of trade diversion. In other words, this net effect will be bigger, the stronger the trade creation effect is, and also the bigger, the weaker the trade diversion effect is.

The two conditions for strong trade creation effects are that the members of the FTA are major trading partners with each other, and that the tariff rates in the intra-region trade prior to the establishment of the FTA were high. The first condition is critical and only in the case that this condition was met, is the second condition important. The world trade matrix in the first half of the 1990s showed that ASEAN countries were not major trading countries with each other. In 1995 for example, intra-ASEAN trade (all six members before Vietnam joined in 1995) accounted for only 23.6% of their total trade (Chia 1998). If Singapore, a trade entrepot, were excluded, the share of intra-ASEAN trade would be reduced substantially. For example, trade among the ASEAN-4 (Indonesia, Malaysia, Philippines and Thailand) accounted for only 5.2% of their total trade in 1991. That share has risen subsequently but still remained at 8.3% in 2000 (Mukoyama 2001). However, as cited earlier, since ASEAN countries have experienced a rapid process of export-oriented industrialization, it is more important to look at the trade pattern of manufactured products, to see the extent of intra-ASEAN trade under the process of high economic growth. Section 4 will provide an analysis based on the trade matrix of manufactured products.

The condition for a weak trade diversion effect is that, in the FTA market, the export structures of non-partner countries are not similar to that of the partner countries. Using the trade matrix of manufactured products and the export similarity index, Section IV will examine the case of AFTA.

The trade creation and trade diversion effects are static, referring to a one-time change in the allocative efficiency. The FTA also generates dynamic effects, which refer to long-term implications for economic development of partner countries. Some of these dynamic effects can be summarized as follows. First, since the market is expanded beyond each partner’s national economy, the economies of scale in production can be reaped and thus production of final goods, as well as intermediate goods, will be concentrated in the most efficient site. The international competitiveness of these products will be stronger and exports will be expanded, resulting in a new trade creation effect. Second, direct investment flows from non-partner countries are expected to expand for three reasons. One is that the FDI
is induced by the new expanding market in the FTA. Another reason is the reaction of multinational corporations in non-partner countries to the trade diversion effect i.e., FDI is undertaken to overcome the disadvantage brought about by discriminated tariffs. This is a type of direct investment diversion from non-partner to partner countries. One more reason is that along with the implementation of trade liberalization and other reform measures, the member countries of the FTA appear to be less risky. The FDI can thus be expected to increase. A third dynamic effect is that, under the framework of the FTA, the pressure of competition among partner countries will be stronger and therefore resources will be re-allocated from less efficient areas to more efficient industries.

It is difficult to show evidence of these dynamic effects. In the case of AFTA, these effects will be partially considered in the analysis of trade and FDI flows in Sections IV and V.

3. Implementation of the CEPT scheme in AFTA

The CEPT scheme covers products having 40% ASEAN content (at least 40% of its content originates from any member country). The scheme has been implemented on the basis of 4 product lists.

*The Inclusion List (IL)*: Products in the IL are those that have to undergo immediate liberalization through reduction in intra-ASEAN tariff rates, and removal of quantitative restrictions and other non-tariff barriers. Tariffs on these products should be cut to a maximum of 20% by the year 1998, and to less than 5% by the year 2002 (by the year 2006 or later for new members of ASEAN).

*The Temporary Exclusion List (TEL)*: Products in TEL can be shielded from trade liberalization for a temporary period. After the temporary period, all of these products would have to be transferred into the IL and begin a process of tariff reduction.

*The Sensitive List (SL)*: This list contains unprocessed agricultural products, such as rice and sugar, which are given a longer period for integration into the free trade area. The commitment to reduce tariffs to 0-5% and to remove non-tariff barriers is extended up to the year 2010 for the ASEAN-6 to meet this deadline (for Vietnam up to 2013, for Lao PDR and Myanmar up to 2015, and for Cambodia up to 2017).

*The General Exception List (GEL)*: The products in this list are permanently

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2 Bowles (1997) and Plummer (1997), among others, emphasize the third reason for the expansion of FDI as an effect of the FTA.
excluded from the free trade area for reasons of national security, the protection of articles of cultural value, and other reasons.

Table 1 shows the number of CEPT products classified by the four lists cited above (as at July 9, 2001). For the six early members of ASEAN, on average, more than 98% of the products have been put in the IL for tariff cuts. The average figure for the four new members is close to 60% (nearly 80% in the case of Vietnam). For these countries, as expected, the large number of products listed in the TEL is noteworthy. Table 2 breaks down the products listed in the IL and shows the number of tariff lines, which had already been cut to fewer than 5%. For the six early members of ASEAN, on average, number of products for which tariffs have been lowered to 0-5% levels accounted for nearly 93% of the products listed in the IL.

So far, the implementation of CEPT has been made according to the revised accelerating target for trade liberalization, except for some products, such as automobiles and petrochemicals. For these products, some ASEAN countries requested to be allowed to postpone the schedule for tariff cuts, due to the difficulties they faced after the financial crisis. Under the export oriented industrialization regime, increasingly large numbers of products made in ASEAN have gained international competitiveness. Under these conditions, the tariff-cutting schedule has progressed smoothly.

4. AFTA trade pattern of manufactured products

4.1 Direction of ASEAN trade in manufactured products

With the exception of the Philippines, the ASEAN economies have achieved a fairly good performance at least until 1997. From 1966 to 1997, the average annual growth rates for Indonesia, Malaysia, Singapore, and Thailand were 6.5%, 7.1%, 9.0% and 7.4% respectively. The growth rates in the 1990s were lower (averaging 4.0%, 6.8%, 8.5% and 5.2%, respectively) due to the financial crisis in 1997, but, they were still quite high. The growth performance in ASEAN can be characterized as trade-oriented. The trade dependence ratios (the ratio of imports and exports in the GDP) for most ASEAN countries have risen rapidly. For example, the ratio for Thailand rose from 49% in 1980, to 67% in 1990 and 90% in 1999. This trade expansion has been led by the expansion of trade in manufactured products. In particular, the expansion of ASEAN manufactured exports was noteworthy. Table 3

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3 Growth rate data is based on IMF sources.
4 According to the Asian Development Bank (ADB) data.
recorded the increasing share of manufactured products in the total exports of ASEAN countries. By 1999, more than 90% of Malaysian exports and about 80% of Thailand exports were manufactured products. Those countries have also been successful in expanding their shares in world markets. The share of ASEAN-4 (Indonesia, Malaysia, the Philippines and Thailand) in world markets for manufactured products rose from 0.9% in 1980 to 3.6% in 1998.

In addition to these reasons, since the implementation of the CEPT scheme in AFTA has been centered on manufactured products, the analysis in this section will focus on the trade pattern of manufactured products. Manufactured goods have been the major focus in the relationship between ASEAN and the rest of East Asia in the dynamic context.

Table 4 is a trade matrix of manufactured products with a focus on the exports of ASEAN-5, and three major non-partner countries in Asia (Japan, Korea and China). In each exporting country, the manufactured product export figures for 1992 (upper line) and 1999 (lower line) are shown (in millions of US dollars). Table 5 transforms the data in Table 4 into percentage figures denominated by the total export to the world market. With these matrices, the expansion of ASEAN manufactured exports and the direction of that expansion can be observed in the period from the time prior to the establishment of the AFTA to the most recent year for which data are available. The following remarks can be obtained. First, for the ASEAN-5 as a whole, manufactured exports to the world market more than doubled from 1992 to 1999, a rate much higher than Korea or Japan. Expansion by Malaysia and the Philippines is noteworthy. Second, intra-ASEAN trade of manufactured goods has expanded at almost the same rate as the trade with the world as a whole. Starting with a smaller base, Philippine exports have expanded rapidly in almost all markets, not only in the intra-AFTA market. Third, ASEAN exports to China, Korea and Japan have expanded at a higher rate than those to intra-ASEAN markets. In particular, exports to Korea rose 3 times, and to China 4 times, compared with 2.4 times for intra-ASEAN exports. Fourth, the share of intra-ASEAN trade in total exports of ASEAN is still very small. On average of 5 countries, it is only about 20% and the figure showed no substantial change in the period under review (Table 5). Moreover, if Singapore was excluded, the role of intra-ASEAN trade becomes much less significant. Fifth, the US has maintained the position of the most important market for ASEAN manufactured products, even though that position has declined somewhat.

In short, during the 1990s, ASEAN manufactured exports have shown
remarkable performance but intra-ASEAN trade was not as important as trade with non-partner countries in East Asia.

4.2 An observation on the trade diversion effect of AFTA:

So far we have observed the direction of ASEAN exports. Next, let us observe how the rest of the world has exported to the ASEAN market.

From 1992 to 1999, manufactured exports from Korea to the world markets increased by 1.8 times and 1.9 times to ASEAN markets. The same figures for Japan were 16% and 23% respectively. Chinese performance is noteworthy. Its exports to the world market showed an expansion of 2.6 times while exports to ASEAN expanded 3.8 times. These facts suggest that the “gravity” of ASEAN has been strong for three major non-partners in East Asia.

Next, let us have a closer look at the dynamic relation between ASEAN and the rest of East Asia, by focusing on the industrialization process and the direction of manufactured exports of Thailand and China. Thailand is one of the original members of ASEAN and one of the most active partners in implementing the CEPT scheme of AFTA. China is a rapidly growing economy and a major non-partner AFTA in the dynamic East Asian region. China also has similar factor endowments and is in almost the same development stage as Thailand.

Figures 1 and 2 trace the development process of major manufacturing industries in Thailand and China respectively. For analyzing the development process of an industry, one must observe trends in production, and consumption as well. However, by computing the international competitiveness index (ICI) of each industry in a given country, we can get an idea of the trends in the development of an industry. The ICI is defined as the ratio of (exports minus imports) divided by (exports plus imports) for a product. The value of this ICI ranges from minus 1 (where exports are almost zero) to plus 1 (where imports are almost zero). If exports and imports of a product have almost the same value, its ICI is zero. Thus the product records a trade deficit if its ICI is negative, and a trade surplus if it is positive.

It is interesting to remark from Figures 1 and 2 that the structures of comparative advantage in Thailand and China are quite similar and their long-term pattern of change is also almost the same. For example, the ICI of apparel was nearly plus 1 before the 1990s, and the industry continued to be the strong competitive industry for both countries. In the case of television and motorbikes, the ICI of Thailand turned out to be positive in the early 1990s and has rapidly
approached plus 1 in the second half of the decade. For China, the ICI showed some fluctuations in the first half of the 1990s, but illustrated almost the same pattern as that of Thailand in the latter half of the decade. For office machines, Thailand changed from a trade deficit to a surplus in 1990, and has expanded the surplus during the course of the 1990s. Some years behind, China also showed the same trends. For other industries, a similar pattern can also be observed.

Next, let us see whether Thailand and China have the same export structure in a given market. The more similar the export structure is in the same market, the stronger the competition can be anticipated in that market. Such a situation can be captured by calculating the export similarity index (ES), which is defined as follows:\footnote{The significance of and the calculation method of the export similarity index were (probably) first indicated by Finger and Kreinin (1979). In this paper, we used the version index suggested by Lee (1997).}

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ES = \left| X_{a,i} - \frac{X_{a,i} + X_{b,i}}{2} \right|
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where \(X_{a,i}\) is the share of commodity \(i\) in the total exports of country A in a given market, and \(X_{b,i}\) is that share of country B in the same market.

All commodities are calculated and summed up to get the ES. This index is zero if the commodity composition of the exports of A and B are identical. On the contrary, if that composition is completely different, the index will be 1.

Figure 3 traces the ES of Thailand and China in major markets. The data used were Standard International Trade Classification (SITC) three-digit manufactured commodities. In the world market as a whole, the index has been quite low since the early 1990s. In the US, the biggest market for both countries, the index declined since the early 1990s and maintained low levels subsequently. These observations suggest that the two countries have competed intensely in world markets. In the Japanese market however, the index is relatively high. The reason for this may be the early entry, compared to that of China, of Thai machinery-related products into the Japanese market. With the sharp rise in the yen since the mid-1980s, Japanese firms have invested substantially in Thailand, particularly in machinery-related areas, such as electronics and auto parts. Substantial parts of these products have been exported to Japan, contributing to the rapid upgrade of the Thai export
structure in the Japanese market since the early 1990s. Japanese firms from the same industries have also invested substantially in China in more recent years, so imports from the Chinese machinery-related products into the Japanese market have not been substantial in the period under review. However, the ES index of Thailand-China in the Japanese market has declined steadily, suggesting that Chinese export structure in the Japanese market has increasingly resembled that of Thailand. In fact, more recent data showed that Japan has increasingly imported machinery-related products from China (Mukoyama 2001).

How about the ES index for Thailand-China in ASEAN markets? In Figure 3, both ASEAN market including Singapore and ASEAN market excluding this trade entrepot are examined. In both cases, the ES index for Thailand-China showed a steady decline. This suggests that the diversion effect generated by AFTA to China would be strong when the CEPT scheme is fully implemented.

The ES indices for Thailand-Korea are relatively different, compared to that of Thailand-China, in most markets (Fig. 4). In particular, in ASEAN markets, the indices have not changed much and their levels were in the range of 0.6 to 0.7, higher than the levels for Thailand-China in the same markets. This reflects the different development stage, and thus the different comparative advantage structure of Thailand and Korea. In the Japanese market, the steady decline and the relatively low index for Thailand-Korea are surprising. This may however also be explained by the above-mentioned new trends in the exports from Thailand to Japan since the early 1990s. These trends made the export structure of Thailand different from that of China but approaching that of Korea in the Japanese market.

The ES index for Thailand-Japan is, as expected, higher than that of Thailand-China and Thailand-Korea in most markets. However, the declining trend is seen in all markets under observation (Fig. 5). This reflects the upgrading in Thai export structure.

In a word, AFTA members and major non-partner countries in East Asia have expanded trade to each other. This expansion has been much substantial than that of intra-ASEAN trade. The AFTA trade creation has not been as important as trade with other countries in the wider dynamic region in Asia. Also, the trade diversion effect did not appear to be strong except for the relation of Thailand and China in

6 This point is well analyzed in Shinohara and Nishigatani (1996) and Aoki (2000).

7 In both cases of course Thailand is excluded.
ASEAN market.

5. AFTA and Incoming Foreign Direct Investment (FDI):

Section 2 discussed FDI as a dynamic effect of a free trade area. It suggested that a free trade area would induce an expansion of FDI. How about the case of AFTA?

Since the mid-1980s, a new wave of FDI has been flowing into ASEAN. Under the pressure of a sharp rise in the value of the yen against the US dollar since September 1985, Japanese firms have expanded FDI first in NIEs and then in ASEAN. Substantial investment from Korea, Taiwan and other NIEs was also undertaken in ASEAN since the mid-1980s, particularly in the labor-intensive industries, under the pressure of rising labor costs in home economies as well as a trade conflict with the US.8

Since the early 1990s, firms in Japan and NIEs seemed to show more interest in FDI in China, a rapidly emerging market. The survey by JETRO conducted in April 1993 for example, showed that Japanese firms in all 18 industries covered in the survey selected China as their new FDI site. ASEAN managed to keep second position as favorite host countries for Japanese FDI in six industries including textiles, electronics, and transport machines (Aoki 2001).

Another sharp rise in the value of the yen in 1994-1995 created another wave of Japanese FDI to ASEAN in the mid-1990s. However, this wave did not last long due to the financial crisis in 1997.

According to Table 6, which records the FDI flows (on a balance of payment basis) into Asian countries, in the 1986-91 period, average annual flows into ASEAN were greater than the flows into China. However, the reverse happened in 1992 and since then, the gap between the two flows has expanded. In 1999, FDI flows into China were four times greater than those directed to ASEAN. Thus, in the 1990s, FDI has concentrated on China. However, even if the flows into ASEAN were much smaller than China, except for Indonesia after the financial crisis, FDI in ASEAN has not been stagnant. This suggests that even if China is emerging as a big market, FDI may increase in both ASEAN and China so long as economic, social and political stability is maintained.

The trade data showed the interdependence between ASEAN and other economies in East Asia. As for FDI, we may expect that multinational corporations

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8 Tran (1993) discussed factors of new waves of FDI in ASEAN since the mid-1980s and their implications for the division of labor in Asia.
(MNCs) may consider ASEAN as one integral part of a dynamic East Asia. Therefore, AFTA cannot be the single factor which determines FDI flows. In fact, FDI expanded in ASEAN before the establishment of AFTA and turned out to be stagnant in the late 1990s, the period characterized by both substantial implementation of the CEPT scheme and by the financial crisis.

Let us have a closer look at the behavior of Japanese firms who are major investors in ASEAN. Most recent surveys showed that the response of Japanese firms to the full implementation of CEPT was generally passive. For example, according to the survey by JETRO in November and December 2000, recorded in Aoki (2001), only 5.1% of firms surveyed are underway in reorganizing their affiliates in ASEAN to exploit the benefits brought about by CEPT, and only 20.4% of firms have such a plan. The survey by the Japan Center for Economic Research (JCER) conducted in September 2001, showed that only 30% of firms surveyed are preparing for a new ASEAN market under the full implementation of CEPT. Even among firms which have undertaken investment in ASEAN, only 30% plan to reorganize their existing operations.9

Results of those surveys suggest that AFTA has not strongly affected the behavior of Japanese firms, which have undertaken (or will undertake) FDI in ASEAN. This can be explained by the following reason:

First, Japanese manufacturing firms started to invest in ASEAN in the early 1960s. The projects, which were undertaken until the 1970s are import substitution and concentrated on textiles, electronic home appliances and automobile assembly. Most textiles-related FDI projects have retreated from ASEAN (as well as from other Asian host countries), due to the diversification of activities of investing firms away from textiles towards pharmaceuticals, chemicals and other areas. Import substitution FDI projects in electronic home appliances by the end of the 1990s had been almost completed in the process of reorganization under the CEPT scheme, since most ASEAN countries put these products on the CEPT implementation fast track. The automobile assembly case is special. Most countries still protect this industry and appear to be continuing to keep it on the temporary exclusion list (TEL) of the AFTA scheme.

On the other hand, the projects undertaken since the 1980s have been export-oriented, and concentrated on electronics and other machinery related industries. Due to the export-oriented purposes, imports of parts and other inputs

9 Other surveys, such as that of Fuji Research Institute (2001), also showed the same results.
have been exempted from tariffs. Their operations therefore have little relation with the AFTA scheme.

Second, there are two types of Japanese firms investing in ASEAN. One is that of small and medium-sized firms. Each firm has only one or two affiliates (or subsidiaries) in ASEAN so that there is little room for them to reorganize the operations. The other type is that of large firms which are undertaking operations in a wider region in East Asia. Due to this feature, and combined with the export orientation of most projects, the reorganization of Japanese MNCs is built throughout the East Asian region. AFTA is just one of many factors affecting their reorganizing strategy.

6. Implications for further cooperation between ASEAN and Korea, Japan and China

Let us summarize major points emerging from the fore-mentioned analysis.

First, the trade and FDI effects of AFTA have not been as strong as the theory of a free trade area predicts. Intra-ASEAN trade has indeed expanded, but ASEAN trade with non-partner countries in East Asia has expanded at a higher rate. Moreover, major non-partner countries in East Asia such as Japan, Korea and China have also expanded their manufactured exports to the ASEAN market at a faster rate than to the world as a whole. The effect of AFTA on FDI inflows also has not been recognized so far. Apart from the reorganization of import substitution projects, the reaction of MNCs to the implementation of AFTA has not been substantially positive.

The relatively weak trade and FDI effects of AFTA stem from the unique economic feature of ASEAN. Unlike the EU or NAFTA, intra-ASEAN trade is relatively unimportant and instead, interdependence between ASEAN and the rest of the wider East Asian region is strong. This feature is so strong that it likely will not change in the foreseeable future, even if the CEPT scheme in AFTA is fully implemented.

Nevertheless, the establishment of AFTA is not meaningless. Liberalization of trade results in a more efficient allocation of resources in each ASEAN country. Commitment by each country to liberalize trade and enhance the necessary industrial adjustment brought about by trade liberalization, has certainly contributed to the maintenance of a stable and market-friendly policy environment.

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10 According to Aoki (1997), p. 100, more than half of Japanese small and medium-sized firms that invest in ASEAN have less than two affiliates (subsidiaries) in that region.
This is essential for keeping ASEAN (as a whole and for each member) together which is less risky and less uncertain than the alternative. This point is essential for ASEAN to continue to be an integral part of the dynamic division of labor in East Asia.

Second, along with the financial crisis in 1997, the emergence of China may be the most important event for the Asian economy in the last decade. From the mid-1990s, Chinese manufactured exports have surpassed ASEAN-4 exports (Table 3). From 1992 to 1999, manufactured exports from China to the world market expanded 2.6 times, compared to 2.2 times for the ASEAN-5, 1.8 times for Korea and 1.16 times for Japan (Table 4). FDI inflows into China also expanded rapidly. Moreover, the development process and the comparative advantage structure in China have also resembled those of most ASEAN countries, typically Thailand (Figures 1 and 2). What are the implications of this Chinese emergence for ASEAN?

We have seen that, in the 1990s, ASEAN also expanded manufactured exports to most major markets even if the performance was not comparable to that of China. The same trend was seen for FDI inflows. Moreover, the expansion of manufactured exports from ASEAN to China was also noteworthy, even though that should be discounted by the low levels of the base year. In this respect, the development of China and ASEAN is not a zero-sum game.

Nevertheless, since China is not only a giant but also a giant in a rapid development process, it may generate a disturbance in the Asian economy. There are two policy implications here. One is for the development of ASEAN and the other is for the wider region including ASEAN plus 3.

Regarding the implication for ASEAN countries, which have almost the same development stage and factor endowments as China, it is necessary for the former to speed up the upgrading of its industrial structure to promote a new division of labor with the latter. Some analysts have attributed the cause of the financial crisis in July 1997 to the slow response of the country to handle the sudden impact of China devaluing the Renminbi by 35% in 1994.11 This factor may be one of the causes, since Thailand exports declined markedly after the mid-1990s, in contrast to the expansion of Chinese exports, and brought about a difficulty for Thailand's balance of payments.

The related issue is the implication of the Chinese accession into the WTO. The effect of this event is to open the Chinese market to foreign products. However, most

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11 See, for example, Harada (2001) among others.
products would be highly skilled labor and technology-intensive ones, for which China does not have a comparative advantage. In the meantime, those countries which have a higher development stage compared to China like Japan, Korea and the US, will be major benefactors of increasing imports into China. The manufactured export value for ASEAN in the Chinese market is still small (Table 4). There will be much room for ASEAN countries to reap the opportunity generated by China, if their industrial structure is quickly upgraded. One of the obstacles for further upgrading the industrial structure is the shortage of supply of highly skilled labor such as engineers, technicians, and management administrators. Cooperation from Japan, Korea and other advanced countries is essential. Thus, in this respect as well, the interdependence between members of AFTA and non-partner countries in East Asia continues to be significant for the development of ASEAN.

Regarding the implication for the East Asian region as a whole, a cooperation scheme for region-wide industrial adjustment seems necessary. With the rapid growth of China as a “world factory”\(^\text{12}\), excessive investment and production in the region may happen, and in fact, such a phenomenon has been seen. Activities of a region-wide cooperation scheme may include the exchange of information on the industrial development of each country, collective support for smoothing industrial adjustments (transfer of resources from comparatively disadvantaged industries to growing sectors), providing a social safety net in each country, and so on. Recently, the idea of cooperation on the basis of the ASEAN+3 has been increasingly put forth, particularly in the field of monetary and financial stability in the region.\(^\text{13}\) This idea should be expanded to cover the area of industrial development and adjustment. In the meantime, the free trade area of ASEAN+1 has been put forth, such as ASEAN+China proposed by Chinese Prime Minister Zhu Rongji in November 2001, Japan-ASEAN comprehensive economic partnership proposed by Japanese Prime Minister Junichiro Koizumi in April 2002. If Korea also takes this approach, such ASEAN+1 will be developed into ASEAN+3 system which provides an institutional factor for maintaining the dynamism of East Asia.\(^\text{14}\)

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\(^\text{12}\) According to the estimates of *Nihon Keizai Shinbun* (July 27, 2001), China already accounted for 38% of world production of VTD players, 39% of air conditioners, 25% of color television, 23% of VCRs, and 15% of the steel.

\(^\text{13}\) In May 2000, at the meeting in Chiangmai in Thailand, 10 ASEAN members and Japan, Korea, and China reached an agreement to set up a framework of financial swapping among these ASEAN+3 countries (Chiangmai Initiative). In March 2002, the Bank of Japan and the State Bank of China agreed such a financial swapping on a bilateral basis (Matsushima 2002).

\(^\text{14}\) In Japan, expectations on ASEAN+3 have been increasingly strong. See Kojima
7. Concluding Remarks:
By calculating a trade matrix confining on manufactured products, a set of international competitive indices and export similarity indices basing on three-digit SITC manufactured products, this paper has provided an initial assessment on the trade effects of AFTA and reached a number of important conclusions. While AFTA is contributing to the increasing confidence and stability of ASEAN countries, its effects on the development of these countries are not as important as the interdependence and dynamic division of labor between ASEAN and other economies in East Asia such as Japan, Korea and China. A stronger cooperation of ASEAN +3 is therefore highly desirable.

For assessing the trade effects of FTA, it is necessary to observe the changes in the trends of trade of homogeneous commodity categories. This requires that the trade statistics should be examined in the four-digit level of SITC. The methodology of analysis on the dynamic effects of FTA must also be developed and applied to the case of AFTA. Further studies on AFTA should center on these points.

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15 As a suggestion for a future extension of this paper, one of the two referees of this Journal has particularly emphasized this point.


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