

**THE RISE OF CHINA
AND THE TRANSFORMATION OF THE ASIAN ECONOMY**

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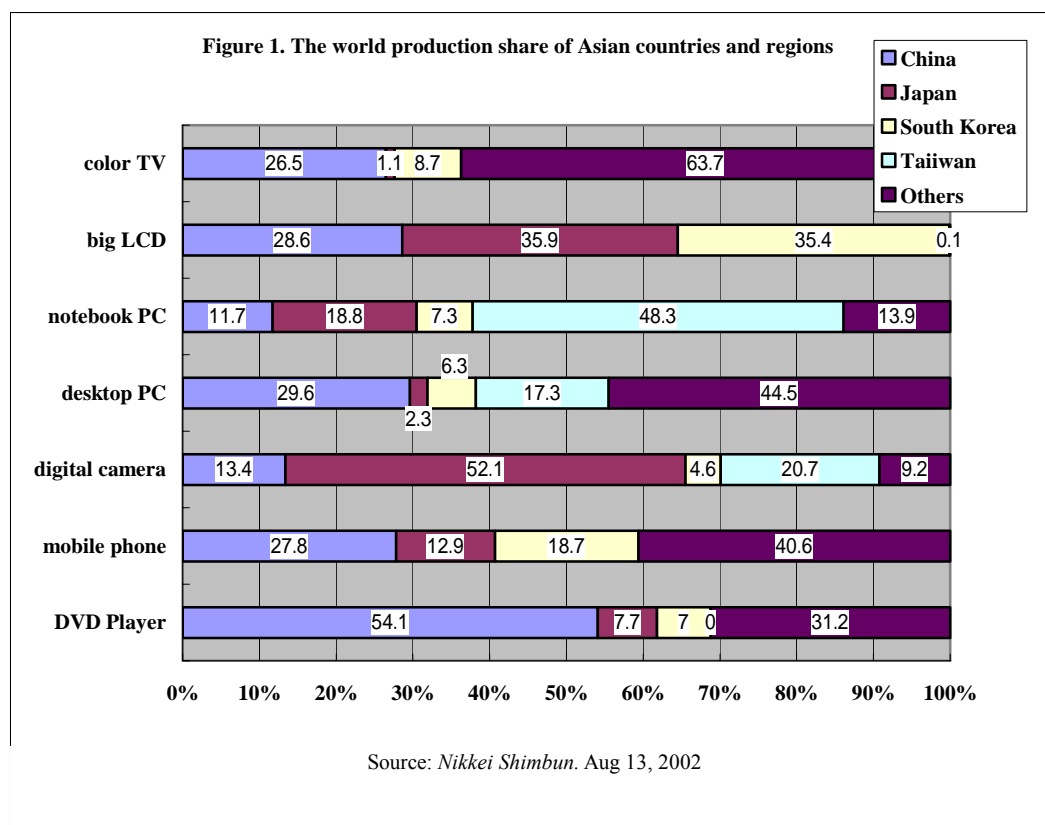
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1. China Is Catching up

China's leap

Recently Chinese goods have been expanding their share in the world market while Japanese ones showing signs of being outdone. The year of 1996 became a borderline when the world market shares of steel and air conditioners manufactured in China exceed those of Japan's. In 2000 China surpassed Japan in the world market share of mobile phones manufacturing. China's economic growth looks outstanding even amidst the growth of Asia as a whole.



Let us see Figure 1. It shows Asian countries and regions' share in the world

market. Besides the products mentioned before the world market share of color TV sets manufactured in China has exceeded 25 percent, the share of DVD-players has reached 52 percent. In 1999 the share of automobiles manufactured in China stood at 3.3 percent which was small. However the world automakers including the Japanese ones have all at once shown activity related to the perspectives of the Chinese market. There is high possibility of rapid growth in China's car manufacturing in the nearest future.

Only thirty years passed since Asia was called a "global factory". And only several years passed since the same words began to be used in relation to China. The Chinese manufacturing gained momentum. It could be compared to a fire brought to the hearth of Asian forge.

There has been no unanimous opinion on China's leap. Some accept it as real and argue that China is becoming "global factory". Yet others judging from the flow of China's intermediate capital and capital goods say that this is an overestimation, and China's real competitiveness is still a matter for the future. Let us examine China's recent growth taking into account that there exist different opinions on it.

The astounding growth of Shanghai

The city of Shanghai is the symbol of China's economic growth. Since 1993 Shanghai's average annual economic growth rate has been 12.5 percent which is much higher than China's 9.7 percent during the same period. Meanwhile, the symbol of Shanghai's growth is the area of Pudong on the eastern bank of the Huangpu River. Formerly a rural area it has developed since 1990 into a big modern city.

In the 1990s the Chinese government has been promoting the development of Pudong Area as a government project. In a very short period Pudong turned into an urbanized high-tech and finance center bristling with skyscrapers where European,

American, and Japanese companies pressed about business. In the same way as since the 1960s the Tokyo Tower symbolized Japan's economic progress, the 468-meter Oriental Pearl TV Tower on the eastern bank of the Huangpu River became a symbol of Shanghai and China's leap.

In ten years of the 1990s there were constructed six thousand buildings in Shanghai while it received thirty billion US dollars of foreign investment. Shanghai and adjacent areas molted into the richest part of China. Shanghai and three adjacent provinces of Jiangsu, Zhejiang, and Anhui, which make Shanghai Economic District, produce 23 percent or about a quarter of China's GDP. In China Shanghai holds the first place in the GDP per capita (30,674 yuans) while Jiangsu and Zhejiang provinces are among the top six. This area, which is called Greater Shanghai, comprises the population of two hundred million, which is approximately what Japan, South Korea, and Taiwan host altogether.

Then why Shanghai Economic District made such a rapid progress? First the leading role was with the foreign investments. As of 2001 foreign investments on the contract base to Shanghai totaled 7.37 billion dollars. With its 1.32 billion dollars (18 percent) Japan tops the list of the investors, followed by Hong Kong with 780 million dollars (10 percent), and the USA with 600 million dollars (8 percent). According to the latest data from 2002 there were 1,059 Japanese companies in Shanghai operating in transport, finance, service, real estate, construction, etc., and in manufacturing especiallyⁱ. Many practices which have almost been abandoned in Japan, such as "quality circles" (the activities of small groups at the working places to improve quality), company travel, and company sport clubs, are widely enjoyed in the Japanese companies there.

Yet the main cause of the rapid growth was the area's strong attractiveness to

foreign investors. First of all the area abounds with capable labor force. There is an almost inexhaustible supply of young migrant workers from rural areas to Shanghai in the same way as to other Chinese maritime cities. However Shanghai has got an educational infrastructure which can produce young high-educated human resources. Shanghai is second to only Beijing in terms of university graduates per 100,000 of population. Shanghai has been a financial and industrial center even before the World War II. It has everything from strong local financial institutions to governmental enterprises and rural small-size private businesses. In other words everything is in full set there.

Furthermore as a city under Beijing's direct government Shanghai takes the head in the reforms and opening policy. Shanghai began the industrialization by foreign capital several years later than for example Shenzhen. Yet Shanghai's enrooted traditions coupled with the attraction of foreign capital brought Shanghai at the head even surpassing those who started earlier.

Big computer production base

There are no words to express the potentiality of Shanghai. With an abundance of high-educated human resources with engineer background Shanghai is best qualified for placing high-tech industries especially computer manufacturing there. Indeed in the recent years Japanese and Taiwanese computer makers have one after another built plants and begun manufacturing in Greater Shanghai.

At present Greater Shanghai with Guangdong area grouping around the Zhu Jiang River's delta is a biggest computer production base in the world. The capacity seems to be unlimited. The linear motor train line between Pudong International Airport, which is called the face of Shanghai, and the city's center is due to be completed in

2003. Beijing Olympic Games 2008 are expected to further spur the momentum. The odds are strong that in less than ten years after China's entry into the WTO, China will become a world hero. Shanghai will be in the vanguard of China's economic growth as a center of finance, distribution, and trade.

Shanghai: a gigantic consumer market

China's economic policy geared to rapid growth has turned Shanghai into a gigantic consumer market. The economy's extraordinary annual growth rate of over 10 percent in the second half of the 1990s has sharply raised the living standards of its residents. As of 2000 according to statistical data average annual wages in Shanghai were 18,531 yuans which is more than twice the size of China's average of 8,346 yuans. Currently hot-selling items in the Shanghai market are expensive cosmetics, housing-related products, and cellular phones. They are more the attributes of lifestyle than daily necessities, evidencing the high living standards of Shanghai citizens. At present Shanghai is being overwhelmed by construction boom. High-class apartment houses appear one after another and apartments are sold quickly. Consequently the demand for housing-related goods is also high. Shanghai's residents can fully enjoy luxurious life with high-class mansions, cosmetics, etc.

Cellular phones became necessities in Shanghai. Statistical data on house electrical appliances per 100 households is the following: 147 color TV-sets, 102 refrigerators, and 96 air conditioners. There also were 96 washing machines which means that almost every household has it. As of 1997 there were zero cellular phones per 100 households, six in 1998, and sixteen in 1999. In 2000 the number rapidly rose to 29 and there is no doubt that cellular phones will further spread.

Major Japanese makers of electrical appliances such as Matsushita, Mitsubishi,

Sony, and Sharp all together advance to Shanghai to meet consumers' insatiable demand. And not only biggest companies are the case. The growth of incomes brought about the flourishing of fashion industry. Youngsters oriented apparel industry is steadily gaining momentum in Shanghai. What seems quite unique is the expansion of bridal services by small size companies. A Japanese company specializing in wedding dresses and wedding photos in sets was a big success.

The rapid growth of incomes has been changing not only housing and clothes, but also food menus of ordinary Shanghai's residents. Traditional Chinese food is yielding to McDonalds and Kentucky Fried Chicken while beer is becoming a more and more popular substitute for traditional Chinese liqueurs. According to the statistics an ordinary Chinese consumes 16 liters of beer annually. In Shanghai the figure is 33 liters, or about twice the size of the nation's average. A Japanese maker's beer sales in Shanghai reached 182,000 tones in 2000. His beer topped the sales of foreign beers in Shanghai and seized 40 percent of Shanghai's beer market. Their capability to meet best the tastes of the Chinese and set appropriate prices became the key to success as people say. Only those enterprises who studied the habits and lifestyles of the Chinese could be on a winners side there. In this sense the business competition is getting more severe.

Recently the consumption boom has been spreading from Shanghai to surrounding areas. It has expanded from the city of Hangzhou to Ningbo in the south to the cities of Suzhou, Wixi, Changzhou, Zhenjiang, and Nanjing in the west, thus covering all three adjacent provinces of Jiangsu, Anhui, and Zhejiang. The whole area became a new computer production base. Japanese, American, European, and Taiwanese electrical and electronic appliances makers are advancing there while more and more workers, specialists, and managers settle there as residents. People become increasingly wealthy and the tendencies typical to Shanghai are expanding there too.

The more Greater Shanghai expands the more expands its consumer market. Even in the relation to the development of the western areas that has been given importance in the recent years Shanghai plays a foremost role as a distribution center, because of its location in the mouth of the Chang Jiang River.

China: the last gigantic automobile market

Automobile makers are among those who cast great expectations towards potentially gigantic Chinese market. In 2001 China manufactured 2,330,000 automobiles (8th place in the world), among them 700,000 passenger cars. However in 2005 China is expected to boost its manufacture volume to 3,200,000 automobiles, among them 1,200,000 passenger cars. Though there are problems with traffic infrastructure and environment in store, automobile manufacturing in China is expected to increase. The major world automobile makers who have been repeatedly reorganizing the industry in the last ten years are seriously advancing into China. In the 1980s European and American makers such as Volkswagen, Peugeot, and Chrysler were the first to set foot in China. In the mid-1990s Nissan, Suzuki, and Toyota of Japan, General Motors of the USA, and again Honda of Japan endeavored serious advance into China. Since the maximum level of foreign investments for an enterprise has at present been limited to 50 percent each foreign company makes joint ventures with such Chinese state enterprises as Shanghai Automotive Corporation, China First Automotive Group, Dongfeng Automotive Corporation, and Tianjin Automotive Industrial Group. Among the world six biggest automakers (GM, Ford, Daimler-Chrysler-Mitsubishi, Toyota, Nissan-Renault, and Volkswagen) only Ford lagged behind in terms of advance into China. Yet even Ford established Changan Ford Automobile Corporation to manufacture light vehicles. Each of the above foreign automakers explores China by

making joint ventures with Chinese enterprises.

With the advancement of the automakers auto parts manufacturers have also begun to seriously advance into China since the mid-1990s. Such European and American makers as Bosch, Valeo, Delphi, Federal-Mogul, and Visteon are setting production bases in China one after another. In the same way the Japanese leading auto parts makers Denso, Aisin, Showa, Stanley Electric, Yazaki, Unisia JECs (HitachiUnisia Automotive since October 2002) and others from the mid 1990 also set foot in China following the advance of the Japanese car manufacturers. They began preparations to supply automakers in China with components. Taiwanese companies which have long experience in establishing joint ventures with Japanese companies also actively advance in such Chinese provinces as Fujian and Guangdong.

The advancement by European, American, and Japanese automakers coupled with the advancement by auto parts makers has become significant from the second half of the 1990s and especially after China has joined the WTO. Chinese manufacturers are not yet strong in producing auto parts. They try to upgrade their technological level through establishing joint ventures with foreign companies. The technological level of Chinese manufactures has been growing year by year. Yet it will take some time for them to reach the level of foreign makers.

Rampant copying, which prevails in the Chinese manufacturing of motorcycles and their parts, has been expanding to the auto parts manufacturing as well. There is lack of legislative restrictions. Still the fact that Chinese manufacturers produce auto parts which can compete with those by foreign companies speaks for a certain level of Chinese technology. Amidst further advancement by foreign auto parts makers in China, the competition among the foreign companies, between the foreign companies and their Chinese counterparts, and among the Chinese companies themselves will perhaps only

grow. Hence the technological level of Chinese auto parts makers will grow either.

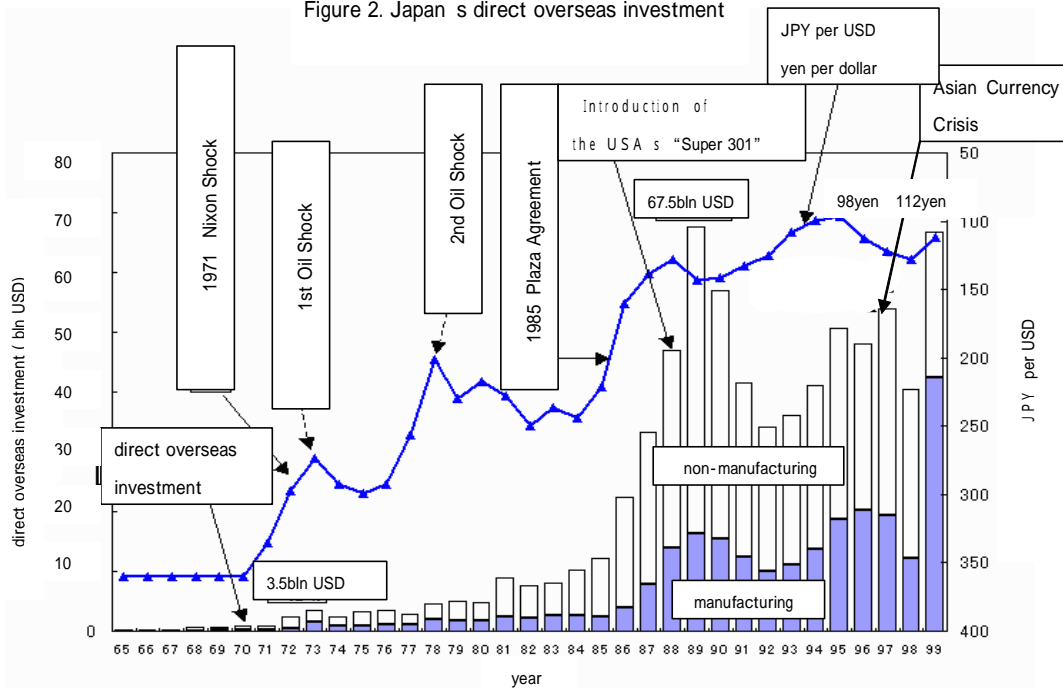
Japan's ebb

Japan though being in the same Asia seems to have only been declining. After the golden age of the 1980 the situation for the Japanese economy has changed in the 1990s. After the collapse of the bubble economy in 1991 the Japanese economy has suffered dramatic changes of yen rate, growing financial instability, and the expansion of the Asian currency crisis. It has submerged into what is called the lost decade. Even the Japanese style management which underlay “the golden age” economy has become open to question.

In the 1990 even the pattern of overseas advance by the Japanese companies changed. Generally speaking the Japanese overseas investment skyrocketed in the 1980s reaching its peak of 67.5 billion dollars in 1989. The overseas investment rapidly declined after the bubble's collapse reaching the bottom in 1992. Then they began to grow after 1993. In other words in the 1990s the Japanese overseas investments were not growing steadily as it was the case the 1980s but rather they entered a period of instability with repeated rises and falls (See Figure 2).

One thing which is interesting about the Japanese overseas investment is the growth of investments in manufacturing since the second half of the 1980s. In the 1980s the recipients were mostly NIES and ASEAN regions. In the 1990s the Japanese overseas investment spearheaded to China. It contributed to the development of Chinese regions. There is no exaggeration in saying that the 1990s were the age of investing into China.

Figure 2. Japan's direct overseas investment



Note, JPY per USD rate taken from Tokyo interbank market.

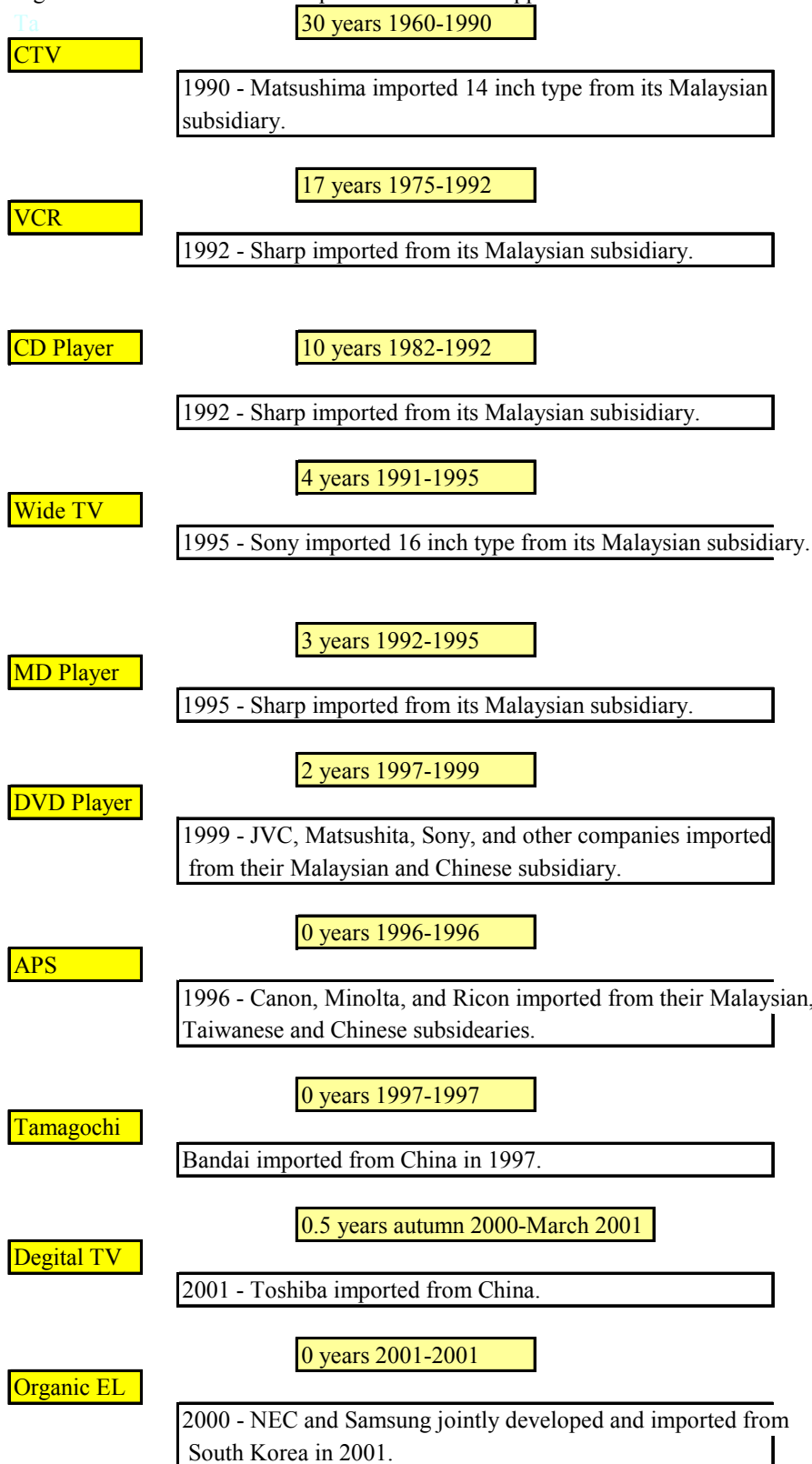
Source, Ministry of Finance of Japan.

Not only trade and investment began to transform in the 1990s. Apparent changes revealed themselves in the technological transfer and patterns of re-importing. In a word, the speed of transferring production from Japan to Asia and the speed of re-import to Japan have grown.

Let us explain it on the example of Japan-made audio-video appliances (Figure 3). In 1960 Japanese makers began to manufacture color TV-sets and for thirty years by 1990 were doing so in Japan only. In 1990 Matsushita paved the way to the TV-sets re-import by importing Malaysia-made 14-inch type TV-sets. Thus thirty years passed between the beginning of the TV-sets manufacturing in Japan and their first re-import. Yet with home video tape recorders it took only seventeen years from 1975, when they began to be made in Japan, until they were first imported, only ten years with CD-players which began to be made in Japan in 1982, for years with wide-TVs from

1991, three years with MD-players from 1992, two years with DVD-players from 1997, and zero years with APSs which began to be made in 1996 and tamagochi which began to be made in 1997. It means that the latter items developed and designed in Japan were not being produced there but were instantly moved to production bases in Asia where they were finally assembled. Then these items were brought to the Japanese market. Moreover, first items were mostly imported from Malaysia, yet from the second part of the 1990s imports from China, Taiwan, and Korea began to growⁱⁱ. The tendency became even more pronounced after 2000. For example organic electronic luminescence and other technologies were jointly developed by Japan and South Korea yet production was carried out in South Korea only. In the future the cases of development and designing in South Korea and China with subsequent manufacturing there will perhaps grow.

Figure 3. The duration of home production for AV appliances



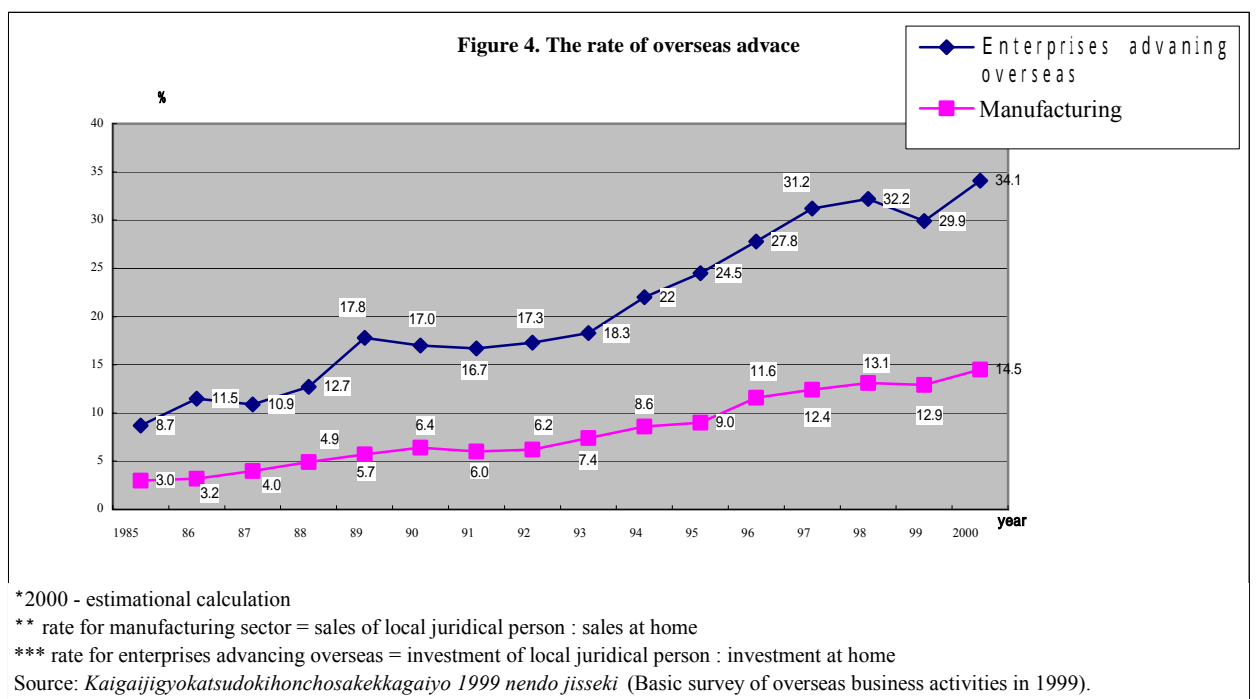
Source: “Kyoso kozo no henbo to keizaigaku no kadai” in Nijyuisseiki keizaigaku no kadai (Issues and Perspectives of Economics in the 21st Century). Chikura, 2002.

The growth of overseas production by the Japanese companies

It is noteworthy that the share of overseas production by the Japanese companies is growing (Figure 4). In the manufacturing sector the share of overseas production (the sales of overseas juridical person ÷ the sales of juridical person in Japan) was lower than 10 percent in the first half of the 1990s. Yet in the second half it broke out of the 10 percent mark and approached 15 percent in 2000. The picture is almost the same with Japan's overseas advancing enterprises as a whole. In the first half of the 1990s the share of overseas production (the sales of overseas juridical person ÷ the sales of juridical person in Japan) lingered at 10 percent mark. However in the second half of the 1990s it broke through 20 percent mark and rapidly climbed up to 30 percent thus approaching the USA – the industrial hollowing out leader among advanced nations. These figures tell us of how dramatic the overseas shift even within a single enterprise was. Transportation equipment and electrical appliances manufacturers hold the top two in the share of overseas production. Mostly they have been shifted to North America and Asia. Recently China has been attracting attention.

In the beginning of 2002 Japan's Ministry of economics, trade, and industry conducted a survey targeting Japan's 700 leading manufacturing companies on the subject of overseas shift. The results back the above assumptions. According to the survey in the recent years 100 of 700 companies, or one out of seven which means 15 percent, performed an overseas shift or planned it. More than half of those companies were manufacturers of TV-sets, refrigerators and other electrical appliances (32 percent), general equipment (14 percent), and ceramics-cement (9 percent). Textile and food manufacturers were 5 percent each. Most of the overseas shifts were to China (40 percent), followed by Thai (8 percent), Taiwan (4 percent). Coupled with other destinations to South East Asia (28 percent), the shifts to Asia totaled 80 percent, half of

which were to China. The shipments and sales of the shifted companies were destined to the countries and regions of location (46 percent), to Japan (32 percent), and to third countries (22 percent). More than half of respondents (57 percent) referred to cheapness of personnel costs as the main reason for overseas shift, while the second important (22 percent) was the reason of overseas markets explorationⁱⁱⁱ.



Until the early 1990s the shift to China prevailed in rather low-tech industries such as textiles and food. However from the second half of the 1990s it has been expanding from low-tech apparel such as Uniqlo to electrical appliances and general equipment, computer software of NEC, Fujitsu, and other high-tech businesses.

All types of industries and technologies have been overtaken by the shift to China. There has been great difference in the scale and placement of enterprises. Big company's shift to China results in the lessening of orders to small subsidiaries in Japan.

To stay afloat they also have to shift overseas. This chain effect is running through Japan like tsunami. It will terminate at the point when all Japan's local industries go to China. Let us have a look at the overseas shift by 806 enterprises from ten industry concentrated areas of Japan. 25 percent are precise machinery makers of Suwa City in Nagano Prefecture. More than ten are electronic component makers of Yamagata City in Yamagata Prefecture, bicycles and music instruments makers of Hamamatsu City in Shizuoka Prefecture, and metal works of East Osaka City and Ohta District in Tokyo. 94 percent of overseas shifts are to Asia with China at the lead holding 40 percent alone^{iv}.

Japan and China's business conditions

That is what we call the advance of China and retreat of Japan. It has become an aspect in a sequence of changes from the second half of the 1990s. Now let's see the reasons that brought about these changes. This time the advance of China was conditioned by reforms, openness, and the course for the market economy which made her investment market attractive. On the contrary Japan has relatively lost such attractiveness. Let's see the comparison of business conditions from the report prepared by Japan External Trade Organization (JETRO) in February 2001 (See Table 1)^v. The report analyses wages, office leasing fees, Internet access fees, educational level, etc. in the nine Asian cities of Seoul, Shanghai, Hong Kong, Singapore, Kuala Lumpur, Jakarta, Manila, and Yokohama. Japan has the cheapest Internet connection fees. Yet it tops the list in terms of wages, and is relatively high in office leasing fees. However its grade is relatively low in terms of TOEFL and IMD educational tests. Thus a Japanese city (Yokohama) is overwhelmingly inferior to Chinese Shanghai in terms of investment conditions. Besides, though not shown here in figures, Japan's internal transportation high costs and other inefficiencies largely undermine her competitiveness.

	Seoul South Korea	Shanghai China	Hong Kong	Bangkok Thailand	Singapore	Kuala Lumpur Malasia	Jakarta Indonesia	Manila Philippines	Yokohama Japan
technicians' salary (per month)	962 ~ 1301	285 ~ 463	2314 ~ 2514	302	1249	712	138	173 ~ 384	3390 ~ 4064
middle level managers' salary (per month)	1511 ~ 1989	434 ~ 907	2342 ~ 4467	622	2087	1510	337	350 ~ 793	4953 ~ 6001
monthly office rent (per 1 sq m)	34.5	about 30	30.69 ~ 62.79	9.9	59.69	11.33 ~ 14.16	18.00 ~ 25.00	10.27 ~ 12.44	26.45 ~ 32.89
monthly Internet fee	31.15	289.96	114.02 up 20 persc	61.01	31.92	1184.21	230.7	1631	24.49
TOEFL average level (July 2000, June 2001, max. 300)	202	211	206	194	253	224	207	233	183
IMD educational level (2002)	31	48	25	41	12	34	49	36	33

* ~ Survey by JETRO from Nov 2001; in US dollars; \ Country's average level (with the exptio)
Source: *Nikkei Shimbun*, June 11, 2002 (morning edition)

The second factor is that China possesses labor force which is superior to that of Japan in terms of quantity and quality. On the one hand 1.3 billion of Chinese is ten times bigger than 130 million Japanese. China has a gigantic labor force circulation system when migrant workers from rural inland areas come back home after several years of work in the maritime areas. Japan exhausted such circulation system in the period of rapid economic growth of the 1960. Contrary to China, which has such a circulation between rural and urban areas, she cannot maintain cheap wages by means other than importing cheap foreign labor force. But this difference in the population size between China and Japan reveals itself not only in migrant workers but also in such decisive factor as the number of qualified engineers with university diplomas. China produces 1.97 million university graduates annually against Japan's 550,000 (data from 2001). China has become a "brain power" exceeding Japan several times.

The third factor which divides China and Japan is that China entered the age of economic growth in the 1990s. In the global sense the 1990s were the "time of new technologies disclosure". China managed to grasp this chance but "post-bubble" Japan failed to do so. Three things conditioned the "time of new technologies disclosure". First there was a disclosure of American advanced technologies, mostly information

technologies after the Cold War. Second there was a disclosure of advanced military technologies by the former Soviet Union which again related to the end of the Cold War. And the last there was an outflow of Japan's high technologies in manufacturing on which we would dwell further. These three factors have drastically and rapidly raised China's technological level. China, a "brain power", had enough capacity to fully absorb advanced technologies.

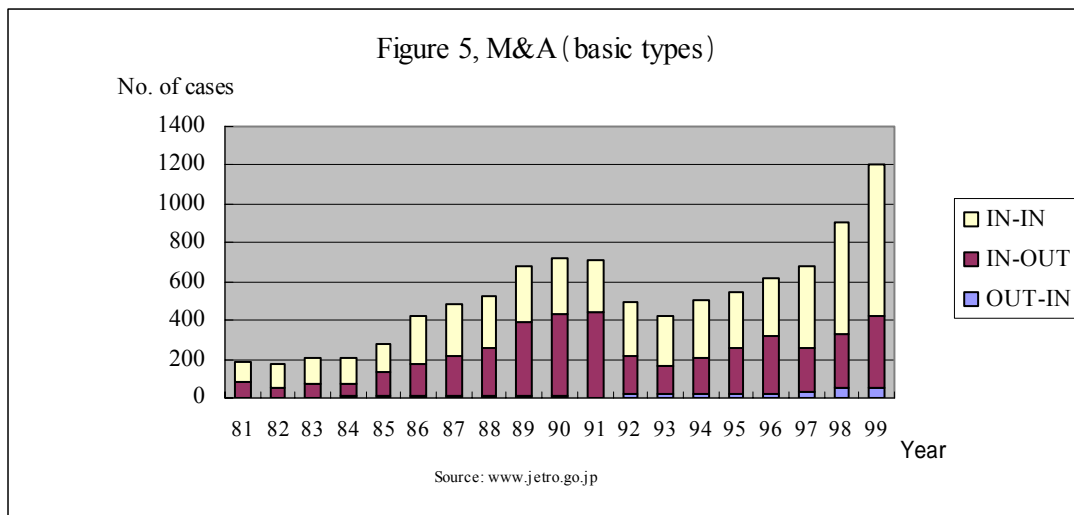
The fourth factor which divides China and Japan is the size of the Chinese market. China can be largely divided into three areas according to the level of incomes. These are the maritime areas, which are best symbolized by Shanghai District hosting more than 200 million people, the inland western areas, which on the contrary are rarely populated but rich in land and mineral resources, and central areas which are something in between the first two. There are areas like Shanghai District where average annual per capita GDP is about 30,000 yuan. And there are areas like three inland provinces of Shanxi, Gansu, Qinghai, and two autonomous districts of Ningxia and Xinjiang-Uighur where average annual per capita GDP is about 5,000 yuan (*China Statistical Yearbook 2002*). China has got a multilevel market which can respond to various needs conditioned by income differences. Japan cannot compete with China in terms of market elasticity.

Rapidly advancing technology drain

We attempted to compare Japan and China's economy conditions in four aspects. It has already been mentioned that the 1990s were the time of "new technologies disclosure". Japan's manufacturing sector was by no means exception in terms of rapid "technology drain". Traditionally the overseas expansion by Japan's manufacturing sector was linked to strong dollar. The regional international division of

labor followed the pattern when high value-added items were supplied by Japan while relatively cheap items were produced abroad and either shipped to Japan or used locally for assembling. The details could vary depending on the industry, but the pattern was basically the same through the automobile to electrical industries. Thus the overseas shift was mostly limited to middle and low level technologies. There was almost no shift of high technologies. However this pattern largely changed in the 1990s.

The prime reason is the expansion abroad of technological research and development by Japanese companies due to the shortening of production period at home and the growth of re-import as was the case with audio-video appliances. One more reason is the advance of mergers and acquisitions by foreign capital from the second half of the 1990s (See Figure 5). Mergers and acquisitions saw their peak in Japan in 1990 when there were more than 800 of them. Later until 1993 their number was decreasing and fell to approximately 400. It began to grow again from 1994 gaining momentum and approaching 1,200 in 1999. Most of these mergers and acquisitions were of IN-IN type (Japanese companies buying Japanese companies). Yet from 1998 the OUT-IN M&A (foreign companies buying Japanese companies) began to grow. By 1999 their number almost approached the number of IN-OUT type (Japanese companies buy foreign companies). It has become difficult indeed to preserve high technology in Japan when foreign companies buy Japanese ones in order to get hold of their high manufacturing technologies. Reportedly the name of the game of the French Renault's capital tie-up with Nissan was to obtain Nissan's technologies of automatic transmissions and hybrid engines. The evidences are that the same reasons underlay the purchases of Ogiwara, a world famous molding company, and Niles, the automobile switches and sensors maker, by Ripplewood from the US.



Not only the US, but also Chinese, South Korean, and Taiwanese companies try to get hold of technologies purchasing Japanese companies. Thus China's Shanghai Electrics (Group) Corporation and Morning Side, an investment company from Hong Kong, purchased Akiyama Printing Machinery, a company located in Tokyo Katsushika Ward which fell into management crisis. The newly established company received the name of Akiyama International (president Hu Xiong-Xiang). Chinese companies turned their attention to the world-top double-side synchronous printing technologies. They spent mere 2 billion yen to obtain those technologies and fifty specialists^{vi}. By the way in 1992 Akiyama Printing Machinery had the sales record of 14.3 billion yen. The new owners are going to exploit Akiyama's brand. Immediately they are making middle-level items in China and high-level things in Japan, and prepare to transfer technologies to China.

China's catch up and Japan's response

In the beginning of this chapter we introduced two different standpoints on China's contemporary economy. The first standpoint takes China's advance as real and

argues that in the 21st century China will surely become “global factory”. The other standpoint argues that the former is an overestimation and from the point of intermediate capital and capital goods China’s competitiveness is open to question.

We think that China’s catch up is real thing and believe that in the 21st century China will surely become “global factory”. Indeed China’s industrial production is increasing, the more her export increases the more intermediate capital and capital goods will be imported from Japan. Yet will such import of intermediate capital and capital goods last forever? Definitely no. China is gradually producing more and more of them locally, and local goods are substituting for imports from Japan. It means that China’s catch up with Japan is real thing.

So, how the Japanese enterprises should respond to such a situation? There is no sense to adopt antagonistic stance towards China and hinder shift of technologies to China. Moreover this may be harmful. Not China but Japan will feel uneasy as a result. If not Japan, the West, South Korea and Taiwan can provide technologies and capital to China. The Japanese companies should actively advance to China in both technologies and capital. They should set production bases in China’s various regions according to their peculiarities.

However there are important preconditions for conceiving such a policy. First Japan should continuously develop new technologies. That is the way it can coexist with China and other Asian countries. Second it should secure the reception of high royalties for new technologies and again invest them in the further development of new technologies. The Japanese government on its part should render active patronage to enterprises in their technological development and copyright protection.

2. The Strengthening of China-South Korea and China-Taiwan Economic Relations

South Korea is drifting apart from Japan

There have appeared changes in Japan-South Korea economic relations in the 21st century. Until now Japan-South Korea economic ties were developing in line with the relations between the two countries that had been laid by the Japan-South Korea Treaty from 1965. In a word the peculiarity of South Korea's foreign economic relations was a lasting from year to year deficit in the trade with Japan. The size of South Korea's deficit in the trade with Japan was much bigger than the deficits in South Korea's trade with any other country. The deficit in the trade with Japan was the main reason for South Korea's foreign trade deficit. As for investment policy South Korea was mostly investing in the nations of South-East Asia. Yet recently there have been considerable changes.

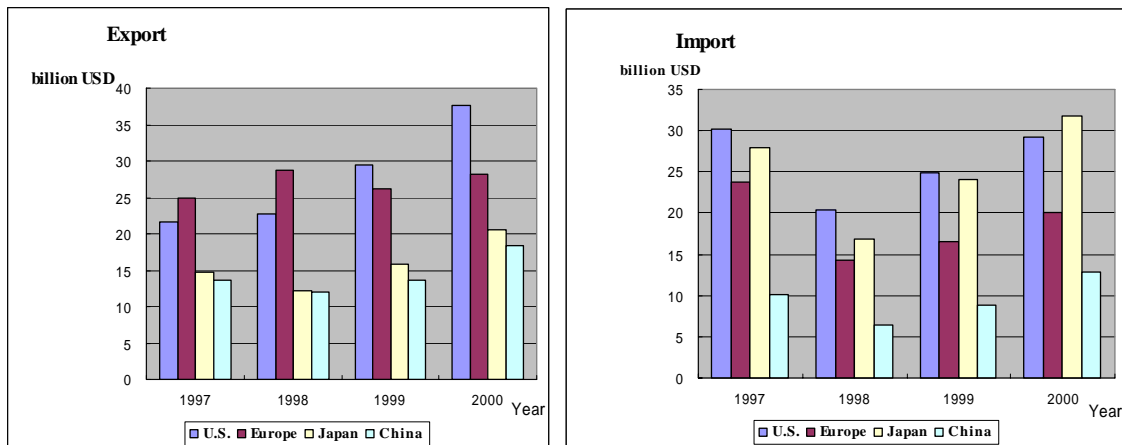


Figure 6. South Korea's export & import

*For 2001 the period is from January to August.

Source: www.customs.go.kr

As for South Korean exports from 2000 China became to catch up with Japan

which had been the third main destination of South Korea's exports after the USA and Europe. And in 2001 Japan even yielded her position to China. Though recently Japan has remained the first exporter to South Korea, it has been ahead by a narrow margin. Moreover the gap between Japan and China's export to South Korea has been shrinking. Furthermore China - Japan and China - South Korea overall trade turnover has been expanding while Japan - South Korea trade turnover declining (See Figures 6-8).

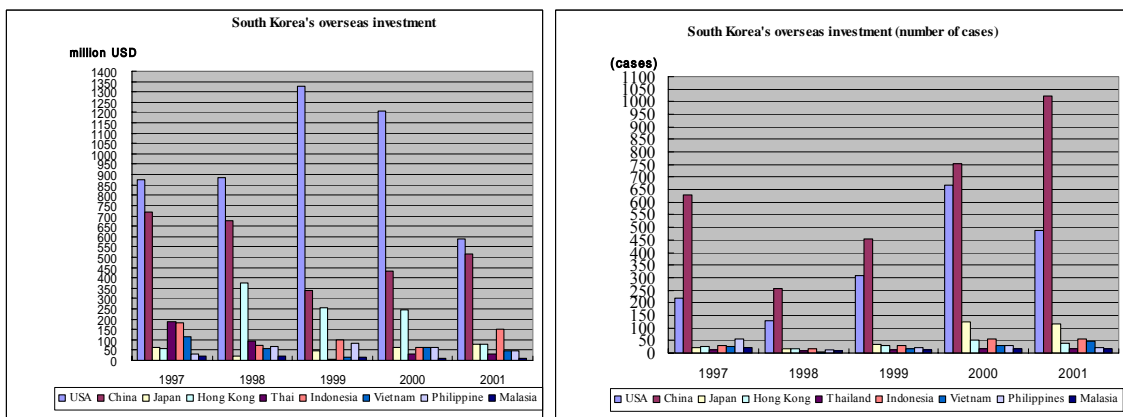
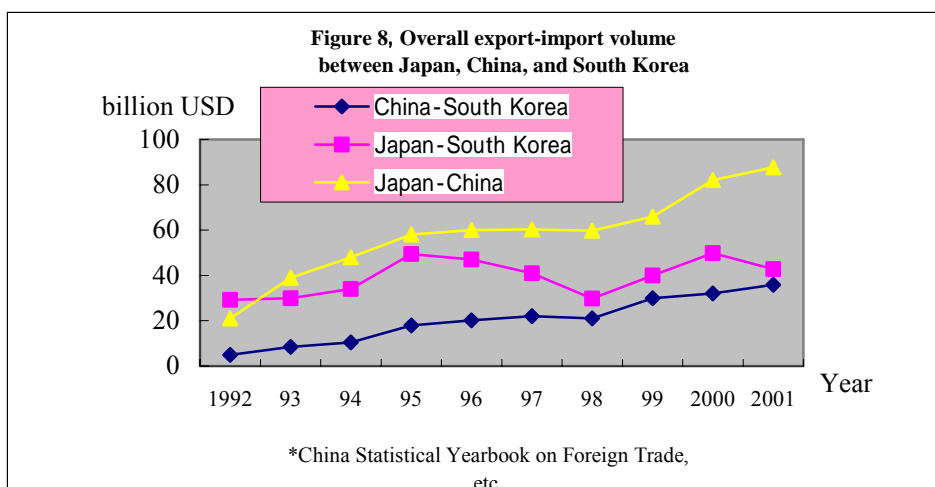


Figure 7, South Korea's overseas investment

* For 2001 the period is from January to August. Statistics on China excludes Hong Kong.

Source: Overseas Economic Information System (OEIS), www.koreaexim.go.kr/oeis



Let us see the volume of South Korea's overseas investment. In the second half of the 1990s the USA held the first position as a destination for South Korea's overseas investment while China and South East Asia shared the second position. However in 2001 the investments to China became second to the USA only. Moreover China has risen to the first position in the quantity of investment cases. On the contrary, South Korea's investments to Japan have been very small, making 1-2 percent of her overall overseas investment (Figure 7).

Thus in the 2000s Japan-South Korea economic relations have been weakening while China-South Korea ones strengthening. There has emerged a "thick pipe" between China and South Korea. It has begun to throw shadow on Japan-South Korea's economic relations.

In April 2001, President of South Korea (at that time) Kim Dae-Joong at the meeting with the delegation of Chinese "People's Daily" energetically called for strengthening mutual relations. In May of the same year the Chairman of the National People's Congress (at that time) Li Peng while visiting Seoul greeted the strengthening of economic relations between the two countries. In September of the same year South Korea's Consulate General was opened in China's Guangzhou City. At present China and South Korea have been getting closer. Indeed it is unlikely that China-South Korea economic relations will weaken in the future taking into consideration their common gains and losses in relation to the perspectives of the Chinese market and their support of North Korea's moves to reforms and liberalization. The economic relations in North-East Asia which have been revolving along Japan-South Korea axis are rapidly losing their importance been replaced by China-South Korea relations.

The expanding influence of China's economy

South Korea's drift from Japan is also expressed in the situation with economic agreements between the two countries. There have been efforts to lift custom duties and other taxes to expand trade between Japan and South Korea, and finally conclude free trade agreement. In 2000 there has been made serious progress in relation to the conclusion of a treaty on taxes and an agreement on investments. The agreement on investments between China and Japan came into force in January 2003. Yet the agreement on free trade between Japan and South Korea has only been considered.

If such free trade agreement between the two countries is concluded South Korea's deficit in trade with Japan will only increase. Furthermore the advance of Japanese enterprises into South Korea will be accelerated. This has been the main reason for South Korea's disinclination. However there should be noted South Korea's efforts to conclude a Japan-China-South Korea trilateral economic agreement. One of the explanations is the already mentioned rapid expansion of China-South Korea economic relations. Indeed if we take into consideration the ebb of Japan and the advance of China in the recent years there is no doubt that in ten years by the time when the agreement will have materialized the role of Japan will have further declined.

On the other hand when joining the WTO China revealed a strong inclination to strengthen relations with South-East Asia, South Korea, and Taiwan through foreign capital, reforms, and the open door policy. The fact is that in the end of 2000 China called upon the ASEAN to establish a board on elaborating the frames of free trade zone is just one example. The ASEAN also responded to the suggestion of establishing East Asia economic zone which would include China, Japan, and South Korea. But this response seems only natural taking into consideration the gigantic expansion of China's industry.

The history of South Korea's industry overseas shift

It has not been that long since South Korea's industry began to shift overseas. It really began only in the second half of the 1980s. With the three principal conditions (low price for crude oil, low exchange rate, and low interest rates) at the base South Korea's enterprises endeavored overseas shift to escape the growth of wages at home due to violent labor disputes, and the appreciation of won. They sought cheap labor. Let us see the real progress of overseas shift. In 1985 there were only 38 cases with the sum of investments not exceeding 110 million dollars. Yet in 1990 there were 340 cases with 960 million dollars of investment. Judging by the number of cases and the sum of investments there was almost nine-times increase. In 1995 there were 1324 cases totalling 3.11 billion dollars. Thus compared with 1985 the number of cases grew 35 times while the sum of investments increased 28 times.

South Korean enterprises mostly advanced to Asia. However in 1992 the normalization of diplomatic relations with China gave them an impetus to advance into China. In 1996 among 1,466 cases of South Korea's overseas investments totaling 4.39 billion dollars 734 cases (about 50 percent), and 890 million dollars (about 20 percent), went to China. Labor-intensive manufacturing of sundries, textiles, apparel, and leather goods became the main locomotive of South Korea's foreign investments. The amount of investment per case was 2.97 million dollars in 1985; 2.82 million dollars in 1990; and 2.35 million dollars in 1995. A relatively small scale speaks for itself.

However the Asian Currency Crisis of 1997 caused changes in the South Korea's overseas investment. In 1997 there were 1,319 cases of overseas investment totaling 3.56 billion dollars. However in 1998 there were 608 cases totaling 4.7 billion dollars. The number of investment cases dropped. Yet in 1999 there appeared signs of

recovery. Due to the Asian Currency Crisis the number of overseas investment cases and their volume declined but the sum per case began to grow. Thus in 1998 it grew up to 7.74 million dollars. There also appeared a tendency of overseas investment by technology-intensive industries such as electronics, car manufacturing, and semi-conductors.

The features of the industrial hollowing out

It is hard to say looking at the present situation with the South Korean economy and the degree of its overseas shift (the declared overseas investments ÷ the total internal capital investments) that the industrial hollowing out has become serious. Let us see the degree of overseas shift according to the types of industry (Table 2).

Table 2. The rate of South Korea's industrial hollowing out

Industry	Rate
leather goods	40.8%
wooden furniture	35.5
metal hardware assembly	21.9
textiles and clothing	20.2
electro-electronics	8.2
non-metal minerals	7.8
transport equipment	7.7
foods and drinks	5.9
polygraphy	4.5
oil-chemistry	4.2
primary metal-works	3.3

* Reported overseas investment ÷ domestic capital investment

** Cumulative basis for the 1991-2000s

Source: Lee, Ji-Pyong. *Hollowing Out of Industry and Response of Enterprises*. Seoul: LG Economic Research Institute, 2002.

Leather goods top the list (40.8%), followed by wooden furniture (35.5%). Than follows metal hardware assembly (21.9%) and textiles and clothing (20.2%).

These are the top industries in terms of industrial hollowing out. They are in turn followed by electric appliances and electronics manufacturing (8.2%), non-metall minerals (7.8%), transport equipment (7.7%), foods and drinks (5.9%), polygraphy (4.5%), oil chemistry (4.2%), and primary metal works (3.3%). There is a vivid gap between leather goods, wooden furniture, metal hardware assembly, and textiles and clothing on the one hand and other items. With the former the degree of overseas shift varies from 20 to 40 percent while with all the latter this figure is below 10 percent. The former are typical labor-intensive industries where the wages make high share of costs. The latter however are less vulnerable in this respect. In case of Japan the degree of overseas shift has been more than 20 percent in electric appliances and electronics manufacturing also. So, for South Korea the hollowing out of industry is a matter of the future.

Leisure goods manufacturers are the first to shift overseas

A South Korean manufacturer of tents, bags, and other leisure goods Jin Woong Corporation can serve a good example to illustrate the situation with the overseas investments. The company was established in March 1979. At that time South Korea's market of leisure goods was small. That is why the manufacturing mostly targeted foreign markets and produced for export. The subsequent appreciation of won and rapid rise of wages at home that took place in the second half of the 1980s put the company's management under high pressure.

The company decided on the overseas shift. In April 1988 the company began negotiations through the mediation by KOTRA (Korea Trade-Investment Promotion Agency) with Xiamen open coastal economic zone in China's Fujian Province and a company from Hong Kong to determine a placement. In November of the same year

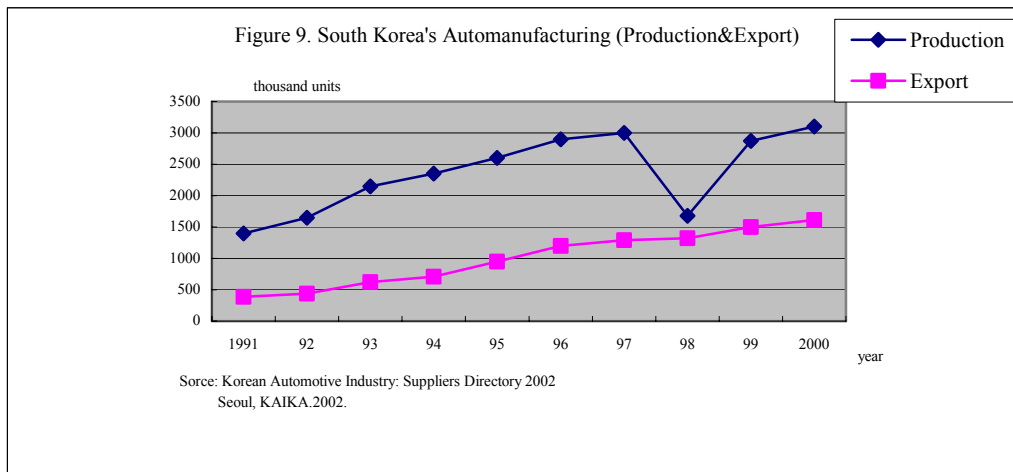
after visiting the spots and negotiations from July to September the license was obtained from the Department of industry and trade of Xiamen City People's Government. After obtaining the overseas investment permission from The Bank of Korea there was established a wholly owned local juridical person with the capital of 300,000 dollars. In February 1989 the factory was up and running. It had 119 employees, and mostly specialized in making tents. Mere seven months passed from the beginning of the destination search to the establishing of juridical person, and ten months passed until the factory was running. In the first operational year Jin Woong Corporation produced deficit of 45,000 dollars but from the next year it got into the black and was bringing profits since then. Jin Woong Corporation is an example of South Korea's early pattern of overseas shift by small size sundries manufacturers.

The advance of South Korea's auto parts makers into China

Meanwhile in contrast with the previously described leisure goods South Korea's auto parts makers have not been showing the same activity in advancing into China. South Korea's automobile industry got birth in the 1960s. KIA Industries began from 1962 while Hyundai was established in 1967. Later in 1982 there was established Daewoo Motors. Ssang Yong appeared in 1988 but was soon absorbed by Daewoo. In 1998 Samsung also entered automobile manufacturing. Thus in 1998 South Korea's automobile industry was represented by four makers: Hyundai, KIA, Daewoo, and Samsung.

The Asian Currency Crisis, which became serious in the beginning of 1998, did not make an exception for the South Korean automobile manufacturing. The criticism against monopolistic enterprises was rising. KIA suffered bankruptcy and was absorbed

by Hyundai. Daewoo became bankrupt in 2001. In the end of 2000 Samsung Motor was absorbed by Renault and received the name of Renault-Samsung. In 2002 Daewoo entered under GM's umbrella and began to recover. After suffering a drop in 1998 South Korea's automobile production has been growing since 1999. In 2000 South Korea made a production record of 3.11 million cars of which 1.68 million were exported. South Korea's car manufacturing was about one third of Japan's home manufacturing (Figure 9).



South Korea's auto parts manufacturing also suffered a serious drop in 1998. Yet in 2000 it began to recover. In 2001 the industry comprised 270,000 employees and 1,075 enterprises. Among them 28 enterprises (3%) had more than 1,000 employees while the rest were mostly of medium and small size. 427 enterprises (40%) which makes almost half had less than 50 employees^{vii}.

Only 32 of South Korean auto parts manufacturers (less than 3 percent) have advanced into China. With the exception of Hyundai MOBIS which has a wholly owned plant in Shanghai with 3,000 employees, the majority of South Korean enterprises in China are of medium size with several hundred people. South Korean enterprises mostly

concentrate in China's northeastern areas such as Tianjin Municipality, Shandong Peninsula, Shenyang City, and Changchun City.

Such items as switches, air conditioners, key sets, and others which South Korean enterprises manufacture in China besides the auto parts are also of low and middle technological levels. There has been no serious moves by South Korean enterprises to establish engine, engine control equipment, and transmission related production in China^{viii}.

Only one of ten South Korea's auto parts makers has set production base in China against more than 30 percent of Japan's ones. There is an impression that for South Korea it is a matter for the future. Nevertheless KIA has begun talks with Dongfeng Automotive Corporation to join hands in producing sedan vehicles^{ix}. Also Hyundai has set Pekin Hyundai Automotive to produce "Sonata" model^x. Looking at these moves we can conclude that the advance of South Korea's auto parts manufacturers into China will definitely increase.

Home-market oriented J-company

The overseas shift by South Korean companies has just begun. A J-company which we are going to introduce here has not been immediately concerned about moving into China. J-company is located in an industrial area of Taejōn city. The company has been specializing in making bolts for automobiles. The company's capital is 5 billion won (about 4.3 million dollars in 2001) and there are 220 employees (in 2001). The company's annual sales are 35 billion won (about 30.4 million dollars in 2001). So the company belonged to South Korea's medium-size auto parts manufacturers. The company was established in 1978. Since then Hyundai has been the main destination for the company's production purchasing 56 percent of the company's

sales in 2001. Then followed Fassung R × A (21% in 2001) and KIA (10% in 2001).

Let us have a look at the company's sales progress. In 1994 the sales were 14.3 billion won. Since then the sales were growing year by year and set a record of 20.6 billion won in 1997. In 1998 Hyundai was hit by troubles in IMF and lessened its purchases. The J-company's sales in 1998 were only 14.6 billion won thus declining by 30 percent from the level of the previous year. However in the next year the sales showed quick signs of recovery and reached 22.7 billion won. In the next 2000 they reached 31.8 billion won, and in 2001 hit 35 billion won.

The sales rose due to rationalization, which brought about personnel cuts, and the rapid increase of orders from Hyundai. Cheap won was also favorable for boosting export of bolts to the Middle East, Mexico, Germany, and Japan. J-company even set a new factory in Chungcheong Buk-Do Okcheon-Gun county preparing to meet the increasing demand^{xi}. There have been no plans to advance into China. To satisfy the rapidly growing demand from Hyundai the company at present has been mostly preoccupied with upgrading her technologies at the plant in Taejŏn city.

The East Asia amidst Japan-South Korea competition

The age when Japan was preserving the leading positions in industrial products manufacturing came to an end with the turn of a century. The issue for the 21st century is how to share the market and technologies between Japan, South Korea, and China, and how to elaborate a good system of international industry division. In this sense the matter of how to create a good system of international industry division poses crucial importance. It is because Japan and South Korea though being rivals in the Chinese market are also in cooperative relations there. Indeed both Japan and South Korea are competing in China in establishing multipurpose electrical appliances manufacturing

there. For both of them this is a locomotive of their advance into this country. On the other hand in China they have got opportunities for alignment in supplies procurement, mutual aid in production processes, and other fields. In the same way as Nippon Steel has implemented the SCM (supply chain management) system used by POSCO it is necessary to introduce technologies from South Korea which is an advanced IT-nation. In other words the trade war over China's market between Japan and South Korea, which are in rival-partner relations there, should be used wisely. In this sense free trade agreement between Japan and South Korea becomes an important issue for the Japanese strategy in East Asia in the 21st century.

The continental shift gained momentum

There have also been “great changes” in Taiwan, mostly in its IT-industry. At present the shift of its production base to China has been gaining momentum. According to the survey by The Taiwan Institute of Economic Research the share of the Taiwanese IT-production shifted to China was 28 percent in 1995 and grew rapidly to 53 percent by 2000. In the same period the share of goods made in China by Taiwanese companies rose rapidly from 14 to 37 percent^{xii}. The rapid growth of 25 percent in six years cannot be called otherwise than “great change”. In Taiwan they call it “exodus of industry”, in more conventional terms it is a progressing hollowing out of industry.

The recent changes are not only expressed in dry figures. The overseas shift comprises a wide spectrum of industries from low-tech to high-tech ones.

There is nothing new in the shift of low-tech industries from Taiwan to China. Mostly this related to labor-intensive production of equipment and parts such as CD, CD-ROM, DVD, CD-RW, CRT-monitors, desktop PCs, scanners, motherboards, computer periphery, and relatively cheap computers. In five years by 2000, 90 percent

of scanners, 80 percent of CD-ROM, DVD, and CD-RW production bases were shifted to China.

Yet in the recent years it has expanded to notebook PCs, 8-inch wafers (the base-plates for semiconductors) and other high added value items. Their production bases have also been moving to China or preparing to do that.

Until now the Taiwanese authorities banned the shift of notebook PCs and 8-inch wafers manufacturing technologies to China. Yet recently the regulations have been loosened and the shift to China accelerated. Moreover there is strongly enrooted public criticism towards the policy of restrictions conceived by Chen Shui-bian. For example in March 2002 there took place a demonstration of several thousand people demanding prolongation of the opportunity to invest in notebook PCs and 8-inch wafers manufacturing in China^{xiii}.

Against these developments the unemployment rate in Taiwan has been more than five percent. At present more than one million Taiwanese workers reportedly work in China for Taiwanese companies. Taiwan's labor active population is about 9.7-9.8 million people which means that 10 percent or each tenth Taiwanese works in China. The shift of industry to China and the creation of jobs there have been immediately influencing Taiwan's employment rate.

Taiwanese export to China has also been growing recently. In 2002 Taiwan's export to China exceeded Taiwan's export to the USA thus making China the main destination of the Taiwanese goods. This was definitely a result of the rapid growth in IT-components export to China caused by the lift of bans on the transfer of notebook PCs and 8-inch wafers technologies (See Figure 10).

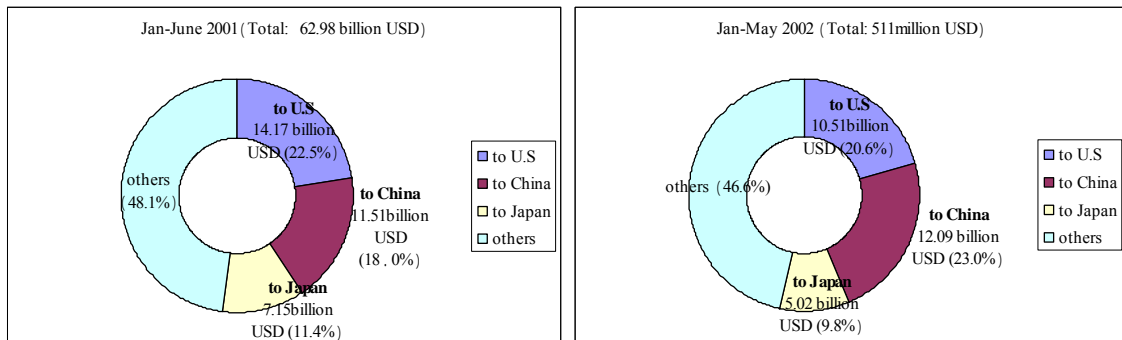


Figure 10. Taiwan's export destinations

*Calculated on the basis of the data from the Bureau of finance and the Bureau of Economy. Source: *Nikkei Shimbun*. Aug

Moreover the dependence of Taiwan on exporting to China is greater than China's dependence on exporting to Taiwan. Taiwan is exporting to China machines, instruments, electrical equipment, and plastics, i.e. the items related to the investments in China by Taiwanese companies. On the contrary China's export to Taiwan is not only small in the amount of money, but also has little relation to investments. Raw materials prevail in it. The patterns similar to those that emerged in China's trade with South Korea were being repeated in China's trade with Taiwan.

The policy of direct communications, direct ship lines, and direct trade has not yet been fully implemented. However in both cases the trend is getting stronger. On the contrary similarly to Japan's economic relations with South Korea her economic relations with Taiwan are also suffering definite decline.

There comes an age when Taiwan's economy will be strongly influenced by the movements in China's economy. The Taiwanese authorities have been seriously concerned with the possibility of Taiwan's economy becoming part of China's. There exists an opinion that investing to South-East Asia also should diversify risks. Yet such concerns cannot withstand the attractiveness posed by continental China.

The history of Taiwan's industry overseas advance

Similarly to South Korea it has not been long since Taiwan's industry began to advance overseas. This shift began in the second half of the 1980s. In 1987 the exchange rate of the Taiwanese yuan rose sharply reaching the level of 28.5 yuan for 1 dollar. By 1992 it rose to 25.5 yuan. This resulted into rapid overseas advance by labor-intensive industries. The manufacturing of toys, Christmas lamps, artificial flowers, rubber gloves, and other goods up to electrical home utensils was steadily moving overseas. At first South-East Asia was the main destination. The Taiwanese were rapidly advancing into South-East Asia by exploiting local Chinese networks.

In 1990 the Taiwanese authorities gave their conditional recognition to trade and investment to China which they had not been recognizing before. The investments to China have been gradually growing since. They have been growing with the extension of the list of investment items recognized by the Taiwanese authorities. Gradually the items have been changing from relatively low-tech products like calculators to technologically high ones like electronic dictionaries and translators. Taiwanese electronic makers were mostly concentrating in the Zhu Jiang delta in Dong Guang City of Guangdong province. Yet in 2000 Taiwanese enterprises' investment destination shifted from Guangdong to Suzhou City and Shanghai in the Chang Jiang delta. The production items also vary from power supply devices and keyboards of Guangdong to notebooks PC of the Chang Jiang delta^{xiv}.

The Taiwanese continental investments to the Chang Jiang delta especially accelerated after the bans on notebook PCs and on wafers were lifted in February 2001 and in April of 2002 respectively. Yuske Mizubashi who for several times after April 2000 made field research of the Chang Jiang delta's "electronic belt" has been reporting the growth of Taiwanese investment in the areas of Suzhou, Kunshan, Wu Jiang, Pudong, western part of Shanghai, and Ningbo. Envisaging the lift of ban on notebook

PCs Taiwanese companies promoted construction of a plant in the Chang Jiang delta already in the beginning of 2000. They began a trial production in the end of 2001. By 2002 these developments have made the Chang Jiang delta into the production base responsible for one fourth of the world's notebook PC production^{xv}.

The miracle of the Taiwanese IT-industry

Taiwan is a little smaller in size than Japan's Kyushu Island. Its population is about 23 million. It has not been long since Taiwan has won the world's attention as a "Silicon Island". In the 1970s Taiwan entered the phase of rapid growth and became one of the NIES, alongside with South Korea, Hong Kong, and Singapore, which became altogether referred as "four little dragons". The electrical industry performed as locomotive of Taiwan's rapid growth. The main role was after home electrical appliances manufacturing.

In the 1980s home electrical appliances manufacturing yielded to semiconductor industry. First the technologies were polished with the OEM (original equipment manufacturer) production obtained from European, American, and Japanese multinational companies. At the next stage developing skills were accumulated through the ODM (original design manufacturer) production obtained from the same European, American, and Japanese companies. Then Taiwan became responsible for the massive production of EMS (Expanded Memory Specification). It was that time when Taiwan rose to a semiconductor production base taking the advantage of mobility of its small and medium size enterprises. To avoid the appreciation of yuan and to cope with the demands for wage increase from the second half of the 1980s Taiwanese enterprises began to advance into the ASEAN countries. That was the starting point of the hollowing out of Taiwan's industry. Upon entering the 1990s the main destination of

Taiwanese foreign investments changed from the ASEAN countries to China where the market economy was advancing. That gave further impetus to the hollowing out of industry in Taiwan.

Taiwanese direct investment into China has been expanding like the flow from a broken dam. In the beginning the investment mostly went to the seashore areas of the Zhu Jiang delta like Guangdong Province. From the second half of the 1990s they covered the areas of the Chiang Jiang delta like Shanghai and Jiangsu Province. Power supply, PC keyboards, transformers, resistors, condensers, and monitors manufacturing is concentrated in the Zhu Jiang delta. On the contrary the notebook PC manufacturing is mostly expanding in the Chiang Jiang delta.

The IT-industry within the world network

Taiwan's IT-industry rapidly grew against the expansion of the world network by IBM, Intel, as well as Japanese and South Korean multinational semiconductor enterprises. The Taiwanese IT-industry expanded due to a smart using of this network through receiving OEM orders. Indeed the strength of Taiwanese enterprises is in their ability to mount on this network. We can say that this has been a traditional skill of Taiwan's industry.

In the 1970s when Taiwan's home electrical appliances industry got a start Taiwanese enterprises began to encroach into home electrical appliances manufacturing in Southeast Asia as a part of the East Asian Economic Zone which was created by Japan in the 1950. Home electrical appliances manufacturing did not go alone. At that time machine building, auto parts, plastics and other chemical goods manufacturing, and other various industries were established with the assistance from Japan. Taiwanese enterprises performed as partners of the Japanese ones in their opening of South East

Asia.

In the 1980s Taiwan's IT-industry emerged from the home electrical appliances manufacturing. At this time it mounted on the new currents of the American, European, Japanese, and South Korean semiconductor enterprises. It became trusted with their OEM production. In the 1990s after the technologies were brushed up Taiwanese enterprises began to advance into South East Asia by using the East Asian Economic Zone in order to cope with the appreciation of yuan and wage increase demands at home.

Again in the second half of the 1990s using the opportunities from the opening of the special economic zones in China's coastal areas Taiwanese enterprises began to advance into China. Indeed they possess splendid capability of using networks.

Taiwanese enterprises are mostly of small and medium size. Many of them are of "one owner" type. That is why Taiwanese enterprises are often referred as having quick legs. If they go they come like storm, if there are troubles they retreat at once. Such quick decisionmaking and mobility is best suit for the industries like IT where one can operate with relatively small capital and where the most important thing is management information. It would not be an exaggeration to say that IT-industry is like being especially created for Taiwan. There is nothing to lament about the Taiwanese IT-industry which by 2000 grew into a world IT-production base.

Taiwan's small and medium size enterprises are short of money. That is why they cannot put much into research and development. Thus they follow the Western and Japanese companies playing the role of their international subcontractors. In the world network they look for giant enterprises that possess most advanced achievements. They become their subcontractors, organize massive production, and fill the world market

with goods. That is how Taiwan established its name as a world IT-production base.

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