

# **ANALYSIS OF A CHINA-JAPAN-KOREA FREE TRADE AREA: A SECTORAL APPROACH**

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## I. Introduction

The trilateral joint research on economic cooperation among China, Japan, and Korea began following the agreement among the leaders of the three countries at their historic meeting in Manila in November 1999. The Development Research Center of the State Council of China, the National Institute for Research Advancement of Japan, and the Korea Institute for International Economic Policy have undertaken joint research since 2001. For the first two years, they focused on the issue of enhancing trade and investment among China, Japan, and Korea, and each year a summary of the joint research along with a set of policy recommendations has been submitted to the leaders of the three countries.

In 2003, the three institutes embarked upon the second phase of the joint research—long-term economic vision and medium-term policy direction—starting from a three-year project on the economic effects of a possible free trade agreement (FTA) among China, Japan, and Korea. The joint study in 2003 showed that all three countries would benefit from a China-Japan-Korea (CJK) FTA. According to a model simulation of a CJK FTA, China's economic welfare would increase by \$4.7–\$6.4 billion and its gross domestic product (GDP) growth rate would increase by 1.1–2.9 percent. Economic welfare gains and GDP growth for Japan would be \$6.7–7.4 billion and 0.1–0.5 percent, and for Korea they would be \$11.4–26.3 billion and 2.5–3.1 percent. In addition, the majority of surveyed businesspeople in the three countries looked favorably upon a CJK FTA.

In 2004, the three institutions conducted joint research on sectoral implications of a China-Japan-Korea FTA. That study addressed agriculture and manufacturing sectors. After a cross-sectoral analysis of the economic effects of the trilateral FTA, three industries—agriculture, automobiles, and electronics—were analyzed further. This paper summarizes the results of the study of agriculture, autos, and electronics, and it is complemented by interviews with businesspeople and specialists.<sup>1</sup> Based on these analyses and discussions, policy recommendations are proposed.

## II. Implications for Major Industries in China, Japan, and Korea

Unlike the overall positive effects of a CJK FTA, the impact of such an FTA on each individual industry varies. Naturally, people related to industries that are negatively affected will resist a CJK FTA. Therefore, in this section we attempt to identify sensitive industries in the three countries. At the end of the report, we offer some policy recommendations to alleviate adjustment burdens in these industries.

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1. The joint study for 2005 will cover the fisheries, steel, textile, and service industries and is in progress.

### *Comparative Advantages of Industries*

China, Japan, and Korea have different comparative advantages depending on industries (*Table 1*). As of 2003, based on a revealed comparative advantage (RCA) index, China has a high comparative advantage in textiles and electronics, but it lags in automobiles and petrochemicals. Japan has a strong comparative advantage in automobiles, electronics, and general machinery, but its agricultural and textile industries show weaknesses. Korea has a comparative advantage in electronics, textiles, and steel, but its comparative advantage is quite low in the agriculture sector.

**Table 1: Revealed Comparative Advantage Index of Industries in China, Japan, and Korea, 2003**

<b>Industries</b>	<b>China</b>	<b>Japan</b>	<b>Korea</b>
Agriculture	0.68	0.07	0.19
Textiles	2.97	0.28	1.37
Electronics	1.45	1.58	2.04
General machinery	1.28	1.35	1.10
Steel	0.80	1.26	1.36
Automobiles	0.18	2.12	1.14
Petrochemicals	0.63	0.92	1.13

Source: UN (2003).

Note: The index is defined by

$$\frac{X_j^k / X_w^k}{X_j / X_w},$$

where  $X$  denotes exports,  $k$  denotes the commodity group classification of exports,  $j$  denotes the particular country in question, and  $w$  refers to the world.

Among the three countries, Japan shows a clear comparative advantage in automobiles. China is strong in textiles and has a relative comparative advantage in agriculture although it does not enjoy a strong comparative advantage internationally. All three countries are highly competitive in electronics.

### *Tariff Structure by Industry in China, Japan, and Korea*

In 2003, on the basis of the six-digit Harmonized System (HS) of tariff rates, China's average<sup>2</sup> tariff rate for products of both primary and secondary industries was 11.3

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2. This is a simple average.

percent (**Table 2**), while the average tariff rates for primary and secondary industries were 13.8 percent and 10.7 percent, respectively. The average tariff rates were relatively high for automobiles (20.9 percent), agriculture (18.0 percent), and textiles (15.2 percent).

In Japan in 2003, the average tariff rate for products of primary and secondary industries was 3.1 percent, whereas the average tariff rates for primary and secondary industries were 5.9 percent and 2.5 percent, respectively. Average tariff rates were relatively high in agriculture (18.4 percent) and textiles (6.4 percent).

Korea's average tariff rate in 2003 for products of both primary and secondary industries was 12.4 percent; the average tariff rates for primary and secondary

**Table 2: Tariff Structure by Industry in China, Japan, and Korea, 2003, percentage**

Industries		China		Japan		Korea	
		Tariff rate	Standard deviation	Tariff rate	Standard deviation	Tariff rate	Standard deviation
Primary Industry	Agriculture products	18.0	12.4	18.4	19.8	52.1	113.8
	Forestry	13.8	11.7	5.9	8.3	34.6	90.7
	Fishery	5.9	4.2	2.9	2.4	6.5	2.5
	Minerals	13.1	3.6	5.2	4.3	18.2	67.7
	Total for primary	10.2	13.1	0.9	2.0	4.5	2.6
Secondary industry	Textiles	15.2	5.8	6.4	2.9	10.0	3.3
	Chemicals	8.9	5.4	2.4	3.1	7.0	9.2
	Steel/metals	7.7	4.6	1.1	1.7	5.2	2.9
	Electronics	10.3	8.6	0.1	0.7	6.0	3.2
	Machinery	8.8	4.8	0.0	0.0	6.1	3.1
	Automobiles	20.9	12.2	0.1	0.9	7.5	2.4
	Other products	11.7	7.2	1.9	4.6	6.1	3.6
	Total for secondary products	10.7	76.7	2.5	3.5	7.1	6.1
<b>Total</b>		<b>11.3</b>	<b>8.0</b>	<b>3.1</b>	<b>5.0</b>	<b>12.4</b>	<b>41.8</b>

Source: Trilateral Joint Research Project (2004).

Note: Average most-favored-nation tariff rates are based on the Harmonized System (HS) for six digits. HS classifications are as follows: agriculture: 1–2/4–15/17–24; forestry: 44–46; fishery: 3/16; minerals: 25–27/71; textiles: 50–63; chemicals: 28–43, 47–48, 68–70; steel/metals: 72–83; electronics: 85; machinery: 84; automobiles: 87; others: 49/64–67/86/88–97.

industries were 34.6 percent and 7.1 percent, respectively. The average tariff rate was particularly high for agricultural products (52.1 percent), with a high standard deviation. The average tariff rate was also relatively high in textiles (10.0 percent) and automobiles (7.5 percent).

It is interesting to note that in all three countries, the average tariff rates were relatively high in the agriculture and textile industries.

### ***Sensitive Sectors in China, Japan, and Korea***

Given the different levels of comparative advantages and tariff rates, a CJK FTA, which requires elimination of tariffs, will hurt in the short term those industries with low comparative advantages and high tariff rates. As we have seen, those industries with low RCAs usually have high tariff rates.

The levels of average tariffs and RCAs indicate that China's most sensitive sector is automobiles, which has a high average tariff rate (20.9 percent) and a low RCA. Computable general equilibrium (CGE) model simulations also show a negative impact for a CJK FTA on China's automobile industry. China's petrochemical industry will also face challenges from Korea and Japan, which are more competitive .

As for Japan, the agricultural sector, which has an extremely low RCA and a high average tariff rate (18.4 percent), will be the most sensitive. Among the manufacturing sectors studied, Japan's textile industry will be the only vulnerable sector. Japan's textile sector has a low RCA, and its average tariff is relatively high (6.4 percent).<sup>3</sup>

For Korea, agriculture will be the most vulnerable sector. Agriculture has the highest average tariff rate and its RCA is quite low. The automobile sector, even with a relatively high RCA, is likely to be a sensitive sector vis-à-vis Japan, given Japan's very high RCA. The textile sector is likely to be sensitive also, because of China's very high RCA and Korea's relatively high average tariff rate (10.0 percent).<sup>4</sup>

It is very difficult, however, to estimate the real impact on each sector. Within a sector, situations may be quite different depending on upstream or downstream industries, and sometimes situations vary product by product. For example, the impact of a CJK FTA will be different on various firms within the Chinese textile industry.

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3. CGE model simulations also confirm a strong negative impact on Japanese agriculture, but simulation results on textiles are mixed.

4. According to CGE model simulations, a CJK FTA will produce negative impacts on Korea's agricultural, automobile, and general machinery sectors.

Firms producing high-tech upstream products may suffer in the short run, but firms processing downstream products will benefit from a CJK FTA. Furthermore, other factors need to be considered apart from tariff levels and RCAs: complex input-output relations, trade and foreign direct investment (FDI) within and outside the region, and industrial policy. In fact, any negative impact of a CJK FTA on the Chinese automobile industry can be alleviated by large amounts of FDI into China from the world's major automakers. In contrast, those industries for which an import substitution policy is adopted, such as China's heavy chemical industry, may feel a more negative impact of a CJK FTA depending on the schedule of the FTA because more resources are concentrating in these industries with a high profit margin.

In addition, a more detailed analysis of trade and tariff structure shows that several high-tech electronics parts and components from Japan and Korea will constitute sensitive items for China; for Korea, certain specialized chemical products and electronic components will be sensitive items vis-à-vis Japan, and some electric parts and components will be sensitive vis-à-vis China.

When it comes to the impact of a CJK FTA on other countries, agriculture and electronics will be the most sensitive sectors. In 2002, China, Japan, and Korea represented 16.6 percent of the world's total imports of agricultural products, while their share in the world's agricultural exports amounted to only 6.2 percent. Although China has a relative comparative advantage among the three countries, China does not enjoy a comparative advantage internationally. Therefore, countries exporting agricultural products will be sensitive about a CJK FTA because of the expected trade diversion. Other countries will also be sensitive with regard to the electronics sector. The three countries' share of the world's total imports of electronics amounted to 17.0 percent in 2002; they also represented 25.5 percent of the world's total exports of electronics. Because all three countries are highly competitive in electronics, other countries may well fear that a CJK FTA might make China, Japan, and Korea even more competitive in this sector.

### **III. Implications for Agriculture, Automobiles, and Electronics**

To better assess the impact of a CJK FTA on the industries of the three countries, further in-depth analyses were conducted on agriculture, automobiles, and electronics; the analyses were complemented by interviews with businesspeople, including representatives of industrial associations and major firms.

## *Agriculture*

### **Main Characteristics of the Agriculture Industries in China, Japan, and Korea**

Agriculture is a rare sector in which China, Japan, and Korea do not have international competitiveness. Even China, which is the most competitive country of the three, is no exception. Although small-scale farming is a common characteristic of all three countries, each country is in a different situation. In China, two-thirds of the population lives in rural areas, and arable land per farm household is only 0.55 hectares, which is a much smaller area than in Japan (1.47 hectares) and in Korea (1.52 hectares), let alone in the United States and Europe. In Japan, as of 2000, there were 2.9 million workers engaged mainly in agricultural activities out of 3.12 million farm households. That means that, in some farm households, no workers are engaged mainly in agriculture. In fact, in Japan the share of full-time farm households out of total farm households amounts to only 14 percent, and part-time farming is very common, particularly in rice farming. In Korea, on the other hand, full-time farm households represent 65 percent of total farm households. The main difference between Japan and Korea comes from the availability of job opportunities in rural areas. In Korea, because of the lack of job opportunities in rural areas, family members have to leave their farm households if they want to get off-farm jobs.

The weakness of agriculture is also reflected in the international trade of the three countries. In 2002, their agriculture exports amounted to a total of \$18 billion while their agricultural imports were \$63 billion. China's surplus amounted to \$5.7 billion, while Japan and Korea recorded deficits of \$42 billion and \$8.3 billion, respectively. It is interesting to note that intraregional trade of agricultural products is relatively high. In 2003, 45.4 percent of Korea's agricultural exports went to Japan and China, while shares of China's and Japan's agricultural exports that went to the other Northeast Asian countries, out of their total agricultural exports, amounted to 34.2 percent and 17.2 percent, respectively. China recorded a surplus in agricultural trade vis-à-vis both Japan and Korea; Korea showed a surplus vis-à-vis Japan.

All three countries, in particular Japan and Korea, heavily protect their agricultural sectors. Consequently, agriculture is often regarded as a major stumbling block to a CJK FTA. According to an analysis using producer support estimate (PSE)<sup>5</sup> and nominal protection coefficient (NPC)<sup>6</sup> indicators, rice and milk are highly protected in

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5. PSE is an indicator of the annual monetary value of gross transfer from consumers and taxpayers to support agricultural producers resulting from policy measures on farm production and income.

6. NPC is a ratio between the average price received by producers, including payment per ton of current output, and the border price.

both Japan and Korea, while the protection levels for chicken (in Japan) and eggs (in Japan and Korea) are low. Both indicators show that the protection level is, on average, higher in Korea than in Japan. For China, the protection level is high for grains such as wheat and rice, with a 65 percent secondary tariff applied to amounts beyond a certain level of import quota, while livestock products are protected only with tariffs, the levels of which are relatively low compared with those of grains.

### **Impact of a CJK FTA on Agriculture in China, Japan, and Korea**

Considering the current status of intraregional agricultural trade among the three countries as well as other factors such as RCAs, tariff rates, and other protection measures placed on agriculture, China is likely to benefit the most from a CJK FTA. Japan's and Korea's agricultural sectors are likely to suffer. In particular, the negative impact of a CJK FTA on agriculture seems to be greater in Korea than in Japan, even though Korea records a surplus in agricultural trade with Japan, and the RCA for Korea's agriculture is higher than Japan's. First, China's share in Korea's agricultural imports is much bigger than its share in Japan's agricultural imports. In 2003, China represented 21.9 percent and 10.6 percent of total agricultural imports in Korea and Japan, respectively. Second, the share of full-time farm households out of total farm households is much higher in Korea than in Japan. In addition, elderly farmers and a high concentration on rice production, which is highly protected, are further weak points of Korea's agriculture.

Interviews on the subject of the impact of a CJK FTA with people related to the agricultural sector generally confirm these views. They think that China will benefit the most, and most of them predict that Korea's deficit in agricultural trade will increase. People in the Japanese agricultural sector also foresee negative impacts of a CJK FTA. Apart from the market loss resulting in income reductions, they also show concerns about protecting intellectual property rights concerning agriculture-related technology and breeds, ensuring food safety, and observing quarantines. In contrast, some expect opportunities for increasing intraregional trade by deepening the division of labor or enhancing trade facilitation, including harmonization of sanitary and phytosanitary measures. Chinese experts and others in the agriculture field agree that a CJK FTA will produce overall positive effects on China's agriculture; however, they enumerate several constraining factors, such as China's export capacities, the quality dimension, and nontariff barriers that include discriminatory standards and quarantine inspection measures by Japan and Korea.

## *Automobiles*

### **Main Characteristics of the Automobile Industries in China, Japan, and Korea**

Three Northeast Asian countries—Japan, Korea, and China—are major players in the world automobile industry. In terms of number of produced automobiles (including commercial vehicles), the three countries represented 28.9 percent of the world's total in 2003, while their share of the world's total automobile exports amounted to 25.2 percent. In 2003, Japan's automakers held 28.8 percent and 12.7 percent of the U.S. and EU markets, respectively; Korea's automakers held 3.8 percent and 3.3 percent, respectively. Although China is a latecomer to automobiles, recently its auto production has increased rapidly, and almost all the world's major automakers continue to invest in China.

One of the key characteristics of the automobile industry in China, Japan, and Korea is the existence of clear disparities among the three countries in terms of the level of development and competitiveness. For the manufacturing of passenger cars (HS 8703) as well as auto parts and accessories (HS 8708), Japan has the highest revealed comparative advantage, followed by Korea, then China.<sup>7</sup>

These disparities are clearly reflected in the tariff rates of the three countries (*Table 3*). In fact, the tariff structure of automobiles differs significantly among China, Japan, and Korea. In Japan, there is no tariff on automobile products. As for Korea, an 8 percent tariff rate applies to passenger cars and auto parts, while a 10 percent tariff rate applies to buses. The Chinese tariff rates for vehicles are much higher but are in the process of being lowered to 25 percent for passenger cars and 10.3 percent for auto parts and buses by 1 July 2006.

**Table 3: Tariff Rates on Automobiles in China, Japan, and Korea, percentage**

Types of auto products	China		Japan	Korea
	2003	2006	2003	2003
Passenger cars	39.1	25.0	0.0	8.0
Trucks	28.2	21.3	0.0	9.6
Buses	39.1	22.0	0.0	10.0
Parts for cars and buses	15.0	10.3	0.0	8.0

Source: Trilateral Joint Research Project (2004).

7. In 2003, the RCA indices of passenger cars (HS 8703) and auto parts and accessories (HS 8708) were 3.98 and 1.15, respectively, for Japan; they were 2.48 and 1.10 for Korea, and 0.01 and 0.15 for China.

Compared with their presence in the world automobile market, China, Japan, and Korea do not have as high a volume of intraregional trade of automobiles. Trade between Japan and Korea—two of the world’s key automobile export countries—has been relatively small. Both Korea’s auto export intensity<sup>8</sup> to Japan and Japan’s auto import intensity from Korea have been below 1.00 for 1993–2002, which means that Korea’s auto exports to Japan have been exceptionally low given the Korean auto industry’s competitiveness in other international markets and the geographic proximity of Japan to Korea.<sup>9</sup>

Although both Japanese and Korean automakers were latecomers to the Chinese market, recently their presence has grown rapidly. In 2002, Japanese automakers invested in China received 21.4 percent of the sales revenue realized by all foreign-invested automakers in China, while Korean automakers’ share (0.7 percent) doubled in 2003 following the opening of the Beijing Hyundai Co., Ltd., at the end of 2002.

### **Impact of a CJK FTA on the Automobile Industries of China, Japan, and Korea**

The tariff structures and competitiveness of the automobile industries of the three countries make it likely that the Chinese automobile industry will be greatly affected by a CJK FTA. Chinese businesspeople<sup>10</sup> predict that, following a CJK FTA, imported cars from Japan and Korea will substitute for some imports from Europe and the United States, while imports of spare parts and components from Japan will increase in Korea, and imports of the same items from Korea will increase in Japan. European and U.S. invested automakers will also increase their imports of these items. These Chinese businesspeople also think that Chinese auto exports to Japan and Korea will not markedly increase and will continue to aggravate China’s trade deficit of automobile products. However, they expect that a CJK FTA will not bring about trade substitutes for investment in China by Japanese and Korea automakers. In addition, owing to pressures from other foreign-invested automakers, Chinese businesspeople we talked to foresee that a CJK FTA will precipitate full liberalization of the Chinese automobile industry.

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8. Export intensity index is defined as:  $EI_{ij} = (x_{ij}/X_i)/(xw_j/Xw_i)$ , where  $x_{ij}$  and  $xw_j$  are the values of country  $i$ ’s exports and of world exports to country  $j$ , and where  $X_i$  and  $Xw_i$  are country  $i$ ’s total exports and total world exports, respectively.

9. Statistics kept by the Korea Automobile Importers & Distributors Association show that in 2003 Japanese automakers sold only 3,774 passenger cars in Korea (0.28 percent of Korea’s auto market). The Japan Automobile Importers Association reports that only 2,573 Korean passenger cars were sold in Japan in 2003 (0.04 percent of the Japanese auto market).

10. Opinions of businesspeople in China, Japan, and Korea were learned during interviews and surveys that we conducted.

The competitiveness of the Japanese automobile industry and the zero tariff rates on Japanese automobile products have led the majority of Japanese businesspeople related to automobile industry to welcome a CJK FTA. In fact, they prefer even a larger regional FTA including the Association of Southeast Asian Nations (an ASEAN + 3 FTA). They also expect that a CJK FTA will help abolish nontariff barriers and enhance business environments, especially in China.

On the basis of current competitiveness, tariff rates, and intraregional trade of the automobile industries of the three countries, a CJK FTA is likely to make both a positive and a negative impact in Korea. Korean businesspeople in the automobile industry predict that a CJK FTA will substantially increase automobile imports from Japan, while it will greatly increase Korea's automobile-based exports and imports to and from China. Furthermore, they foresee that a CJK FTA will increase both Japan's auto parts investment in Korea and Korea's auto parts investment in China. In addition, a CJK FTA is expected to decrease Korean automakers' domestic market share while it increases Korean automakers' shares in China and in the world market. Korean businesspeople also expect that a CJK FTA will enhance the overall competitiveness of Korea's automobile industry.

### ***Electronics***

#### **Main Characteristics of the Electronics Industries in China, Japan, and Korea**

China, Japan, and Korea are major players in the world electronics industry. In terms of production, the three countries represented 32.5 percent of the world's total in 2003. In 2002, electronics-related goods accounted for 31 percent of Korea's total exports, outstripping China's 19 percent and Japan's 17 percent. In the meantime, Japan exported \$70 billion in electronics-related goods in the same year, and China recorded exports of \$62.2 billion in the electronics industry, overtaking Korea's electronics exports of \$50.7 billion. China's electronics-related imports accounted for 20 percent of its total imports, while Korea's and Japan's electronics imports accounted for 17 percent and 13 percent, respectively, in 2002.

One of the key characteristics of the electronics industries of China, Japan, and Korea is that the intraregional trading relationship among the three countries is disproportionately large given their relative positions in world trade. With respect to world trade, the export similarity index (ESI)<sup>11</sup> among China, Japan, and Korea shows a relationship of high competition; also, compared with other countries of the world,

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11. ESI is defined as  $ESI_{ab} = \sum \text{Min}(X_{ai}/X_a, X_{bi}/X_b), 0, ESI_{ab} \leq 1$ , where  $X_a$  is country  $a$ 's total export value, and  $X_{ai}$  is country  $a$ 's export value of item.

the condition in all three countries is one of export specialization.<sup>12</sup> Since the late 1990s, the Korea-China and Japan-China trading relationships have been more competitive in the electronics industry, but the degree of competition between Korea and Japan has gradually declined. This fact suggests that both Korea and Japan are transferring the production bases of their electronics industries into China.

In an analysis of industrial interdependence among China, Japan, and Korea, the level of intraregional trade of electronics among the three countries is very high. In the electronics industry, most of the trade is intraregional trade, and the share of intraregional trade out of these countries' total trade rose to 70 percent in 2002, reflecting the increasingly intensified trade and production linkages in the region. In particular, the share of intraregional trade between Japan and China out of their total trade was higher than trade between Korea and China, which reflects the steady progress made by the division of labor between Japan and China.

### **Impact of a CJK FTA on the Electronics Industries of China, Japan, and Korea**

With the assumption that the proposed CJK FTA will work similarly to previous FTAs, empirical results show that a CJK FTA has a positive effect on intraregional trade volume for the electronics industry. The estimation results imply that if the three countries form a CJK FTA, they will experience an increase in intraregional trade of 23 percent.

Empirical results also suggest that lowered tariff rates after a CJK FTA lead to a more concentrated electronics industry trade structure. As each country specializes in exporting products in which it has a relative comparative advantage, each country has a positive impact on the growth of the electronics industry.

Given the higher competitive relationship among the three countries, the majority of the businesspeople related to the electronics industry whom we interviewed in the three countries believe an FTA among China, Japan, and Korea would be advantageous. A reduction of trading costs, such as those resulting from customs procedures, for example, is the main reason behind their favorable opinions. What they hope to get from a CJK FTA is complete abolition of not only tariffs on electronics products but also nontariff barriers. Moreover, businesspeople expect exports of high-tech

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12. Export specialization in Japan and Korea revealed a slight decrease or a constant trend, while export specialization in China increases steadily. The trade specialization index is defined as:

$TSI_i = (X_i - M_i) / (X_i + M_i)$ , where  $X$  and  $M$  refer to a country's exports and imports of goods contained in industry  $i$  in one particular year. This measure results in values between  $-1.0$  and  $1.0$ , where approaching  $1.0$  indicates high export specialization, and where close to  $-1.0$  means high import specialization.

electronics goods and devices and imports of parts will expand. In addition, some businesspeople and specialists in the electronics industry favor a CJK FTA because they think it will accelerate structural reform in each country's economy.

In sum, they think a CJK FTA will bring benefit to the electronics industries of all three countries because it would accelerate development of the electronics industries through trade and investment as well as through comparative advantage.

#### **IV. Joint Policy Recommendations**

On the basis of these analyses and discussions with businesspeople and specialists, the following policy recommendations are proposed to the leaders of China, Japan, and Korea by the three institutions involved in the joint research project.<sup>13</sup>

##### ***Use FTA Policy as a Means of Trade Liberalization***

This study on sectoral implications of a China-Japan-Korea FTA clearly shows that a regional trade agreement (RTA) such as a CJK FTA is likely to result in worldwide trade liberalization, producing either other RTAs or facilitating multilateral trade liberalization to minimize losses caused by trade diversion. For example, although countries that export agricultural products would exert pressure on Korea and Japan if a CJK FTA were in place, it would also be in the interest of Korea and Japan to lower their tariffs on agricultural products to nonmember countries. The same logic applies to China's automobile sector when the countries—such as EU countries and the United States—of the major automakers would be involved. Therefore, a CJK FTA, which would involve major players in many sectors, would be likely to expand into a larger RTA like an East Asian FTA or would bring about other bilateral FTAs involving one of the three Northeast Asian countries and a country outside the region. Another alternative would be for the countries to lower tariff rates multilaterally.

##### ***Jointly Set the Goal of a China-Japan-Korea FTA***

Apart from the positive effects, such as welfare gains and GDP growth, on the economies of all three countries and the abovementioned positive effects of a CJK FTA in terms of East Asian economic integration and worldwide trade liberalization, an announcement by the three countries of a CJK FTA as a mutual goal can deepen intraregional trade and avoid overproduction capacity in some industries. In particular, given the nature of the medium- and long-term industrial policies of the three countries

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13. The recommendations do not necessarily imply official agreement of the governments of the three countries.

and the development and investment strategies of their major companies, the lack of clear indications regarding the formation of CJK FTA can worsen the emerging overcapacity of some sectors like the petrochemical and steel industries in Northeast Asia. Therefore, it is important for the three countries to agree in the near future on a CJK FTA as a common goal.

### ***Adopt a Gradual Approach in Pursuing a China-Japan-Korea FTA***

Despite the benefits a quick implementation of a CJK FTA would bring, the existence of sensitive sectors in some industries is a serious obstacle to its realization. Therefore, a CJK FTA must be approached gradually. Some countries may face the temptation of excluding certain sensitive sectors and products from a CJK FTA, but, for this FTA to facilitate further FTAs and worldwide trade liberalization, it must cover all sensitive sectors and maximum items. Thus, to maximize the number of items covered when a CJK FTA is negotiated, an approach incorporating a phase-out period is preferable to complete exclusion. A phase-out period can reduce readjustment costs by providing time for restructuring to firms engaged in sensitive sectors.

### ***Accelerate Structural Adjustment in Sensitive Industries***

To alleviate the adjustment burdens on sensitive industries in the three countries highlighted in this study, each country must embark upon immediate structural adjustment. At the same time, each must devise a comprehensive system to meet the challenge of high social costs, such as reeducation, job training, a social safety net, compensation schemes, and regional development. Structural adjustment of sensitive sectors must be approached by taking into account each sector's particular status in economy and society.

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