

Chapter 2 Changes in the trade structures of the world and Japan

Chapter 2 provides analysis to verify the economic circumstances in which Japan is placed based on the recent changes in the world economy shown in Chapter 1. Contrary to Chapter 1, which discussed the kinetic changes, Chapter 2 examines the macro structural changes.

Firstly, Section 1 provides the world trading structural changes created over the past 20 years and the impact on the structural changes caused by the world economic crisis triggered by the Lehman shock in September 2008 by tracing the trade relationship between Japan and major countries and unified economies of the world. In addition, it also shows the impact caused by these changes on the production networks called “the world factory” constructed by Japan and East Asian countries/ regions. Secondly, Section 2 provides the overall situation of Mercado Comun del Cone Sur (MERCOSUR) which has been recently increasing its presence. Additionally, the Section provides analysis on the economic and trading relationship focused on Brazil. Finally, Section 3, focusing on Japan, examines the impact caused by the structural changes in the trade of Japan on domestic employment, economic and industrial structures.

Section 1 Transition of world trade surrounding Japan

1. The world economic crisis and changes in the global trade structure

The world trade volume and movement in 2009 was affected by the world economic crisis with the greatest impact after World War II.

In the section below, “six poles” of major players (or beginning to be the major players) in world trade including the unified regional economies such as “NAFTA, the EU, ASEAN, MERCOSUR” and China and Japan are defined as a framework for understanding the trade structure over the past 20 years. Overall changes in the global trade structure over the past 20 years are examined by looking at the trade relationship between the six poles and making time-series comparisons. The impact generated by the world economic crisis as a temporary shock to the global trade structure is examined with the framework.

(1) Changes in the trade relationship of the six poles

(A) Changes in the bilateral/ bi-regional amount of trade (export plus import) and share

In order to overview the changes in trade relationships in the six poles, the amount of trade (export plus import) between the countries/ regions is shown in the Figures (Figures 2-1-1-1, 2-1-1-2 and 2-1-1-3). Shares of the amount of trade between each bilateral/ bi-regional trade which account for the total amount of trade between the six poles are confirmed (Table 2-1-1-4).

Figure 2-1-1-1 Bilateral and regional amount of trade(export + import) (1990)

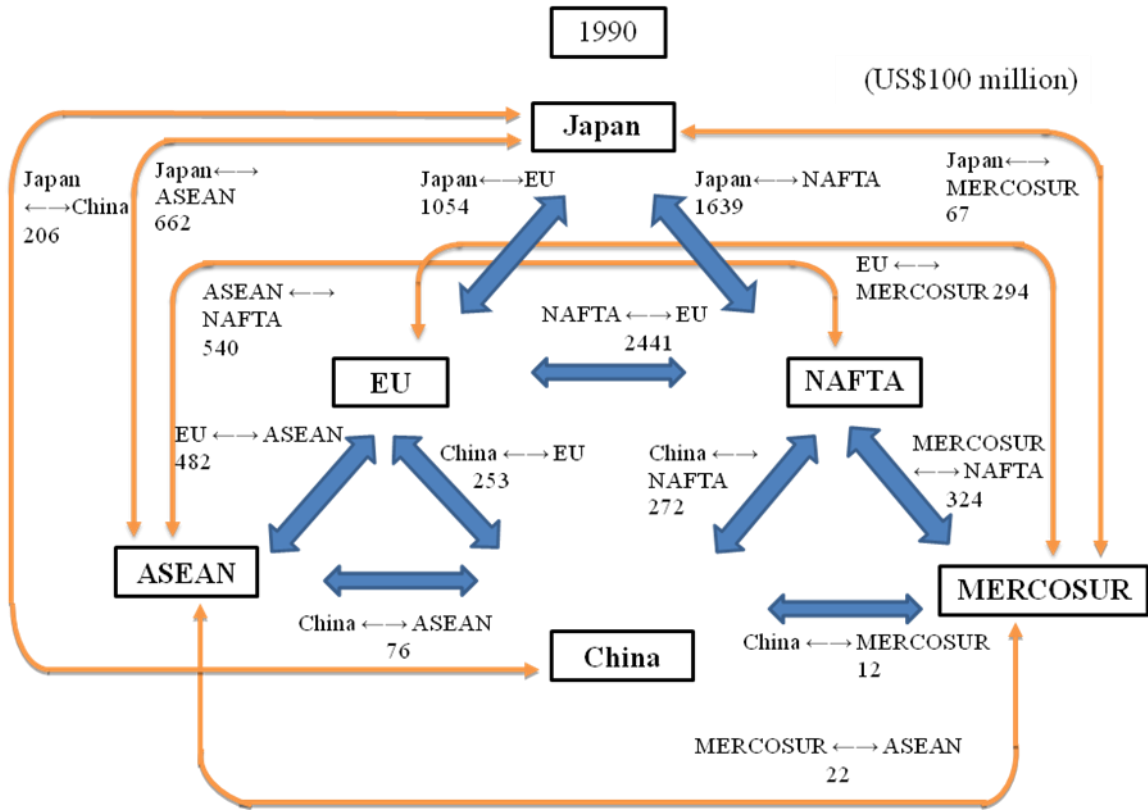


Figure 2-1-1-2 Bilateral and regional amount of trade(export + import) (2000)

2000 (ratio to 1990 in parenthesis)

(US\$100 million)

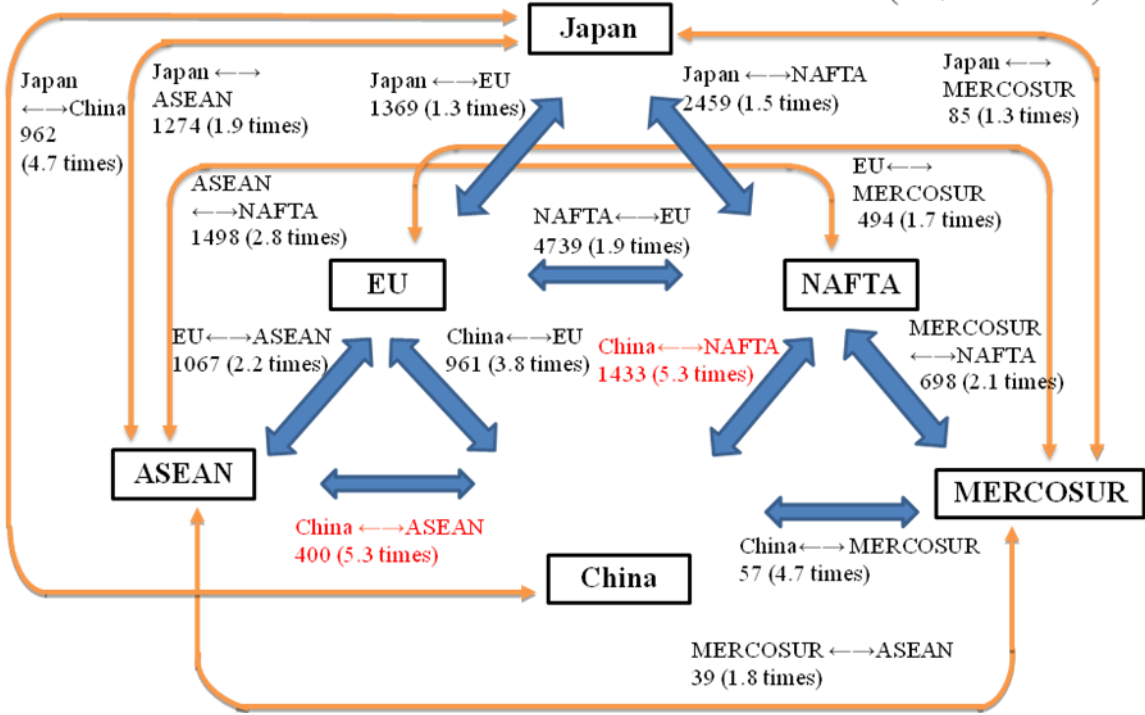
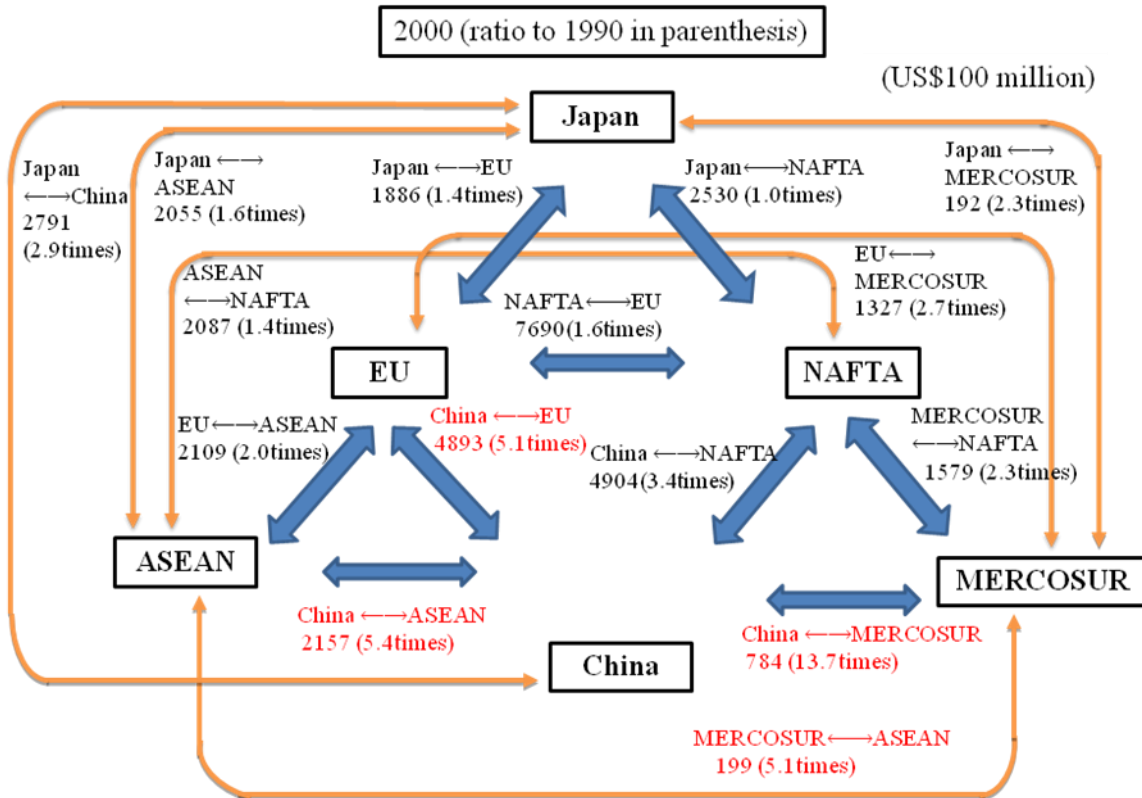


Figure 2-1-1-3 Bilateral and regional amount of trade(export + import) (2008)



Sources: RIETI “RIETI-TID2010”

Table 2-1-1-4 Share of bilateral and regional amount of trade accounting for the total amount of trade among the six poles (from left to right 1990, 2000 and 2008)

Rank	Country/ region	Share	Rank	Country/ region	Share
1	NAFTA-EU	29.3	1	NAFTA-EU	27.0
2	NAFTA – Japan	19.6	2	NAFTA – Japan	14.0
3	EU – Japan	12.6	3	NAFTA-ASEAN	8.5
4	Japan-ASEAN	7.9	4	NAFTA-China	8.2
5	NAFTA-ASEAN	6.5	5	EU-Japan	7.8
6	EU-ASEAN	5.8	6	Japan-ASEAN	7.3
7	NAFTA-MERCOSUR	3.9	7	EU-ASEAN	6.1
8	EU-MERCOSUR	3.5	8	Japan-China	5.5
9	NAFTA-China	3.3	9	EU-China	5.5
10	EU-China	3.0	10	NAFTA-MERCOSUR	4.0
11	Japan-China	2.5	11	EU-MERCOSUR	2.8
12	China-ASEAN	0.9	12	China-ASEAN	2.3
13	Japan-MERCOSUR	0.8	13	Japan-MERCOSUR	0.5
14	MERCOSUR-ASEAN	0.3	14	China-MERCOSUR	0.3
15	China-MERCOSUR	0.1	15	MERCOSUR-ASEAN	0.2

Rank	Country/ region	Share
1	NAFTA-EU	20.7
2	NAFTA – China	13.2
3	EU – China	13.2
4	Japan-China	7.5
5	NAFTA-Japan	6.8
6	China-ASEAN	5.8
7	EU-ASEAN	5.7
8	NAFTA-ASEAN	5.6
9	Japan-ASEAN	5.5
10	EU-Japan	5.1
11	NAFTA-MERCOSUR	4.2
12	EU-MERCOSUR	3.6
13	China-MERCOSUR	2.1
14	MERCOSUR-ASEAN	0.5
15	Japan-MERCOSUR	0.5

Sources: RIETI “RIETI-TID2010”

Examining the characteristics at the time of the 3 surveys, in 1990, trade between the so-called advanced countries/ regions such as NAFTA – EU, NAFTA – Japan, EU – Japan accounted for more than half (61.5%) of the total trade volume. Examining by the sheer volume of trade, marked shares were held by Japan – ASEAN (7.9%), NAFTA – ASEAN (6.5%) and EU – ASEAN (5.8%). The trade structure had a trade relationship led by the advanced countries/ regions such as EU, NAFTA and Japan followed by ASEAN. The largest trade between the emerging economies was China – ASEAN, but the structural ratio accounting for the total trade was less than 1% (0.9%).

The first and second share (NAFTA – EU (27.0%) and NAFTA – Japan (14.0%)) in 2000 were unchanged in comparison with 1990, but the trade relation involving Japan i.e. EU – Japan and Japan – ASEAN which were the third and fourth places in 1990 were replaced by NAFTA – ASEAN and NAFTA – China in 2000, and the first to fourth places were dominated by NAFTA. Noted increased rates of the amount of trade from 1990 were China – ASEAN (5.3 times), China – NAFTA (5.3 times) and it showed that China’s economic growth was beginning to change the world economy and trade structure triggered by China’s admission to WTO.

In 2008, the share between NAFTA and the EU drastically declined (20.7%) and the trade relation involving China made a dramatic rise in the ranks. Trade between NAFTA – Japan (6.8%) which was second in ranking was replaced by NAFTA – China (13.2%) in 2008. In the trade relation involving NAFTA, China – ASEAN share (5.8%) was ranked at the top by outreaching the EU (5.7%) and NAFTA (5.6%). Noted increased rates of the amount of trade from 2000 were China – MERCOSUR (13.7 times), China – ASEAN (5.4 times), China – EU (5.1times) and MERCOSUR – ASEAN (5.1 times). All of those were trade relations involving China or MERCOSUR. It suggests that the amount of trade between China and MERCOSUR drastically increased from 2000 through 2008.

Categorizing the trade relations between the six poles into 3 categories and their changes were

examined as follows:

- Advanced – trade by advanced countries

At one point in 1990, trade among advanced countries (NAFTA – EU, NAFTA – Japan and EU - Japan), which dominated the trade with an amount of (61.5%), over one half of the total of that of the six poles, decreased its presence according to the increased economic power in the emerging economies (48.9% in 2000 and 32.6% in 2008).

- Advanced – trade by emerging countries

At one point in 1990, percentage of trade between advanced countries and ASEAN, such as Japan – ASEAN (7.9%) was larger, but in 2008, NAFTA – China (13.2%) and the EU – China (13.2%) increased their weight (Japan – ASEAN declined to 5.5% in 2008). In comparison with NAFTA, the characteristic was large increase, especially in the EU – China (5.1 times) and (NAFTA – China was 3.4 times).

- Emerging –trade by emerging countries / region

ASEAN – China trade attained favorable growth, and MERCOSUR still maintained close relations with NAFTA, but the trade relation between China and ASEAN was also becoming increasingly closer.

(B) Evaluating the increases in the amount of trade

The above mentioned bilateral/ bi-regional amount of trade is revised under the framework of the gravity model. According to the gravity model, the amount of trade is determined by the economic sizes and distance between the two countries/ regions. Specifically, the amount of trade is described by a figure that is derived by dividing the economic sizes of two countries/ regions (generally their GDPs are used) by the square of the distance between the two countries/ regions. As the distance between two countries/ regions cannot be changed during the period of time-series comparison in this paper, the most important factors causing the difference and changes in amount trade of the six poles are economic growth in these countries/ regions. In other words, expansion in trade relations between countries/ regions can be mostly explained by the economic growth of each country/ region, i.e. it is thought that it can be explained by the production of GDPs in the gravity model. Simply evaluating volume and changes in trade may mean only describing the differences in the economic growth of each country/ region.

Therefore, GDP increase rates (increase in the rate of production of GDP) are compared with the amount of trade increase rates during the same periods.

When these values are calculated, there are two types of values in the relations between the two countries, i.e. one that the amount trade increase rate is higher than the GDP increase rate, and another that the amount trade increase rate is lower than the GDP increase rate. This difference of the “amount of trade increase rate / GDP increase rate” by countries/ regions

means that there is a temporal variation of the “sense of existence” between the two countries/ regions, which is held by the two countries/ regions in their relation to world trade and this cannot be explained simply by economic size. Therefore, the “amount of trade increase rate / GDP increase rate” is called the “sense of existence” index, which shows the “sense of existence” of the relations between the two countries/ regions in relation to world trade. The details are examined in the section below (Table 2-1-1-5).

Table 2-1-1-5 GDP scale factor and the amount of trade scale factor among countries/ regions of the six poles (2009 / 1990)

Region		GDP scale factor (A, scale)	Amount of trade scale factor (B, scale)	Presence index (B / A)	Group
China	MERCOSUR	40.4	52.8	1.31	High ranked group
EU	China	29.8	16.7	0.56	
Japan	China	21.4	11.7	0.55	
MERCOSUR	ASEAN	13.2	7.0	0.53	
NAFTA	China	31.3	16.0	0.51	
EU	MERCOSUR	7.4	3.3	0.45	
China	ASEAN	53.2	23.3	0.44	
NAFTA	EU	5.7	2.4	0.42	Low ranked group
NAFTA	MERCOSUR	7.8	3.3	0.42	
Japan	MERCOSUR	5.3	2.1	0.40	
EU	ASEAN	9.7	3.5	0.36	
EU	Japan	3.9	1.3	0.34	
Japan	ASEAN	7.0	2.2	0.32	
NAFTA	ASEAN	10.2	3.1	0.30	
NAFTA	Japan	4.1	1.1	0.27	

Notes: GDP scale is scale of multiplied two countries' GDP.

Sources: IMF “World Economic Outlook October 2010; RIETI “RIETI-TID2010”

When the “sense of existence” indices are compared among countries/ regions in the six poles, the countries/ regions, which have a higher amount of trade increase rate than GDP increase rate, i.e. the sense of existence is larger compared with trade relations of other two countries/ regions. This trend is represented by “MERCOSUR – China”. On the other hand, the amount of trade increase rate is lower than the GDP increase rate in other 14 trade relationships. The “sense of existence” indices of the above mentioned 15 trade relationships are calculated and arranged in ascending order (Table 2-1-1-5). These can be divided into the upper group of “sense of existence” index (= amount of trade increase rate is relatively higher) and the lower group (=

amount of trade increase rate is relatively lower) bordering on the middle place of NAFTA – EU relations. The results are as follows:

○ The upper group: Trade relationships whose trade partner is China or MERCOSUR

○ The lower group: Trade relationships whose trade partner is ASEAN or Japan

China and MERCOSUR have accomplished drastic economic growth and in addition to the increase in economic growth rate, the “sense of existence” index shows that each country/region of six poles has made efforts to strengthen relations with the country/region. The background of this theory may be global recognition of the potential growth power in China and MERCOSUR in the future and the movement of each country/region of six poles under this recognition to strengthen the relations with them. Details of the economic movement of MERCOSUR will be analyzed in the Section 2 of this Chapter.

(2) Conceptual framework to perceive the macro structure of the world trade

Thus, the amount of trade between the six poles was examined at three time periods to macroscopically perceive world trade relationships. It seems that the three poles structure consisting of NAFTA, the EU and Japan until 2000 has been changed to a three poles structure consisting of NAFTA, the EU and China as the rapid growth of China started at the beginning of this century.

Now, the three poles structure of world trade relationships is drawn with a triangular conceptual chart with the three verticals representing the three poles and the length of the three sides representing the ratio of amount of trade between the two poles. Changes in the global trade structure are perceived by shape variations of the triangle.

(A) Structural changes in trade relationships from 1990 to 2008

The global trade structure in 1990 was the three poles structure with the two main axes of the EU and NAFTA and Japan added as another pole (Figure 2-1-1-6, the blue triangle). But in 2008, it changed into a form that Japan was left behind in the three poles structure of China, NAFTA and the EU by overall economic expansion, especially the overwhelming growth of China (Figure 2-1-1-7, the red triangle)¹.

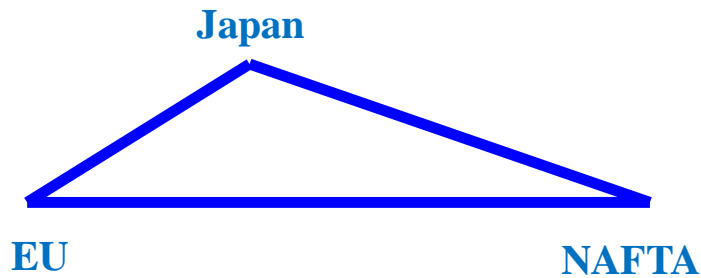
Figure 2-1-1-6 Conceptual chart of trade relationships among the three poles (1990)

(Blue line shows trade relationships in 1990 and red line shows the trade relationship in 2008)

¹ The conditions for drawing the triangle are the base < right side + left side >. If the conditions are not satisfied, the triangle cannot be drawn. At the time period of 1990, a triangle of EU-NAFTA-China cannot be drawn and at the time period of 2008, the triangle for EU-NAFTA-Japan cannot be drawn.

1990

Amount of trade in 1990	
Countries/ region	Amount of trade (US\$100 million)
NAFTA · EU	2,441
Japan · NAFTA	1,639
Japan · EU	1,054
NAFTA · China	272
EU · China	253
Japan · China	206

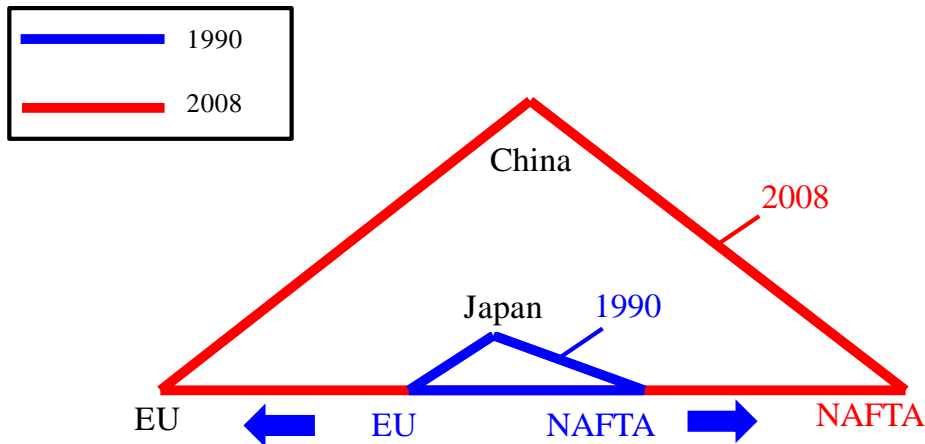


Sources: RIETI “RIETI-TID2010”

Figure 2-1-1-7 Conceptual chart of trade relationships among the three poles (from 1990 to 2008)

From 1990 to 2008

	1990		2008	
	Countries/ regions	Amount (US\$100 million)	Countries/ regions	Amount (US\$100 million)
1	NAFTA · EU	2,441	NAFTA · EU	7,690
2	Japan · NAFTA	1,639	NAFTA · China	4,904
3	Japan · EU	1,054	EU · China	4,893
4	NAFTA · China	272	Japan · China	2,791
5	EU · China	253	Japan · NAFTA	2,530
6	Japan · China	206	Japan · EU	1,886



Notes: The larger the distance between the peaks, the larger the amount of trade

Sources: RIETI “RIETI-TID2010”; World Trade Atlas

(B) Where did the world economic crisis have an impact on?

Secondly, the impact caused by the world economic crisis on world trade relationships is examined by viewing world trade relationships after the world economic crisis. Changes in the amount of trade (amount of export plus import) among the six poles following the world economic crisis are shown in the figures (Figures 2-1-1-8 and 2-1-1-9).

Figure 2-1-1-8 Bilateral and regional amount of trade (exports + imports) (2009)

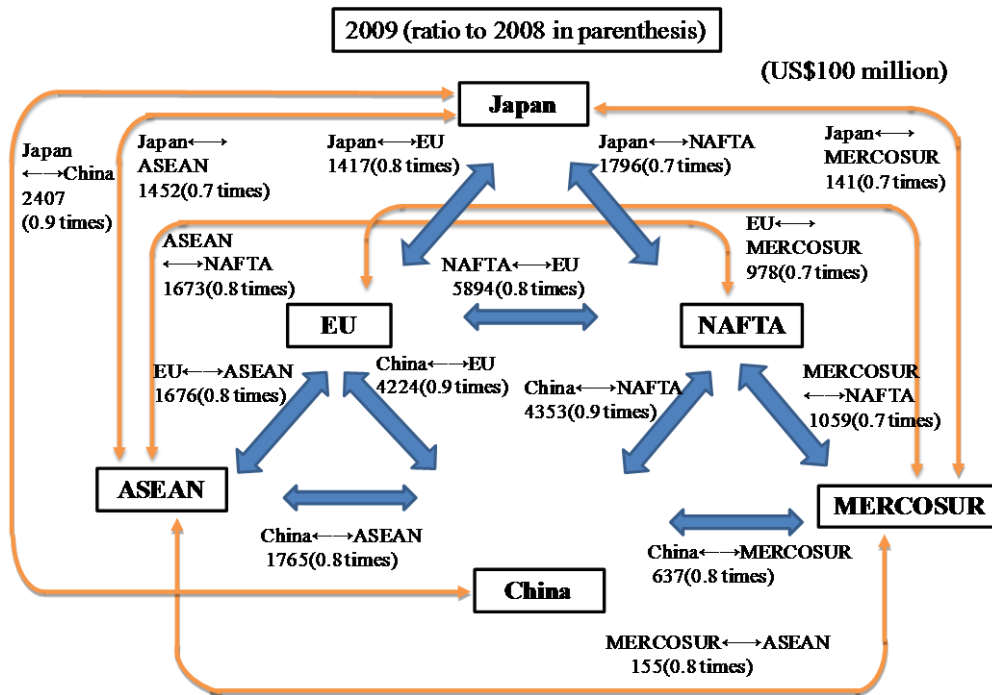
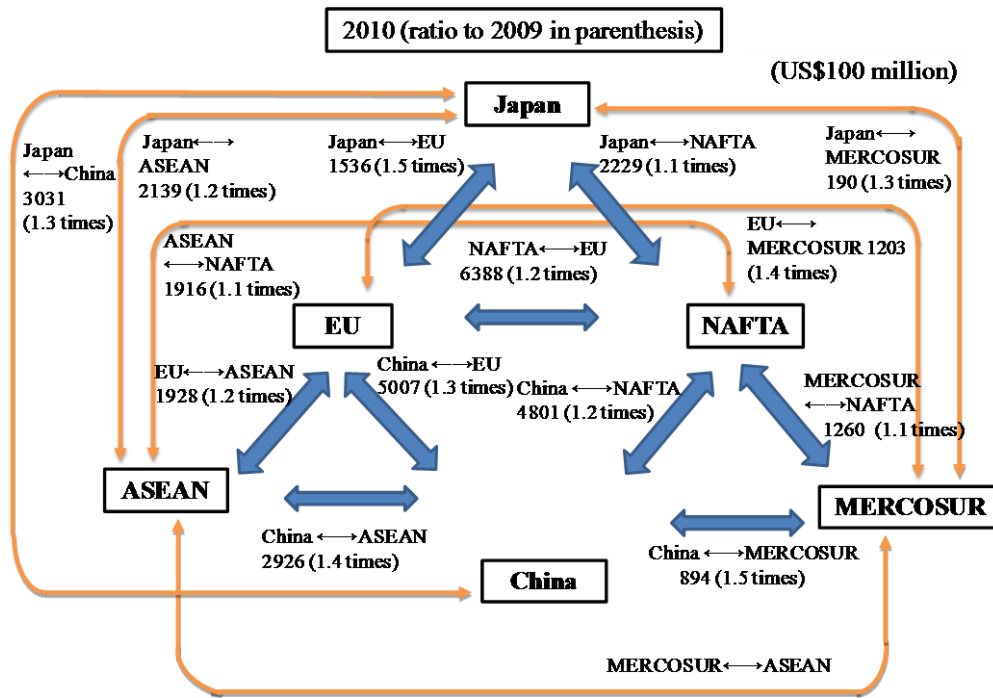


Figure 2-1-1-9 Bilateral and regional amount of trade (exports + imports) (2010)



Notes: Amount of trade between ASEAN and MERCOSUR is not shown due to any data has been published yet.

Sources: RIETI “RIETI-TID2010”; World Trade Atlas

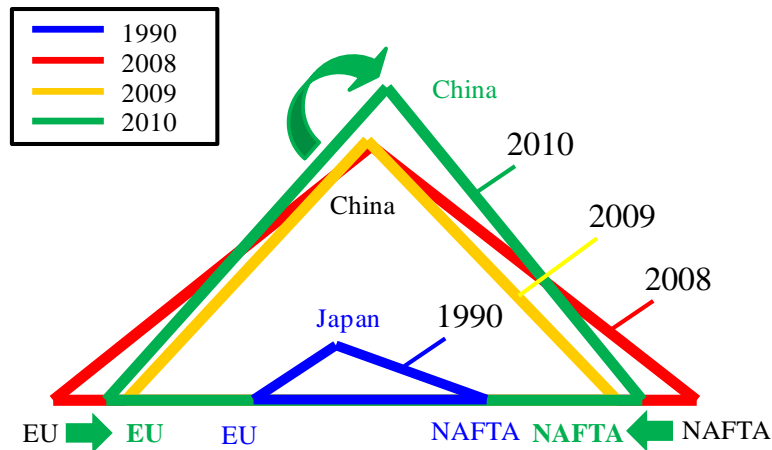
Trade in 2009 shrunk worldwide affected by the world economic crisis, but it basically recovered in 2010. However, the pace of recovery differed by country/ region. There may be newly strengthened economic and political relations and also newly occurring worsening relations as well as improving relations. It cannot be completely concluded that world trade relations have similarly recovered and expanded since before and after the world economic crisis.

Therefore, the conceptual chart of the trade relationships of the three poles shows trade relationships in 2009 and 2010 after the world economic crisis similar to the previous section (Figure 2-1-1-10).

Figure 2-1-1-10 Conceptual chart of trade relationships among the three poles (from 2008 to 2010)

	1990		2008		2009		2010	
	Countries/ regions	Amount (US\$100 million)	Countries/ regions	Amount (US\$100 million)	Countries/ regions	Amount (US\$100 million)	Countries/ regions	Amount (US\$100 million)
1	NAFTA · EU	2,441	NAFTA · EU	7,690	NAFTA · EU	5,894	NAFTA · EU	6,388

2	Japan · NAFTA	1,639	NAFTA · China	4,904	NAFTA · China	4,353	EU · China	5,007
3	Japan · EU	1,054	EU · China	4,893	EU · China	4,224	NAFTA · China	4,801
4	NAFTA · China	272	Japan · China	2,791	Japan · China	2,407	Japan · China	3,031
5	EU · China	253	Japan · NAFTA	2,530	Japan · NAFTA	1,796	Japan · NAFTA	2,229
6	Japan · China	206	Japan · EU	1,886	Japan · EU	1,417	Japan · EU	1,536



Compared with 2008 (the red triangle), the globally reduced world trade relationships (the yellow triangle) in 2009 changed its shape into that of 2010 (the green triangle).

In the recovery process from 2008 (the red triangle) to 2010 (the green triangle), the sense of existence of China – EU and China – NAFTA relations further increased. On the other hand, recovery of NAFTA – EU relations, which formed the basis of the three poles structure (having formed an axis of world trade) has been weak compared with relationships between other two countries/ regions and decreased its sense of existence in world trade.

As a result, while the base line of EU – NAFTA relations shrunk, China’s vertex of the triangle increasingly rose due to its rapid economic growth and China’s location, which was approximately directly between the EU and NAFTA, also moved to the right due to an increase in trade volume with the EU.

It should be noted that China is demonstrating the sense of existence as a gigantic pole backed by a rapid economic growth a lot faster than those of the EU and NAFTA. If the trend of advanced economies stagnating and emerging economies advancing, especially China, continues, and if the size of trade volume among China, ASEAN and MERCOSUR becomes equivalent to that of Europe and the United States, the global trade structure with three poles should not be seen as a triangle but may be more reasonable to perceive it with a pentagonal structure located with China at the center. If it is true, the world economic crisis might have an irreversible impact on world trade, though it is a conditional outlook.

(3) Deepening relations between China – EU

As mentioned above, since the 2000s, China has demonstrated its presence as the largest pole replacing EU and NAFTA through the world economic crisis. China had had approximately the same amount of trade with the EU and NAFTA, but after the world economic crisis China's amount of trade to the EU exceeded that of NAFTA after the world economic crisis. The relationship between China and the EU is supposed to get closer. The details are as follows.

Examining the amount of imports and its share from major export countries/ regions into China (the top 10 countries/ regions in each year) and the amount of exports and its share to major import countries/ regions from China (the top 10 countries/ regions in each year), Germany dominated the upper ranks in both exports and imports among the EU countries. Its share in exports and imports continued to increase for 10 consecutive years from 2008. It can be thought that one of the main reasons for deepening trade relations between China and the EU may be deepening trade relations between China and Germany (Tables 2-1-1-11 and 2-1-1-12).

Table 2-1-1-11 Import amount and share of the top 10 China's import partner countries/ regions

	2008			2009			2010		
	Countries/regions	Amount (US\$100 million)	Share	Countries/regions	Amount (US\$100 million)	Share	Countries/regions	Amount (US\$100 million)	Share
	World total	1,131,469	—	World total	1,003,893	—	World total	1,393,909	—
1	Japan	150,634	13.3%	Japan	130,749	13.0%	Japan	176,304	12.6%
2	Korea	112,154	9.9%	Korea	102,125	10.2%	Korea	138,023	9.9%
3	Taiwan	103,325	9.1%	Taiwan	85,706	8.5%	Taiwan	115,645	8.3%
4	United States of America	81,486	7.2%	United States of America	77,433	7.7%	United States of America	101,310	7.3%
5	Germany	55,910	4.9%	Germany	55,904	5.6%	Germany	74,378	5.3%
6	Australia	36,284	3.2%	Australia	39,175	3.9%	Australia	59,698	4.3%
7	Malaysia	32,112	2.8%	Malaysia	32,206	3.2%	Malaysia	50,375	3.6%
8	Saudi Arabia	31,072	2.7%	Brazil	28,311	2.8%	Brazil	38,038	2.7%
9	Brazil	29,632	2.6%	Thailand	24,846	2.5%	Thailand	33,201	2.4%
10	Thailand	25,627	2.3%	Saudi Arabia	23,582	2.3%	Saudi Arabia	32,862	2.4%

Sources: World Trade Atlas

Table 2-1-1-12 Export amount and share of the top 10 China's export partner countries/ regions

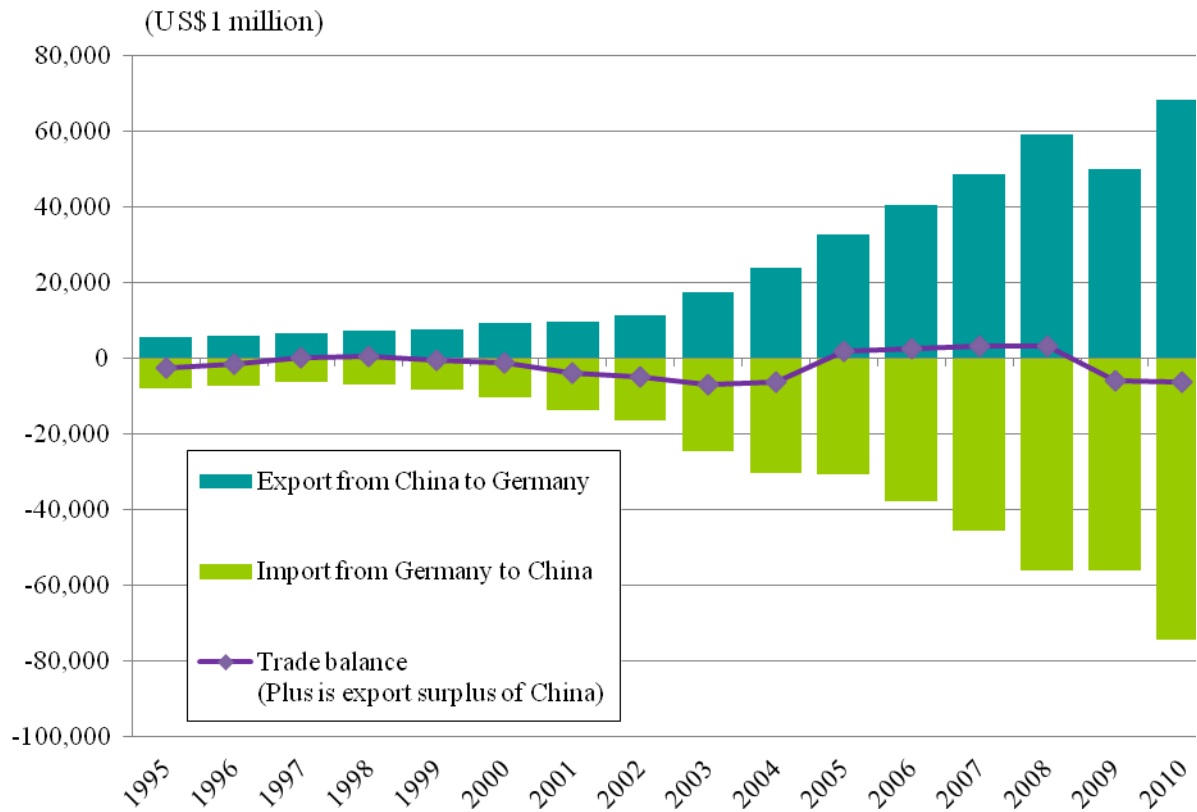
	2008			2009			2010		
	Countries/regions	Amount (US\$100 million)	Share	Countries/regions	Amount (US\$100 million)	Share	Countries/regions	Amount (US\$100 million)	Share
	World total	1428869	—	World total	1202047	—	World total	1578444	—

1	United States of America	252327	17.7%	United States of America	220706	18.4%	United States of America	283184	17.9%
2	Hong Kong	190772	13.4%	Hong Kong	166109	13.8%	Hong Kong	218205	13.8%
3	Japan	116176	8.1%	Japan	97209	8.1%	Japan	120262	7.6%
4	Korea	73905	5.2%	Korea	53630	4.5%	Korea	68811	4.4%
5	Germany	59192	4.1%	Germany	49932	4.2%	Germany	68069	4.3%
6	Holland	45921	3.2%	Holland	36689	3.1%	Holland	49711	3.1%
7	United Kingdom	36079	2.5%	United Kingdom	31267	2.6%	India	40879	2.6%
8	Russia	33011	2.3%	Singapore	30050	2.5%	United Kingdom	38776	2.5%
9	Singapore	32325	2.3%	India	29570	2.5%	Singapore	32333	2.0%
10	India	31516	2.2%	France	21445	1.8%	Italy	31136	2.0%

Sources: World Trade Atlas

Examining the transition of the balance of trade between China – Germany, China’s export surplus continued for some years from the mid 2000s due to China’s economic growth and its elevated presence as the world factory, but China’s imports surged to surplus from around the time of the world economic crisis (Figure 2-1-1-13). In 2009, most countries/ regions in the world suffered negative effects of the post world economic crisis leading to stagnation in exports, but Germany did not decrease its exports to China’s expanding market (refer to Figure 2-1-1-11. China’s import from Germany was US\$55.91 billion in 2008 and US\$55.904 billion in 2009), and China’s exports to Germany also increased due to economic recovery in 2010 (from US\$59.192 billion in 2008 to US\$68.069 billion in 2010).

Figure 2-1-1-13 Transition of trade balance between China and Germany



Sources: World Trade Atlas

As mentioned above, it was suggested that trade relations between China and Germany at the time period before and after the world economic crisis was good in relation to Germany's exports to China.

The top 5 commodities (HS code 2 digits basis) of China's import from Germany are as shown in Table 2-1-1-14. The hatched parts show the commodities, which largely increased.

Table 2-1-1-14 Transition of import amount from Germany to China by commodities

	2008				2009				2010			
	HS	Commodities	Amount (US\$1 million)	Share (%)	HS	Commodities	Amount (US\$1 million)	Share (%)	HS	Commodities	Amount (US\$1 million)	Share (%)
	—	Total import amount	55,910	—	—	Total import amount	55,904	—	—	Total import amount	74,378	—
1	8703	<u>Passenger cars and other automobiles (Station wagons and racing cars are included; automobiles limited to designed mainly for transportation of personnel; ones that stipulated by No. 87.02 are excluded).</u>	4,500	8.0%	8703	<u>Passenger cars and other automobiles (Station wagons and racing cars are included; automobiles limited to designed mainly for transportation of personnel; ones that stipulated by No. 87.02 are excluded).</u>	4,886	8.7%	8703	<u>Passenger cars and other automobiles (Station wagons and racing cars are included; automobiles limited to designed mainly for transportation of personnel; ones that stipulated by No. 87.02 are excluded).</u>	11,365	15.3%
2	8708	<u>Automobile parts and accessories Parts and accessories limited for automobiles stipulated in No. 87.01 through No. 87.05</u>	3,084	5.5%	8708	<u>Automobile parts and accessories Parts and accessories limited for automobiles stipulated in No. 87.01 through No. 87.05</u>	2,941	5.3%	8708	<u>Automobile parts and accessories Parts and accessories limited for automobiles stipulated in No. 87.01 through No. 87.05</u>	4,827	6.5%
3	8802	Other types of aircraft (For example, helicopters and airplanes) and spacecrafts (including artificial satellite) and rocket boosters	1,519	2.7%	8802	Other types of aircraft (For example, helicopters and airplanes) and spacecrafts (including artificial satellite) and rocket boosters	2,159	3.9%	8802	Other types of aircraft (For example, helicopters and airplanes) and spacecrafts (including artificial satellite) and rocket boosters	2,004	2.7%
4	8479	Machinery (Limited to ones with innate function; excluding ones suitable to other types of this item)	1,403	2.5%	8479	Machinery (Limited to ones with innate function; excluding ones suitable to other types of this item)	1,311	2.3%	8479	Machinery (Limited to ones with innate function; excluding ones suitable to other types of this item)	1,635	2.2%
5	8542	Integrated circuit	1,313	2.3%	8504	Transformer, static converter (for example, rectifier) and inductor	1,239	2.2%	8504	Transformer, static converter (for example, rectifier) and inductor	1,615	2.2%

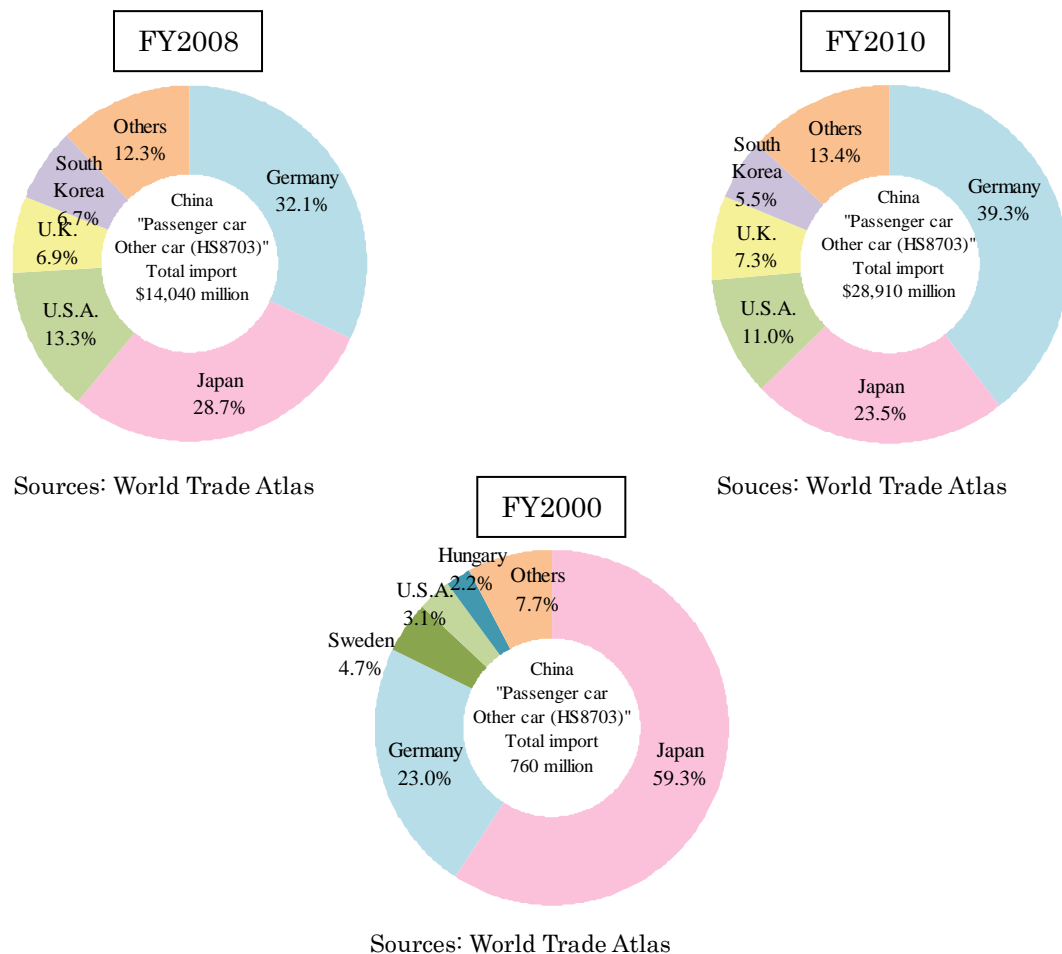
Sources: World Trade Atlas

From the Table, commodities that contributed to the increase in China's imports from Germany were known to be "passenger cars and other automobiles (HS8703)" and "auto parts and accessories (HS8708)". Especially, importation of passenger cars and other automobiles amounted to US\$11.3 billion in 2010, which increased from US\$4.5 billion in 2008, a 3-fold increase within a span of only 2 years. The importation of auto parts and accessories, the second most imported items, achieved a 1.5-fold increase in 2010 compared with that of 2008. This means that the export of automobiles to China has been going strong from the German viewpoint.

It is clearly known that China's imports of automobiles from Germany increased by a large amount as shown above. The importance of this as a part of China's total imports of finished cars should be examined. Figure 2-1-1-15 shows the share of imported "passenger cars and other automobiles (HS8703)" by origin of export in 2000, 2008 and 2010.

During 2008 and 2010, Germany, being the top supplier of China's automobile imports, further extended its advantage over the second supplier, Japan and the third supplier, the United States. China's import amount of finished cars was US\$760 million in 2000, approximately 1/40th compared with that of 2010 (US\$28.91 billion), but Japan accounted for more than 50% of the share. Taking this into consideration, under the circumstance of rapid expansion of domestic demand for automobiles in China, Germany extended its advantage over other countries in fostering China's automobile import demand and it led to the increase of German car exports to China.

Figure 2-1-1-15 Share of imported "passenger cars and other automobiles (HS58703)" in China by export countries/ regions (upper left 2008, upper right 2010 and lower center 2000)



2. Deepening and changing the East Asia production network

As discussed above, Japan has decreased its presence in world trade over the past 10 to 20 years; and on the other hand, China increased its presence backed by the overwhelming economic growth in recent years.

As it was examined in the previous White Papers, Japan and China have secured a position as the “world’s factory” in the East Asia region by dynamically enhancing their economic situation complementarily and constructing and optimizing the production structure with regional specialization. In the following section, it is confirmed how the East Asia production network has been affected by the changes in the world trading structure over the past 20 years. Specifically, it is verified that China exists as a major base to connect the production network in the East Asia region with the products and consuming areas outside the region; the decreased weight of the presence of Europe and the United States as final consumption areas; and the presence of China as a self-sustaining consumption market backed by increased consumption in China and other countries in the region, or the East Asia network beginning to show signs of becoming a self-sustaining network, which does not necessarily need Europe and the United States as final consuming areas. As a premise of the discussion, an outline of the Asia Pacific regional economy is shown in the table (Table 2-1-2-1).

Table 2-1-2-1 Overview of Asia Pacific Region

	Population	Nominal GDP	Nominal GDP per capita	Total amount of trade	Total export amount	Total import amount	Export amount to Japan	Import amount from Japan	Direct investment from Japan	Investment balance from Japan
Year	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
Unit	100 million	US\$1 billion	Dollar	US\$1 billion	US\$1 billion	US\$1 billion	US\$1 billion	US\$1 billion	¥100 million	¥100 million
Brunei	0.004	13	31,228	11	8	3	3.7	0.2	13	-
Indonesia	2.34	707	3,015	293	158	136	25.8	17.0	409	9,738
Malaysia	0.28	238	8,423	416	231	185	20.6	19.4	906	8,128
Philippine	0.94	189	2,007	131	57	74	7.4	10.7	433	7,081
Singapore	0.05	223	43,117	665	354	311	16.4	24.5	3,319	22,417
Thailand	0.64	319	4,992	380	195	185	20.4	38.3	1,983	22,651
Cambodia	0.14	12	814	14	5	10	0.2	0.2	12	-
Laos	0.06	6	984	6	2	4	0.0	0.1	4	-
Myanmar	0.61	43	702	17	7	10	0.4	0.3	-5	-
Vietnam	0.88	104	1,174	164	68	96	7.4	9.0	636	3,668
Total of ASEAN	6.0	1,852	96,456	2,097	1,085	1,013	102.4	119.5	7,711	73,970
Japan	1.27	5,459	42,820	1,466	772	694	-	-	-	-
China	13.41	5,878	4,382	2,974	1,580	1,394	120.3	176.3	6,284	54,187
Korea	0.49	1,007	20,591	857	442	415	26.0	68.5	936	12,261
Total of ASEAN	21.1	14,197	164,249	7,395	3,879	3,516	248.7	364.3	14,931	140,417

+ 3											
India	12.16	1,538	1,265	574	217	356	5.0	9.6	2,411	11,051	
Australia	0.22	1,236	55,590	426	212	214	40.1	18.4	5,622	32,487	
New Zealand	0.04	140	32,143	62	31	31	2.4	2.3	-56	1,852	
Total of ASEAN + 6	33.6	17,111	253,247	8,456	4,340	4,117	296.2	394.6	22,909	185,807	
United States of America	3.10	14,658	47,284	3,246	1,278	1,968	60.5	123.6	7,968	205,246	
Chile	0.17	203	11,828	125	66	59	6.8	3.0	508	-	
Peru	0.30	153	5,172	58	29	28	2.0	1.1	47	-	
Total of TPP	5.1	16,967	235,958	5,172	2,277	2,895	160.1	201.4	18,964	273,799	
NAFTA	4.53	17,271	38,152	4,637	1,948	2,689	72.6	148.4	8,501	216,078	
EU	5.01	16,282	32,497	10,159	4,987	5,171	50.7	80.3	7,146	148,506	
World total	69.0	62,909	9,123	30,512	14,994	15,518	617.7	816.4	49,388	676,911	

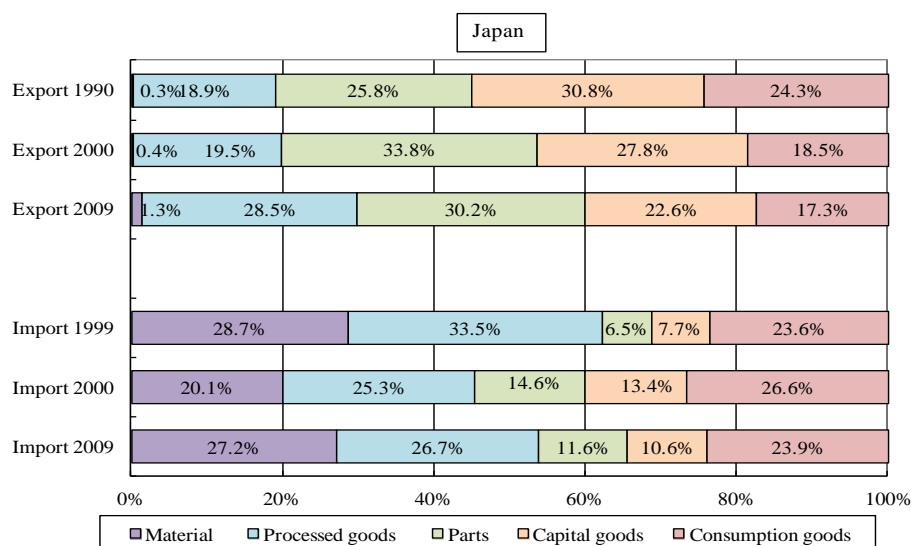
Notes: Nominal GDP per capita = Nominal GDP / population

Sources: IMF “World Economic Outlook Database April 2011” for nominal GDP; IMF “DOT” for amount of trade; Ministry of Finance and Bank of Japan “International Balance Statistics” for direct investment amount; Eurostat for population of EU; IMF “World Economic Outlook Database April 2011” for population of countries/ regions except EU’s

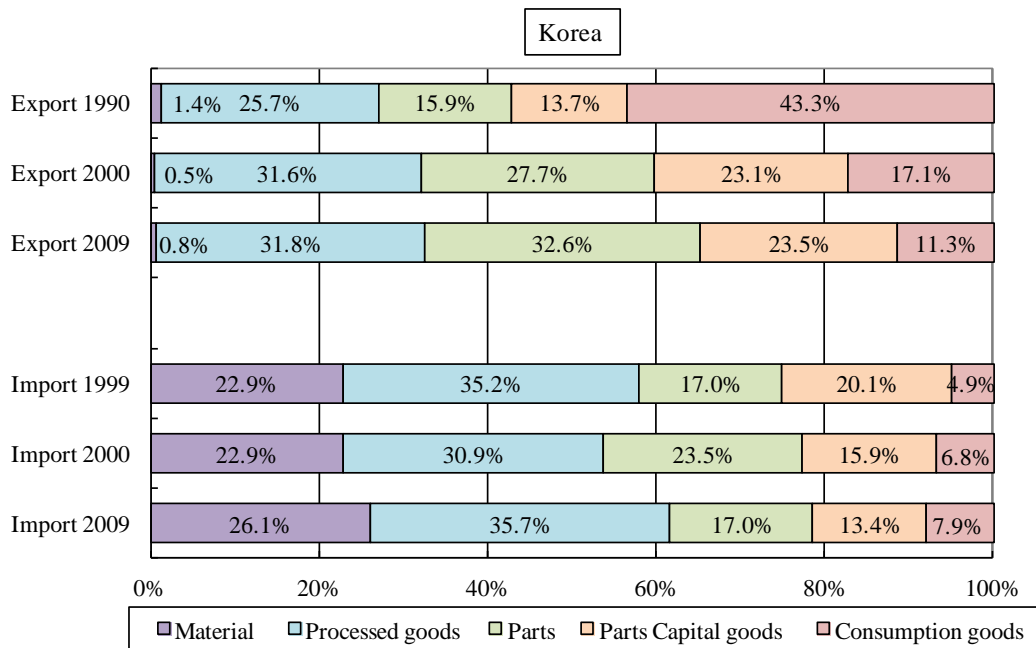
(1) An overview of East Asia trading structure

The recent economy of the Asia Pacific region and the changes in the trading structures of East Asian countries/ regions by production processes are briefly examined (Figure 2-1-2-2).

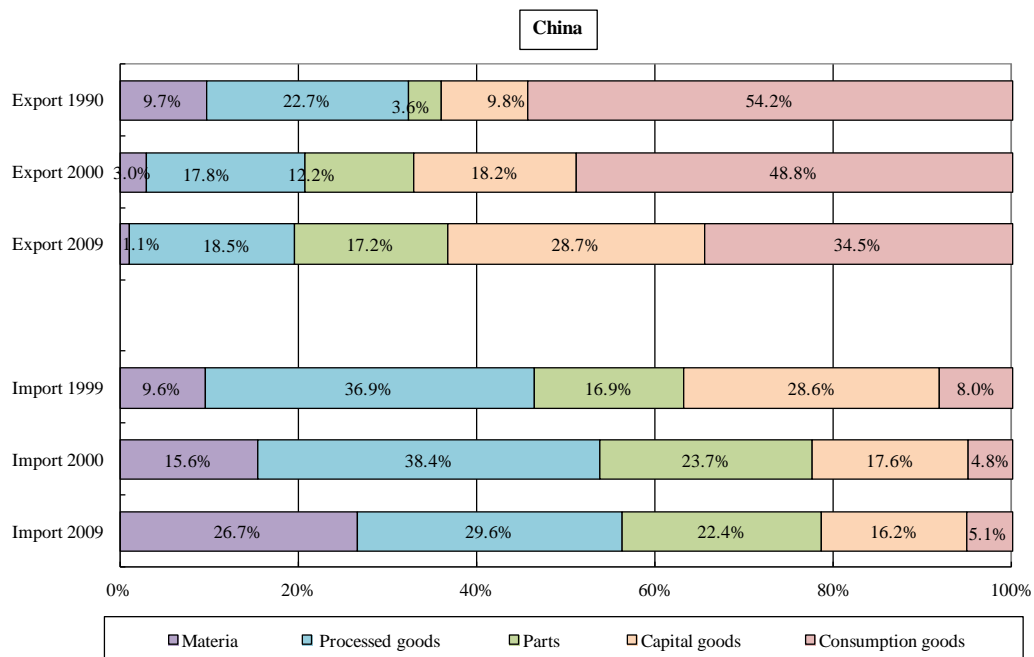
Figure 2-1-2-2 Composition of trade goods in East Asian countries/ regions by production process



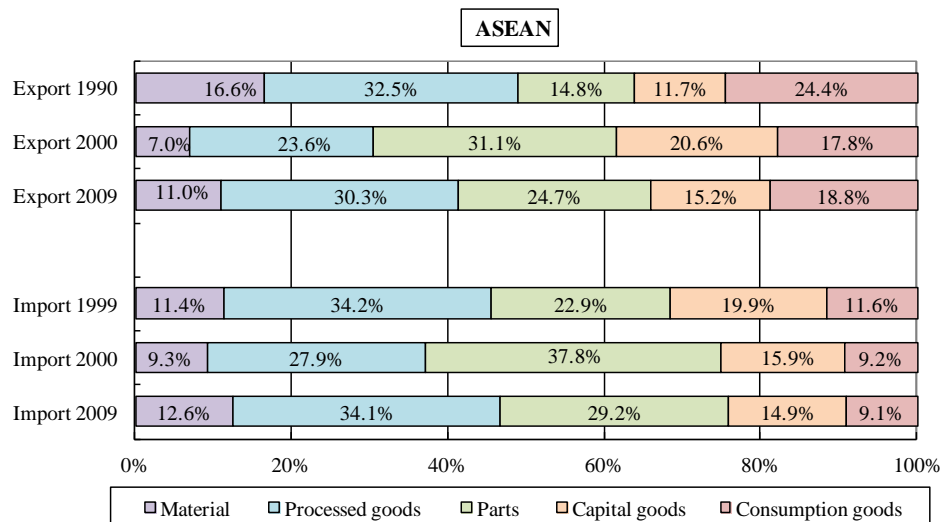
Sources: RIETI “RIETI-TID 2010”



Sources: RIETI "RIETI-TID 2010"



Sources: RIETI "RIETI-TID 2010"



Notes: Export and import within the region is included the trade.

Sources: RIETI “RIETI-TID 2010”

The percentage of parts was the largest in the composition of traded goods by production process exported from Japan in 2009. After 1990, the percentage of intermediate goods exports continued to increase and it accounted for 58.7% of Japan’s total exports. The percentage of materials imports became higher. Japan’s structure to export relatively advanced intermediate goods worldwide and to depend on imports of the resources seemed to continue.

In China, consumption goods accounted for the largest percentage of exports in 2009 and the final goods as a total of capital goods and consumption goods accounted for approximately 60% (63.2%). Changes from 1990 showed that the percentage of consumption goods decreased and percentage of capital goods increased. This means that, besides the advancement of the industrial structure, produced consumption goods may possibly be consumed domestically. On the import side, intermediate goods accounted for 52% and this became 78.7% when materials were included. The characteristics of the export type production structure to import of intermediate goods and export of final goods were shown.

In Korea, intermediate goods accounted for 64.4% of the exports in 2009. The percentage of the intermediate exports was higher than that of Japan. It suggested that the structure became similar to that of Japan in which the intermediate goods were the main engine to drive exports and there may be competition between the two countries. Comparing with exports in 1990, where final goods accounted for 57% of the total exports, it is known that a large shift in the structure has occurred over the past 20 years.

In ASEAN, the export and import structures seemed to be relatively balanced with materials, parts, processed goods, capital goods and consumption goods. The background of this may be

the fact that ASEAN countries have enhanced their supplementary functions among each other.

(2) China’s increasing presence as an assembly and export base

Constructing optimized specialization between production processes in East Asia has led to the development of the East Asia production network. Specifically, Japan, Korea and Taiwan produced relatively high value added parts and finished goods and China and ASEAN imported the intermediate goods and assembled them to produce the final goods and supplied them to Europe and the United States. The existence of the whole East Asia as the “world’s factory” had been verified in previous White Papers.

Now, changes in the global and East Asia trading structures over the past decade are confirmed once again. The main flow of trade in the East Asia production network is summarized from the export amount of the intermediate and final goods in East Asia in 2009 and compared them with those of 1999 (Figures 2-1-2-3 and 2-1-2-4). The structure to export the intermediate goods to China and ASEAN and China and ASEAN export the final goods to Europe and the United States was found in 1999, and the East Asia production network seemed to be functioning. However, the final goods export from Japan to Europe and the United States were US\$94.4 billion to the United States and US\$50.7 billion to the EU. It is also known that the export amount from Japan was larger than those of China and ASEAN to the United States and to the EU.

Figure 2-1-2-3 Movement of trade of intermediate and final goods in East Asian countries/regions (1999)

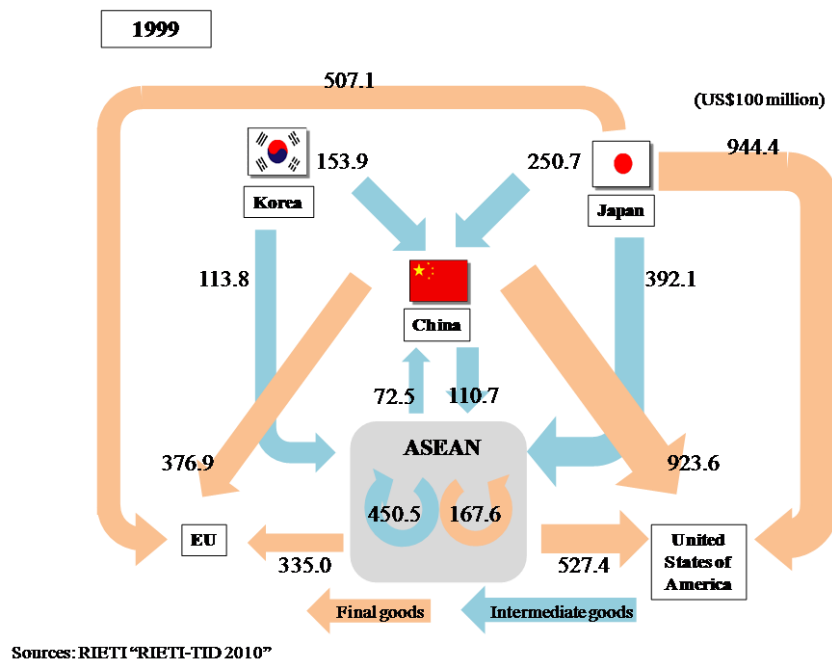
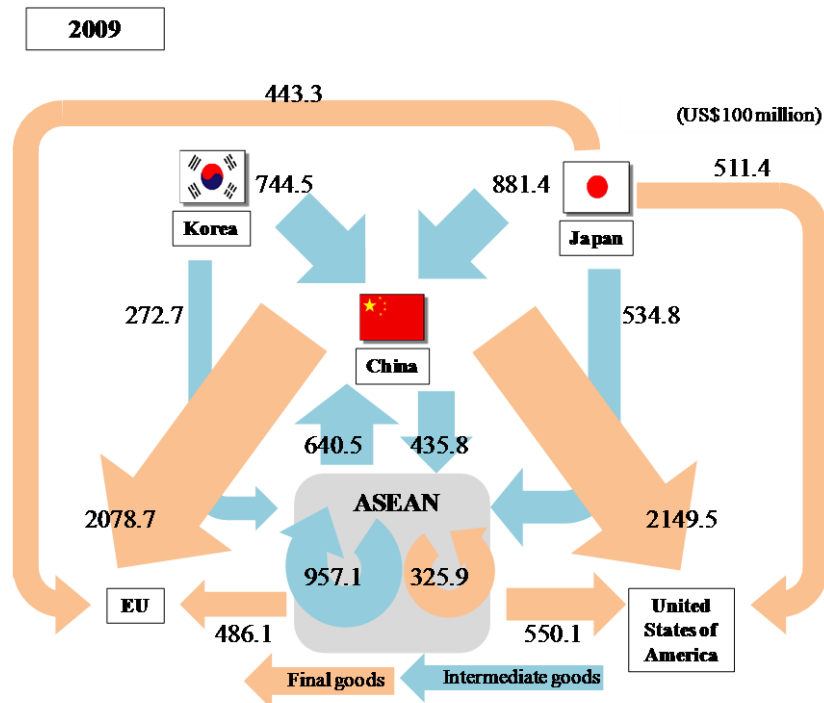


Figure 2-1-2-4 Movement of trade of intermediate and final goods in East Asian countries/ regions (2009)



Sources: RIETI "RIETI-TID 2010"

In 2009, the export amount of each trade relationship increased compared with that of 1999, but only exports of final goods from Japan to the EU and the United States decreased (exports to the United States were US\$94.44 billion in 1999, but decreased to US\$51.14 billion in 2009, and exports to the EU were US\$50.71 billion in 1999 and decreased to US\$44.33 billion in 2009). On the other hand, a large increase in the export amount of final goods were from China to Europe (exports to the EU were US\$37.69 billion in 1999 and increased to US\$207.87 billion in 2009) and the United States (exports to the United States were US\$92.36 billion in 1999 and increased to US\$214.95 billion in 2009) and the export of intermediate goods from Japan, Korea and ASEAN to China. The export amount of intermediate goods from Japan to China continued to be the largest, but those of Korea and ASEAN increased rapidly to US\$74.44 billion and US\$64.05 billion respectively. It expanded almost to the same level of Japan (US\$88.14 billion).

On the other hand, exports of intermediate goods from Japan and Korea to ASEAN were larger than those to China in 1999, but the amount has not increased greatly compared with the amount of intermediate exports to China over the past 10 years. The largest intermediate goods export destination of Japan and Korea was not ASEAN but China. Final goods exports from ASEAN to

the United States and EU also did not increase compared with those achieved by China to the United States and the EU.

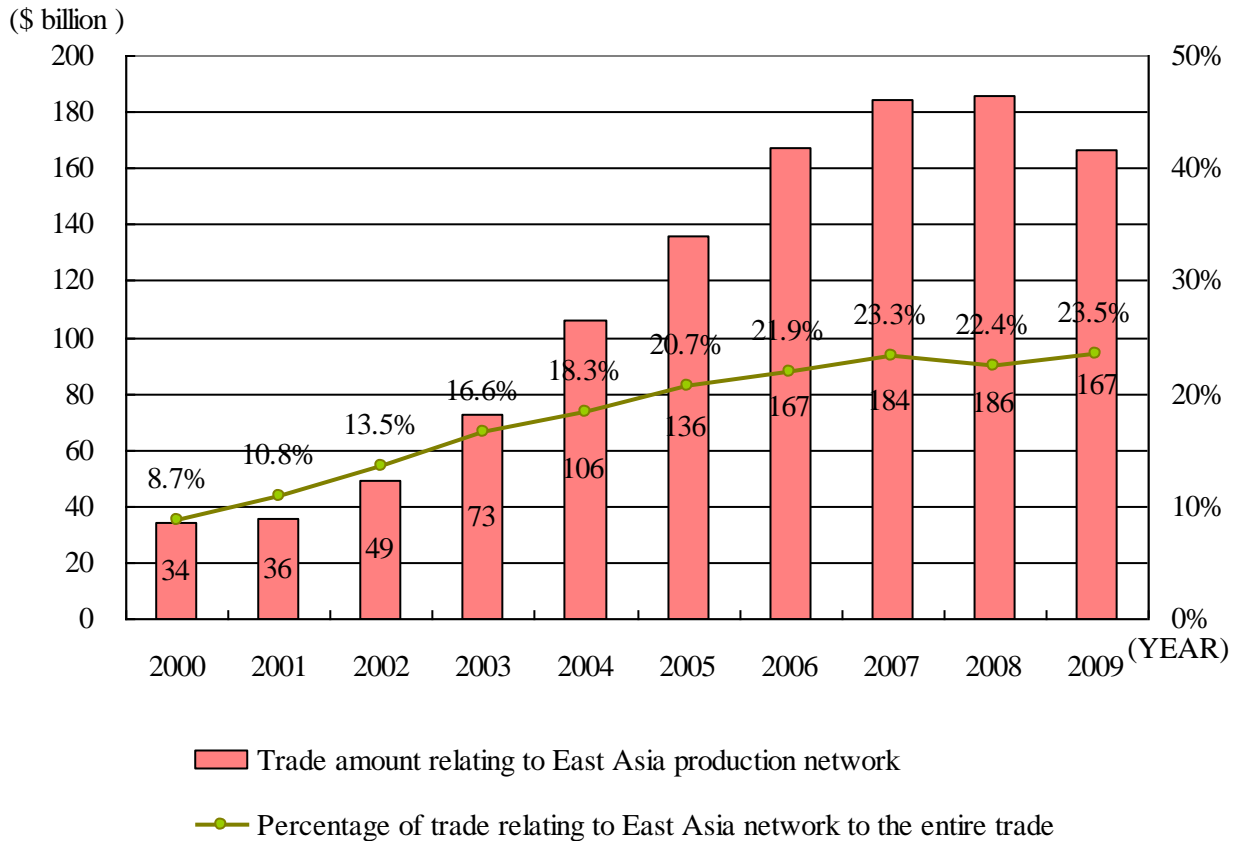
As shown above, in 1999, the East Asia production network was functioning as a system so that ASEAN was a main supply base of intermediate goods; Japan and Korea exported intermediate goods and assembled them in ASEAN; then exported them to advanced countries in Europe and the United States as the final consumption areas. However, it is suggested that the system has deepened and changed over the past 10 years; namely, (i) the East Asia production network has been expanding its supply and demand of intermediate goods in the region; (ii) a tremendously large part of the “assemble and final goods export” process for which ASEAN had mainly played the role has been replaced by China and ASEAN and started to play a role expanding the supply of intermediate goods to China. For example, Japan’s export of final goods to destinations outside the region such as Europe and the United States decreased and Japan’s export of intermediate goods to China increased. This suggests that China has become a kind of “window” to connect the production network in the East Asia region with demand from outside the region.

Examining the export of final goods from China to Europe and the United States, as shown in the abovementioned triangle, the increase in exports to Europe were larger than the increase in exports to the United States. Thus, China established its absolute position as a production and export base in the East Asia production network. East Asian countries/ regions such as Japan and ASEAN played their roles by supplying intermediate goods to China, i.e. a structure emerged that Japan and ASEAN supplied goods to outside the region via China. The situation can be recognized that China played the role as the window to connect the East Asia region with countries/ regions outside East Asia. When a conceptual chart of the global trading structure was shown with the triangle shown above, it also should be mentioned the fact that China together with the United States and the EU formed a pole of the world trading structure was backed by the burst of intermediate goods supply from Japan, Korea and ASEAN.

Secondly, assuming China as the only assembling and export base, it was estimated the amount of trade of electric machine in the East Asia production network, which has notable specialized productive structure and large amount of intra-regional trade(Figure 2-1-2-5). Specifically, defining the total amount of intermediate goods exported from Japan, Korea, Taiwan and ASEAN, and amount of final goods exported from China to the United States and the EU as the amount of trade in the East Asia production network, we show the changes in share of that amount of trade in the East Asia production network account for the whole economy. According to the estimate, the amount traded in the triangle trade structure continuously increased until 2008. In 2009, the amount of trade decreased, affected by the world economic crisis, but the percentage of the amount of trade within the triangle trade structure accounted for the whole

amount of trade increased by 23.5%. Comparing with 2009, the amount of trade increased 4.9-fold and the share to the whole trade increased 2.7-fold. It was shown that the East Asia production network of trade, for which China was an assembling and exporting base, was leading the trade of the member countries/ regions.

Figure 2-1-2-5 Movement of trade relating to East Asia Production Network



Notes: 1. It is assumed that the trade value related to East Asia production network = value of Chinese imports of intermediate commodities from Japan/South Korea/Taiwan/ASEAN + value of Chinese exports of final commodities to the EU and the U.S.
 2. Percentage of trade related to East Asia network in the total trade = trade value related to the East Asia production network / export amount to worldwide destinations from Japan/South Korea/Taiwan/ASEAN/China

Source: RIETI "RIETI-TID2010"

(3) Japan to continuously expand intermediate goods exports

Now, Japan’s trade movement in the East Asia production network is fully confirmed. Japan has played a role to produce relatively high value added parts and finished goods and provided them as intermediate goods to assembly bases in China and other countries. Examining changes in Japan’s export amount of intermediate goods by export destination, the export of intermediate

goods to the United States was larger than others until 2000, but exports to China, Hong Kong and ASEAN grew to exceed those of the United States after 2000. Especially, the increase in supply to China was significantly large and it grew to become approximately 8.2 times larger in 2009 than that of 1990 (Figure 2-1-2-6). Japan’s intermediate export worldwide reached a level of approximately US\$340.5 billion in 2009, and this was approximately a 2.6-fold increase over that of 1990 (US\$131.3 billion). Showing Japan’s share of the intermediate export amount by destination, the share of China/ Hong Kong in Japan’s intermediate goods exports reached the largest share of 31.6% in 2009, and it was approximately a 3-fold increase from that of 1990 (Figure 2-1-2-7).

Figure 2-1-2-6 Transition of intermediate goods export amount from Japan (by export destination)

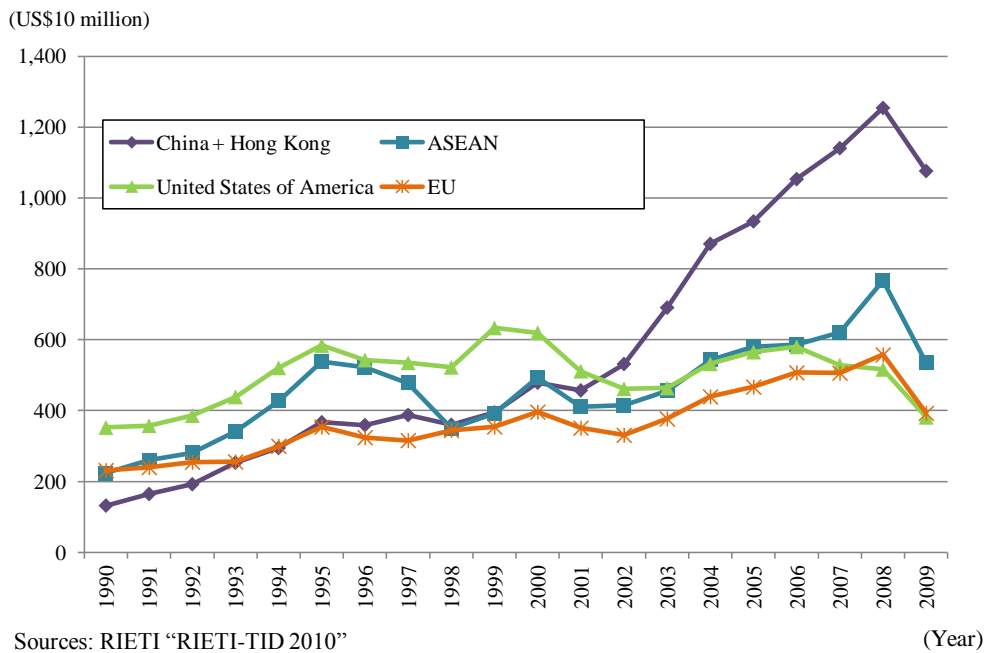
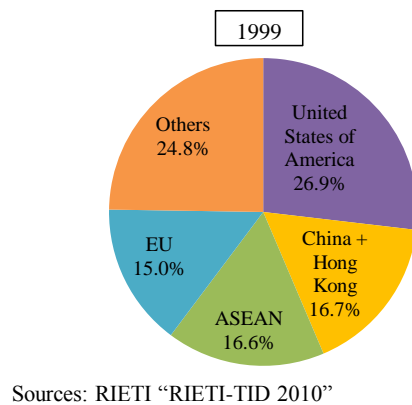
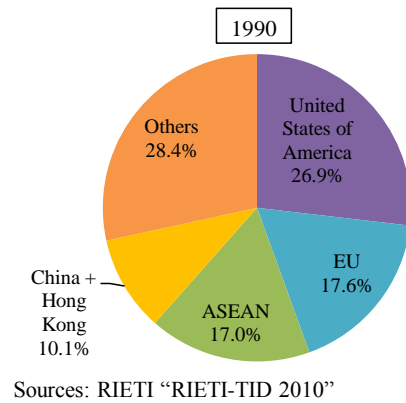
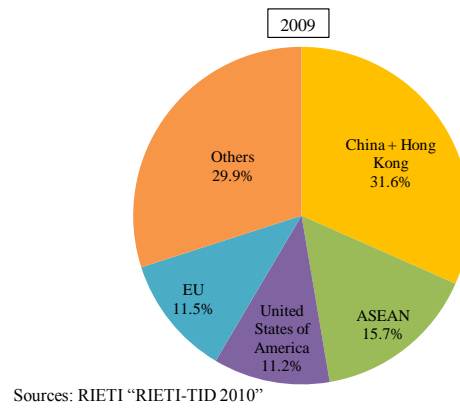


Figure 2-1-2-7 Transition of share of export amount of intermediate goods from Japan (in 1990, 1999 and 2009)

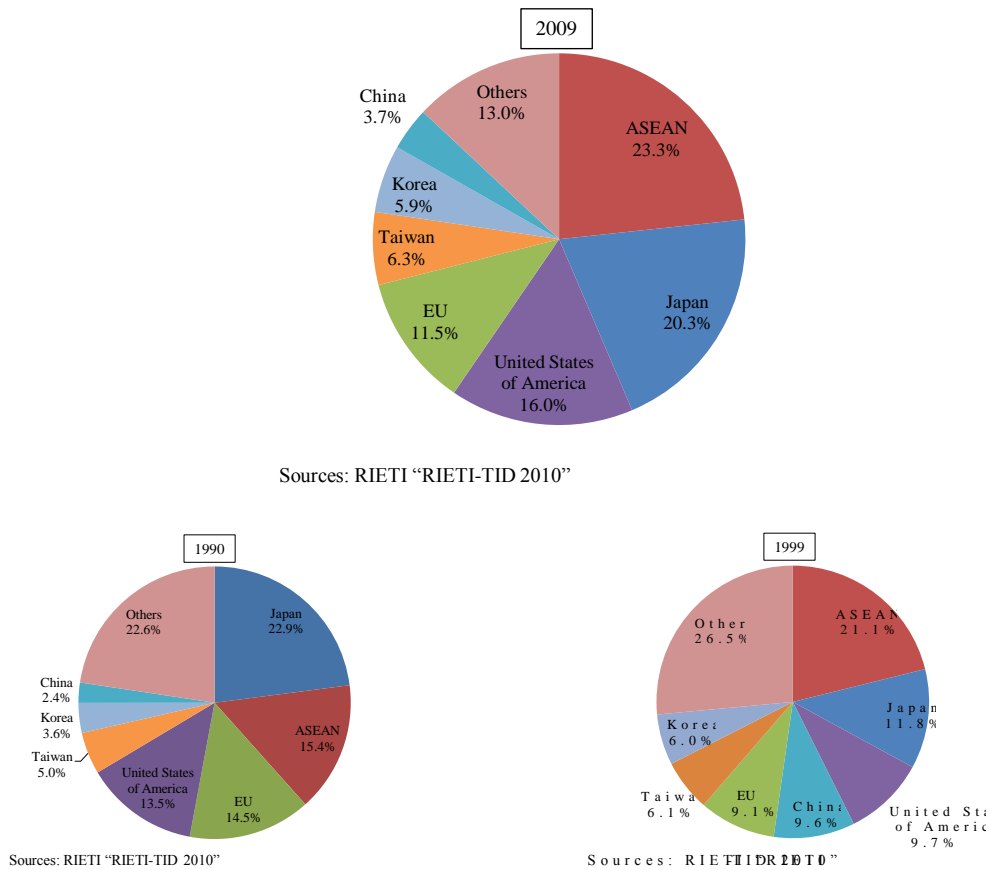


(4) ASEAN, expanding regional trade and strengthening its independence

ASEAN, together with China, has played a role of an assembly base in the East Asia production network. Specifically, it imported intermediate goods from Japan, Korea and Taiwan, assembled and exported them to the advanced countries in Europe and the United States, the final

consumption destinations. Examining the movement of trade in ASEAN, while China increased its presence as an assembly base, ASEAN was found to have deepened its trade over the past 10 years and 20 years in a pattern different from previous ones. Examining the share of the amount of intermediate goods exported to ASEAN by foreign countries in 1990 and 2009, Japan had the largest share of 22.9% as a country providing the intermediate goods in 1990. But in 2009, the procurement from countries within ASEAN reached 21.1% largely exceeding Japan's share of 11.8%, which ranked at the second (Figure 2-1-2-8).

Figure 2-1-2-8 Transition of share of export amount of intermediate goods to ASEAN (in 1990, 1999 and 2009)



In other words, Japan's intermediate goods supply was replaced by procurement within the ASEAN region, and it might be a sign that ASEAN is becoming self-sustaining in terms of production. As the consumption size in the said region has steadily increased, it can be thought that procurement, production and consumption will expand in the future and the self-sustaining

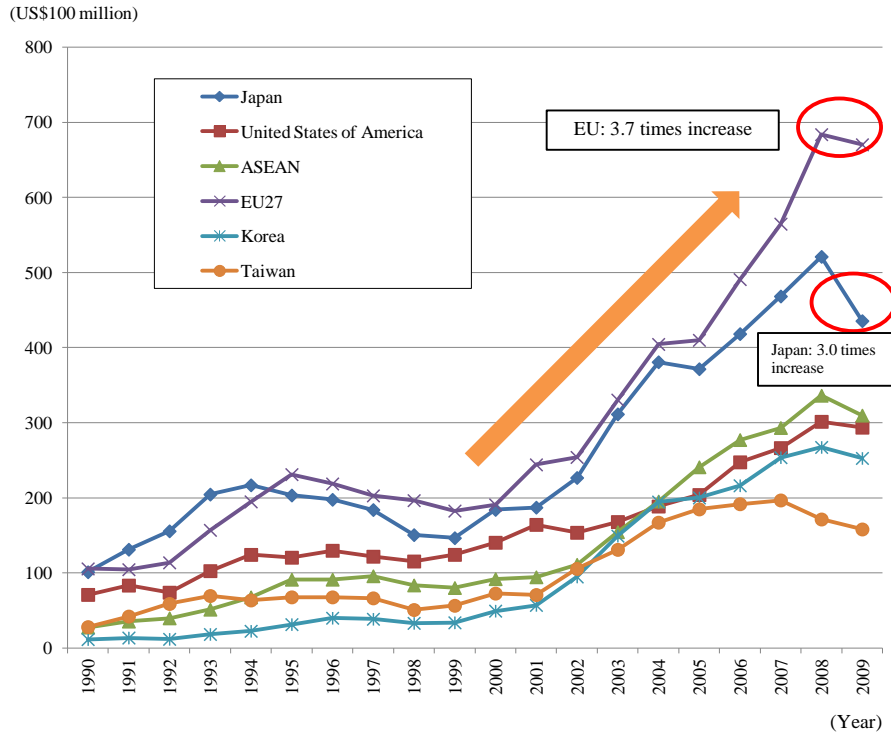
tendency may be further enhanced. In the discussion on above-mentioned triangular world trading conceptual chart, unlike China and MERCOSUR, despite the fact that ASEAN was an emerging region with remarkable growth, it rarefied its trade relations with other countries/ regions. This may be caused by the fact that ASEAN managed to deepen its trade within the ASEAN region.

(5) Being a global “production and demand network”

The deepening of the East Asia network as the “world’s factory” has been so far examined from the production side. It is shown in the following section that China is not merely an assembling base as before but it is becoming a great demand center. The possibility of the East Asia network to be a “world demand center” is to be confirmed. Examining the movement of the amount of final goods exported from countries/ regions to China, the final goods exported from countries/ regions rapidly increased after 2000 (Figure 2-1-2-9). Especially, it should be noted that the increase in the amount and share of final goods exported from advanced countries such as the EU and Japan has been remarkable in recent years. There were no such differences in the export amounts of the EU, Japan and the United States in the 1990s, but through the 2000s, the EU achieved a 4.7-fold increase in its final goods export amount, and Japan also managed a 4.1-fold increase and the United States was left behind.

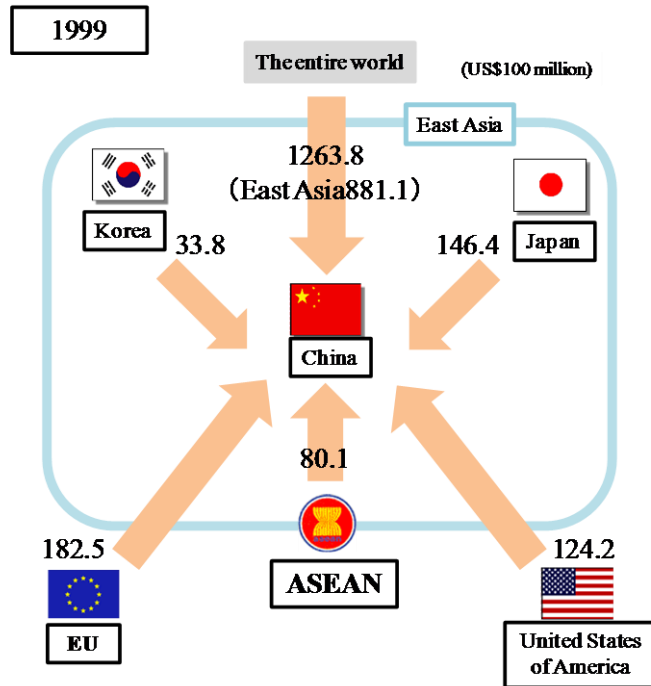
Figure 2-1-2-9 Transition of final goods export amount to China

(By exporting countries/ regions; scale was calculated by dividing amount of 2009 by the amount of 1999)



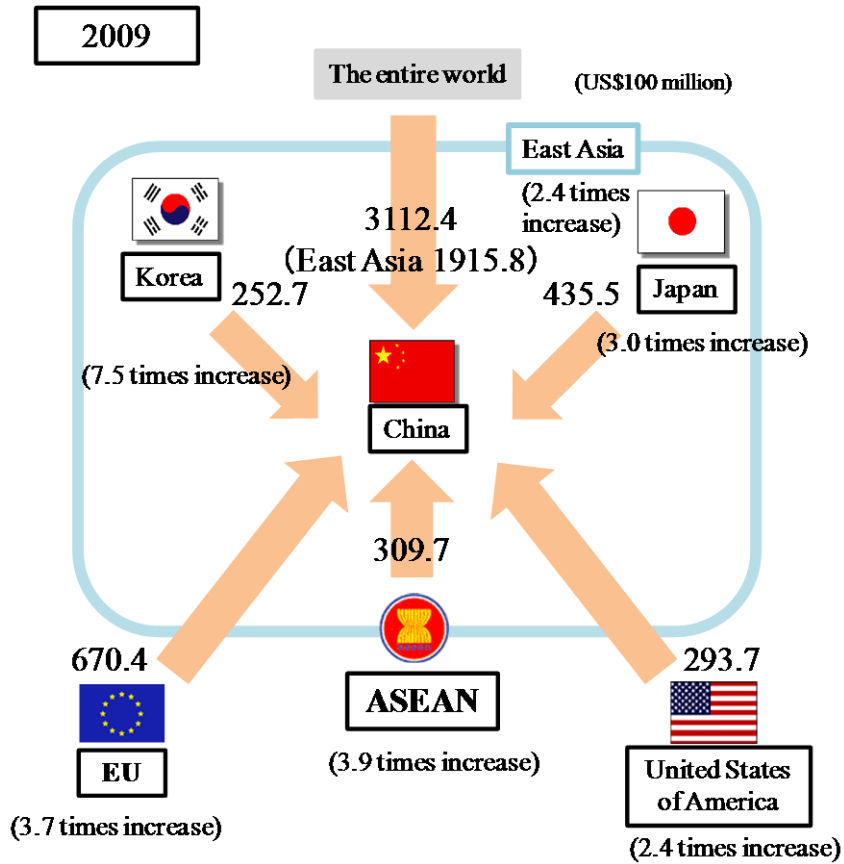
Summarizing the final goods amount exported from countries/ regions to China in 2009 and comparing them with those of 1999, it has been found that the final goods exported from the countries/ regions have largely increased over the past 10 years (Figures 2-1-2-10 and 2-1-2-11).

Figure 2-1-2-10 Flow to export final goods to China (1999)



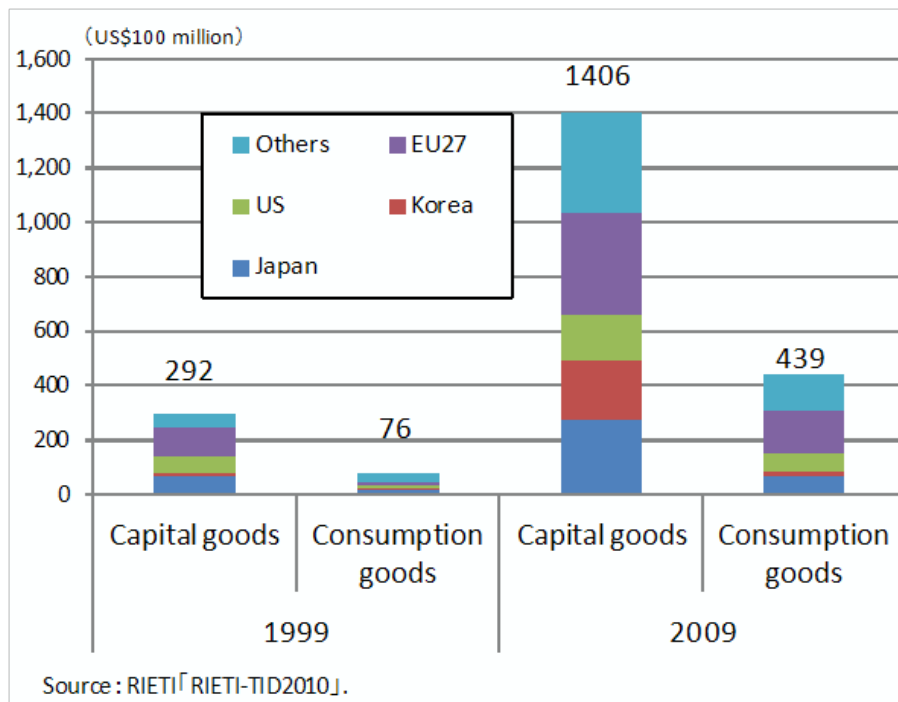
Sources: RIETI "RIETI-TID 2010"

Figure 2-1-2-11 Flow to export final goods to China (2009)



Notes: Scales in parenthesis are ratio to value of 1999
 Sources: RIETI "RIETI-TID 2010"

Figure 2-1-2-12 Details of final goods export to China (by production process)



As confirmed in the figures above, the increase in the number of final goods exported from the EU and Japan is especially remarkable. The remarkable increase in the export of final goods from the EU and Japan to China suggests that China has started to demand relatively high value-added final goods produced in the EU and Japan. It shows that China has begun to enhance markets not only quantitatively but also qualitatively. For some time past, the East Asia network structure has functioned as the “world’s factory” to supply products to Europe and the United States, but, with the overwhelming expansion of China’s demand, it is probably showing signs that East Asia is becoming a self-sustaining network involving “China as a world demand center”. One of the important reasons is the fact that the presence of Europe and the United States has shrunk for the East network in the background of the global economic crisis. Seen in this light, it can be said that the global economic crisis has triggered the change in the structure of the East Asia production network.

As discussed above, the final goods exported from the countries and regions to China have increased and China has become a large demand center for areas both within and outside the region. The final goods imported by China are briefly discussed below. Examining details of the capital goods and consumption goods in the final quantity of goods imported by China, the percentage of capital goods was larger than that of consumption goods both in 1990 and 2009 (Figure 2-1-2-12). Contents of the capital goods may be production-related ones due to China’s active construction demand and the increase in investment for procuring the necessary equipment. In other words, the abovementioned increase in China’s final goods imports will result in accelerating the production capacity within China and strengthen the competitiveness of Chinese companies. The fact is confirmed that the final goods exported from the countries/ regions to China have increased and China is becoming to grow into a gigantic “world demand center” for the exporting countries/ regions. However, it should be noted that the exporting countries couldn’t always dominate China’s huge consumption market by exports.

Increases in incomes and the growth of the middle and wealthy classes in China are steadily advancing and China’s potential to continue to grow as a consumption market is very high. In the future, it is becoming increasingly important for Japan to provide products needed by the China market by utilizing the close trade and investment relationship it has deepened under the East Asia network. China and the growing Asian consumption markets will be thoroughly analyzed in Chapter 3.

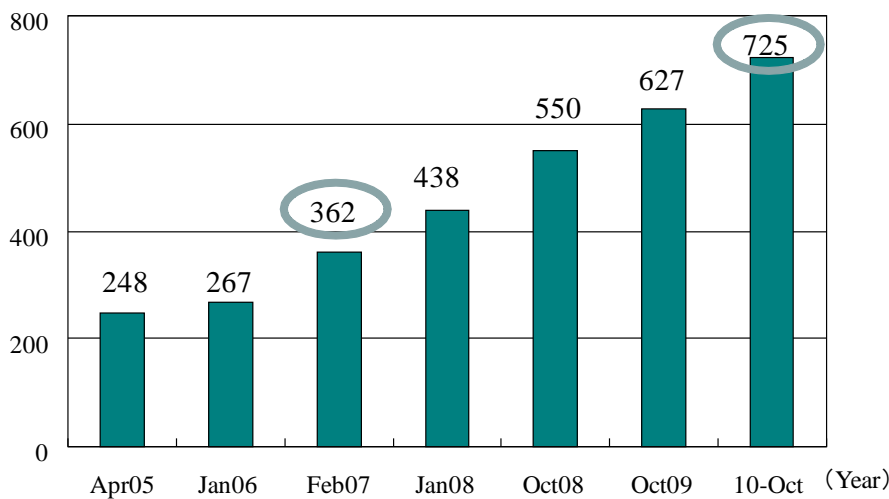
(6) India, incorporated into the East Asia trade and investment networks

Viewing the recent trade and investment structures in East Asia, it is evident that India has been incorporated into the region’s trade and investment networks. Recently, India has

continued to achieve high economic growth. According to the IMF outlook, 8.2% growth in 2011 is expected. In this situation, many companies continue to expand their business targeting the growing markets in India and presence of India in the regional trade and investment network is being strengthened.

For instance, the trade between Japan and India was worth ¥939.1 billion in 2009 and ¥1,290.6 billion in 2010, approximately a 1.4-fold increase within one year. Goods exported from India to Japan have been traditional commodities such as iron ore, precious stones and jewelry, but recently exports of petroleum products have been rapidly increasing. Goods actively exported from Japan to India are general machinery, electronics instruments, steel products and transport machines. The direct investment from Japan to India amounted to ¥240.1 billion and the number of Japanese companies operating in India was 725 (double that of 2007) in 2010 (Figure 2-1-2-13). According to a questionnaire sent to Japanese companies, India is the second likely destination they would like to operate in after China for a period of about three years in future.² The Japanese companies cite the growth potential of the market is the main reason why they regard India as a promising destination to operate in. According to the questionnaire, 89% of the companies pointed out India's growth potential. This far surpassed other reasons cited, such as low labor costs (44%) and a supply base for assembling manufacturers (22%).

Figure 2-1-2-13 Transition of number of Japanese companies operating in India



Source: Reprint from the website of Japanese Embassy in India

Trade and investment relations between India and the East Asia region are expanding. India's export amount to ASEAN10 was US\$17.37 billion in 2009, which accounted for 10.5% of

² Jap “ Survey Report on Overseas Business Operation of Japanese Manufacturing Industry 2010 edition” by Bank of International Cooperation (JBIC)

India's total export amount (US\$165.2 billion). This was an 8.4-fold increase compared with that of US\$2.08 billion in 1999. India's exports to China amounted to US\$10.15 billion (the structural ratio was 6.1%). This was a 20.4-fold increase compared with that of US\$5 billion in 1999. And India's imports from ASEAN10 in 2009 amounted US\$23.94 billion (the structural ratio was 9.3%). This was a 5.6-fold increase compared with that of US\$4.29 billion in 1999. Imports from China amounted US\$28.83 billion (the structural ratio was 11.2%). This was 24.5-fold increase compared with that of US\$1.18 billion in 1999.

Examining the tendency of India's trade in the intermediate and final goods trade in East Asia, the intermediate goods exported from East Asia to India and the final goods exported from India to Europe and the United States were rapidly increasing. It may show that India as a new intermediate goods assembling and exporting base that has been incorporated into the East Asia network (Figures 2-1-2-14 and 2-1-2-15). Intermediate goods exported from East Asia to India amounted to US\$41.89 billion in 2009. The amount was 5.4-fold increase compared with that of 1999. Especially, the intermediate goods exported from China to India dramatically increased to US\$14.44 billion in 2009. This was a 15.5-fold increase compared with the amount in 1999. And also, final goods exported from East Asia to India amounted US\$19.63 billion at the time of 2009 which was a 9.4-fold increase compared with the amount in 1999. India has increased its presence as a great demand center backed by the size of population and significant economic growth (Figures 2-1-2-16 and 2-1-2-17).

Figure 2-1-2-14 Movement of intermediate and final goods trade focused on India

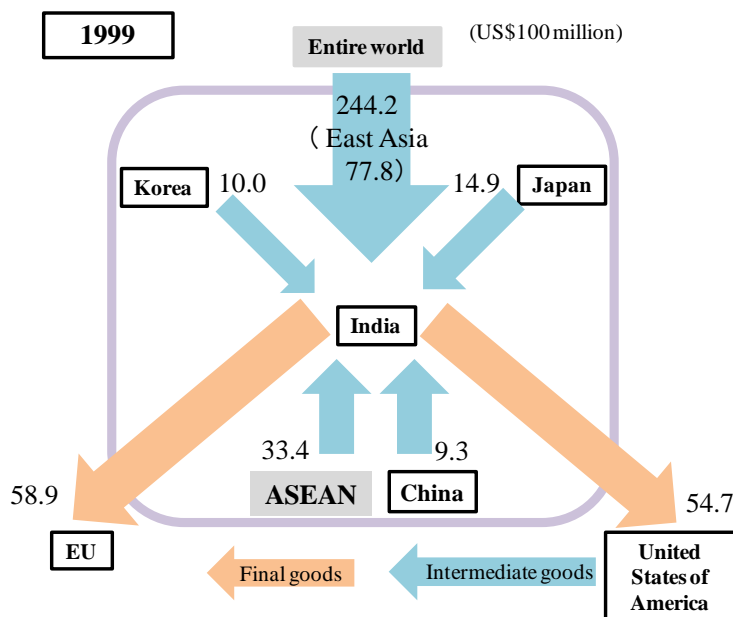


Figure 2-1-2-15 Movement of intermediate and final goods trade focused on India

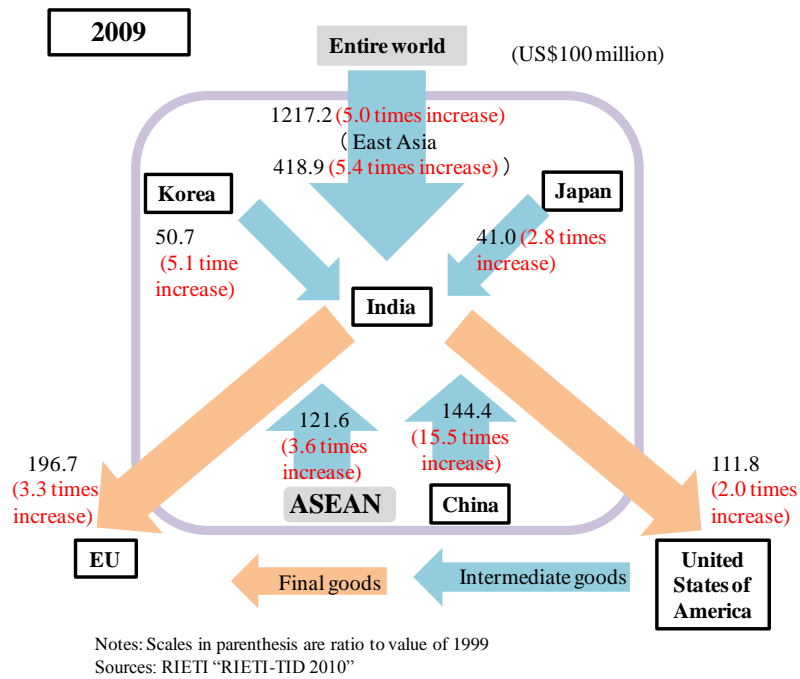


Figure 2-1-2-16 Flow of final goods export to India (US\$100 million)

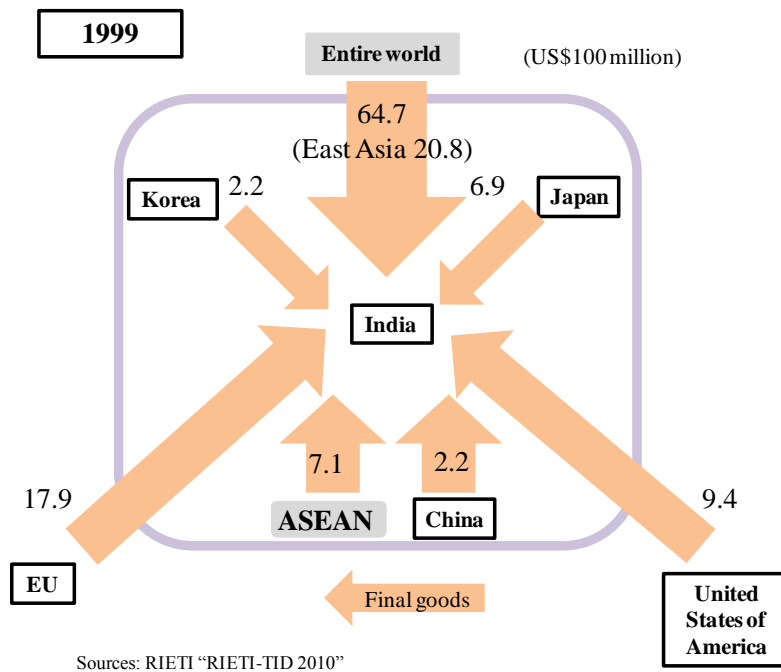
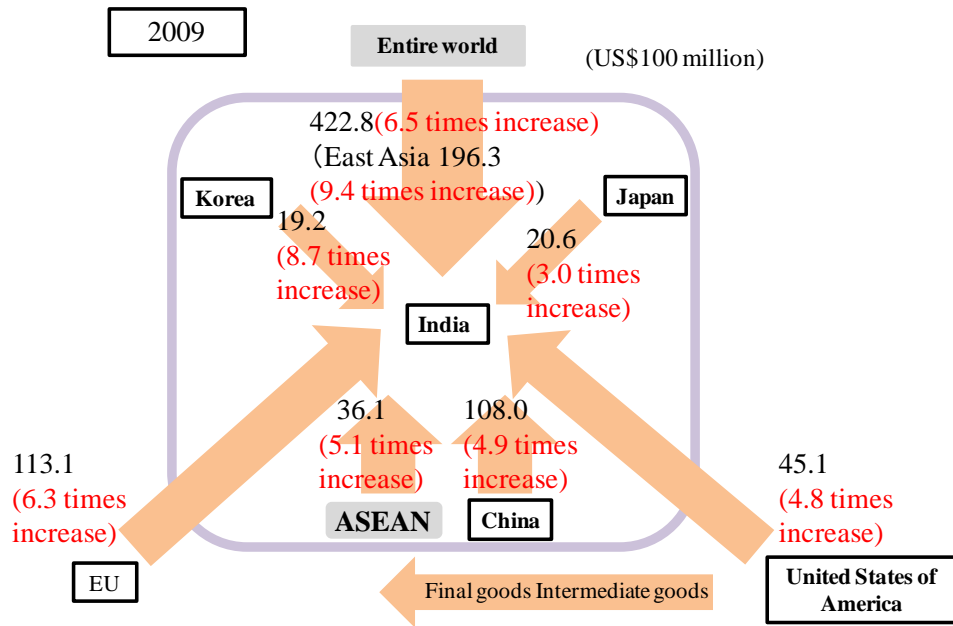


Figure 2-1-2-17 Flow of final goods export to India (US\$100 million)



Notes: Scales in parenthesis are ratio to value of 1999
Sources: RIETI “RIETI-TID 2010”

In this situation, more companies have placed greater importance on India as an export destination rather than a destination of business operation.

According to the “Status Survey on Activities of Japanese Companies Operating in Asia and Oceania” reported by JETRO, a large number of Japanese companies especially operating in Singapore, Thailand and Indonesia regarded India as the most important market. Examining the Japanese companies operating in Singapore and desiring to operate in India by type of industry, the “shipping and warehousing industry” was the most dominant with 71.4%. This may be caused by the expansion of Singapore’s logistics for India and the convenient access to India³.

Thus, India has been incorporated into the East Asia trade and investment networks, but various problems have been pointed out in its business environment. According to the questionnaire mentioned above, incomplete development of infrastructure (48% of the replies) was stated as the greatest challenge. Other problems such as severe competition with others (32%) and uncertainty in legislative enforcement were pointed out by many companies⁴. It is expected that these problems can be improved and solved by the bilateral cooperation projects and effectuation of the Economic Partnership Agreement (EPA)⁵ as well as Asia wide efforts of “Asia Overall Development Plan⁶” and East Asia Comprehensive Economic Partnership

³ “Status Survey on Activities of Japanese Companies Operating in Asia and Oceania” by JETRO

⁴ Japan Bank of International Cooperation (JBIC)

⁵ Japan-India EPA is scheduled to be effective on August 1, 2011.

⁶ A strategy to integrally carry out the development of hard and soft infrastructures and promotion

Framework (Figure 2-1-2-18 and Figure 2-1-2-19).

Figure 2-1-2-18 Scene of Japan India EPA signing ceremony on February 16, 2011

Sources: Data from Ministry of Foreign Affairs



Sources: Data from Ministry of Foreign Affair

of industries in the Region formulated by the Economic Research Institute for ASEAN and East Asia (ERIA) aiming at doubling the income in Asia. This was agreed at the East Asia Economic Ministers Meeting in August 2010, and reported at the East Asia Summit Meeting in October, which was appreciated by the leaders of the countries/ regions. Approximately 700 projects were listed as specific hard infrastructure development targets in relevant areas and the priority of the projects was decided. The total investment is expected to be approximately US\$390 billion.

Figure 2-1-2-19 Outline of Asia Overall Development Plan

Asia Overall Development Plan

The plan is one of the integrated achievements of Economic Research Institute for ASEAN and East Asia (ERIA) research projects. In order to seek the “deepening economic unification” and “correction of development gaps” at the same time, a space design to connect the infrastructure development and industrial location is formulated by using economic theory. In these conditions, the investment effects of specific projects are verified and the projects are prioritized. When those are realized, it may have great benefits to private companies. A part of the research projects has been adopted by President Yudhoyono, Indonesia as a priority measures (Indonesia Economic Development Corridor

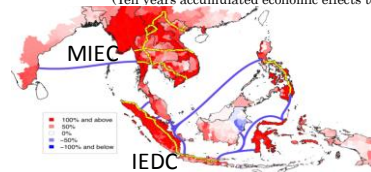
Business opportunity in the infrastructure development markets

ERIA rated about 700 projects. The investment will be approximately US\$400 billion in total.

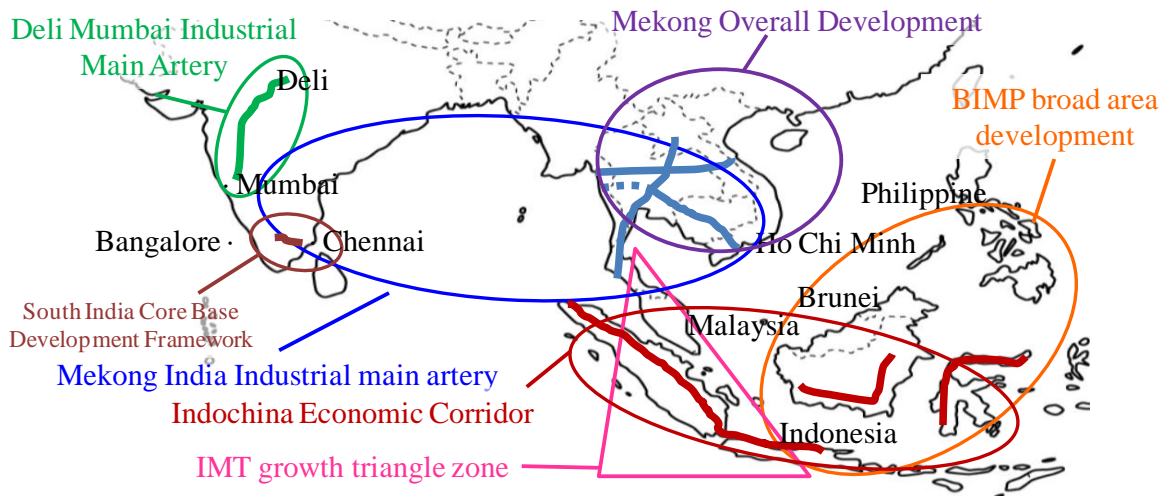
Business opportunity by the expanding middle-income group

GDP per capita in the region will be doubled by 2020. ◦
 Approximately US\$4,270 in 2008
 ↓
 Approximately UA\$8,540 in 2020

Economic effects of the infrastructure projects in the region are analyzed with the newest model.
 (Ten years accumulated economic effects to GDP)



General list of CADP future projects (long list)				
	Total	Mekong	BIMP+	IMT+
Total	695	452	190	61
Priority				
Top Priority	170	113	54	14
Priority	166	87	56	23
Normal	359	252	83	24
Tier				
Tier 1	178	109	63	6
Tier 2	313	217	59	45
Tier 3	204	126	68	10
Type				
Public	541	358	146	45
PPP	154	94	44	16



Sources: Ministry of Economy, Trade and Industry

3. Changing global trade structure and Japan’s future

Changes in the global trade structure in recent years, especially the movement of trade in the East Asia production network were discussed above.

As having shown using triangular conceptual charts of the global trade structure at the start of the discussion, a pole of the world trade, which was played by Japan together with the EU and the United States in 1990, seemed to be replaced by China after 20 years. Similarly, it was discussed that the trade relationships of Japan with each pole of ASEAN seemed to be relatively

rarefied.

However, upon close examination, the East Asia network including Japan and ASEAN have significantly expanded the amount of trade exceptionally in the world and have deepened their trade relationships over the past 20 years. Undoubtedly, China rapidly enhanced its presence in the global trade structure, but one of its important factors was China's establishment of its position in the East Asia production network as a production and export base and the stronger presence of China to connect inside and outside of the East Asia region.

The background to this, as mentioned above, was the expanded supply of intermediate goods from countries/ regions in East Asia including Japan, Korea, Taiwan and ASEAN to China. Japan and ASEAN, on the surface, seemed to rarefied their presence in the global trade structure, but it may be said that the optimized specialization system has been increasingly advancing in East Asia by active cross-border business activities including the direct investment of Japanese companies.

As previously shown using the global trade conceptual charts, the world economic crisis affected the global trade structure. In that situation, the East Asia production network continued to deepen and showed a slight sign of changes and improvement. After the world economic crisis triggered by the Lehman shock, stagnation of global demand, especially in the advanced countries in Europe and the United States, became serious. On the other hand, rapidly recovering Asian countries in region such as China and ASEAN led the growth of the world economy. Following this situation, the "East Asia production network", which had depended on consumption of Europe and the United States, began to seek final goods as a demand center within the region, and to have a self-sustaining nature as "East Asia being the production/ demand network". This represents one of the positive changes and improvements. Demand continued to increase the supply not only within the region but also outside the region. The "world's factory" has maintained and strengthened its position and at the same time has been becoming a "world demand center".

However, as mentioned above, currently, increased import "demand" does not always show the consumption demand and the transactions of consumption goods within the region are not large compared with total transactions. On the other hand, increases in the income and population of middle and wealthy classes have progressed steadily and high potential as a consumption market has undoubtedly increased. In order to acquire the world's largest growth energy, the most important thing for Japan will be the further promotion of bold and active trade investments by Japanese companies, which have been the foundation to establish and deepen the East Asia production network and supplying products satisfying the needs of the enlarged global market. For example, if a virtuous cycle is created and Japanese companies further develop local production and sales suitable to the markets in the region, boost the local potential

demand, promote the expansion of markets, and set off increased supply from Japan, it will contribute to the further development of Asia as a whole. Overseas deployment of Japanese companies will be further analyzed in Chapter 3.