

The Rise of China and the Changing Industrial Map of Asia

By *Kuroda Atsuo*

China is transforming itself into a “manufacturing giant” at an incredible rate. From the “human wave” strategy of the assembly industries, to facility-intensive, high-tech industries, and on to software and research and development (R&D) bases, a wide range of fields are simultaneously blossoming in China. What is occurring in China now would be difficult to imagine under a pattern of conventional industrial development. In June 1998, I was posted to Hong Kong for three years, and I visited around 300 companies in China and other parts of Asia. What I noticed during that time was the rapidly growing strength of Chinese companies, the accumulation of industry in the increasingly prosperous coastal regions of China, which are attracting domestic and foreign investment, and the changing industrial map of Asia as a result of these phenomena. The rise of industry in China is raising major issues for

Japan as well.

The Concentration of Foreign Companies and Growth of Local Ones

The companies underpinning China’s development as a manufacturing giant can roughly be divided into two types. The first are foreign-owned and regionally based companies financed from such places as Hong Kong, Taiwan, the United States, Europe and Japan. Direct investment in China from all over the world increased again around 2000 when China’s membership of the World Trade Organization (WTO) became highly possible. Today, around half of the foreign direct investment (FDI) pouring into Asia from around the world is focused on China, which is now the biggest recipient of FDI among the developing countries.

The other type of company underpin-

ning China’s success is the locally owned company. The predominant image of a Chinese company is that of an inefficient state-owned enterprise. But among the many local companies I visited in China, there were not a few, high-quality Chinese companies that could hold their own with their counterparts anywhere in the developed world in terms of product planning, manufacturing, marketing and services. Such companies were often run by managers in their 30s or 40s who were thoroughly versed in American management techniques and demonstrated a bold, quick-response management style.

Today, if you go into consumer electrical appliance stores in one of China’s cities, you will be surprised at the preponderance (70-80%) of local-brand goods muscling out foreign brands at the television, air-conditioner, refrigerator and personal computer sales counters. While local Chinese brands are 20-30% cheaper than foreign brands, these are not just low-class items. Flat televisions, digital versatile disc (DVD) players, laptop computers and other goods appear on Chinese shelves at almost the same time as they do on electrical appliance counters in Japan.

Local Chinese companies experiencing this growth have, over the past several years, been establishing a real presence in the world’s markets. (Figure 1) China’s largest general consumer electrical appliance manufacturer, the Haier Group, already has factories in 16 locations around the world. Haier has taken, for example, nearly 30% of the U.S. market for compact refrigerators. It has announced a comprehensive corporate alliance with Japan’s Sanyo Electric Co., and Haier refrigerators and washing machines have already started to appear in Tokyo’s Akihabara district, where electrical and electronic goods are concentrated. Various Chinese brands of televisions, refriger-

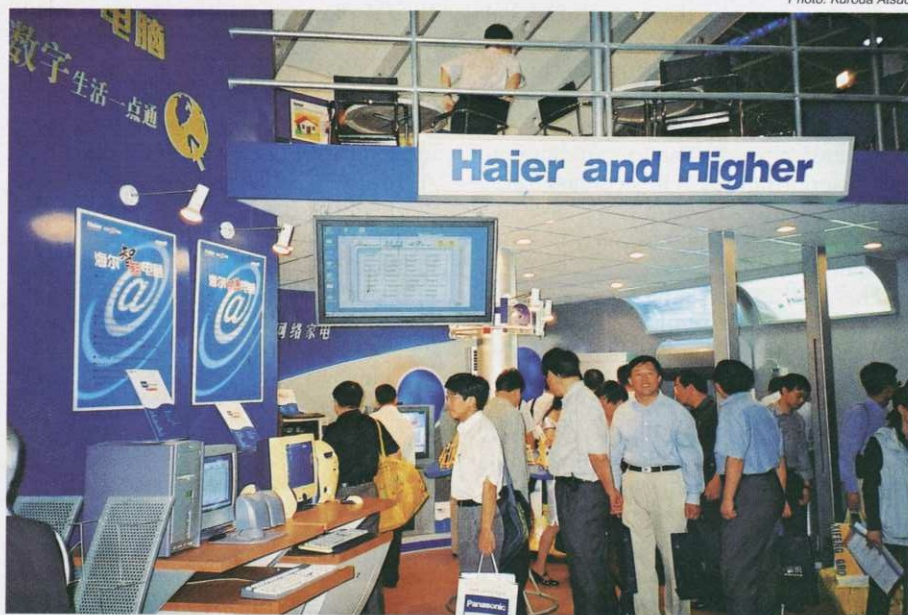
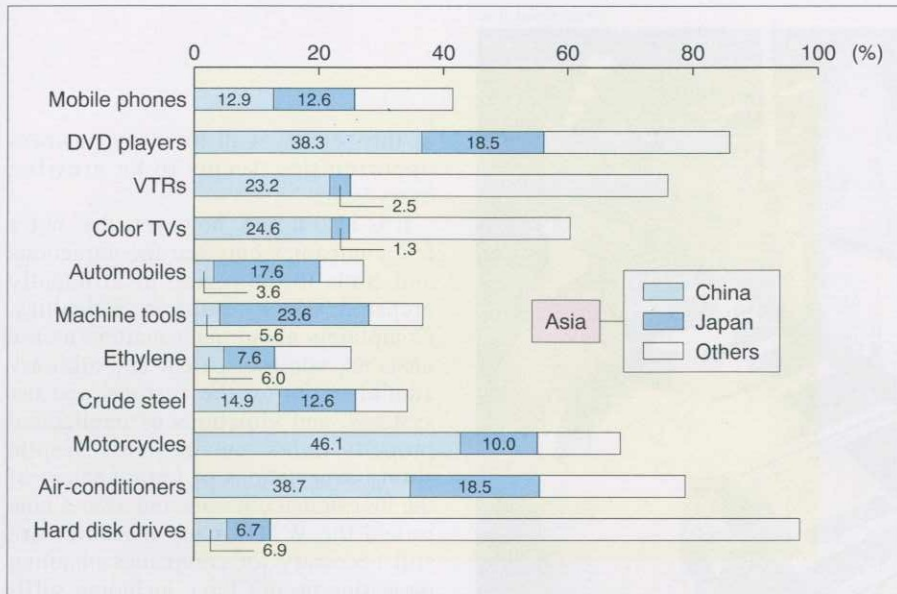


Photo: Kuroda Atsuo

High-Tech Fair in Shenzhen; The products of China’s largest electrical appliance manufacturer, the Haier Group, appeal to many consumers

Figure 1 China's Share of the World's Production Volume of Major Items (2001 forecasts)



Note: Volume base.

The figure for air-conditioners is for 1999. The figures for automobiles, motorcycles, machine tools and crude steel are for 2000. Other figures are 2001 predictions.

Source: *Nihon Keizai Shimbun*, July 27, 2001

ators and motorcycles are now starting to be produced locally in such places as Indonesia, Vietnam, the Philippines, India and Latin America, and are steadily expanding in these markets. For example, in Vietnam in 2000, imports of a Chinese brand of motorcycle that closely resembles the Japanese brand Honda increased by 20 times over the previous year, suddenly reversing the relative market shares of Japanese and Chinese motorcycles in the market (the ratio of market share between Japan and China was 8:2, but this has been reversed to 2:8). All over the world, especially in the developing countries, the "Made in China" advance has begun in a range of fields, including telecommunications equipment, plant equipment, steel and shipbuilding.

Advance and Alliance of Three Industrial Clusters

The companies that are driving China's growth are concentrated in three areas. The first of these areas is the Zhu Jiang Delta of Guangdong Province, which has attracted a large number of electronics and electrical equipment firms for such labor-intensive exports as personal computers, copying machines and electrical appliances. The second main area is the

Chang Jiang Delta, which stretches from Shanghai to Jiangsu and Zhejiang Provinces. This has attracted rapidly growing foreign investment in areas ranging from high-tech industries such as semiconductors and mobile phones, to automobiles, steel, chemicals and clothings mainly for the domestic Chinese market. The third area is China's "Silicon Valley," which includes the Zhongguancun area in Beijing. Here, strongholds of software and R&D for information technology (IT) are concentrated, and there are many academic-industrial alliances based on links between industry and local universities. While China has large numbers of other industrial zones, these three areas stand out in that they have attracted large amounts of similar industries and enjoy the accumulative effects of this concentration. The three industrial clusters, which are all quite different in nature, functionally complement each other, and at the same time, compete together for success, are increasing their overall productive capacity, are

attracting investment from all over the world, and are continuously spawning local industries. The following discussion highlights the Zhu Jiang Delta, the most typical of the three regions.

The Zhu Jiang Delta in Guangdong Province is an industrial region extending across the Zhu Jiang River mouth area, which is bigger than the area encircling Tokyo Bay. In 1979, the special economic zones of Shenzhen and Zhuhai were established in the areas immediately to the north of the former colonies of Hong Kong and Macao respectively, and an experiment in reform and open-door policies was started. Many foreign companies began to set up factories in the region, attracted by the low labor costs and ease of procuring components. The rush was led by Hong Kong companies, which began moving their factories out of Hong Kong in the first half of the 1980s when labor costs began to rise there. They were followed by Japanese companies, which began to flee offshore in the late 1980s in the wake of the yen appreciation following the 1985 Plaza Accord. On the heels of the Japanese came Taiwanese companies, which began setting up Chinese factories when controls on investing in the mainland were partially lifted in the 1990s. U.S., European and Korean companies also began arriving. In addition, many local electrical appli-

Photo: Kuroda Atsuo



Japanese-owned optical pickup factory in Shenzhen; 50% of the global production of optical pickups, key components of DVD players and other high-tech products, is located in the Zhu Jiang Delta

Photo: Kuroda Atsuo



Japanese-owned electronic components factory in Shenzhen; the female factory workers, whose average age is 20, are extremely dexterous and ambitious

ance and computer makers emerged in these regions and set up their main factories there. Today, this region attracts the world's leading electronics and electrical equipment companies. This region seems to have about 50% of the world's production in such areas as copying machines and printers, desktop computer components, optical pickups and micromotors, and maintains about 20-30% of the world's production of televisions, audio equipment and air-conditioners.

The strengths of the Zhu Jiang Delta are in three main areas: (1) the richness of its human resources, in terms of quality and quantity; (2) the depth of clusters of its component industries; and (3) Hong Kong serving as a distribution and finance base. China's richness of human resources surely needs little explanation. In search of work, 20 million young migrant workers from a hinterland with a population of 400 million flow into Guangdong Province, with its population of 70 million, every three years. The wage levels, which are around ¥7,000 (\$60) to ¥10,000 (\$90) a month, have not risen in yen terms for nearly 10 years. But whatever company you ask, the diligence, desire to improve, and manual dexterity of Chinese workers are soundly confirmed. Naturally, employing people from a different culture like China's is not without its challenges, but com-

pared to the difficulty of attracting young, high-quality labor in Japan, China's advantages are obvious.

Technical and managerial workers are also being trained in large numbers, with more than 1,000 Chinese universities turning out over 800,000 graduates every year. These are very ambitious young people who have successfully battled a university entrance system that is said to be far tougher than Japan's. Companies with research bases in both Japan and China often told me that young Chinese technicians are better prepared for work than their Japanese counterparts, and they make superior workers.

For processing and assembly companies, still more important than labor costs is easy access to cheap, good-quality components. The Zhu Jiang Delta, where a mix of companies has accumulated from various countries, is now one of the world's leading industrial clusters for electronic and electrical components. Recently, large numbers of local component industries and lower-tier supporting industries have also sprung up in the area. For example, it is often proclaimed that nearly all computer components can be obtained within an hour and half in Dongwan, a city to the north of Shenzhen. For component makers, too, competition is intense, but the area attracts many customers and information, and the appeal

of this region, with its many business opportunities, seems to be growing every year.

It is also a fact, however, that not a few companies only see the attractions and come to the region insufficiently prepared, which results in difficulties. Complaints about such matters as the unstable, non-transparent and arbitrary administration of the customs and tax systems, and violations of intellectual property rights remain high. Despite strong expectations of improvement of the investment environment after China joined the WTO, many measures are still necessary for companies planning on setting up in China, including sufficient preparation, gathering of information from consultants and companies that have already been successful, and recruiting Chinese and Taiwanese staff. And big issues remain such as the need for companies to take a firm stance on the violation of intellectual property rights.

The Changing Industrial Map of Asia

This rise of Chinese companies and the growing accumulation of industry in China's coastal regions are steadily beginning to change the industrial map of Asia. The Association of South-East Asian Nations (ASEAN) countries, in particular, being relatively close geographically to China and at a similar stage of development, are feeling the impact directly, and a sense of crisis is growing.

Comparing the amount of approved and contracted FDI in China with that for the five main ASEAN nations as a whole (Singapore, Malaysia, Thailand, Indonesia and the Philippines), investment in the ASEAN nations has declined, partly as a result of the lingering effects of the Asian economic crisis of the late 1990s. In 2000, it was no more than \$31.5 billion. In comparison, although investment in China has gradually declined from its peak in the mid 1990s, a foreign investment boom began as China prepared to be admitted to the WTO. In 2000, FDI into China totaled \$62.7 billion, an increase of 1.5

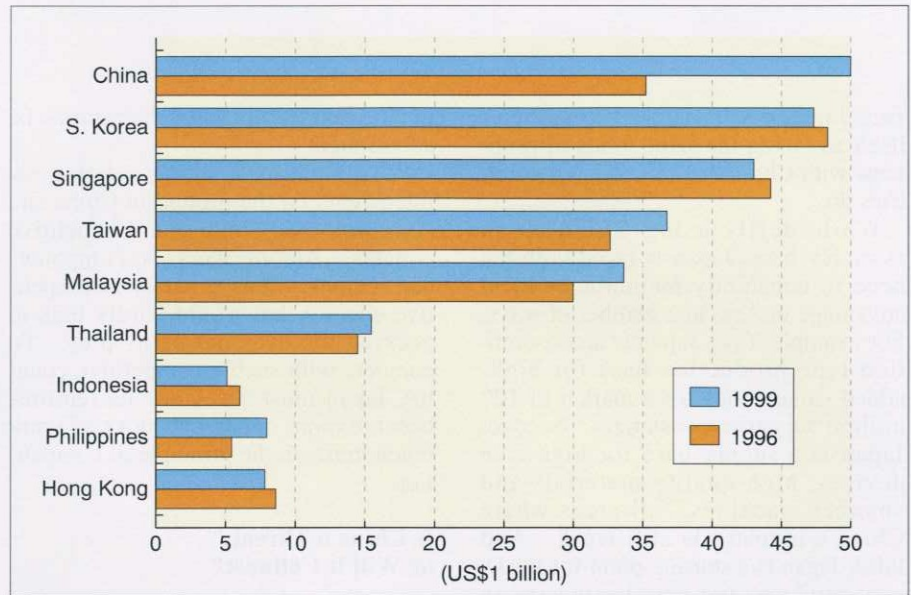
times over the previous year. In 2001, the amount reached \$69.2 billion. Looking at the micro-economic base, there are many cases of Taiwanese, U.S., European and other foreign companies moving their ASEAN production bases to China. In the latest product areas, including semiconductors, laptop computers, DVD players, plasma display panels (PDPs), digital cameras, color liquid crystal displays (LCDs) and mobile phone batteries, there have also been examples of Japanese companies setting up production bases directly in China, instead of through the ASEAN nations. So far, Asia's industrial development has been explained in terms of a "flying geese model," based on the idea of a flock of geese flying in a V-formation behind a leader. However, the neatly flying flock has been scattered all over the sky by its encounter with the monster "China." And, worse still, that monster "China" is like the enormous "peng" bird of Chinese legend, devouring one specialist area after another, taking on advanced products and R&D areas in its path while not losing a jot of its cost competitiveness and resolutely refusing to yield its place to the geese behind it (Vietnam or Myanmar, for example).

Japanese companies occupy the core of ASEAN's industrial structure. The overseas bases of Japan's electronic and electrical industries are still in the ASEAN nations, and it cannot be imagined that all these industrial bases will suddenly move to China. However, even the Japanese electrical equipment assembler manufacturers in the ASEAN region must recognize that the current production structure is beginning to change. They must start switching components suppliers, for example, from Japanese to Chinese ones in an effort to resist the cheap Chinese products that have begun to erode ASEAN markets. (Figure 2)

Need for Reform and Integration in Asia

Against this background, the countries and regions of Asia are facing the important issue of how to prevent

Figure 2 Comparison of Asia's Electronics and Electrical Equipment Production (Value) by Country/Region



Source: "Emerging Asian Clusters and Coexisting with Japan," Japan Machinery Center for Trade and Investment

themselves from being "hollowed out" (as industry migrates to China) and ensuring geographical advantages among other nations in order to induce foreign companies to build factories there. For ASEAN countries, some of the main issues currently exercising their minds are as follows. First, how to exploit the advantages of the massive market of half a billion people resulting from the realization of the ASEAN Free Trade Area (AFTA). Second, how to smooth customs clearance and distribution so as to unify the region as a single manufacturing area extending from high-tech Singapore to labor-intensive Indonesia and Vietnam. Third, there is the long-standing need to further intensify efforts to develop human resources and lower-tier supporting industries. Fourth, structural reform must be promoted, including the area of non-performing loans (NPLs); politics and labor issues must be stabilized; and local advantages strengthened to create a "risk hedge base" against China. The rise of China's industries has spurred structural reform and economic integration in the ASEAN nations through pressure to compete with China.

In November of last year, China and ASEAN announced an agreement to start talks aimed at forming a free trade agreement, causing a major shock to those affected. When the same idea

was publicly floated two years ago, everyone seemed to regard it as an unrealistic proposal as they thought ASEAN would refuse to go along. But one year later, with the rise of Chinese industries and expansion of China's markets, ASEAN as a whole (though the reaction differed from country to country) seems to have begun taking a more positive stance. From that time on, ASEAN changed from viewing China simply as a threat to seeing it as an opportunity for boosting their own capacity for growth by utilizing China's expansion through economic alliances with China.

Issues for Japan

At the current point in time, Japan, which is of course at a different stage of development than China, is not threatened to the extent that the ASEAN countries are by China's efforts to catch up. The capital stock of Japan's economy, its levels of technology, levels of consumption and other measures of development are still at the top in Asia, and the gap with China is still clearly wide. However, the speed of China's industrial development, the intensity of the domestic competition that is driving it forward and the scale of the potential of China's human resources are not to be taken lightly. In

fact, Japan would do well to consider itself as facing the same kinds of problems with China that the ASEAN countries do.

While deftly using China as an assembly base, Japan is faced with the need to constantly maintain its local advantage in Asia in a number of ways. For example, first, Japan is a consumption-type production base for high-added value goods for a market of 120 million Japanese consumers. Second, Japan is a supply base for high-tech devices, high-quality materials and "mother machines," all areas where China's industry is still weak. And third, Japan is a starting point for R&D, new products and new businesses in Asia. In regard to Japan's position, several policy issues can be identified. The first of these is the need for systemic reforms to smooth the regulatory reform and business restructuring that will help reduce service costs and costs in infrastructural areas such as energy, distribution, communications and the tax system. The second policy issue is the need to strengthen Japan's R&D system, including a thorough-going reinforcement of industry-university collaboration in an effort to spawn new businesses. Japan needs to entrench the protection of intellectual property rights, develop an entrepreneurial environment, promote the right environment for encouraging foreign investment, and accept foreign technical personnel and business entrepreneurs. The third is the need to examine how to properly bring foreign labor into Japan so that Japan will be assured of maintaining some of its vital assembly industry in such areas as automobiles and electronics, which serve as a base for the development of new products. The fourth policy issue is the need to build a zone of economic cooperation that will allow business to be conducted seamlessly throughout East Asia.

These issues, are not, of course, new ones. Some of Japan's systems are being steadily refined every year, though the degree of refinement depends on the field. The main issue, however, is speed. To respond to China, whose power is rising rapidly, it

is vital that the speed of the reforms be accelerated.

What I felt most strongly during my three years on the ground in China and Asia was that China is a competitive country. Among workers, companies and regions, China is surely a competitive society that would hardly balk at pecking the eyes out of its prey. To compete with such a competitive country, Japan must accelerate its reforms, become more open, and move to work much more on the principle of competition.

Is China a Threat, or Will It Collapse?

If you look at the most recent books on the bookshelves of Japan, you will come across a variety of opinions on China, ranging from those who see China as a threat and those who feel it will disintegrate and collapse by itself. Which assessment is true? I feel that neither is quite accurate.

First of all, while this paper might convey the impression that China represents a threat, this is not my intention. I believe we should look at the actual state of China's rapidly growing industry, and calmly reflect on how Asia – as well as Japan and Japanese companies – must change and how they can utilize the production and growth capacity of China's industries. The immoderate "threat" theory leads to hostility and should be avoided.

On the other hand, China's economy actually suffers from a range of obstructive problems. These include the problem of the state-owned enterprises, a NPL problem, a fiscal deficit, the economic disparity between the coastal regions and inland areas, environmental and water problems, and the contradiction between a market economy and a political system of one-party rule. And is the power of the Chinese economy resting on this frail base also frail itself? Are the warnings about China's industry based on groundless fears? While there is no space left here to express opinions on China's individual problems, basically I believe that it is possible to support both the optimists

and pessimists on the future of China. Assuming that this is so, from the viewpoint of industry and industrial policy at least, strategies should surely be based on the premise that China's economy will perform well. It is surely dangerous to create a strategy premised on the failure of one's competitor and to fall into a sort of cessation of thought by kidding oneself that "everything is still OK."

Some point out that, if we remember that China's industry also includes the existence of hundreds of thousands of inefficient state-owned enterprises and township and village enterprises, the average competitiveness of its industry remains very low. They also say that, although China's investment environment has improved, this only applies to a small part of the coastal regions, while the investment environment in the interior remains poor. Therefore, the thinking goes, China's industry and its local competitiveness have not yet reached the stage where they pose a threat. I agree that the average values are still low, and it is a fact that there's no end to looking at China's lowest values. What is important for Japanese companies and Japan's industrial policy is, however, not average values but who their competitors (allies) are, and where they should locate their operations. We should not close our eyes to the fact that it is the hundreds and thousands of expanding companies in China's coastal regions, and the groups of "Made in China" goods and services being created there that are so clearly redrawing the industrial map of Asia, and they are raising major issues in Asia and Japan. **UJI**

(All the views expressed in this paper are those of the author.)

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