

## 4-2-3

# Developing Leading Export Industries

## — Garment and Textile Industry —

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### 1. The Structure of Viet Nam's Textile and Garment Industry

#### (1) Comparative Advantage in the Garment Sector

The textile and garment industry is already an important export industry for Viet Nam. In 1995, the industry produced 94,000 tons of textile fiber, 345 million square meters of fabrics, 45 million pieces of knitwear and 400 million garments. Exports in the same year amounted to US\$800 million.

The textile and garment industry is usually divided into up-stream, mid-stream and down-stream sectors. The upstream sector is basically involved in textile fiber production, the mid-stream sector in fabric production and dyeing, while the down-stream sector basically revolves around garment manufacturing. The textile industry is comprised of the up-stream and mid-stream sector.

Viet Nam's textile and garment industry has a strong bias towards the garment sector in terms of export. There has been a sharp increase in textile and garment exports in the 1990s, with garments accounting for the lion's share of exports (Table 1). For example, according to Japanese statistics, Japanese imports of garments from Viet Nam accounted for 83.1% of total textile and garment imports from Viet Nam to Japan during the first half of 1996, while the comparable figure for fibers and fabrics was only 2.1%.

Table 1 Export commodities of textile industry of Viet Nam (US\$1,000)

	1991	1992	1993	1994	1995
Silk	5,348	1,593	4,911	9,380	4,915
Cotton				2,336	3,368
Synthetic fibers for spinning	8,354	1,631	353	4,465	4,533
Wool and other animal hair	1	14		8,892	4,533
Textile yarn and thread	159		1,097	6,805	16,742
Cotton fabrics			451	2,116	1,581
Fabrics, woven of man-made materials	3,790	7,630	4,443	4,494	39,468
Other textile fabrics, woven			900	2,257	4,358
Tulle, lace, embroidery, ribbon and trimming etc.			11	9,342	13,361
Vegetable textile fibers			10	4,204	3,980
Made-up textile fibers	17,033	10,892	22,093	8,947	48,710
Ready made clothes	116,800	190,200	238,800	475,600	700,000

Source DSI

The garment sector is very labor-intensive, and this gives Viet Nam a strong advantage because of its low-cost, industrious and skillful labor force. A Japanese trading firm recently ranked Viet Nam top, followed by northern China and then southern China in terms of their respective capabilities in the garment manufacturing industry.

Moreover, foreign enterprises have provided the necessary materials, design, and overseas marketing capabilities, which Viet Nam lacks, mostly by way of subcontracting arrangements. The majority of garment exports from Viet Nam occur through subcontracting agreements between Vietnamese producers and foreign partners - mainly from Taiwan, Korea and Japan - who provide design and marketing functions as well as most of the materials, such as fabrics of the necessary quality which Viet Nam's textile industry cannot supply. Viet Nam still lacks qualified line managers who can perform quality and production management, and offer technological guidance. There is also a shortage of managers who are conversant with the market economy.

Viet Nam's rising garment exports in the 1990s have been helped by trade liberalization measures. Viet Nam's current trade is basically controlled using four kinds of measures: (1) export and import prohibitions; (2) export and import quotas; (3) export and import restrictions; and (4) import duties. The textile and garment industry is affected by the last three.

Export quotas are applied to textile and garment exports to the EU, Norway and Canada. Quotas are managed by the government (the Ministry of Trade) and state-owned enterprises receive preferential allocations. Thus, private and foreign firms wishing to produce garments in Viet Nam for the export market need to tie up with state-owned enterprises. As far as import restrictions are concerned, the import of used textile machines is restricted, subject to certain conditions. Import tariff rates for the main textile items in Viet Nam are as follows:

Cotton fiber:	20%	Man-made filament:	0%
Cotton fabric:	38%	Man-made staple:	20%
Synthetic staple fiber:	5%	Synthetic filament fabric:	38%
Regenerated staple fiber:	5%	Man-made filament fabric:	38%
Synthetic staple fabric:	38%	Knit fabric:	33%
Regenerated staple fabric:	40%	Garment:	48%
Non-woven fabric:	33%	Synthetic filament:	0%
Synthetic staple:	5%		

In general, there are no import duties on synthetic fiber, while those on synthetic fabric are fairly high to protect domestic producers. However, imports for the purpose of export production, such as subcontracted sewing, are generally exempted. Moreover, the government plans to reduce import tariff rates in 10 years from 1996 to 2005. Tariff rates on fibers, fabrics and garments will be reduced from 20% to 12%, 30-40% to 20% and 45-50% to 30% respectively during the period. Furthermore, tariff rates on imports from AFTA member countries will be reduced to 0-5% by the end of 2005.

## **(2) Noncompetitive Fiber and Fabric Sectors**

On the other hand, Viet Nam's fiber and fabric sectors, which are more capital-intensive, are not internationally competitive. Most of their output is used in manufacturing garments for domestic consumption, and they are generally considered unsuitable for export-oriented garment production. Viet Nam holds no comparative advantage in these sectors, and state-owned enterprises, which dominate this sector, lack the managerial, technological, marketing and financial capabilities necessary to attain international competitiveness. Although there is some private sector participation, particularly

in the garment sector, Viet Nam's textile and garment industry is still dominated by the state sector (Table 2). VINATEX, which controls most of the state enterprises in this sector and also fulfills planning functions for the industry, produces 80% of fibers, 60-65% of fabrics and 50% of garments. It also accounts for 40% of Viet Nam's total textile and garment exports.

This is similar to the situation in China, where state-owned textile companies have serious management problems at the same time as some parts of China's textile industry are healthy and growing rapidly - particularly some of the township and village enterprises that have been given freedom of action in management and have improved their production efficiency and marketing savvy. Long accustomed to working under the directives of the central government, state enterprises in China cannot identify the reasons for their poor production efficiency, much less take corrective action.

Part of the weakness of the Vietnamese textile sector stems from obsolete equipment. Since most machines used in the fiber and fabric plants are more than 20 years old and not automated, they are too inefficient to produce quality products. In fact, one Japanese synthetic fiber manufacture found out in its feasibility study that the quality of its fiber was too good to be used in Viet Nam's fabric plants, which were equipped with obsolete machines.

Table 2 Composition of textile and garment establishments by ownership (early 1997)

	Domestic enterprises	Joint ventures and 100% foreign owned
Textile industry:	487	51
State owned	106	
Cooperatives	298	
Private	83	
Garment industry:	514	88
State owned	92	
Limited companies	274	
Private	96	
Joint stock companies and cooperatives	14	

Source DSI

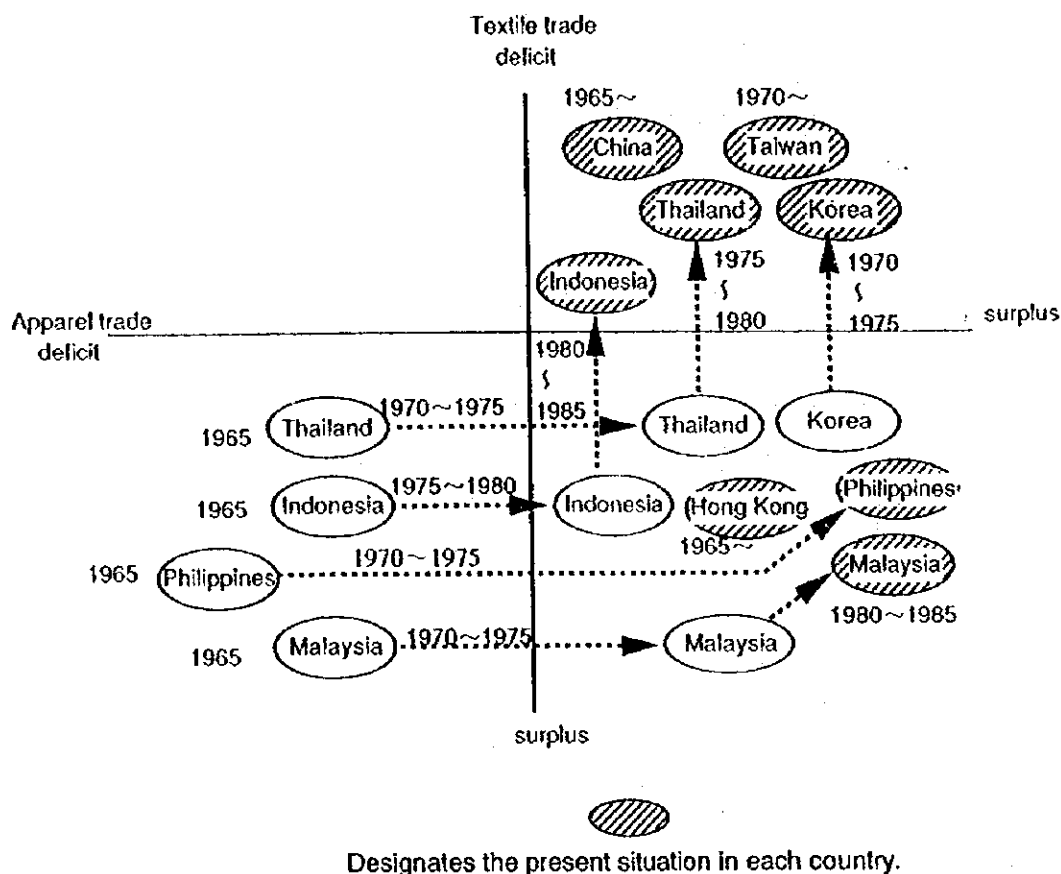
However, since 1992, many enterprises have started to equip their plants with new machines, and fiber qualities have improved to some extent. Moreover, a limited number of state enterprises seem to be developing integrated production capabilities, mainly to serve domestic markets and some low-end export markets. However, further consolidation and modernization will be necessary before these state enterprises (exceptions to rule) become internationally competitive.

The fabric sector has another problem in that it lacks textile finishing technologies needed to improve the appearance of cloth. Although the sector is more capital-intensive than the garment sector, it is still fairly labor-intensive, unlike the fiber production process which is essentially capital-intensive. Thus, there is a possibility that Viet Nam will become internationally competitive in the fabric sector fairly soon.

The current bias towards the garment sector within the Vietnamese textile and garment industry is very much in line with the pattern of developing textile and garment industries in East Asia, which

have typically evolved in the following way. Initially, both the garment and textile trades are in deficit. In the next stage, the garment trade moves into surplus while the textile trade remains in deficit. In the third stage, both garments and textiles move into surplus. In other words, it is natural for the linkage of the textile industry to take place, so to speak, backwards, beginning with the down-stream garment industry, which links the mid-stream fabric and up-stream fiber sectors (Chart 1).

Chart 1 The development pattern of textile trade



Source Adapted from Hirai (1991), "The Role of Textile Industry in Asian Industrialization" in Taniura, ed., "Ajia no Kougyouka no Kiseki (The Trajectory of Asian Industrialization)."

Although Viet Nam's bias towards the garment sector is very much in line with established patterns throughout East Asia, the lack of industrial inter-linkage poses a problem for the establishment of a full-fledged textile and garment industry in Viet Nam that will be able to compete with countries such as Thailand and Indonesia. Compared with its neighbours, Viet Nam has a limited variety in its supply of fabrics (Table 3). In Viet Nam, only cotton and cotton/polyester mixed fabrics are available; polyester fabric and filament are mostly imported from Taiwan, Korea, Malaysia and Indonesia. As can be seen from Tables 4 and 5, Viet Nam's textile import has been rising rapidly in tandem with the rise of textile and garment production. Local production of polyester mixed fabric, synthetic fiber and manmade knit fabric will be desirable to enhance industrial inter-linkage in Viet Nam's textile and garment industry.

Table 3 The domestic supply of types of fabric

	Thailand	Indonesia	Viet Nam	China	Korea	Taiwan
Cotton	○	○	○	○	○	○
Cotton/PE mixed	○	○	○	○	○	○
Silk				○	○	
Wool				○		○
PE Filament	○	○		○	○	○
Synthetic fiber fabric	○	○		○	○	○
Synthetic faibre knit					○	○

Note ○=Available for local sourcing

Source Nomura Research Institute

Table 4 Textile industry imports to Viet Nam

(US\$1,000)

	1991	92	93	94	95
Cotton	61,005	11,640	20,272	35,250	82,131
T Silk				312	29,225
Synthetic fibres for spinning	65,228	38,573	79,774	125,373	183,202
Textile yarn and thread	11,635			2,422	1,008
Cotton fabrics, woven				1,866	8,838
Fabrics, woven of man-made material	32,241	24,386	50,741	59,556	97,226
Other textile fabrics, woven			144	1,742	11,182
Knitted or crocheted fabrics					2,417
Wool and other animal hair	1,002	1,399	1,516	10,189	14,714

Source DSI

Table 5 Imported textile yarn, fiber by country (1991-95)

(US\$1,000)

	1991	92	93	94	95
Taiwan	10,295	13,197	37,916	52,978	82,715
Malaysia		1,372	6,818	19,190	38,363
Korea, Rep. of	573	991	7,885	14,403	26,843
Pakistan			310	3,568	8,900
Japan	818	195	8,827	6,372	6,614
Indonesia	318	339	625	2,275	6,597
American				9,092	5,908
India		526	1,897	904	4,739
China		39	3,385	2,138	3,017
Singapore	384		575	3,593	2,431

Source DSI

### (3) Successful shift of export markets

Owing to low income levels, per capita consumption of textile products in Viet Nam is still very low - estimated to be 2.7 kg in 1995 (Table 6). Based on the statistical relationship between income levels and the textile consumption as shown in Chart 2, we have made simple calculations to estimate textile consumption in the years 2000 and 2010 as shown in Table 7. The estimated consumption of about 770,000 tons in 2010 is a little lower than Indonesia's 838,000 tons in 1995. It takes time for a domestic market to make a significant impact, and for the foreseeable future the textile and garment industry will be characterized as an export industry endowed with comparative advantages. According to VINATEX, 60% of the current production of Viet Nam's garment industry is for subcontracted export and 40% for domestic consumption.

Viet Nam's textile and garment industry - the garment sector in particular - has successfully shifted from its traditional CMEA markets to western markets after the collapse of the CMEA in the early 1990s. Viet Nam's garment and textile exports increased rapidly in the 1990s and are now the second largest export category after petroleum. The reasons behind this sharp increase in exports are: (1) trade liberalization and (2) FDI and subcontracting arrangements by foreign firms and the participation of private enterprises. The current main market is the EU, which is subject to quotas, but exports to the non-quota markets of Japan, Taiwan and Korea are growing rapidly. Since Viet Nam has not yet been given MFN status by the U.S., the access of the Vietnamese textile and garment industry to U.S. markets is still very limited. However, it is expected that this situation will change together with its accession to the WTO within a few years. This should lead to a substantial increase in exports.

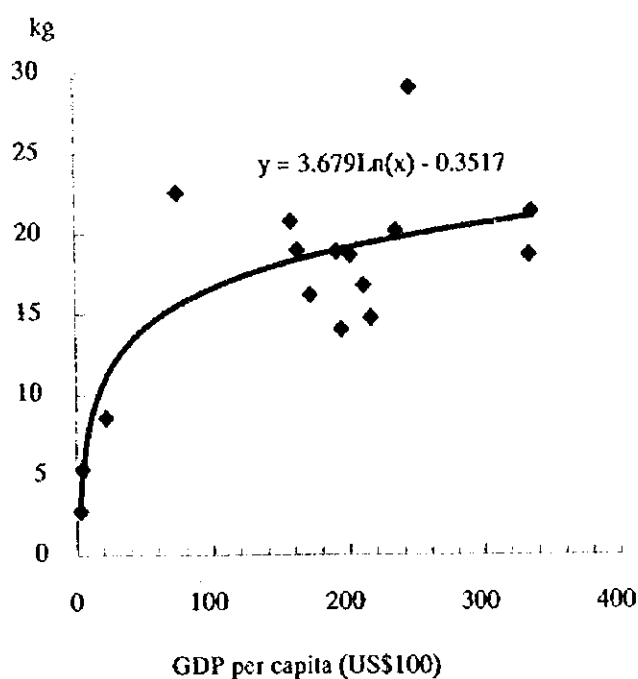
Table 6 Relationship between per capita GDP and textile consumption

Country	Per capita GDP US\$	Textile Consumption kg	Country	Per capita GDP US\$	Textile Consumption kg
Japan	33,648	21.4	Italy	17,260	16.2
US	24,626	29.1	UK	16,334	19.0
Germany	23,537	20.2	Australia	15,983	20.8
France	21,690	14.8	Korea	7,554	22.6
Sweden	21,176	16.6	Russia	2,211	8.6
Netherlands	20,210	18.7	China	455	5.4
Hong Kong	19,507	14.1	Viet Nam	274	2.7
Canada	19,186	19.9	India	266	2.8

Note The figures of Viet Nam are in 1995

Source The Association of Japanese Chemical Textile Industry (1996.11), "The Chemical Textile Industry in Japan."

Chart 2 Estimated textile consumption per capita



Source Nomura Research Institute

Table 7 Estimated volume of textile consumption in Viet Nam

	1995	2000	2010
Per capita GDP (US\$)	274	403	869
Per capita textile consumption (kg)	2.7	4.8	7.6
Population (million)	74.0	82.1	101.1
Textile consumption (1,000 tons)	199.8	391.8	768.5

Source Nomura Research Institute

#### (4) Increasing Role of Foreign Direct Investment

As the capability of domestic firms is still limited, foreign direct investment (FDI), including subcontract arrangements, have played an increasingly crucial role in the development of the textiles industry. Since the promulgation of the Foreign Investment Law in 1987, 118 textile projects have been approved, 43 of which are in the yarn spinning and weaving areas and 75 of which are in the garment and related areas. Foreign firms have already come to occupy a substantial slice of Viet Nam's textile and garment industry (Table 8).

FDI in the textile and garment industry in Viet Nam has come mostly from Korea, Taiwan, Hong Kong and Singapore. Japanese investments are concentrated in the garment sector. There are some investments from Taiwan and Korea in integrated processing from fabric to garment. There are two projects in polyester fiber production, one by Hualon, a Taiwanese subsidiary in Malaysia, and the other by Sumsung and Cheil Synthetics, a Korean investor. However, construction for these projects has not yet started.

Table 8 Designed capacity of textile and garment industry

	Unit	Total	Of which	
			State and private enterprises	Joint ventures and 100% foreign owned capital
Fiber PHS	ton	167,400	-	167,400
Silk Filament	ton	136,290	-	136,290
Fiber (including cotton fiber and Pe/co fiber)	ton	150,300	72,000	78,300
Fabrics	Mil. m.	800	380	420
Knitting	ton	32,000	20,000	15,500
Mosquitonet	Mil. pcs.	4,000	3,300	700
Socks	ton	10	9.1	0.9
Towels	Mil.	26,000	18,800	7,200

Source Vinatex

## 2. Development Patterns of East Asian Textile Industries

ASEAN countries and China went through a development phase of import substitution centered on fabrication of spun yarns before moving to a phase of garment export promotion. Subsequently, industrial linkages have been formed to export synthetic filament-based fabrics. We will review the development patterns of the textile industries in Thailand and China.

### (1) Development patterns of the Thai textile and garment industry

The Thai government promoted state-owned textile enterprises under the Industrial Promotion Act of 1954, but this did not produce satisfactory results. Then, the Manufacturing Promotion Act of 1960 emphasized the role of the private sector in industrialization. The government gave the Board of Investment (BOI) the authority to provide tax incentives, while the government concentrated its efforts on improving the infrastructure in such areas as telecommunication and ports. The textile industry was given top priority. In response, Japanese joint ventures started to produce cotton yarns and cotton fabrics initially, and in 1964 a Japanese manufacturer started to produce synthetic fibers, initially for the purpose of import substitution.

In 1972, the Manufacturing Promotion Act was amended to change the emphasis from import substitution to export promotion. Accompanying measures, such as the strengthening of the BOI's authority, increases in tax incentives, the promotion of labor-intensive industries, and the development of industrial parks and export processing zones had a positive impact on the textile and garment industry. Exports were increased by obtaining quotas after Thailand became a signatory to the Multilateral Fiber Agreement (MFA) in 1976. During the period of the Fifth Five-year Economic Development Plan (1982 to 1986), which improved benefits to labor-intensive export-oriented industries, garment exports expanded dramatically, mainly to the quota markets, with exports to the US and EC accounting for 70% of total exports. The garment industry consisted mainly of joint ventures with Taiwanese firms.

In 1987, textiles and garments topped the export list with US\$1.94 billion, with garment exports accounting for 75%. Exports continued to expand, reaching US\$ 2.4 billion in 1991, but then started to slow down. During the high growth period, Thailand's share in the quota markets declined, while exports to non-quota markets such as Japan, Saudi Arabia, UAE, Singapore, Hong Kong and Australia expanded rapidly. In 1993, Thai exports of textile and garment products to non-quota markets accounted for 56% of the total compared to 44% to quota-markets.



The Thai textile and garment industry seems to have entered a restructuring period because the structural inadequacies have become apparent on top of the pressure from rising wage levels. Strict environmental regulations have put a halt to investments in the dyeing sector, and the garment sector lacks quality fabrics for input. Moreover, many fabrics have been exported unfinished.

## **(2) Development Pattern of the Chinese Textile Industry**

During the 1970s, before the external liberalization in 1979, the Chinese textile and garment industry focused on import substitution of cotton fabrics mainly by state-owned enterprises. They produced low grade products.

From 1979 until 1990, the industry developed rapidly, centered on contractual manufacturing arrangements of garments. The new foreign enterprise law prompted investments by Hong Kong and Taiwan investors in the production of mixed cotton and synthetic fiber fabrics and garments. The amendment of the foreign investment law in 1988 prompted investments in Shanghai and Dalian by Japanese small- and medium-sized firms and trading firms, mostly in the form of contractual manufacturing with township and village enterprises.

As the amendment to the foreign capital law in 1991 allowed foreign nationals to head joint ventures and extended the life of joint ventures to 50 to 70 years from the previous 10 to 15 years, JV investments by Japanese investors, including synthetic fiber producers, increased. These investments in synthetic fabrics and fibers were stimulated by the preceding investments in the garment sector. These investments led to an increase in Chinese exports of synthetic yarns and fabrics, and garments.

Another characteristic of the development pattern of the Chinese textile and garment industry is that the development is taking place through the formation of major concentrated areas of textile and garment production and distribution, e.g., cotton production in Jiangsu and Shandong provinces, synthetic fiber and fabric production in Nantong in Jiangsu province and Hanzhou in Zhejiang province, the distribution center in Shanghai, and garment production in Guangdong and Fujian provinces, Shanghai and the area along the Yantze River and Dalian.

## **3. To Take Advantage of the Relocation Trend of East Asian Textile and Garment Industry**

### **(1) Major Phase of Relocation**

As Viet Nam is starting from a very weak competitive position in the up-stream and mid-stream sectors of the textile and garment industry, increasing vertical integration of the industry is generally believed to be achievable only by active utilization of FDI in these sectors. FDI has been a driving force in the development of the textile and garment export industry in Southeast Asia and China. Essentially, products produced by local makers alone only reach local markets and cannot be exported to markets in developed countries. In view of increasingly internationalized industrialization in East Asia, the FDI strategy needs to be adapted to developments in neighboring countries.

FDI by the Japanese textile industry started in the 1950s as it sought raw materials, followed by another wave of investment in the 1970s to meet import substitution policy requirements. Japanese investments in Indonesia and Thailand started in this period.

Since the collapse of the Berlin Wall, the textile and garment industry has moved through a major phase of international relocation as a vast pool of cheap labor in the planned economies of China and Eastern Europe entered the market economy. Moreover, a strong tide of trade and investment liberalization, including the phasing out of the MFA (to be integrated into the WTO system) and liberalization under AFTA/CEPT, is expected to accelerate this relocation process.

In the 1990s, the bulk of Japanese investments have been made in the garment sector in China, while

additional investments have been made to expand existing facilities in Indonesia and Thailand. There have been many Japanese investments in the garment sector in China, mainly through joint ventures by apparel manufactures for the purpose of exporting back to Japan. There has been a major shift of investments by Japanese apparel manufactures to China.

Existing Japanese investments worldwide total 806, with the garment sector accounting for 507, or 63%, followed by the textile sector at 126, or 16%, the dyeing sector at 49, or 6%, and the fiber sector at 33, or 4% according to statistics compiled by the Japan Chemical Fibers Association. Investments in China numbered 543, accounting for 67%, followed by 74 projects, or 9%, in Thailand and 60 projects, or 7%, in Indonesia. Moreover, international diversification of Japanese synthetic fiber manufactures is shown in Table 9.

In garment manufacturing, the cost of making the fabric - the fiber and the weaving, dyeing and other converting work that is to be done - is much less than the cost of sewing the fabric into the final piece of clothing, which is labor-intensive and hence expensive. For these reasons, China, Viet Nam and other Asian countries with low labor costs have been doing a booming business in recent years in importing finished fabric and sewing it into finished garments for export to the industrial nations. The Japanese market has become the target of choice for these exports, because, unlike the United States and other industrial nations, Japan does not impose restrictions on garment imports. A growing volume of Japan's apparel product imports are coming from Japanese apparel companies that have long performed their sewing operations domestically but have now moved some or all of these operations offshore.

Japanese apparel manufacturers in China generally source only 20~30% of cloth and other materials locally, because the planning and designing are generally done in Japan and those planners and designers tend to specify cloth and materials from Japan, Italy and Taiwan. However, local sourcing is expected to increase as Japanese synthetic fiber and fabric manufacturers have started to invest in China.

Table 9 Number of foreign investment projects of synthetic fiber manufacturers by area

	Fiber Manufacturing	Spinning of Yarn	Processing of Yarn	Dyeing of Yarn	Textile Manufacture	Knitting of Textiles	Dyeing of Textiles	Sewing	Others	Miscellaneous	Total
Indonesia	3	6	2	3	3	5	2	1			25
Thailand	4	2			4	1	4		1		16
Malaysia	1	3			3		2		1		9
Singapore	3	1			1		1	1			8
South Korea		1			1	2	3				7
Hong Kong		2			3	2	6	1			14
China	1	3	1	2							7
Other Asian countries	12	18	3	5	15	10	18	3	3		87
USA										1	1
Latin America		3		2	1		1				7
Europe	2	1			3		3				9
Africa					1		1				2
Total	14	22	3	7	20	10	23	3	3	1	106

Note If manufacturers enter several business fields, each field is counted separately.

Source Boseki Geppob (April 1996)

In order to be able to export to Japan, Japanese apparel manufacturers concentrate on quality management. Testing is currently done mainly by Japanese staff, but Japanese corporations are trying to train local staff to fulfill this function. Thus, Japanese investments in the garment sector are expected to diverge into the production of high grade products and that of low-cost/low-grade products. Moreover, some Japanese apparel investments in China target not only the Japanese market but also China's domestic markets. The long term goal of Japanese apparel investments in China is to expand the local functions to planning and designing and to simultaneously cultivate the domestic Chinese market.

In ASEAN, rising wage levels in the more advanced countries such as Malaysia and Thailand have shifted comparative advantages in labor intensive sectors of the garment and textile industry in East Asia to latecomers such as Viet Nam. Following on from investment in the garment sector, relatively labor-intensive production of fabric and dyeing processes are likely to move from countries such as Thailand to countries such as Viet Nam. On the other hand, capital intensive production of fiber is likely to concentrate in existing production bases in Taiwan and Korea in East Asia as a whole and in Indonesia and Thailand in ASEAN under the liberalized trade regime. Liberalization under AFTA/CEPT will accelerate the process of division of labor in ASEAN.

In the more capital intensive synthetic fiber sector, Taiwan and Korea have become major supply centers in Asia, replacing Japan which has lost competitiveness, partly due to its rapid currency appreciation. Taiwan and Korea are the world's biggest and third-biggest producers of polyester fiber, respectively. Given their small domestic markets for polyester fiber, producers in Taiwan and Korea depend heavily on their exports to China. Taiwan has been successful in its strategy of volume supply of general-purpose products by pursuing economies of scale (Table 10). Although production efficiency is higher in Japan than in Taiwan, production costs are lower in Taiwan than in Japan.

Table 10 Polyester fiber production by major country and region

<Polyester Fiber Filament> (1000 t)							
	1975	Share	1980	1985	1990	1995	Share
Japan	199	12 %	305	329	405	432	7 %
U.S.A.	662	40 %	663	599	502	724	11 %
Eastern Europe	361	22 %	359	451	544	493	8 %
Taiwan	86	5 %	156	372	676	1,228	19 %
Korea	62	4 %	137	275	474	946	15 %
China	0	0 %	28	73	420	931	15 %
ASEAN	15	1 %	74	95	212	585	9 %
World Total	1,641	100 %	2,094	2,763	3,978	6,386	100 %

<Polyester Fiber Staple> (1000 t)							
	1975	Share	1980	1985	1990	1995	Share
Japan	246	14 %	321	323	311	311	6 %
U.S.A.	696	40 %	1,146	917	948	1,084	19 %
Eastern Europe	321	19 %	407	466	557	492	9 %
Taiwan	55	3 %	194	381	622	748	13 %
Korea	46	3 %	141	234	408	454	8 %
China	0	0 %	113	443	622	828	15 %
ASEAN	29	2 %	154	181	259	525	9 %
World Total	1,725	100 %	3,033	3,739	4,700	5,572	100 %

Note Polyester, nylon and other synthetic fibers are produced in two basic varieties, either in a continuous form known as "filament" or in short lengths known as "staple." These two varieties yield different textures and feel, depending on the spinning, weaving and other processes that are subsequently performed on the fiber.

Source Fiber Organon

Taiwanese manufacturers, whose management are also equity holders themselves, are able to make investment decisions more quickly than Japanese firms, which are managed by salaried managers. This is an important competitive advantage in responding to fluid market conditions. The slow speed of decision-making in Japanese companies is a problem that needs to be addressed. Taiwanese producers of synthetic fiber are quick in implementing decisions to expand capacity, and their new facilities usually come on line faster than those of Japanese producers, who like to take time for internal consensus building.

However, Japanese manufacturers located in such ASEAN countries as Indonesia and Thailand have become more competitive as the local supply of chemical materials has increased. Taking Indonesia as 100, the estimated costs of producing one kilogram of identical polyester filament yarn in dollar terms in 1995 was 120 to 130 in Thailand, 180 to 190 in Taiwan, 200 to 210 in South Korea and over 350 in Japan. Thus, Indonesia and Thailand have become major production bases for Japanese synthetic fiber manufacturers, particularly Teijin and Toray Industries, which have the most extensive facilities in the region and historically have been the leaders in these markets (Table 11).

Table 11 Teijin and Toray Industries's upstream operations in Asia

	Country	Local subsidiary	Products	Local capacity	% of capacity in Japan
Teijin	Thailand	Teijin Polyeste (Thailand) Ltd.	Polyester filament and staple	Polyester filament: 300 tons/day	80%
		Teijin (Thailand) Ltd.	Polyester filament		
	Indonesia	PT Teijin Indonesia Fiber Corp.	Polyester filament and staple	staple: 422	155%
Toray Industries	Malaysia	Penfibre Sdn.Berha,	Polyester staple	Polyester filament: 111 tons/day	33%
		Toray Nylon Thai Co.	Polyester filament		
	Thailand	Toray Fibers (Thailand) Ltd.	Nylon filament	staple: 341	151%
			Polyester filament		
Indonesia	PT Indonesia Toray Synthetics	Polyester filament and staple	Nylon filament: 80	31%	
		Nylon filament			

Source: Nomura Research Institute

The core aim of Teijin's new business strategy in synthetic fiber is to be competitive in both fibers and fabrics. Teijin is working to establish its position as a major world player in polyester fiber, and to provide a basis for steady profit growth in this business, by placing its fiber production, weaving, dyeing and marketing capabilities in the most appropriate locations.

Expansion of the fiber side of the business had hitherto been Teijin's main focus, but it has begun to build weaving and dyeing plants offshore. In 1994, it set up a dyeing venture in China which began production in 1996. In 1995, it acquired a woven fabric company in Thailand, and now it has two additional projects underway in China involving fabric and dyeing. It is also expanding its existing fiber subsidiaries in Indonesia and Thailand to improve its cost competitiveness.

Toray Industries has production bases in three Asian countries - Indonesia, Thailand and Malaysia - and is active not only in upstream production of thread and yarn but is also in the midstream operations of weaving and dyeing. The central element of Toray's strategy is that it is assembling completely integrated offshore production capabilities involving both upstream and midstream operations. Its offshore production capabilities are not only integrated locally in the host country but also linked together with production capabilities in other countries. The real strength of its global operations is that, with its various offshore facilities in fiber making, weaving and dyeing, it can assemble the most efficient production combination to meet the demands of the marketplace.

In 1995, Toray Industries created a new trading department inside its Fibers and Textiles Division which functions as a global headquarters for its worldwide fiber and textile operations. By coordinating the decisions on where all products made by the company are shipped, the department is designed to strengthen the company's global operations.

Toray plans to build both downstream and upstream facilities in China. In 1994, Toray announced it would invest 50 billion yen in an integrated fiber and fabric production facility in China, as a joint venture with Sakai Ovex, one of the largest dyeing and finishing companies in the Hokuriku region. In September 1996, the company officially announced that it would set up fiber production in Nantong with an intended start-up date of September 1998. Operation of the new production facilities in China will be coordinated with what the company is doing in other regions so as to form an integral part of Toray's global operations.

Furthermore, synthetic fiber producers in Korea, Taiwan and the other ASEAN producers have also been busy planning and setting up offshore production facilities in the region. We project that, driven largely by China's growing appetite, Asian demand for polyester fibers will continue growing at 10% per annum, while world demand should grow at 5% per annum. Producers throughout Asia are eyeing this growth and have ambitious plans to expand their polyester capacity. What is impressive about the

new plants built by the Korean, Taiwanese and ASEAN producers is their enormous scale. These new facilities are so large that when they come on line they will completely upset the supply-demand balance of the local markets.

In setting up offshore production, Korean or Taiwanese companies rarely undertake marketing studies. Their strategy is to get the new plant up and running as quickly as possible in order to go after the customers of other producers, often using discounted prices to gain entry. Japanese plants in Indonesia and Thailand are now hard at work trying to fend off the local marketing offensives of new plants built by Taiwanese and Korean producers.

Some European and American producers are preparing to follow up their ASEAN production bases by developing operations in China, India and even Pakistan (Table 12).

Table 12 Major foreign companies setting up synthetic fiber production in Asia

Location	Indonesia	Malaysia	Thailand	China	India	Pakistan
Teijin (Japan)	○		○	○		
Toray Industries (Japan)	○	○	○	○		
Du Pont (U.S.)				△	△	
Hoechst Celanese (Germany)				△	△	
ICI (U.K.)					○	○
Akso (Netherlands)					○	
Allied Signal (U.S.)				△		
BASF (Germany)				△		
Monsanto (Italy)			○			
Rhone-Poulenc (France)				△		
Hualon (Taiwan)		○				
Tuntex Distinct (Taiwan)			○	○		
Far Eastern Textile (Taiwan)				△		
Sunkyong Industries (Korea)	○					
Sam Yang (Korea)						○

Notes ○=Already in operation; △= in planning

Source Nomura Research Institute, from Japan Chemical Fibers Association and other data.

Led by Japanese firms, Thailand, Indonesia and Japan have been pursuing a strategy of producing high quality garments and fabrics by integrating the up-, mid- and down-stream sectors. Korea has been pursuing a combination of the Taiwan type and the Japan, Thailand and Indonesia type strategy.

The textile and garment industry in ASEAN will be affected by the trade liberalization trend, from the gradual abolition of quotas through the incorporation of the MFA to the WTO framework, and the regional liberalization through AFTA. The basic consequence of trade liberalization will be that production bases will shift to where comparative advantage lies. The effect of the abolition of the MFA will be felt globally and the effect of AFTA will be more regional.

Looking toward the next century, the single largest phenomenon on the East Asian textile scene is the emergence of China as a major producer and market of garment and textile products. Currently, Taiwanese manufacturers export a large quantity of polyester fiber products to China, mainly to Taiwanese investments in the fabric sector in China. The Chinese garment market will become huge, and China will probably become a net importer of garment and textile products. The potential of the East Asian garment and textile producers will be determined by how they will be able to position themselves as exporters to the Chinese market.

## **(2) Implications to Viet Nam's FDI policy in the textile and garment industry**

Thus, the priorities of Viet Nam's garment and textile industry are to strengthen linkages with other ASEAN countries in the medium term and to position itself to supply the Chinese market in the long term. In fact, some Japanese investments in ASEAN in the 1990s have been made to increase the globalization of operations by expanding their production facilities and networks and to establish a bridgehead to cultivate the Chinese markets through coordination with their garment operations in China.

The position of Viet Nam's garment and textile industry, which has comparative advantages in the labor-intensive garment and fabric sectors and has comparative disadvantages in the capital-intensive fiber sector, is as follows:

- 1) Production of labor-intensive garments and fabrics from countries such as Thailand and Malaysia will continue to shift to Viet Nam.
- 2) Production of capital-intensive fiber will concentrate in existing production bases in Taiwan and Korea in East Asia as a whole and in Indonesia and Thailand in ASEAN. Whether such concentration will occur primarily in East Asia as a whole or in ASEAN will depend on the difference in the speed of reduction in internal and external tariffs.
- 3) MNCs have increasingly pursued regional and global networking strategies, and how to supply and integrate China has become a key element of their strategies, including ASEAN strategies.

## **4. Scenarios for Upgrading the Vietnamese Textile Industry**

There are basically three scenarios for the ultimate structure of the Vietnamese textile industry around the year 2020.

### **1) Specialization in the down-stream (garment) sector - the Hong Kong model**

Viet Nam concentrates its resources to become a world-class garment headquarters by upgrading the existing garment industry through expanding production and improving quality. In accordance with the development of the domestic fashion market, Viet Nam improves its planning and design functions. The domestic distribution market expands by becoming more sophisticated, drawing in overseas fashion information.

### **2) Volume production of fiber and fabric products - the Taiwan model**

The Vietnamese textile industry concentrates on the production of a small number of synthetic fiber and fabric products by investing heavily in capital intensive fiber production facilities to achieve volume production. It should be noted that Taiwan has also developed a capable garment industry with the entrepreneurial private sector.

### **3) Quality orientation by enhancing backward integration to mid- and up-stream sectors - the Japan, Indonesia and Thailand model**

Viet Nam strives for a quality-oriented integrated textile and garment industry. The integrated production process produces quality products on the strength of the availability of differentiated quality materials. The mechanism to manage low-volume production of a variety of products develops in the textile industry as a whole. The result: an increasing division of labor among production processes, the development of small- and medium sized businesses, specialized production areas with unique products and strengthened new technology and product development.



## 5. Policy Options for the Development of the Textile and Garment Industry in Viet Nam

Since Viet Nam's domestic market for garment products is limited and Viet Nam's garment sector currently holds strong comparative advantages thanks to the cost and quality of its labor, the textile and garment industry needs to develop as an export-oriented industry. In the increasingly liberal trade environment of the region, it is probably impossible for Viet Nam to pursue the Taiwan-style volume production of synthetic fiber and fabrics discussed in the preceding section. Viet Nam will have to pursue a development strategy more biased towards the down-stream sector than other East Asian countries have pursued in the past. On the other hand, the purely down-stream-oriented strategy - Hong Kong style - does not seem to be practical for Viet Nam, as it requires a much more open and efficient trading system as well as a certain degree of wealth accumulation. This means that Viet Nam will have to pursue the combination of scenarios 2) and 3) presented in the preceding section.

### (1) Policy options for making Viet Nam a fashion center

The garment sector is the basis on which Viet Nam's textile center will develop by increasing backward integration. Since it will be difficult to develop the up-stream sector through infant industry protection, strengthening the down-stream sector is essential. The garment sector has been expanding by means of subcontracting activities. Thus, the value added ratio of Viet Nam's textile and garment industry remains frustratingly low for the Vietnamese. However, it should be pointed out that the low value-added ratio itself is not a problem as long as the total added value expands. If Viet Nam refuses to utilize this possibility, its garment exports will be less than could be attained otherwise. The real problems may be (1) that Viet Nam may not be able to achieve its full export potential for garments because of the lack of domestically available cheap quality materials and that (2) its garment industry may not be able to generate enough profits because of the lack of managerial expertise. Overcoming these difficulties will help Vietnamese workers and enterprises accumulate the experience on which future developments can build.

At the same time, it is necessary to undertake the following measures in order to upgrade Viet Nam's garment industry and enhance its long-term viability.

- 1) Development of transportation infrastructure such as upgrading port facilities and speeding up of custom clearance
- 2) Support for access to overseas markets
- 3) Establishment and support of design centers
- 4) Liberalization and modernization of domestic distribution system, state enterprise reform, liberalization of private sector activities
- 5) Development of entrepreneurial and modern enterprises with the planning, designing and marketing functions
- 6) Development of modern system of sourcing the best materials regionally and globally

In order to cultivate the Japanese apparel market, Viet Nam needs to improve its transportation infrastructure, as the Japanese market requires very quick responses to changing market trends. Currently, it takes about a month to ship materials from Japan to Viet Nam, about a week or two for customs clearance, about two months for garment production and about three weeks for shipment from Viet Nam to Japan. The organization capabilities (both inside the firm and also with outside suppliers) are key to establishing a quick response system. Moreover, the maintenance of product quality is a vital factor in cultivating the Japanese market. Technology transfer through contract manufacturing arrangements or FDIs is beneficial.

VINATEX is said to have established a fashion institute for improving design capabilities. These measures will have to be taken with a long term perspective because design capability tends to develop as the income level of the population rises. It is said that Thailand started to promote original designs six to seven years ago, but real momentum came only recently with the establishment of a state Textile Institute.

Original design capability usually develops within the context of the apparel manufacturers' interaction with the domestic market. Therefore, the development of domestic distribution channels with active participation from the private sector is crucial. One way to develop the domestic distribution channels is to permit foreign enterprises to market directly in the domestic market. Another is to promote private enterprises in the wholesale and retail areas.

Moreover, it will be particularly beneficial for Viet Nam's garment industry to be able to procure high-grade materials in order to produce quality products in a timely fashion. In addition to promoting domestic trading firms in the long-run, it would be beneficial to offer a good working environment for foreign trading houses, retailers and manufactures which are developing such functions.

### **(3) Strengthening linkages between up-stream, mid-stream and down-stream sectors**

As stated previously, the basic approach to enhancing linkages in the garment and textile industries is backward integration from the down-stream sector to the mid-stream sector and then to the up-stream sector. We understand that Viet Nam's policy makers aim to increase the domestic supply of fabrics to the garment sector and expand fabric exports rapidly. However, the expansion of the fabric and fiber sectors generally occurs as a result of the expansion of garment production. The driving force of these inter-linkages is demand from downstream sectors. In East Asian countries such as Thailand and Indonesia, the fabric and fiber sectors developed initially with infant industry protection, as the capital-intensive upstream (fiber) sector is characterized by economies of scale. However, this type of policy has become more difficult to implement because of global and regional trade liberalization.

#### **1) Backward integration**

It is possible to increase the integration of the Vietnamese garment and textile industry by developing the relatively labor-intensive fabric sector based on the large demand from the most labor-intensive garment sector and then finally moving to the capital-intensive fiber sector. For example, one Japanese textile maker thinks it may transfer production of its garment, then fabrics and finally fibers from Thailand to Viet Nam. It is necessary to develop the garment sector by utilizing subcontracting arrangements, FDIs and the private sector so that the sector will generate enough demand for fabrics and fibers. Moreover, the market for textile products needs to be developed so that new entrants will be able to achieve enough sales for volume production as quickly as possible, particularly if infant industry protection is not possible.

#### **2) Temporary protection of up-stream investments if allowed**

Although backward integration based on the demand of more down-stream sectors should be the guiding principle in Viet Nam, it may become necessary to raise protective tariffs if Viet Nam decides to develop the capital-intensive fiber industry by inviting inward FDI for a limited initial period. There is a possibility that such a strategy would not be feasible because of Viet Nam's commitment to AFTA and other international trade regimes.

#### **3) Utilization of FDI**

As Viet Nam is in a very weak position in a dynamically changing and highly competitive East

Asian textile and garment industry - except in the garment sector - the future development of the industry in Viet Nam will depend on how effectively it can attract FDI.

It is reported that subcontracting to foreign firms in the garment sector will not be allowed after the year 2000. We believe that this would be a risky strategy and that subcontracting should be allowed for both domestic and foreign firms. As we stated before, the expansion of the garment sector should be the foundation for upgrading the entire textile and garment industry through backward integration. It would be dangerous to take measures to decrease incentives for foreign investment in this sector. Foreign firms have the option of investing in other countries if the investment environment of Viet Nam deteriorates. In other countries, subcontracting was a starting base for training workers and technology transfer to domestic suppliers.

As the supply of low-wage, diligent, and skillful workers is a strong incentive for relocation not only of garment production but also of fabric production, both types of investment should be encouraged as they will boost exports and also enhance linkages between the down-stream and mid-stream sectors.

Investments in capital-intensive fiber production are difficult at this stage, and should be pursued from a long-term perspective. As mentioned before, tariff protection will probably be required for a limited period to attract investments in such capital-intensive projects. For example, Indonesia provided a Japanese investment in synthetic fiber production with protection by raising the import tariff to nearly 50% for the initial period.

However, it should be recognized that such tariff protection from ASEAN competitors will become impossible according to CEPT rules under AFTA. Current tariff rates for synthetic fibers are already low and they will have to be reduced to less than 5% by January 1, 2006. By joining AFTA, Viet Nam has effectively abandoned the option of raising import duties to AFTA members for infant industry protection in the future.

In order to attract FDI in the textile and garment industry, in addition to various incentives, both physical and regulatory infrastructure should be well developed. Incentives to be offered should be more competitive than those offered by the Chinese government. Problems often cited by Japanese companies with regard to investing in Viet Nam are high land prices and the weak legal infrastructure. The development of physical infrastructure such as industrial parks and export processing zones should be pursued with the development of concentrated areas for the textile industry. In addition to HCMC and Hanoi, central Viet Nam may be a candidate because of its existing transportation infrastructure and quality labor supply.

#### **4) Technology transfer and human resource development**

Apart from modernization of equipment, the key to upgrading the Vietnamese garment and textile industry is technology transfer to domestic enterprises and human resource development. Technology transfer is most effectively done by foreign enterprises but also by individual foreign engineers. In Bandung, Indonesia, Indonesian firms in the mid-stream fabric sector are said to employ 400 to 500 retired Japanese engineers from the Hokuriku district in Japan. It is necessary to increase training in state institutions. The Vietnamese government should probably ask for official aid in this area from foreign countries.

Since foreign enterprises will offer training only if they are provided with incentives, the Viet Nam government should devise measures to provide such incentives. One way might be to purchase sets of currently used factory equipment together with the transfer of operation technologies from foreign producers, e.g., Japanese firms, which have lost competitiveness in fabric production and may be eager to sell equipment to restructure their operations. The equipment may not be brand new but perfectly operative. Moreover, those firms may be willing to transfer technology to obtain cash flow from

equipment sales for their diversification strategies.

Since foreign enterprises are most interested in establishing export capability to supply the Chinese market, the government should tailor its strategies to satisfy such desires by providing incentives and increasing industrial linkages in return for technical assistance.

## 6. Step-by-step Development Scenario of the Vietnamese Garment and Textile Industry

As we argued before, we envision essentially a gradual integration of the Vietnamese textile and garment industry backward from the downstream sector to the midstream sector and then to the upstream sector. The main driving force of such development will most probably be FDI. Therefore, Viet Nam should offer a favorable environment for such investments. As Viet Nam needs to take a development path more biased towards the down-stream sector than the path pursued by other East Asian countries in the past, it is necessary to upgrade the garment sector. In this respect, design and marketing capabilities should be developed through the activation of domestic distribution channels. A rough scenario for such step-by-step development is shown below (Table 13).

Moreover, it may be advisable, at least in the initial stage before the local supply of synthetic fibers and fabrics becomes available, to encourage the Japanese MNCs to enhance their intra-ASEAN industrial linkages between garment production in Viet Nam and fabric and fiber production in Thailand and Indonesia, in order to complement the lack of local supplies.

As state enterprises in the midstream and upstream sectors lack international competitiveness, they should be consolidated into a limited number of promising enterprises, which should be modernized. Their obsolete machinery should be replaced, but more importantly, their marketing and management will have to be strengthened with the help of foreign enterprises. In terms of cost efficiency, modernization of machinery may be achieved through the purchase of used machinery with technology transfer rather than purchasing expensive new machines. Foreign aid - in the form of sending specialists in factory management and dyeing at the time of purchase of such equipment, and sewage and other environment protecting investment when developing industrial parks - may be useful.

Table 13 Step-by-step development scenario for the Vietnamese textile and garment industry

Step	Garment	Textile
1997-2000	Attracting FDIs	Modernization of equipment
	Human resource development for factory operation	Attracting FDIs in fabric sector
2000-2005	Active use of subcontracting	Human resource development for factory operation
	Facilitating private sector participation	Management reform of STEs
	Development of distribution channels	
	Further expansion of subcontracting	Attracting investments mainly in fabric sector and some in fiber sector
2005-2010	Human resource development for designing and marketing	Facilitating private sector
	Expansion of non-subcontracting production	
	Further development of distribution channels	
	Human resource development for designing and marketing	Attracting investments in the fiber sector
Facilitating corporate linkages among up-, mid-, downstream sectors		
Integration of domestic and export markets		

Source Nomura Research Institute

4-2-4

## **Developing Leading Export Industries —The Ship Repair Industry (The Shipbuilding Industry)— To be Developed Into a New Export Industry**

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### **1. Asia's Ship Repair Industry Exploring New Industry Structure**

#### **(1) Strongly Regional Nature of Ocean-Going Ship Repair Industry**

Since the 1960s, the cartel-like "alliance" in the maritime shipping industry that set freight charges for each route has been dismantled under the initiative of the United States. As a result, the maritime shipping industry today is a highly competitive market, in which "maritime transportation service, which is now a globally uniform international commodity" is offered. Profits at maritime shipping companies are under severe pressure, and these companies' management gives top priority on securing cost competitiveness. It follows that shipbuilders and ship repair firms that serve these companies must also be very cost competitive in order to win orders.

Maritime shipping companies place the order for a new vessel with any shipbuilder around the world based on a comprehensive examination of prices, technologies, delivery dates, and so on. Meanwhile, in choosing a firm for ship repairs, they select a shipyard based on such factors as whether the vessel could be brought to the dock in a minimum number of days, the number of days required for repairs, as well as prices and technologies. One can, therefore, say that the ship repair industry, although it is international, has a very strong regional nature.

#### **(2) Competitiveness Depends on Location and Labor Costs**

Factors that determine competitiveness in the world's ship repair industry are: a) location; b) repair costs; c) reliability; and d) technological capability.

Although the above-mentioned four factors are all at work in determining the competitiveness of a ship repair yard, the most important among them is location. Shipping companies repair their ships at a yard, where it would take the least number of days, hence the least costs, to bring the ships to it. In the case of large tankers, the cost of operating a ship amounts to as much as \$80,000 (as of July 1997) per day. Therefore, the best locations to repair these tankers are Singapore and Portugal, which are close to their regular routes, and the Middle East, where they load oil.

By contrast, bulk carriers are often repaired in Japan or South Korea, the countries which import large volumes of iron ore and coal. In Asia, freighters and container ships are brought to docks in Singapore, Hong Kong, South Korea or Japan, where much of their cargo originates or is destined to.

According to the world's ship repair industry data, on average the cost breakdown is as follows: 65% for labor costs, 15% for steel products, 10% for paints and 10% for engines, navigation equipment, and loading and unloading equipment. Accounting for as much as 65%, labor costs have the greatest impact on the competitiveness of a shipyard. Because it is very difficult to automate ship repair work, locations where labor costs are low should continue to hold advantage in the future as well. Table 1 shows an international comparison of production costs and costs of steel products.

Table 1 International comparison of cost relating to ship repair

Country or Region	Cost relating to Labor US\$/Hour	Machining Cost US\$/Hour
China	12.0	2.50
Croatia	15.5	3.80
Middle East	16.0	4.50
Indonesia	16.5	4.20
Poland	21.0	3.50
Turkey	24.5	2.50
Singapore	25.0	5.00
U.K.	25.5	6.00
U.S.A.	28.0	12.00
The Mediterranean	30.0	5.50
Korea	37.5	3.50
North Europe	51.5	10.00
Scandinavia	51.5	10.00
Japan	60.0	5.50

Source: Lloyd's Shipping Economist

"Delivery time" and "quality of the service" determine reliability. Assuming that the level of reliability Japan holds is 100, Singapore's reliability is 80, and South Korea's and the Middle East's at 70, This assessment seems to represent the industry consensus.

The impact of technological capability has somewhat weakened in recent years, as the quality of newly built ships has improved dramatically. However for such vessels are automobile carriers and LNG ships, whose designs are complicated, Japan and Europe are still very competitive.

### (3) "Singapore": Asia's Ship Repair Capital

In Asia, Singapore has the best location. The country's ship repair business has its origin in the British Royal Navy bases. The industry has been developed steadily as a major industry of Singapore since the nation declared independence in 1960. At present, approximately 35 companies of various sizes are engaged in this business. In 1995, the ship repair industry in Singapore earned some US\$1.1 billion in hard currencies. This is equivalent to almost 2% of GDP. In the same year, the industry employed about 20,000 people, or approximately 1.7% of the total labor force.

Because Singapore has chronic deficits in its trade balance, the ship repair industry is vital for the nation, as it earns a steady flow of foreign currencies. In the mid-1960s, when the nation had just started to follow the path of independence, ship repairs accounted for as much as 15% of GDP and employed 12% of total labor force. As the unemployment rate in those years was as high as 10%, one can see how important the ship repair industry was for the nation.

Drawn by its favorable location, and partly in response to great efforts on the part of the government of Singapore to bring the industry to the nation, Japanese shipbuilders at around the mid-1960s began

to build “repair centers” in Singapore to repair the vessels they had built in Japan (Table 2).

Table 2 Tie-up between Japanese and Singapore Companies

Japanese Company	Year in Singapore	Singapore Company	Relation
Mitsubishi Heavy Industry	1968	Keppel	Business Tie-up
Ishikawajima - Harima	1965	Jurong Shipyard Sembawang	Minority Equity Holder Joint Owner of Jurong Shipyard
Hitachi Zosen	1970	Hitachi Zosen Singapore	70% of Equity Owned

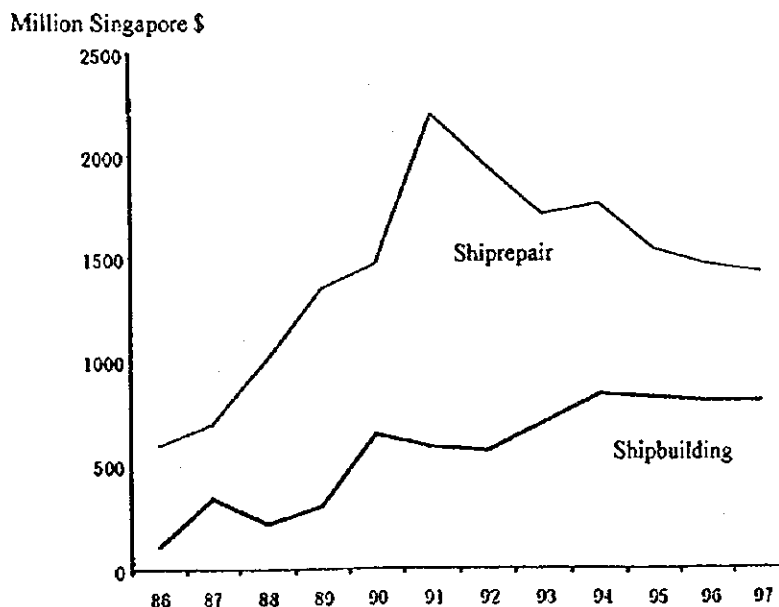
Source Nomura Research Institute

#### (4) Increasing Locations of Ship Repair Centers

In order to upgrade its industrial structure, the government of Singapore shifted its policy in 1994 to bring all existing docks to a few locations. Although the government’s aim is not to shut down companies, a decline in ship repair capacity is inevitable.

The consensus among the industry people in Singapore is that repair capacity will decline by more than 20% from the recent peak of 3,400 vessels (34 million DWT) reached in 1991 to the level of 2,500 vessels (25 million DWT), cutting the capacity by one quarter (Chart 1).

Chart 1 Resent trend in Singapore’s ship repairing and shipbuilding



Source Nomura Singapore

The industry is countering this policy by creating joint ventures or forming business tie-ups with firms in the neighboring countries, so that work with low unit prices can be assigned to them. The policy change by the government of Singapore is thus having major impact on the ship repair businesses in the neighboring countries.

Japanese shipbuilders who had established bases in Singapore early on can still use the country as a repair center by giving priority to repair work on the ships they have built. By contrast, South Korean shipbuilders do not have bridgeheads in Singapore. However, Hyundai Heavy Industries Co., Ltd., a leading shipbuilder in South Korea, noticed the advantages of Danang in Central Viet Nam and has established its operations there. As indicated in Table 3, there is a possibility that among the late comers to ASEAN, Viet Nam's maximum capacity for ship repairs could become overwhelmingly large.

Table 3 Ship repair yards in Asia

Countries	Companies	Dock Size (Length×Width) (m)	Maximum Capacity (1,000 DWT)
Korea	Daewoo (Koje-Do)	350×80	350
	Pusan Dockyard	302×50	150
	Hyundai (Ulsan)	300×65	280
		380×65	300
		380×65	400
Taiwan	CSBC (Kaohsiung)	950×92	1000
	Pan United	189×43	45
	STSE	185×40	40
		240×52	70
Singapore	Keppel	350×66	360
		380×80	400
	Jurong	380×80	400
		350×56	300
	Pan United	189×43	45
	STSE	185×40	40
		240×52	70
	Hitachi Zosen Singapore	350×60	300
300×60		170	
Sembawang	384×64	400	
Malaysia	MSE	188×34	70
		385×80	400
The Philippines	Keppel	200×38	40
Indonesia	Otto	145×40	30
		104×22	13
	Sembawang	230×35	70
Thailand	Unithai	282×47	140
Viet Nam	Hyundai-Vinashin Joint Venture ( Operation starts by the end of '98)	300×65 (Plan)	230

Source Nomura Research Institute



## 2. The Present Status of and Priorities for Viet Nam's Shipbuilding and Repair Industry

### **(1) Shipbuilding and Ship Repair Still a Local Industry**

In Viet Nam, there have been shipbuilders and ship repair companies which have formed an indigenous industry. The government has built docks at many locations across the country so that there would be a national network. However, the industry came under strong pressure between 1988 and 1992, when the government followed the Doi Moi policy. Because funds to invest in the maritime sector were severely restricted, the construction of new ships declined dramatically. Many docks were forced to shift their operations to ship repair, intensifying competition in this sector. Although the shipbuilders have entered into such new sectors as steel fabricating, there was not enough work to offset the decline in the construction of new ships. They are now suffering an extremely low operating rate of 30%.

Most companies in this sector are government-run and there are only a few privately-run companies. The breakdown is as follows:

Government-run enterprises number 44. These can be further broken down into 22 which are controlled by the central government (13 by the Ministry of Transport, seven by the Ministry of National Defense, and two by the Ministry of Fishery). In addition, there are 22 companies controlled by local People's Committees and four which are joint ventures between state-run companies and foreign companies (two are joint ventures with a company controlled by the Ministry of Transport, and one with a company controlled by the Ministry of National Defense, and one with a firm controlled by the Fishery Ministry).

The shipbuilding and repair sector employs a total of 17,000 people, of which 2,000 are engineers.

In line with the government policy, Viet Nam Ship Industry Corporation (VINASHIN) was created in January 1996. This is a large group with 11,235 employees, of which 1,400 are either engineers or other college graduates.

VINASHIN's capacity for building new ships is up to 5,000 DWT for ocean-going vessels. For ocean-going ships, the group is capable of repairing ships up to 15,000 DWT. The group is capable of executing repair work that meets standards set by Russia, Japan and Britain. At present, however, overseas customers of repair work are limited to Russian, Japanese, British and German shipping companies that carry goods to or from Viet Nam.

Even among docks controlled by VINASHIN, only three are equipped with foreign equipment and machinery. They are:

- 1) Ha Long Shipyard (Built by Poland, equipment is extremely old and decrepit.)
- 2) Bach Dang Shipyard (Built 30 years ago by the Chinese. Equipment is extremely old and decrepit.)
- 3) Pha Rung Shipyard (Built by Finland. This is the only shipyard in Viet Nam to meet international standards.)

Overall, Viet Nam's shipyards are far behind their overseas counterparts in terms of both equipment and technology.

### **(2) Multitude of Problems for Viet Nam's Ship Repair Industry**

As the government of Viet Nam admits, the nation's ship repair industry faces the following problems:

- 1) The shortage of funds to update equipment
- 2) Failure to cultivate overseas markets. A lack of information for developing overseas markets
- 3) Failure to make aggressive efforts to develop new products based on welding technology.

- 4) Lack of infrastructure necessary for the development of this industry
- 5) Poor locations of existing docks. Most docks are located along rivers, therefore, water is only about 10 meters deep at the most. These docks are not suitable for bringing for repair large ocean-going vessels owned by foreign ship owners. Consequently, they cannot earn foreign currencies.

### 3. Necessary Measures to Develop the Ship Repair Industry into a Hard Currency-Earning Industry

#### (1) Key Lies in Using Good Locations in Central Viet Nam

It has already been pointed out that the shift in the policy of Singapore will result in local firms giving up works with low unit prices to the neighboring countries. Tankers carry very low repair price per ton.

Table 4 Average revenue and unit price of ship repair of Japan in '95

Type of Ship	No. of Ships Repaired	Average Tonnage per Ship Ton	Average Revenue per Ship Million Yen	Unit Price Yen/ton
Cargo Ship	2,136	2,065	18.6	9,013
Container Ship	284	36,736	68.5	1,863
Oil Tanker	525	48,119	53.2	1,105

Source Shipbuilders' Association of Japan

A great majority of large tankers running via Singapore are carrying crude oil from the Middle East to Japan, South Korea, or Taiwan. The inside of the tanks on these tankers must be washed before the vessels are repaired. It takes five to six days to do this work in the case of large tankers. As it takes six to eight days for these tankers to travel to Central Viet Nam after unloading their cargo in Japan or South Korea, their tanks could be cleaned while the ship is in transit.

After the vessel is in the dock, the inside of the tanks must be reinforced and painted. As it takes about one week for the paint to dry while it takes 12 to 14 days for the ship to travel from Central Viet Nam to the Middle East to get their cargo, the inside of the tanks should be completely dry by the time crude oil is loaded in the Middle East. This means ship owners can put these large tankers that cost \$80,000 per day (as of July 1997) to operate in the dock for a minimum number of days. Based on the number of days required for large crude oil carriers to travel between the Middle East and the Far East, Central Viet Nam is almost as favorable as Singapore in terms of its location.

Moreover, there is a bay in Central Viet Nam, where water depth is 15 meters. At this depth, large tankers in the 250,000-270,000 DWT class can enter the bay. This fact is very significant. Major international petroleum companies have begun to outsource crude oil shipping to independent shipping companies in a move designed to save costs. Because conventional ULCCs of 320,000 DWT or more can enter only a limited number of ports, independent shipping companies will try to maintain high operating rates by using tankers that are 250,000-270,000 DWT at the maximum. The impact of this trend on the ship repair industry should also be taken into consideration.

Central Viet Nam is also close to one of the great-circle routes in the world. It is only about 300 kilometers from the great-circle route that connects Singapore with Hong Kong, Taiwan, Shanghai, South Korea and Japan. By contrast, the Port of Manila is approximately 1,200 kilometers off this route.

It has already been pointed out that labor cost accounts for 65 percent of the costs of ship repair. As of the end of 1996, the labor cost of workers in the shipbuilding and ship repair industry in Viet Nam was US\$100-130 per month. Even after taking into consideration the gap in labor productivity, this is

very low compared with the average cost of US\$1,000 per month for workers in Singapore.

### **(2) Joint Venture with Hyundai Heavy Industries an Acid Test**

As it is necessary to use foreign capital to restructure an industry with very weak foundation, the ship repair industry also needs the introduction of foreign capital. Among possible foreign partners, South Korean shipbuilders and ship repair companies in Singapore are especially to be sought after.

As it was mentioned earlier, South Korean shipbuilders have not yet established foreign repair centers. For South Korea, which is witnessing very strong upward pressure on labor costs and is facing severe competition from China in the building of smaller vessels, the only way to maintain its position as one of the world's major shipbuilding nation is to increase its non-price competitiveness. Therefore, establishing off shore repair centers is essential for the country. It is thought that Central Viet Nam is one of the best locations for South Korean shipbuilders. However, bringing in Hyundai Heavy Industries alone, though it is the world's largest shipbuilder, will not be sufficient. The government of Viet Nam must try to bring in other companies more aggressively.

It is also important to bring in independent (meaning not affiliated with specific shipbuilders) ship repair companies in Singapore to Viet Nam. Because of small labor force in Singapore, ship repair companies in that country are saddled with the problem of securing welders, painters, and other workers who actually work in the dock. At present, they are solving this problem by importing workers from such countries as Indonesia, India, Sri Lanka, and the Philippines under two- or three-year contracts. In the longer term, however, there is no guarantee that they will be able to continue to import laborers on a steady basis from these countries. There are other problems, such as managing workers with diverse religious and cultural backgrounds.

Viet Nam has an advantage in that it has an ample supply of labor and that labor management is relatively trouble-free because of the homogenous composition of its people. As a consequence, Viet Nam will become an increasingly attractive place for the ship repairers in Singapore. In addition, because independent ship repairers in Singapore have as their clients many smaller ship owners who are especially sensitive to costs, they have strong desire to move into the areas where they can establish cost competitiveness.

Our survey results, however, indicate that businesses in Singapore are not quite certain about the country risk of Viet Nam, a fact which is keeping these companies out of Viet Nam. They are still taking a wait-and-see stance and are watching how Hyundai will fare in Viet Nam.

In order to bring in other South Korean shipbuilders and also companies in Singapore to establish a major ship repairs center in Asia in Central Viet Nam, the country must successfully carry out the Hyundai project no matter what it takes to do so.

### **(3) A Rough Estimate of Demand for Ship Repairs (A Feasibility Analysis)**

We would now like to estimate demand in case Viet Nam enters the ship repairs market. In the definitions in the maritime shipping industry, VLCCs refer to large tankers of 160,000 DWT or larger, and ULCCs to those 320,000 DWT or larger. A consensus among industry experts is that over the next ten years, 700 to 750 VLCCs will be dismantled, while around 1,200 vessels of this type will be built. The reasons that the number of ships to be built is larger than those to be dismantled are two-fold. First, as the consumption of crude oil increases, there will be an increase in the volume of crude oil to be transported to consumer countries. Second, demand for ULCCs of 320,000 DWT or larger will disappear.

As discussed earlier, most of ULCCs of 320,000 DWT or larger are operated primarily by international oil majors. These companies are increasingly outsourcing transportation of crude oil in

order to reduce shipping costs. Because U.L.C.C.s can enter only a limited number of ports, independent shipping companies shun them. The tankers that are 250,000-270,000 DWT have few restrictions on port entries, and are expected to become the most common type of tankers in the future.

Based on this forecast, it is estimated that the number of large tankers will increase by 31% from 1,450 at the end of 1995 to 1,900 ten years from now. Sixty-five percent of world's large tankers now operate between the Middle East and the Far East. This percentage is not expected to change sharply. Although there are no accurate data, experts in the shipping industry say that approximately 8-9% of ships operating in the world are repaired each year. In 1995, 80 large tankers were repaired in Asia, 60 of them in Singapore. By 2005, approximately 110 large tankers are expected to be repaired in Asia, but Singapore will not be able to handle more than around 60 of them because of the capacity cutback. This means 50 large tankers will have to be repaired elsewhere. Therefore, we can say the conditions are rapidly ripening for the Viet Nam to enter the large tanker repair market.

Economic effects of a large number of docks to be built in Central Viet Nam are as follows:

Hyundai Heavy Industries, which has already decided to start operations in Viet Nam, plans to repair 91 tankers and build three new vessels in 2003, with total sales of US\$110 million. This should create around 4,800 jobs.

Assuming that two other companies start operations in Viet Nam at roughly the same scale as Hyundai's and start operations in earnest in 2005, we can expect approximately 300-350 large tankers to be repaired with total annual sales of the entire industry amounting to approximately US\$300 million. These companies will employ about 15,000 persons among them.

It is estimated that by 2005, South Korean shipbuilders will have delivered a cumulative total of 3,500 ocean-going vessels. This means 300 vessels, or 8-9% of ships built in South Korea, will need repairs every year. Assuming that South Korean joint ventures in Viet Nam handle 70% of them, or about 210 vessels, it is not impossible for Vietnamese companies to expect to win orders to repair the remaining 90-140 vessels on the strength of their strong cost competitiveness.

#### 4. Policy Options for the Development of Ship Repairs (Shipbuilding) Industry

##### (1) Basic Concept for Policy Formulation

The government of Viet Nam plans to create shipbuilding and repair centers in the northern, central, and southern parts of Viet Nam by the year 2000. Specifically, it aims at building the following:

- |            |               |                                     |
|------------|---------------|-------------------------------------|
| a) North:  | Shipbuilding: | Vessels of up to 25,000 DWT         |
|            | Repairs:      | Vessels of up to 50,000 DWT         |
| b) Center: | Shipbuilding: | Vessels of up to 80,000-100,000 DWT |
|            | Repairs:      | Vessels of up to 300,000 DWT        |
| c) South:  | Shipbuilding: | Vessels of up to 50,000 DWT         |
|            | Repairs:      | Vessels of up to 200,000 DWT        |

However, as discussed earlier, when we examine this concept in light of the plan to develop the ship repairs (shipbuilding) industry into an export industry, some reconsideration is desired for the following reasons: It might not be able to meet the conditions for international competition; It is questionable whether this will be an efficient use of the nation's limited economic resources (it might lead to investing in facilities that are not internationally competitive.)

The domestic shipping industry provides regular customers for the nation's shipbuilding and repair industry. As Viet Nam has a long coastline, it can rationalize domestic physical distribution by building more ships plying the coastal routes. For transportation into the inland regions, using the rivers for transportation to these areas is sometimes more economical than building roads in terms of the time

required for construction and transportation costs. It would be more reasonable to leave the building and repairs of smaller ships used for these purposes to existing docks.

The government of Viet Nam is advised to consider in earnest measures to develop maritime shipping using Vietnamese vessels in the Asian region, where the volume of cargo is increasing sharply, as well as developing coastal shipping. Because of the dismantling of the "alliance," there are no barriers to entry in terms of regulations. By creating a maritime shipping industry using domestic vessels, Viet Nam can save hard currencies used to pay for transportation of imports and exports. It will also be able to earn hard currencies by entering into routes between two foreign destinations.

The government of Viet Nam is advised to consider central Viet Nam around Danang as a shipbuilding and repair center. In the near term, South Korean shipbuilders will use this center, followed by smaller independent companies in Singapore.

The basic condition for the creation of successful joint ventures is to create an environment where businesses can make profits. At least the following conditions must be met for this purpose.

- 1) Streamlining customs clearance procedures for imported raw materials is essential in order to shorten the time required for repair work.
- 2) In order to reduce the space for and costs of storage of imported materials, as well as to reduce the interest burden on inventories, the government should build bonded warehouses.
- 3) The government should authorize inspection by inspectors of the countries designated by the ship owner.
- 4) It should guarantee overseas remittance of profits, which is a condition of entries demanded by foreign companies.

In addition, in order to train dock workers, it is desired that the government of Viet Nam will establish training schools for shipbuilding skills as soon as possible. It will also be helpful to introduce the qualification system for skilled workers that meets international standards, such as obtaining Lloyd qualification for welders.

In the longer term, full-scale launching of the building of ocean-going ships as an export industry should come into sight. Experiences of Japan and South Korea demonstrate that a precondition for launching the shipbuilding industry is that steel products (thick plates), which account for slightly more than a quarter of materials costs (see Table 5), can be produced domestically.

Table 5 Cost structure of a new ship

Major Item	%
Materials	62
Steel	17
Engine	11
Navigation & Loading Equipment, & Others	34
Wages and Salaries	30
Other Expense	8

Source Nomura Research Institute

A right timing for this to happen will be in or around 2010, when Viet Nam is expected to begin blast furnace steel making, as discussed in the paper dealing with the steel industry. Japanese and South Korean experiences demonstrate that at its peak, shipbuilding industry accounted for as much as 10-15 percent of total steel consumption in these countries. Because steel products for the shipbuilding industry call for production of standardized items in large volumes, their mass-production effect on the steel industry will be greater than suggested by their share of consumption, and will provide strong

underpinnings to the steel industry.

Because this paper has discussed primarily the ship repair industry, detailed discussion on the shipbuilding industry is not included. The present condition of and outlook for the environment surrounding the shipbuilding industry are discussed in the Supplement.

## **(2) Policy Options for Development in Stages**

Viet Nam can very well aim at development in stages of the ship repair industry as an export industry and, as its extension, the shipbuilding industry. At each stage, the following policy planning and execution are called for.

### **1) Establish the foundation for developing the ship repair industry into an export industry (Present -2005).**

By aggressively using foreign capital, mainly from South Korea and Singapore, develop Central Viet Nam as the second largest ship repair center in Asia after Singapore by taking advantage of structural changes in the industry in Asia and favorable location of Viet Nam. For this purpose, the government should adopt a firm policy and promote it. As a major change in the nations' shares in the world's shipbuilding industry is expected to take place, Viet Nam should also prepare for entry into the shipbuilding market. Other options are to implement the measures to promote coastal shipping and the entry into the ocean-going shipping market.

The following concrete measures are required to implement this policy:

- 1) Write "A Master Plan for the Comprehensive Development of Viet Nam's (Coastal and Ocean-Going) Shipping Industry and Shipbuilding Industry" (a provisional title), which will be a plan for the long-term, overall development of these industries. Increase the transparency of the government policy to build national consensus and to induce foreign capital to come to Viet Nam.
- 2) Extend preferential measures to foreign companies that are willing to invest in Viet Nam's ship repair industry. (These should include acceptance of inspectors designated by ship owners, streamlining of customs clearance procedures for raw material imports, the construction of bonded warehouses, and liberalization of remittance of profits.)
- 3) Write plans for domestic production of marine equipment and promote the importation of related technologies to encourage growth of domestic capital, centering on VINASHIN.
- 4) Reinforce the marine engineering and mechanical engineering departments at universities and strengthen training of engineers and skilled workers. Also, create a program to send trainees to Singapore and South Korea to acquire skills, and create a training center for shipbuilding and related technologies at Danang. It is also advised to create a skills qualification program that meets international standards to upgrade the skills of workers.

### **2) Develop the ship repair industry and also prepare for entry into the shipbuilding market (new vessels) (2006-2010).**

During this period, the ship repair industry, funded mainly by foreign capital, is to be launched in earnest. A policy option for this period is to make an active commitment for the promotion of ocean-going shipping. As groundwork for domestic production of steel, the most important material for the shipbuilding industry, will be laid, the country should begin in earnest preparations for the entry into the shipbuilding market.

Concrete measures required in this period are as follows:

- 1) Aggressively bring in foreign capital into the shipbuilding industry (new vessels).
- 2) In order to promote technological development on a continuing basis, integrate the existing

related research centers into “The Development Center for Shipbuilding Technologies” (a provisional title).

3) Begin in earnest to promote the (ocean-going) shipping industry as an option.

4) Adopt a policy to manufacture in Viet Nam marine machinery and equipment starting with those requiring simple technologies and go on to those which require increasingly difficult and advanced technologies as part of measures to strengthen the VINASHIN group. Start with the production of relatively simple products, such as loading and unloading machinery, ladders, gangways, and anchors, which require low technologies, and advance into licensing technologies for major equipment, such as engines and decelerators.

**3) Lay foundations for the development of the shipbuilding industry (new vessels) into an export industry, followed by the full-scale launching of this industry (2010-2020).**

Once domestic production of steel products is on a firm path, Viet Nam can move from laying the groundwork for the development of the shipbuilding industry into an export industry to a full-fledged launching of this industry. At the end of this period, a major change in the nations' shares in the world's shipbuilding market is expected to start. Viet Nam could begin to attain a critical mass in shipbuilding by this time.

Concrete measures required in this period are as follows:

1) Strengthen the linkage between the ocean-going shipping industry and the shipbuilding industry (ocean-going vessels).

2) Promote export of loading and unloading equipment, ladders, gangways, etc., and promote domestic production of key machinery and equipment installed in vessels.

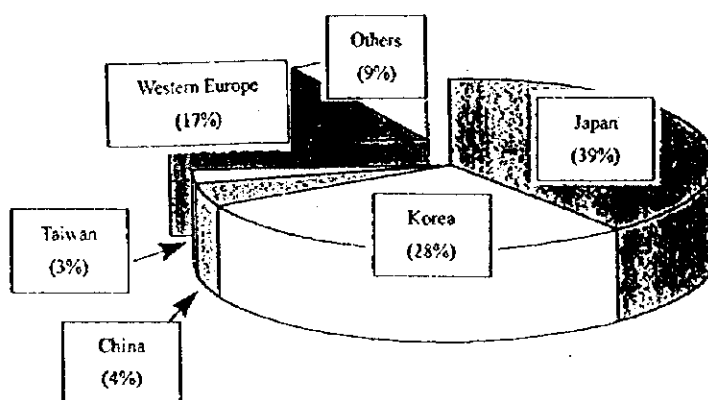
## Supplement

### The Present Condition of and Outlook for the Environment Surrounding the Shipbuilding Industry (New Vessels)

#### 1. Trends in International Competition in the Shipbuilding Industry

The shipbuilding industry deals with a global market, where the entire world constitutes a single market. Companies that have lost international competitiveness cannot survive for long. At present, major competition is among Japan, South Korea, and Europe. In 1996, in terms of the volume of ships built, Japan's market shares was 39 percent, followed by South Korea, 28 percent, and Western Europe, 17 percent. Asia is a major presence in this market, and the combined share of Asia, including China (4 percent) and Taiwan (3 percent) in addition to Japan and South Korea, amounts to 74 percent (Chart S-1).

Chart S-1 Asian countries' major share in shipbuilding



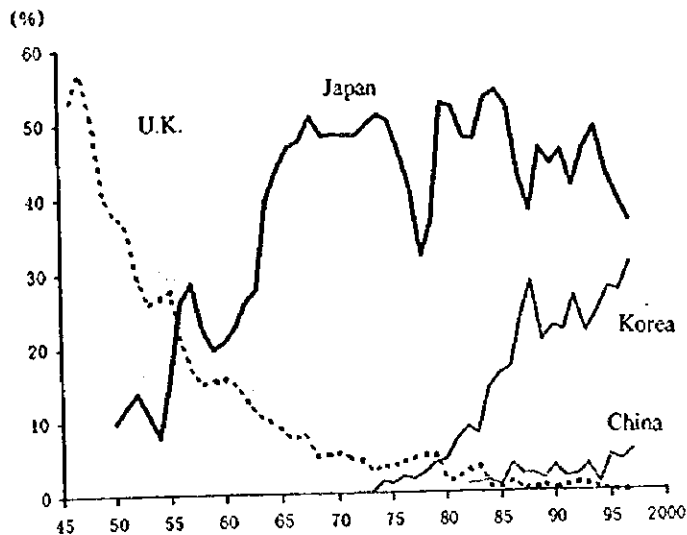
Notes Share is the year of 1996

Source Lloyd's Statistics

Japan replaced Britain as the world top shipbuilder in terms of the volume of ships built in 1956 and has maintained this position for 41 years, although South Korea was the world's top order getter in 1993. South Korea entered the shipbuilding market in earnest in the latter half of the 1970s and grew rapidly during the first half of the 1980s thanks to its low wages. The country's share stagnated in the second half of the 1980s due to the appreciation of the won and frequent labor strife. However, as the nation's capacity was increased dramatically between 1994 and 1996, its share in terms of ships built has increased to around 30 percent. China's presence in the shipbuilding industry is increasing year after year. Today, it is solidifying its position as the third largest shipbuilder in the world along with Germany. Its market share in terms of ships built stands at 4-5 percent, while its share in terms of new orders stands at around 7 percent. For changes in the market shares of major countries in terms of the volume of ships built, please see Chart S-2.



Chart S-2 Changes of Share in Shipbuilding since World War II



Notes Share based on tonnage of launching

Source Calculated from Lloyd's Statistics by Nomura Research Institute

Western Europe, which once dominated the world, is barely maintaining its world share of 15-20 percent with the support of direct government subsidies (approximately 9 percent of the price of the ship). In 1996, the largest shipyard in Germany went bankrupt, while a number of shipyards in Spain, including government-run shipyards, are reportedly facing financial crisis. The declining trend of the European shipbuilding industry has not come to an end.

Eastern European shipyards are also losing their luster. Many firms are beset by aging of equipment, labor strife, and high inflation. The collapse of Gdansk Shipyard in Poland owing to, among other things, union problems and delays in delivery is symbolic of this trend.

These long-term trends are clearly evident in Table S-1, which shows data on new orders.

Table S-1 Major shipbuilding country's backorder and market share

Country	1965		1970		1975		1980	
		%		%		%		%
Japan	7,295	50	18,332	47	6,803	49	10,004	52
Korea	N.A.	0	N.A.	0	513	4	1,706	9
China	N.A.	0	N.A.	0	N.A.	0	N.A.	0
Taiwan	N.A.	0	N.A.	0	N.A.	0	693	4
Poland	N.A.	0	N.A.	0	806	6	182	1
Western Europe	7,242	49	20,276	52	2,780	20	4,560	24
Others	194	1	384	1	2,951	21	1,945	10
Total	14,731	100	38,992	100	13,853	100	19,090	100
Country	1985		1990		1995		1996	
		%		%		%		%
Japan	6,358	49	11,143	46	8,908	35	9,158	39
Korea	1,339	10	5,737	24	7,762	30	6,737	29
China	282	2	602	3	1,108	4	1,665	7
Taiwan	490	2	601	0	681	3	445	2
Poland	267	4	208	0	1,382	5	166	1
Western Europe	2,041	2	4,231	0	4,310	17	3,036	13
Others	2,129	16	1,543	52	1,378	5	2,200	9
Total	12,906	100	24,065	100	25,529	100	23,407	100

## Notes

1) Unit for Numbers is 1,000 Gross Ton

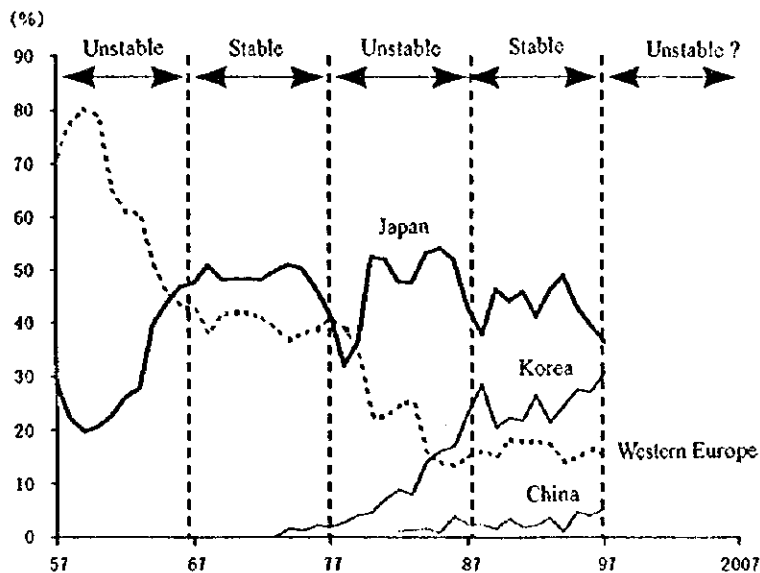
2) N.A. means Not Available

Source Tabulated from Lloyd's data by Nomura Research Institute

During the past 40 years, shipbuilding shares of nations have witnessed cycles of ten years of major changes and another ten years of stability. Between 1957 and 1966, Western Europe's share plummeted from 70-80 percent to around 40 percent, while Japan's share rose from 20-30 percent to 40-50 percent. Following stability between 1967 and 1976, Western Europe's share dropped again from around 40 percent to around 20 percent, while South Korea's share rose from less than 5 percent to around 20 percent between 1977 and 1986 (Chart S-3).

The change in market shares is brought about by the withdrawal of marginal suppliers during stagnation of demand. The 20-year cycle (10 years of changes and 10 years of stability) is probably due to the fact that replacement demand moves in cycles of 20 years (10 years of recovery followed by 10 years of decline). Over the past ten years (1987-1996), shares were more or less stable, but they are expected to change dramatically in the coming ten years (1997-2006). Because the useful life of vessels has been extended to approximately 25 years in recent years, market shares are expected to change dramatically from around 2003.

Chart S-3 Market share changes in every 20 years



Source Calculated from Lloyd's data by Nomura Research institute

## 2. Outlook for International Competition

If we may make a bold attempt to forecast market shares ten years from now, the figures will look something like this.

- 1) Japan's share will decline to 30-40 percent. (The average share during the past five years was 42 percent.)
- 2) South Korea's share will rise to 30-40 percent to rival Japan's. (25 percent)
- 3) China's share will rise to 10-20 percent. (4 percent)
- 4) Western Europe's share will fall to 5-10 percent. (17 percent)

The increase in South Korea's share can be attributed to the country's capacity expansion between 1994 and 1996. South Korea's capacity was around 50 percent of Japan's in 1990, but has increased to about 80 percent of Japan's. International competitiveness of Japan and South Korea is about the same, leading to our forecast that their shares will be about equal in ten years. We forecast an increase in China's share, because shipbuilders in that country have been increasing their international competitiveness. This is because in addition to their conventional advantage stemming from low wages, they have markedly improved productivity by introducing automation equipment and reassessing production control. They have also dramatically improved their non-price competitiveness.

China's share in terms of the volume of ships built was only 4 percent in 1996, but it has already reached 7 percent in terms of new orders received. Thanks to its rapidly improving productivity, China's share should reach 10 percent in 2000-2005. As a result, the increase in China's share and the decline in Western Europe's share are expected to accelerate.

In the shipbuilding industry, certain critical mass is required for a nation to maintain engineers, materials and supporting industries, such as equipment makers. Based on experiences, experts say that the critical mass required for a nation is about 10 percent of the world's market. This is because at this level, the following phenomena take place:

- 1) The steel and marine equipment and machinery industries that are essential for the development of the shipbuilding industry begin to strengthen their international competitiveness.
- 2) The number of shipbuilding engineers rises, contributing to a major improvement in technological levels of a nation.
- 3) Shipbuilders will then be able to invest in R&D and new equipment.

Japan (in the first half of the 1950s) and South Korea (in the first half of the 1980s) both experienced accelerated increases in their market shares after their world shares exceeded 10 percent.

Meanwhile, by 1996 Western Europe's share had declined to 17 percent in terms of the volume of ships built (13 percent in terms of new orders). It has become difficult for these nations to retain engineers and maintain related industries. If its world share continues to decline, it will be unable to halt the vicious cycle of "reduced share—contraction of supporting industries, migration of shipbuilding engineers to other industries—decline in investment in new technologies and equipment—further drop in the market share." Its share should continue to decline.

### 3. Determinants of Competitiveness and an International Comparison

When we assess overall competitiveness of the world's major shipbuilding nations, we see that Japan and South Korea are ahead as indicated in Table S-2. However, China is fast narrowing the gaps with these nations. In the shipbuilding industry, competitive strength of a nation depends on non-price competitiveness, such as quality, delivery time, technological capability, and financing ability, as well as price competitiveness. In terms of price competitiveness, China is ahead today, while Europe is behind all the others. Japan is more competitive than South Korea in terms of costs. However, in terms of non-price competitiveness, Japan and Europe are ahead. Nevertheless, in the area of general-purpose vessels, South Korea is increasing its competitiveness, while China's disadvantages are shrinking.

Table S-2 Competitiveness in major countries and region

Country	Over All	Price Competitiveness				Non Price Competitiveness	
		Total	Productivity	Wage	Facility	Delivery	Quality
Japan	A	B	A	C	B	A	A
Korea	A	B	B	B	A	A	B
China	B	A	C	A	B	B	C
Western Europe	C	C	C	B	B	A	A
Eastern Europe	B	B	C	A	C	C	B

Notes A = Higher, B = Middle, C = Lower

Source Nomura Research Institute

Price competitiveness of different countries and regions is shown in Table S-3.

The average cost (on a pretax basis) of building general-purpose vessels, such as tankers and bulk carriers, are as follows. When we take Japan's average cost as 100, China's cost is estimated at 89, Eastern Europe's, 98, South Korea's, 103, and Europe's 115.

Table S-3 Production cost among major shipbuilding countries

Item	Japan	Korea	China	Western Europe	Eastern Europe
Components	62	63	68	63	63
Steel	17	17	18	17	17
Engine	11	12	13	12	12
Others	34	34	37	34	34
Wage	30	31	15	45	29
Other Cost	8	9	6	7	6
Production Cost	100	103	89	115	98

Notes

- 1) Japanese Cost = 100
  - 2) Exchange Rate 1US\$ = 114Yen = 890 Wong = 1.75 DM = 8.28RMB
  - 3) Wage includes contract workers' wage, managers' salary and drawing fee
  - 4) Other Cost includes depreciation and interest payment
  - 5) Production Cost differs by type of ship
- Source Nomura Research Institute

As indicated in Table S-3, the largest component of cost is materials cost. In the past, the gap in materials cost was the dominant factor in competitiveness. However, as world's major shipbuilders have begun to procure materials from overseas, they are now importing from the most competitive suppliers, leading to the narrowing of the gaps in materials costs. Even so, the development of domestic materials and equipment makers is essential for improving international competitiveness in the shipbuilding industry. This is because, when product quality and delivery time of domestic materials makers improve, it reduces inventories and improves the accuracy of production schedules of shipbuilders, leading to a reduction in total costs.

Among materials and equipment, the most important item is steel products. In Asia, the steel industry has grown more dramatically than in any other region in the world. As indicated in Table S-4, during the 15 years between 1980 and 1995, the world's crude steel production increased at an average annual rate of only 0.3 percent. However, it grew at an average annual rate of 10.2 percent in South Korea and by 6.3 percent in China.

Table S-4 Increasing steel production in Korea and China

Country	1980	1985	1990	1995	Growth Rate	%
Japan	111.4	105.3	110.3	101.6	-0.6	
Korea	8.6	13.0	23.1	36.8	10.2	
China	37.1	46.7	67.2	93.0	6.3	
Western Europe	154.6	155.8	154.0	155.8	0.1	
Eastern Europe	53.9	51.3	45.5	34.2	-3.0	
World	716.3	718.9	770.5	749.6	0.3	

Notes

- 1) Unit : Million Ton
  - 2) Growth Rate is annualized from 1980 to 1995
- Source Tekko Toukei Youran

The strong international competitiveness of Asian steel makers is evident in the fact that the world's top 20 steel makers include four Japanese firms, one South Korean firm and three Chinese steel makers.

In the area of marine engines, there are seven Japanese firms and two South Korean firms among the world's top 10 makers of low-speed, two-stroke diesel engines used as main engines on vessels. Thus,

Asia has a formidable presence in this sector, as well.

As indicated in Table S-3, China is in an extremely strong position with respect to labor costs. The average labor cost per hour (including bonuses and fringe benefits) at a shipyard in recent years is estimated at \$30 in Japan, \$25 in Germany, \$15 in Italy and Spain, \$15 in South Korea. Japan's wage cost is the highest even among the advanced, industrialized nations. In other regions, per hour labor cost is estimated at a low \$4 in Eastern Europe and only \$2 (including related labor costs) in China.

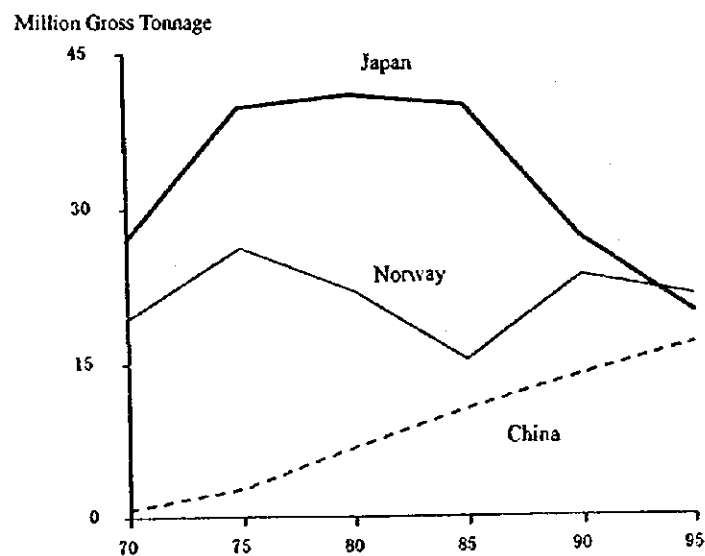
We will now examine labor productivity, including that of workers belonging to subcontractors. When we put Japan's labor productivity in the shipbuilding industry as 100, it was 47 in South Korea, 31 in Western Europe, 16 in Eastern Europe, and 13 in China in 1996.

#### 4. Relationship between the Shipbuilding and Shipping Industries, and Government Policy

As was discussed in the main body of this report, the relationship between the shipbuilding industry and shipping industry is also very important. At the same time, the government's policy regarding the shipbuilding industry is also a factor that determines broadly-defined competitiveness of a nation in this sector.

Japan and Britain, which were major shipbuilding nations in the past, were also homes to world's major shipping companies. Compared with these countries, the shipping industry in South Korea is small. On the other hand, there has been a constant increase in the number of ships held by China. It now has the world's third largest shipping industry after Japan and Norway (Chart S-4). State-owned China Ocean Shipping Co. (COSCO) is now the world's largest customer for the shipbuilding industry with the largest number of ships on order. It is evident that Chinese shipbuilding industry will benefit from this growing demand from Chinese shipping companies.

Chart S-4 Increasing Chinese shipping tonnage



Notes Decreasing Japanese Shipping Tonnage due to Ship Registered in Panama and Liberia  
Source Calculated from Lloyd's Statistics by Nomura Research Institute

The government's involvement in the shipbuilding industry varies widely from country to country. In Japan and South Korea, it has been decreasing due to deregulation. In the past, the involvement of the government in the shipbuilding industry in these countries included the following: a) Regulation on capacity; b) Financing on favorable terms under the government's "subsidizing financing" scheme; c) Industry streamlining led by the administration; and d) Giving orders for warships and LNG carriers (the latter by electric power companies and gas companies) to domestic shipbuilders.

However, South Korea's Shipbuilding Rationalization Act expired at the end of 1993, and the government has expressed that it would end its assistance to and regulations on the industry. Japan made progress in easing regulations on the shipbuilding industry during 1996, and has been promoting free competition in the industry.

On the other hand, Western European countries have continued to provide assistance to shipyards through direct subsidies (maximum subsidies allowed are 9 percent of the price of the ship) in order to protect jobs. In April 1997, the European Commission authorized subsidies to the shipbuilding building industry amounting to \$1.6 billion for Germany, Spain and Greece. However, in line with the "abolition of shipbuilding subsidies" and "anti-dumping regulations" (the latter has not been enforced yet due to opposition from the United States) decided upon at the OECD Shipbuilding Conference, Western European nations are discussing the abolition (or reduction) of shipbuilding subsidies.

The government of China appears to be pushing for the shipbuilders to stand on their own feet. In 1982, it established state-run China State Shipbuilding Co. (CSSC) and has been modernizing the industry by importing foreign technologies. Initially, most ships were built for Chinese shipping companies, but as the industry grew stronger, it began to take more and more foreign orders in the latter half of the 1980s. Since the start of the 1990s, CSSC has been privatizing its subsidiaries and making them going public.





# **Policies for Capital Intensive and Infant Industries**

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## **5-1 Automobile and Parts Industry**

### **1.1 Policy Alternatives and Their Implications**

#### **1.1.1 Features and Present Status of the Automobile Industry in ASEAN and Viet Nam**

Automobile and its parts industry is one in which economy of scale clearly works. The optimum production scale for one factory is more than 200,000 units. The optimum production scale for automobile parts is larger. In ASEAN, no country has reached this production scale nor gained international competitiveness on a quality and cost basis. However, some automobiles have been manufactured on a comparatively large scale, such as a 1 ton pick-up truck and a compact passenger car called Asian Car in Thailand, a bonnet-type multipurpose car in Indonesia, and a passenger car produced by the state-run automobile company "Proton" in Malaysia. They are sufficiently competitive, at least inside the ASEAN market. Therefore, it is important for the automobile and parts industry to enlarge their production scale in order to gain competitiveness. It is important for a country to first expand its domestic market in order to nurture automobile and parts industry. In ASEAN countries, domestic car demand in 1996 was 589 thousand in Thailand, 364 thousand in Malaysia, 330 thousand in Indonesia, and 162 thousand in the Philippines. These numbers far outdistance Viet Nam's 25 thousand (the 1995 number on a customs basis, including KD units).

The automobile and parts industry creates vast value-added and large demand to many material industries such as steel, aluminum and plastics. In addition, the automobile and parts industry is a high-tech industry. Its parts should be highly reliable, strong and light. Many electronic parts are used in automobiles. The production system needs heavy machines, machine tools, and an automation system. Hence, the automobile and parts industry can have wide technological spill over effects on

other industries. This means that the competitiveness of the automobile industry in a country is generated from the competitiveness of almost all industry in the country. Likewise, a movement to enhance the automobile industry's competitiveness might lead to raise the overall competitiveness of all industry in the country.

The ASEAN countries, if observed from this viewpoint, are insufficient at every level in the shift to domestic production. They rely on imports from Japan and other countries for their capital assets: machine tools, material supply with higher strength and reliability, and electronic parts. Among ASEAN countries, Thailand is the most advanced country, with an accumulation of parts companies; but these companies usually import many child parts and materials to meet an increasing demand in automobile production. In 1994, a trade deficit for automobile and parts in Thailand accounted for 3.2 billion dollars, more than one third of the whole trade deficit in the country.

The automobile and parts industry has a pyramid-shaped industrial structure whose top is occupied by the automobile assemblers, consisting of many companies with various scales. First tier suppliers of parts involve many large companies including huge world-famous companies such as Bosch and Denso, but second and third tier suppliers involve many small and medium-sized companies. Close relations between companies during a process of cost reduction and new model development has a large impact on competitiveness. Therefore, a cooperative relationship in their business transactions is common in this industry. Forming a pyramid-shaped industrial structure inside a country promotes domestic production. Among ASEAN countries, Thailand is ahead of others, but is largely behind the level achieved in Japan and South Korea. Thailand has been focusing on its supporting industries because of the trade deficit problem mentioned above.

In AFTA/CEPT, there is uncertainty about the automobile industry, particularly completed cars, because each country tends to give the industry special treatment. On the other hand, for automobile parts, the ASEAN 4 (Thailand, Malaysia, Indonesia, and the Philippines) have partially promoted a work separation system within the region through the BBC (Brand to Brand Complementation) scheme and AICO (ASEAN Industrial Cooperation) scheme. In these movements, there are automobile assemblers and big automobile parts companies with strategies aiming at the scale merits which come with production concentration within the ASEAN region. Viet Nam is behind in automobile production and its domestic market is too small, so it fails to enter this work separation system. Whether or not Viet Nam joins CEPT in automobile and parts industry and enjoys a part of the rapidly growing demand in this region depends on if it can embark on such a work separation system and have a product to export to the ASEAN region.

### 1.1.2 Policy Alternatives and Their Implications on Automobile and Parts Industry in Viet Nam

To foster the automobile industry, there are several measures such as import duty protection, local content regulation, and delivery of incentive. These measures, in the short term, frequently impose on consumers and the government. Nevertheless, the reason why many countries provide special treatment to automobile industries is because they know that the demand for automobiles largely grows during economic growth, especially after the beginning of motorization, and by import substitution of the industry they can expect conservation of foreign currency and increase in domestic industrial production. The most successful evidence is from Germany and Japan and recently from South Korea where significant growth has been achieved in their economies through car exports. For Viet Nam, it is a difficult problem whether or not it should grant special treatment to foster its automobile industry. We cannot deny the possibility that Viet Nam, through its big scale population and diligent man power characteristics, could someday be internationally competitive in the

automobile industry (dynamic comparative advantage). However, in the short term, this seems unlikely, not only worldwide but also within the ASEAN region because Viet Nam is greatly behind from its small demand. However, in automobile parts industry, there are some possibilities to join the work separation system within the ASEAN region at a comparatively early stage if Viet Nam can invite parts factories for exports.)

As for a policy alternative to replace the strategy of promoting domestic production as quickly as possible, a step-by-step strategy may be considered. It would not hurry the domestic production and continue imports of considerable numbers of completed automobiles (including used cars) while the domestic market remains small. Domestic production of parts could finally be promoted once the market scale in the country reaches an appropriate size. This concept is based on the reasoning that because the automobile and parts industry has a large scale-merit, it is difficult to promote domestic production in a market which is not well grown, and it tends to cost comparatively much in the sense of national economy. A disadvantage in this strategy is that policy measures to foster the automobile and parts industry will become more and more restricted by the WTO which Viet Nam will enter in the future (in particular, re-raising of import duty and local content regulation, etc.) This strategy will also further narrow possibilities for participation to AFTA/CEPT in the field of automobile and its parts in 2006, thus creating further uncertainty about scenario after 2006.

If Viet Nam positively promotes domestic production in the automobile and parts industry while the market is still small and seeks to join the work separation system in the ASEAN region, the policies for the objective can be roughly divided as follows; (1) policies for increasing the size of the domestic market, (2) policies for promotion of the domestic production to internalize the added value, (3) policies for export promotion of parts industry. Policies and its implication are mentioned below.

(In this case, what should be considered is that promotion of domestic production and export promotion within the ASEAN region looks like a pair of wheels, so a strategy weighted only on the side of export promotion is difficult to pursue. It is impossible for automobile parts industry to acquire sufficient competitiveness for exports if the industry localizes only assembling process. For exports of parts, it is indispensable to produce parts of parts and parts of parts of parts on a cost-effective basis within the country. The industrial structure which enables domestic production of child parts are generated only in an environment where there is a tendency to deepen domestic parts production and where there is an expectation of an expanding domestic production market. On the other hand, exports growth in some items with sufficient competitiveness will have a spill over effect of technology on other parts production, which will in turn promote domestic production.)

#### **(1) Policies for increasing the size of the domestic market**

The automobile industry, including its parts, has a large scale merit. In order to increase both domestic production and parts exports, it requires an expansion of the domestic producer's market. This needs to generate a new environment in a chain of demand expansion → price reduction → further demand expansion. Policies for this strategic target are as follows.

##### **1) Curbing the import of completed cars (including used cars)**

The import of completed cars including used cars will narrow the size of the market for domestic assemblers and parts producers and will impair the scale-merit for them. On the other hand, imported used cars and trucks are easily sold due to their low prices, compared to their actual values (remaining available life, etc.). This generates considerable demand for them. If the supply for such demand is restricted, some consumers' interests (mostly with regard to easy access to business assets) will be diminished. Anyhow domestic production of the automobile industry, and imports of completed cars

including used cars have a trade-off relationship. So finally, either one option or the other has to be selected. The matter which can be considered for another option is that a type or category of automobile with seriously small domestic demand is likely to experience big difficulties in a shift to domestic production, and this will give relative merit to imports of completed cars against promotion of domestic production.

#### **2) Non-excessive import duty for KD production**

The KD import duty is necessary to protect and foster the automobile parts manufacturers and to promote domestic production; but the duty, if too expensive, might impair an incentive to assemble automobiles, as well as an expansion of demand, because the import duty would be included in the final price. Therefore, a reasonable tariff should be at most 50 to 60 percent.

#### **3) Improvement of the minimum price system**

In order to collect proper revenue, it is very important for the country to prevent tax evasion. Viet Nam utilizes a minimum price system to provide measures in this regard. However, this method acts as a virtual rise in tariff for those who intend to import at the actual prices shown on invoices, and produces a factor of increased final prices. In addition, this operation is prohibited by WTO. There are many arbitrary factors in the setting, maintenance and operation of the minimum price, therefore, companies have to negotiate with the customs office and this prolongs the customs clearance time. This impairs the prompt procurement of parts and material which is a large factor in the competitiveness of the assembling industries.

A popular method for preventing tax evasion is the check price system in which the check price is decided first and then is compared with the actual import price. If the latter is greatly lower than the check price, the reason is investigated; and if it is found to be acceptable, then the check price is restored and the taxation is based on the actual CIF price on the invoice. Since there are relatively few automobile and parts companies, another option is to apply this check price system to this industry ahead of other industries.

#### **4) Promotion of competition among domestic manufacturers**

To reduce final price, it is necessary to promote competition among domestic manufacturers. Therefore, it is not desirable to restrict competition through a quota. New licensing of capital investment for automobile manufacturers is desirable from the viewpoint of promoting competition and increasing alternatives for consumers. It does have an adverse effect on business environment for existing domestic producers because car demand is further dispersed.

#### **5) Local content regulation flexible enough for producers**

Local content requirements, by obligation or by incentive, promote domestic procurement of automobile parts by automobile assembling companies. This is employed when KD tariff protection alone does not protect domestic parts production effectively. Inevitably, the price of a part whose production is promoted by local content regulation tends to be higher than the import price including tariff, but it is desirable to control the cost increase to a reasonable degree. It is important that the local content measures does not accelerate the time-schedule for localization too quickly and that a scheme is constructed whereby companies can freely select domestically produced items. Reducing the KD tariff rate as local content increases is one of the incentive systems in which companies can select their own way comparatively freely and the excessive cost increase may be effectively controlled. On the other hand, governments tends to severely apply guidelines in calculating the local

content ratio in such incentive systems, thereby causing greater difficulty in actual operations for the government and more burdensome application for automobile companies. Concerning compulsory items system, it has a clear effect of promoting investments in the designated parts industry. If the compulsory items are properly specified, this system will not cause so high-cost production; but prices tend to rise in case only one company produces a compulsory item.

#### **6) Utilization of used machinery for decreasing production cost**

The production cost consists of fixed costs which include interest rates of borrowings for capital investments and depreciation costs, and changeable costs which include material costs, transportation costs and energy costs. The fixed cost of the automobile industry is comparably high because the industry needs a lot of machinery. Accordingly restraint of the capital investment amount is effective in order to lower production costs. In this sense, utilization of used machinery for capital investments enables lower production cost and final car price through restraint of the capital investment amount. Besides, usage of used machinery does not cause a bad effect on the technological aspect, and in the present stage rather strengthens competitiveness in cost and fosters the growth of productivity. Furthermore allowing investors to widely utilize used machinery promotes foreign direct investments because investment risk can be reduced by lowering the initial investment amount. Some people may worry about the possibility that investors might pump up their investment by selling valueless used machinery at extraordinary high price. Such attempt can be prevented by using professional organizations to judge machinery prices. In addition, the probability of automobile and parts companies attempting this is quite low, because automobile-related companies need to invest a lot (ex. buildings, land, etc.) besides machinery, and such investments can only be recovered from business operations over long periods. They are forced to compete with each other in a quite severe business environment, and careless attempts to increase production cost by buying valueless used machinery at extraordinary high prices is equal to suicide.

#### **(2) Policies for promotion of the domestic production to internalize the value added**

The automobile and its parts industry as a whole creates a vast value-added. The primary objective of promoting domestic production is to retain as much of the value-added as possible within the country. The policies for this purpose are considered as follows.

##### **1) Conversion from completed car import (including used cars) to domestic KD production**

KD production itself generates value-added in the country and plays a role to foster domestic automobile parts production. If the volume of KD production is diminished, subsequent domestic production of parts will not be promoted smoothly. Therefore, it is desirable to limit the imports of completed cars including used cars by import duty, and thus promote domestic production. The effect of import limitation of used trucks are mentioned above.

##### **2) Sufficient import duty for KD parts**

The primary way to protect and foster domestic parts producers is the KD tariff, so it is necessary to properly set the tariff rate. If the tariff rate is too low, parts production will not develop as planned. On the other hand, if the tariff rate is too high, there will be price problem and a reduction in production incentive for car assemblers, as mentioned above.

##### **3) Effective local content regulations**

In general, domestic production will not develop smoothly by KD tariff alone, because when the

domestic market is small, the scale merit of the parts production is likely to be difficult. For such a case, local content regulation will be used in order to promote domestic production. Local content regulations works for this purpose by creating either obligations or incentives for automobile assemblers to procure domestically produced parts. As mentioned above, an incentive approach is generally more desirable than obligations in the sense of preventing cost increase, but if the tariff rate is near zero responding relatively high local content ratio, the pace of the localization will be slow after accomplishment of such relatively high local content ratio. In the same case there is some possibility that a domestically produced parts will be defeated by imported parts after the reduction of KD tariff rate. Bearing this in mind, tariff rate in case of incentive system with local content should be set carefully.

Raising local content ratio for parts producers is also an important approach for retaining the added value in the country. But if local content regulations for parts producers are too severe, the investment willingness for foreign automobile parts companies might be reduced. Therefore, it is desirable to apply a flexible approach. An acceptable option is for example to, at first, not require local content in automobile parts; but after investments are settled, to schedule a gradual increase in required local content; or to apply incentive systems rather than obligations.

#### **4) Consistent import tariff structure among completed cars, KD parts and child parts**

The automobile industry has a pyramid-shaped industrial structure consisting of the automobile assemblers, and 1st tier suppliers, 2nd and 3rd suppliers. This requires that the tariff rate structure should be appropriate according to the stream of automobile parts production. As a result, the tariff rate should go from higher to lower in the following sequence; completed cars, KD parts, parts and material to produce automobile parts. For example, if the tariff rate for the child parts or materials are not lower than the tariff rate for KD parts, then the domestic parts manufacturers, even if their labor costs are low compared to foreign companies; will be largely disadvantaged mainly from lack of economies of scale. This is the reason why the tariff rate for child parts should be considerably lower than the tariff rate for KD parts. About 20% will be needed as the difference between them in order to foster parts industries. Of course, it is necessary to protect and foster domestic production of child parts and materials in the relatively latter stage, so setting a uniform tariff rate not so high for child parts and materials is needed.

#### **5) Conversion to value-added tax from turnover tax**

If localization is deepened in the automobile industry, parts will be produced in a process among many companies and the stream of transaction will be 3rd tier supplier to 2nd tier supplier to 1st tier supplier to car assembler. If turnover tax is levied in each transaction, parts prices will rise because of tax on tax, and thus localization of parts production will be hampered. Therefore turnover tax should be converted to a value-added tax from the viewpoint of localization of parts production. Value-added tax will be applied from January 1998 in the earliest case. If such a schedule is delayed, advance application of value-added tax to automobile parts companies can be an option.

#### **6) Fostering of local Vietnamese parts companies**

It is believed that there are comparatively many companies and mechanical engineers with abilities in casting/forging and mechanical fabrication in Viet Nam. These resources, however, have hardly been tapped for automobile production because companies and engineers are widely dispersed, and capital investment is not available due to a lack of money. It is urgent to apply these resources in the automobile industry and to incorporate them into industrial structures as Vietnamese automobile parts

companies. Policy measures for this objective may include financial aid to develop Vietnamese automobile parts companies, taxes favorable to investment, and incentive for automobile assemblers or parts companies to procure parts from local Vietnamese companies

### **(3) Policies for export promotion of parts industry**

Seeking the route to join AFTA/CEPT in the automobile and its parts industry, it is important to foster competent export items for the ASEAN region. The scale of the automobile market in Viet Nam in 2006 is estimated around 100,000 unit, which is far behind that of other country in competition such as Thailand with a market of 1,000,000 units or more in 2006. Therefore the difference of competitiveness will be still large in 2006 at least in the field of completed cars. On the other hand, in the automobile parts field, there is some possibilities that Viet Nam will have some exporting items for the ASEAN region if Viet Nam can invite such exporting parts factories in the work separation system in ASEAN countries which has been promoted by car assemblers and leading parts manufactures. Policies to achieve this object are considered as follows.

#### **1) Giving large investment incentive to the automobile parts factories mainly for exports**

As described above, the development of work separation scheme within the ASEAN region has been progressing in the ASEAN 4, so important items do not remain so much. Even if some areas remains undeveloped, then other ASEAN countries will be competing vigorously for foreign investment. From the standpoint of investing companies, it is the easiest to invest in a country which has the largest market by the reasons of transportation costs and easiness to procure child parts and materials. For Viet Nam, overriding this handicap is a serious matter if they hope to invite an export-oriented parts factory, but it could happen if Viet Nam can offer greater incentives than those of the ASEAN 4. The following measures are options for this objective: much cheaper or free factory land, exemptions from corporate profit tax for over eight years, permission to use 100 percent foreign funding, permission to use used machinery for production, partial conversion to local content requirements for parts production for exports.

#### **2) Fostering automobile parts companies which supply child parts to the factories which mainly deliver to export markets**

As mentioned before, competitiveness in parts export is not generated though mere scale merit in assembling. For this purpose, competitiveness in production of parts for parts or parts for parts for parts is also needed. In this sense, the local content ratio of exporting parts factories is normally over 50%. Therefore, it is necessary to foster companies which supply child parts and materials for the factories exporting parts. As for policy measures, same kinds of options are considered as those for export parts factories mentioned above. Domestic supply of automobile parts to export parts factories by Vietnamese local companies is desirable because it raises the domestic production ratio in a broad sense. Favorable treatment such as financing for capital investment by Vietnamese parts suppliers also worth studying.

## **1.2 Participation with AFTA and WTO, Their Influence on Viet Nam**

### **1.2.1 Participation with AFTA, Its Influence on Viet Nam**

In the automobile and auto parts sector, Viet Nam has declared all passenger vehicles with seating capacity of 16 or less as a General Exemption in CEPT, and has placed many other items on Temporary Exclusion. It is quite doubtful that passenger vehicles will ultimately be approved for

General Exemption, but one can understand why the Vietnamese government has taken this initial action. Items on the Inclusion List are quite limited, including dump trucks, fire trucks and other special-use vehicles, automatic work vehicles, vehicles for physically handicapped people and patients, and articulated trailers. These items are not currently produced in Viet Nam and demand is not expected to increase significantly in the near future. Subsequently, placing them on the Inclusion List is not expected to create any serious problems.

But what about future additions to the Inclusion List? According to Viet Nam's affiliation agreement with AFTA, all Temporary Exclusion items must be added to the Inclusion List by January 1, 2003, and tariffs on all items must be reduced to 0-5% by January 1, 2006. As a general rule, all ASEAN countries except auto parts of Singapore have put automobiles and automobile parts on the Temporary Exclusion List. In their case, too, all Temporary Exclusion items must be added to the Inclusion List by January 1, 2000, and tariffs must be reduced to 0-5% by January 1, 2003. Among the ASEAN countries, Thailand, which has confidence in its own competitiveness in the automobile sector, is expected to reduce the tariffs within the prescribed period. However, there is no assurance that Indonesia will reduce their tariffs by the due date. Viet Nam is required to take action only when the other ASEAN countries have complied with the agreement. If this is assumed, then we can expect the following course of events.

First, Viet Nam will need to keep completed vehicles on the Temporary Exclusion List of CEPT for some time to come (beyond 2006), since the competitive difference between Viet Nam and other ASEAN countries is expected to remain high for the long term. Demand for automobiles in Viet Nam in 2006 is forecast to be slightly more than 100,000 units. Thus, it is quite obvious that there is marked difference in terms of economies of scale between Viet Nam and Thailand, for example, where the forecasted demand exceeds one million units. Viet Nam has declared 16-or-less passenger vehicles for General Exemption, so it will need to negotiate continuation of such registration. Also, Viet Nam will need to negotiate with other ASEAN countries to be allowed to keep completed vehicles on the Temporary Exclusion List until 2002, postpone the placement of completed vehicles on the Inclusion List which was originally to be by January 1, 2003, and keep them on the Exclusion List beyond 2006. As for the timing of negotiations, Viet Nam is advised to wait and see whether or not the four ASEAN countries actually will place completed vehicles on the Inclusion List on January 1, 2000 as planned -- because there are countries, such as Indonesia, with which there are uncertainties and whose reaction needs to be monitored -- before initiating any negotiation.

Automobile parts share a similar competitive difference to completed vehicles. Viet Nam will need to levy some tariff beyond 2006 to protect domestic production of automobile parts. There is, however, one important difference Viet Nam would benefit from reducing its intra-tariff on automobile parts if it could participate in the international specialization in the ASEAN region by producing essential components for export in the region. In other words, Viet Nam should aim first to produce only certain types of automobile components instead of aiming to produce all types of parts. Promoting the export of these components will also lead to the technology transfer desirable for production of other components. Such a mechanism of course, can be expected to work through either the BBC or AICO schemes and so, in this sense at least, additional inclusion on CEPT is not essential. If the other ASEAN countries are going to put auto parts on the Inclusion List by January 1, 2000, Viet Nam will need therefore to negotiate permission to keep automobiles and components on the Temporary Exclusion List until 2002 and postpone the January 1, 2003 placement on the Inclusion List beyond 2006. Meanwhile, Viet Nam should make a consolidated effort to join the intra-ASEAN international specialization at the earliest possible date by learning and utilizing the direct investing enterprises' strategies regarding ASEAN.



There are many uncertainties about AFTA's handling of non-tariff barriers. However, as far as items on the Inclusion List are concerned, the general rule is that an exporting member abolish any barriers within five years of the receipt of concession of a preferential rate from another member country. [Incidentally, AFTA does not regard the TRIM (Trade Related Investment Measures) in WTO agreements such as local content requirement as non-tariff barriers.] The present possibility of Viet Nam exporting to the other ASEAN nations in the automobile sector is small and it is believed unlikely that Viet Nam will be required as an obligation under AFTA to abolish its non-tariff barriers in this sector. However, this issue needs to be considered in relation to the country's future affiliation with WTO, which will be discussed later.

As already stated, considering the need for promotion of the automobile and parts industry, it is not really practical to expect Viet Nam's full participation in CEPT in 2006. If the other ASEAN countries put all automotive products on the Inclusion List on January 1, 2000 as planned, Viet Nam will need to negotiate with the founding members of ASEAN and the Secretariat to continue its inclusion of 16-or-less passenger vehicles for General Exemption, and also to postpone the deadline for reduction of tariffs on items now listed for Temporary Exclusion. For Viet Nam this issue is not confined to the automobile industry, and also it is certain that Myanmar, Cambodia, and Laos, which has just joined or is expected to join ASEAN after Viet Nam, will be faced with the same question. This will become an important issue for ASEAN in the future. For ASEAN as a whole, adherence to a uniform lowering of tariffs could make the abolition of non-tariff barriers even more difficult, and might even allow de facto invisible non-tariff barriers to remain. At any rate, the future of AFTA is very uncertain, and Viet Nam will need to closely monitor the future moves of member countries, especially the transfer of Temporary Exclusion items to the Inclusion List by January 1, 2000.

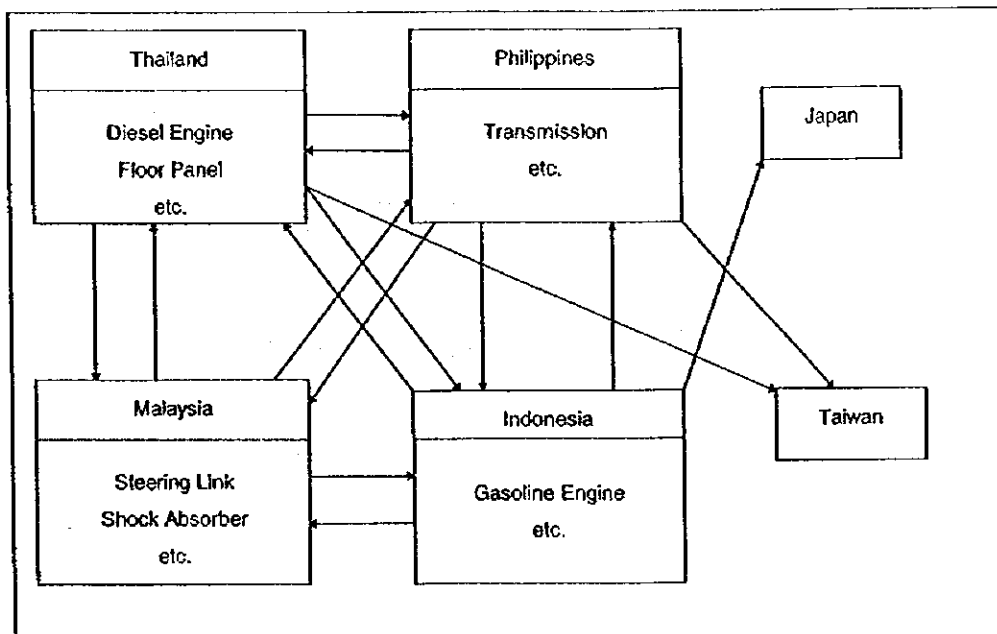


Figure 1.1 TOYOTA's parts complementation scheme in ASEAN region

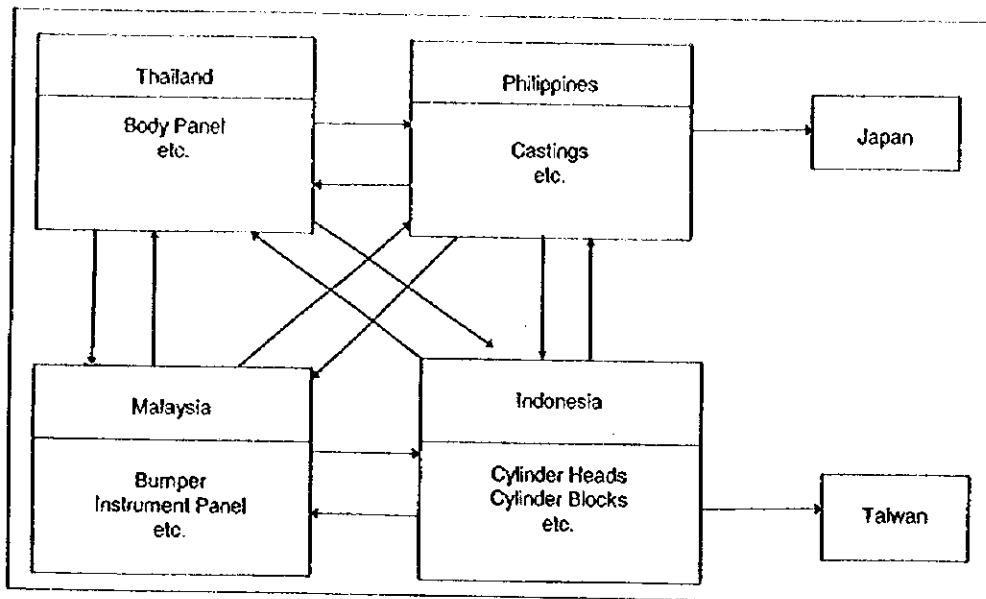


Figure 1.2 HONDA's parts complementation scheme in ASEAN region

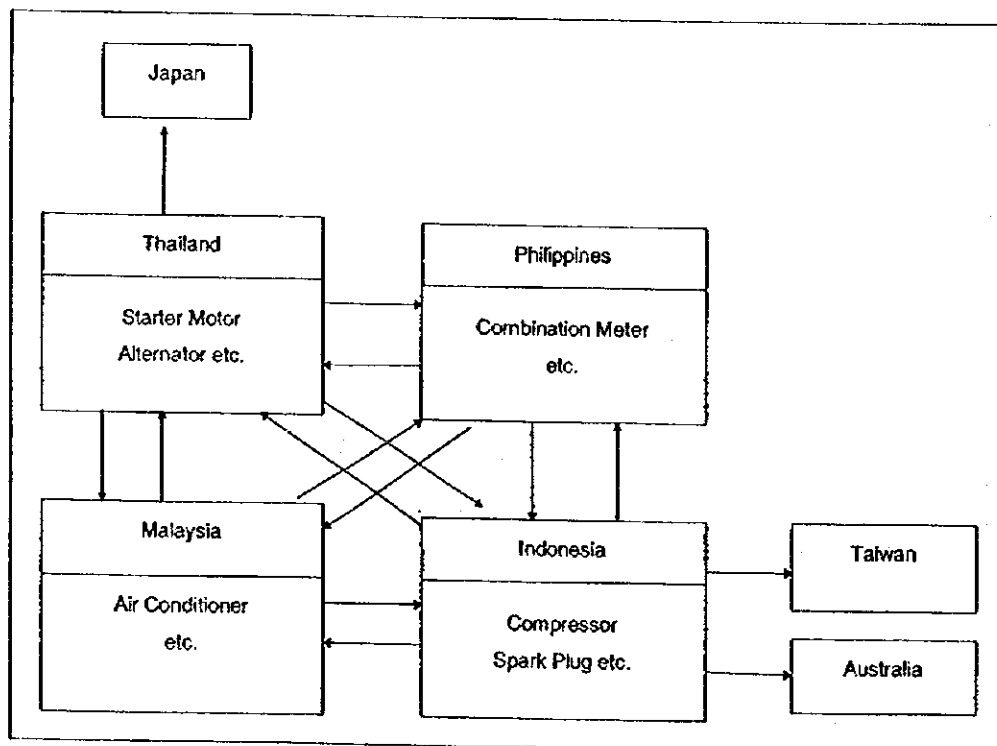


Figure 1.3 DENSO's parts complementation scheme in ASEAN region

### 1.2.2 Participation with WTO, Its Influence on Viet Nam

Early WTO affiliation will bring Viet Nam the status as a "most-favored-nation" but would restrict industrial policy. The extent of these restrictions will depend most on Viet Nam's skill and persuasiveness at the negotiating table. It is impossible to state clearly at this time, therefore, how the WTO will respond to the way Viet Nam plans to promote the automobile industry. We can, however, anticipate on the basis of measures that the WTO has taken with existing members, the kind of obligations that Viet Nam is likely to assume after joining the WTO. Viet Nam can, of course, develop industrial policy based on an evaluation of the likelihood of being able to persuade other countries. The following considers industrial policy in the automobile industry from these viewpoints.

Firstly, let us consider Viet Nam's obvious violations of WTO rules. A special consumption tax (100%) levied on imported automobiles is clearly a violation of WTO rules since although it is not represented as a tariff, it works in exactly the same way. Viet Nam would be well advised to indicate it properly as a tariff before the negotiation begins.

Minimum Price, applied not only to automobiles but to all sorts of items, is also a fundamental violation of WTO rules. This system should be replaced as soon as possible with the standard practice of levying a tax based on the invoice price. (Standard practice includes preparing a list of "Check Prices", and only conducting a detailed investigation when the invoice price is substantially different from the Check Price.) If for technical reasons, changing the Minimum Price system quickly is not practical, then Viet Nam must consider adopting standard practice in the automobile industry at an earlier date. (It should be noted that Minimum Price can be substantially higher than the invoice price. In such cases, the actual tariff rate will be noticeably higher than the published tariff rate and this will be reflected in the final prices of the products. Such a system will hinder the sound development of the automobile market. Moreover, automobile companies that export to Viet Nam are super corporations operating on a global basis, with internal control mechanisms that will prevent manipulation of invoice prices in order to evade tariffs.)

The import quota for CKD units—an infringement of the WTO's fundamental principle calling for general abolition of quantitative restrictions—should also be abolished early and replaced by a tariff-based control. This is also important for the sake of promoting competition among domestic CKD makers. Restriction or prohibition of imports of used cars is a difficult issue; however, this is necessary for the protection and nurturing of domestic manufacturers, and if Viet Nam intends to use this measure, there is a possibility that it can obtain WTO's understanding when it negotiates for membership.

The WTO cites in the TRIM Agreements local content requirement and foreign exchange acquisition requirement as examples of non-tariff barriers in trade related investment measures, and requires developing countries to abolish them by 2000. In fact, Thailand has already announced that it will front-load the abolition of its local content requirement by July 1998. Malaysia, Indonesia, and the Philippines also have announced similar intentions by 2000. However, Indonesia which introduced hasty action in its eagerness to foster its National Car company, has been charged by Japan and other countries at the WTO. There is a possibility that Indonesia may apply for permission to delay its scheduled abolition beyond 2000. This report, however, will assume that the ASEAN countries will abolish their local content requirements as scheduled.

When Viet Nam negotiates WTO affiliation, it will not be allowed to delay performance of its obligations simply because it is late in joining the organization. The WTO will normally request a new member to accept the same conditions as other developing nations which are member countries, regardless of late entry. It is unlikely that Viet Nam will be able readily to use a local content requirement or an incentive system linking local content requirement to tariff after 2000.

A small automobile market such as Viet Nam would, however, find it an uneasy task to expand local production by only adopting tariffs. The other ASEAN countries have adopted a local content requirement in varying degrees and have succeeded in promoting local production to the extent that groups of automobile component manufacturers have been established in those countries. Viet Nam will have to take similar measures to encourage investment in automobile component manufacturing if it is to catch up with the other ASEAN countries after joining AFTA. Under normal circumstances, of course, it is desirable to use alternative ways of encouraging investment without resorting to a local content requirement.

Viet Nam will have to think about a successful negotiating strategy if it is to convince the WTO to allow it to continue to use a TRIM measure such as a local content

requirement. One way might be establishing a local content requirement for a limited period of such as 10 years, before joining the WTO. At any rate, the WTO is expected to take a strict view of all non-tariff barriers such as TRIM and Viet Nam will have to be prepared for quite an extensive debate when it negotiates for affiliation.

### 1.3 Supplement 1 : Present Status of the Automobile Industry in ASEAN Countries

#### 1.3.1 Production and Sales Trends in ASEAN Countries

Total automobile sales in the four ASEAN countries once decreased from 762,000 units in 1991 to 740,000 units in 1992, but rose sharply over the 3-year period from 1992 to 1995 (1,369,000 units) at an annual average rate of 22.7%.

On a national level, sales in Thailand have increased consistently since 1991 (269,000 units), growing at a remarkable 20.8% per year on average over the four years through 1995. In 1995 Thailand, with 572,000 units, had by far the largest sales among the four countries. Incidentally, Thailand lifted its import ban on completed vehicles in July 1991, and as a result, imports of completed vehicles – passenger vehicles in particular – began to increase in 1992, registering approximately 50,000 units in 1994 and 1995.

Sales in Indonesia decreased in 1992 and 1993 from 249,000 units registered in 1991. However, sales increased rapidly in 1994 and 1995, and Indonesia was second largest in 1995 with 384,000 units. Sales in Malaysia also dropped in 1992 and 1993, after registering 200,000 units in 1991. Sales recovered to 201,000 units in 1994, and in 1995 reached 283,000 units, showing a remarkable 41% growth over the previous year. The Philippines has enjoyed consistent growth since 1991 (annual growth: 29.8%); however, before that, demand had been sluggish for a long time due to political unrest in the early 1980s, and the country, with 129,000 units in 1995, is still far behind the rest.

Table 1.1 Production number of automobile in ASEAN 4

Year		1991	1992	1993	1994	1995
Thailand	P.C.	74,800	106,540	146,219	111,568	127,640
	C.V.	197,800	221,449	275,412	324,171	396,314
	total	272,600	327,989	421,631	435,739	523,954
Malaysia	P.C.	149,445	136,383	145,478	172,654	241,433
	C.V.	82,880	35,054	34,929	42,978	55,648
	total	232,325	171,437	180,407	215,632	297,081
Indonesia	P.C.	46,974	29,650	31,582	41,807	62,100
	C.V.	207,636	145,607	172,866	283,122	347,702
	total	254,610	175,257	204,448	324,929	409,802
Philippines	P.C.	26,000	35,000	51,583	57,818	62,300
	C.V.	20,000	25,000	29,337	42,280	40,710
	total	46,000	60,000	80,920	100,098	103,010
ASEAN4	P.C.	297,219	307,573	374,862	383,847	493,473
Total	C.V.	508,316	427,110	512,544	692,551	840,374
	total	805,535	734,683	887,406	1,076,398	1,333,847

Abbreviations P.C. = passenger cars, C.V. = commercial vehicles

Source Automobile Industry Handbook 1997, Nikkanjidoshashimbunsha

Table 1.2 Sales number of automobile in ASEAN 4

Year		1991	1992	1993	1994	1995
Thailand	P.C.	66,806	121,488	174,162	155,670	163,371
	C.V.	201,734	241,499	282,299	330,008	408,778
	total	268,540	362,987	456,461	485,678	572,149
Malaysia	P.C.	130,407	109,432	126,924	155,734	223,331
	C.V.	69,230	35,652	37,192	44,797	60,075
	total	199,637	145,084	164,116	200,531	283,406
Indonesia	P.C.	37,593	30,341	32,684	40,200	37,921
	C.V.	211,791	141,557	181,611	281,707	346,528
	total	249,384	171,898	214,295	321,907	384,449
Philippines	P.C.	27,403	35,147	52,464	58,684	71,200
	C.V.	17,996	25,270	32,707	40,386	57,500
	total	45,399	60,417	85,171	99,070	128,700
ASEAN4	P.C.	262,209	296,408	386,234	410,288	495,823
Total	C.V.	500,751	443,978	533,809	696,898	872,881
	total	762,960	740,386	920,043	1,107,186	1,368,704

Abbreviations P.C. = passenger cars, C.V. = commercial vehicles

Source Automobile Industry Handbook 1997, Nikkanjidoshashimbunsha

### Demand for Automobiles in Viet Nam

According to figures from Viet Nam's General Customs Department, imports of completed vehicles and KD units are as shown in the following table.

Table 1.3 Import number of automobiles (completed cars and KD-units) in Viet Nam

Year	1991	1992	1993	1994	1995	1996/*
Passenger Cars (Used Cars)	599	281	8,342	1,685	2,508 (333)	3,757 (1,916)
Bus (Used Cars)			1,169	4,018	3,128	816 (461)
Truck (Used Cars)	808	3,201	1,303	8,453	19,071	13,800 (10,660)
Sub-Total (Used Cars)	1,407	3,482	10,814	14,156	24,707 (333)	18,373 (13,037)
KD Unit (P.C.)					405	2,775 (1,973)
(Bus)						(320)
(Truck)						(482)
Total	1,407	3,482	10,814	14,156	25,112	21,148
Newly Registered Vehicles (for reference)				27,851	33,961	41,442

Abbreviation /\* = Provisional / Preliminary

Sources General Customs Department, Department of Transportation Police (Newly Registered Vehicles)

These statistics are based on customs clearance, and significantly different from the number of newly registered vehicles provided by the Department of Transportation Police appearing in the same table for reference. However, the number of newly registered vehicles appears to include tricycles called "Lambro" and also registrations due to change of ownership that might be counted twice. Since data from the General Customs Department does not, of course, include vehicles that enter the country illegally, the actual size of the domestic market for four-wheeled vehicles is believed to be halfway between the two sets of numbers.

The clearance-based data indicates that the number of imported vehicles showed rapid growth until 1995. In 1996, however, while the number of imported KD units continued to rise, imports of completed vehicles decreased from the previous year by no less than 25.6%, and the combined total of completed vehicles and KD units also dropped, by 15.8%, from the previous year. This is believed to be due in part to the 100% special consumption tax which began to be levied in 1996 on automobiles imported by foreign affiliated companies, working to suppress imports of completed vehicles by foreign investors.

A breakdown by type of the combined total of completed vehicles and KD units in 1996 in 5,730 units (27.1%) for passenger vehicles, 1,136 units (5.4%) for buses, and 14,282 units (67.5%) for trucks. As this data shows, the market centers around commercial vehicles.

Also, used vehicles accounted for no less than 71.0% of the total number of completed vehicles in 1996. Above all, used trucks, 10,660 units, occupied 50.4% of the combined total of imported completed vehicles and KD units.

### 1.3.2 Industrial Policies for Automobile Industry in ASEAN Countries

#### (1) Thailand

Thailand has given preferential treatment to foreign automobile companies since 1962, the year that SKD production by Japan and European manufacturers started. After a period of SKD production, CKD production began after the government imposed restrictions in 1971 on the types of automobiles that could be assembled with a requirement for 25% local content by 1974. In 1978, the government strengthened measures to protect support domestic manufacturers and encourage local production, including an import ban on all passenger vehicles under 2.3 liter engine capacity and large-size buses. At the same time, the Thai government also announced a new policy measure: the rate of local content, assumed to be 30% for passenger vehicles and 25% for commercial vehicles in 1979, was to be raised 5% per year till 1983, or until it reached a total of 20% increase. Further, in 1985 present local content rates of 54% for passenger vehicles and 60% for commercial vehicles were announced as objectives to be reached over the next three years. In 1988, a policy to switch the engine of 1-ton pickup truck—the largest single model in terms of unit sales—to local production was introduced. Thailand had boosted its local production policy step-by-step through the 1980s, before introducing a new policy of liberalization in July 1991. Thailand became the first ASEAN country to lift its import ban on completed vehicles and substantially reduce tariffs. Furthermore in May 1993 a ban on the construction of new automobile assembly factories was removed, followed by the removal of the up-to-49% foreign investment restriction in November of the same year. In the background of this liberalization policy and satisfactory growth of the domestic economy, demand for automobiles in Thailand began to grow in 1992 at an average annual rate of 20%. At the same time, direct investment by automobile-related enterprises in Thailand grew substantially, and as a result, Thailand now has the largest automobile market and business accumulation among the four ASEAN countries. Moreover, Thailand has had some success with export promotion shown by GM and Ford's decision to build automobile plants in Thailand that produce chiefly for export.

#### (2) Malaysia

Local production of automobiles in Malaysia began in the mid-1960s in order to save foreign currency and create employment. In 1966, Malaysia began to use measures such as imposing high tariffs on completed vehicles, exempting CKD parts from tariff, and adopting an authorization system for KD assembly plants, in order to protect and foster KD makers. Also, in 1979 local production of 29 types of automobile components were made effectively mandatory by disallowing the inclusion of import costs in production cost. Later, in May 1983 Proton, a National Car manufacturer, was founded as a joint venture with Mitsubishi Motors of Japan and others based on the National Car concept announced by the Mahathir government in 1982, and started production of Saga, a passenger car, in 1985. Proton went to local production for engine assembly in 1989 and for forged parts in 1994. Proton has maintained large market shares because it has the benefit of by far the best preferential tax treatment granted in return for its higher local content ratio than other companies. Its scale of production, 155,000 units in 1995, is also one of the largest among ASEAN countries. Incidentally, before Proton started production, tariffs on KD parts of other manufacturers had been raised from 0% to 40% over the period from 1981 to 1984. In January 1992 13% tariff was levied on Proton's imported parts in order to nurture domestic parts manufacturers, and Proton was also required to increase its local content ratio from a previous 60% to 80% by the end of 1993. Other assembly makers were required to increase their ratios from a previous 20-30% to 45-60% by the end of 1996. Furthermore, as part of its local production promotion program, the government has focused attention on establishing local component manufacturers, Bumiputra (Malayan) enterprises in particular. The

VDP (Vender Development Program) initiated in 1993, under which assemblers such as Proton provide technical support to component manufacturers and agree to purchase their components, has been fairly successful. A second National Car manufacturer, Peroudua, was founded as a joint venture with Daihatsu Motors of Japan in February 1993 to promote competition, and the Kanci, the second National Car, was put on sale in late 1994. The car is doing well, selling approximately 40,000 units in 1995. A project for a new National Car is also being promoted with Citroen of France and other companies. Proton exports some products at present (approximately 20,000 units in 1995). However, as its product is not yet competitive enough in other markets, Proton is looking at ways to cut production costs by 30%. Proton also plans to build a second factory in 1998 - which increases the total production capacity to 500,000 units by 2000, in anticipation of increased exports.

### (3) Indonesia

Local automobile production began in 1969 when the Indonesian government put an import ban on completed vehicles, made it mandatory to use domestic capital for the CKD assembly, and introduced an authorization system for entry by assembly companies. In 1976 a plan for local production of commercial vehicles was announced. The plan called for import duties for KD parts of commercial vehicles to be set at 0-10%, (compared with 100% for passenger cars), and set deadlines for the local production of each type of part, with 1984 as the final goal year. The goal was not attained, and the period was extended successively. Further, in 1987 the government developed a plan for complete local production of small commercial vehicles (2.5 tons or less). This was aimed at local production of basic components such as the engine and transmission. The nominal local content ratio increased to 80% by the goal year of 1990; local production of child parts and materials, however, did not go as expected and the actual rate of local content is rumored to be around 30%. It is fair to say that the Indonesian government was enthusiastic in promoting local production, but failed to attain its goals. Reflecting on this experience, the government changed its automobile industry policy in June 1993, and deregulated the import of completed vehicles. At the same time, the abolition of local production obligation for certain specified components and reduction/exemption of tariffs commensurate with the degrees of local content ratio was announced and put into practice in January 1994. Further, in June 1994 foreign investment control was abolished, and in May 1995 schedules for reduction of tariffs and other taxes were announced with AFTA/CEPT in mind. In February 1996, when it began to be expected that the shift to deregulation would lead to a more active entry by component manufactures and others, the National Car program was announced. The program was for government authorization of "pioneer enterprises" that would fulfill certain conditions such as (1) 100% local capital, (2) use of independent domestic brands, and (3) accomplishment of local content ratios of 20% in the first year, 40% in the second year, and 60% in the third year, and exempt imports of parts from tariffs and assembled vehicles from the luxury tax, so that low-priced vehicles could be supplied. However, this was clearly a violation of WTO's nondiscrimination principle as these measures were only applied to Timor Putra Nasional (a partnership with Kia Motor of South Korea) operated by President Suharto's third son, and the government authorized duty-free imports of completed vehicles from South Korea until local production started. Japan and other countries has brought the Indonesian government to WTO. The Indonesian government is said to have been motivated by WTO requirements to remove non-tariff barriers by 2000 and AFTA/CEPT obligations to reduce intra-tariffs to 5% or less in 2003. The Indonesian government is said to have acted hastily to achieve local production of passenger vehicles to compete against Proton of Malaysia and other companies. This was hardly good policy for Indonesia: it invited opposition from the international community and resulted in the stoppage of direct investment in the country.



#### (4) The Philippines

In 1951 the import of completed vehicles was restricted by means of foreign exchange allocation and CKD assembly was started. Afterwards, many businesses entered the automobile industry; however, in 1971 the government announced a plan for local production of passenger vehicles (PCMP) to limit the number of participating companies. Specifically, the government set goals for local content ratios at 15% to be attained by the end of 1973 when the plan's first-phase was to end, 25% by June 1975 when the second phase was to be completed, and 35% by June 1976 when the third phase was to end. Five companies including Delta (Toyota), Ford, CARCO (Chrysler, later Mitsubishi), GM, DMG (VW, later Nissan) acquired authorization. In 1977 a plan for local production of commercial vehicles (PTMP) was also developed. These plans proved quite successful in the 1970s due partly to increased demand; however, after 1980 domestic demand turned sluggish due to the effects of the second oil crisis. In 1982 the problem of negative international payments balance came up to the surface. Further, following the 1983 assassination of Mr. Aquino, the government suspended foreign exchange allocation for domestic producers because of political unrest and a foreign exchange crisis. This made the import of components extremely difficult, and forced Toyota and Ford to withdraw in 1984 and GM in 1985.

Demand for automobiles recovered following the establishment of the new Aquino regime in 1986, reflecting the economic recovery. At the end of 1987 a Car Development Plan (CDP) was announced. It aimed to nurture the automobile component industry and raise the local content ratios, facilitate technology transfer, create employment, encourage foreign currency savings, and establish a reasonable selling price system. In response to the improved business climate, Toyota resumed its local assembly operations in 1989. In 1990, the government made it mandatory to raise the local content ratio for components to 40%, increase foreign exchange acquisition year after year through exports of components, and from 1994 finance 100% of foreign currency requirements by export of components (these obligations were partly eased later on, and the current foreign exchange acquisition requirements are 45% for passenger cars and 10% for commercial vehicles, though they are scheduled to be raised to 50% and 15%, respectively, in 1998). Also, in March 1990, the government announced a "National Car (not more than 1.2 liters; not more than 175,000 pesos) Concept," and entry of new manufacturers started again. Not only existing PCMP-authorized manufacturers, but also 13 other companies from Japan, South Korea, the U.S., and Europe announced their intentions to join in the National Car program, but only seven companies, including Honda, Daihatsu, and Kia, were selected.

The current policy measures of the Philippines for its automobile industry can be divided into two requirements: the requirement to attain the local content ratios (40% for passenger cars and 45% for commercial vehicles), and the requirement to raise certain amounts of foreign currency needed to purchase components for auto production through exports of autos and auto parts. The government is also enthusiastic about liberalization and deregulation, and has already reduced the tariff on KD parts to 3%; however, it is considering reexamining this tariff because it might have lowered the rate too far to induce parts manufactures.

Table 1.4 Automobile industry policy of ASEAN countries

	Market Size (in thousands of vehicles)	Characteristics of Market	Characteristics of Policy	Local Content	Remarks
Thailand	1996: 589	<ul style="list-style-type: none"> <li>Liberalization policy is effective. Rapid expansion since 1992 has allowed this country to become the largest market in ASEAN. Integration of parts has made progress.</li> <li>One-ton pickup trucks, which are suited to local road conditions and benefit from preferential tax treatment as well, is positioned as a national car.</li> <li>Demand for passenger cars is increasing, especially in urban areas.</li> </ul>	<ul style="list-style-type: none"> <li>Liberalization is effective.</li> <li>Keen on attracting supporting industries (e.g. by offering exemptions from corporate taxes)</li> <li>Development of Bangkok suburbs (Zone No. 3)</li> <li>Most enthusiastic about AFTA/CEPT. Aims to create an Asian base for automobile production.</li> <li>Preferential treatment given to automobile plants for export.</li> </ul>	Local content (some items designated): Passenger cars: 54%, and diesel pickup truck engines: 70% (beginning in 1998). Effective July, 1998, domestic production regulations will be abolished.	
Malaysia	1996: 364	<ul style="list-style-type: none"> <li>Particularly strong growth in 1995-1996.</li> <li>A market with a national passenger car as the driving force.</li> <li>Domestic market is anticipated to taper off at several tens of thousands of units, given its small population.</li> </ul>	<ul style="list-style-type: none"> <li>The policy of promoting the national car manufactured by the Proton, has been in place since the 1980s. 155,000 units were produced in 1995, which is the highest number in its class.</li> <li>Expanding the number of models for the national car.</li> <li>A cost reduction of 30% is targeted for export competitiveness.</li> </ul>	Local content (some items are designated): Passenger cars less than 1850 cc: 60%; passenger cars less than 2850 cc and commercial vehicles: 45% (policy for 1997 and subsequent years not yet announced).	
Indonesia	1995: 384; 1996: 330	<ul style="list-style-type: none"> <li>Particularly strong growth in 1994-1995.</li> <li>Reduced in 1996 due to restrained purchases resulting from a dispute over the national car.</li> <li>A commercial vehicle market represented by Kijang, which, in many cases, serve as passenger cars as well.</li> </ul>	<ul style="list-style-type: none"> <li>Preferential customs treatment in proportion to the ratio of domestic production.</li> <li>Liberalization policy was adopted in 1994 (particularly the abolishment of restrictions on foreign capital investment), but a national car initiative was announced in February, 1996, causing trading partners to file a complaint with the WTO.</li> <li>Most negative toward BBC and AICO.</li> </ul>	Local content corresponds to the customs duties for KD parts. Exempt from customs duties and tax on luxuries for vehicles with local content of more than 60% (see remarks).	Rate of domestic production Passenger cars Commercial vehicles (CKD customs duty: %) Less than 20% 65 25 Less than 30% 50 15 Less than 40% 35 10 Less than 50% 20 0 Less than 60% 10 0 60% or more 0 0
Philippines	1996: 162	<ul style="list-style-type: none"> <li>Strong growth in 1995-1996.</li> <li>Demand for passenger cars is strong. In addition, passenger buses using reconditioned engines from "Jeepney" trucks are also significant, with over 100,000 units manufactured.</li> </ul>	<ul style="list-style-type: none"> <li>Liberalization policy is being promoted.</li> <li>Mandatory procurement of foreign exchange (see remarks for rate of acquisition. Amount of acquisition of foreign exchange is increased by 50% if the domestic production ratio reaches 50%).</li> <li>Moving to raise CKD tariff rates again from 3% to 10%.</li> </ul>	Local content: Passenger cars: 40%, and commercial vehicles: 45% (no parts are designated.)	Mandatory procurement of foreign exchange: Ratio of acquisition (%) Passenger cars: '95 '96 '97 '98 '99 2000 40 45 45 50 55 55 Commercial vehicles: '95 '96 '97 '98 '99 2000 10 10 10 15 15 15
Viet Nam	1996: 21	<ul style="list-style-type: none"> <li>Market remains small.</li> <li>Imported used cars account for 70% of the total.</li> </ul>	<ul style="list-style-type: none"> <li>Currently under development, but an incentives policy for auto parts makers is lacking.</li> </ul>	Local content (guidelines): Basically, 5% in five years, and 30% in 10 years, but no method of calculation has been established.	

Table 1.5 Handling of customs duties and trade-related investment measures in the automobile and parts industries in ASEAN countries

	Current customs duties (%)	Current trade-related investment measures	Handling at AFTA/CEPT	Restrictions in WTO	Remarks
Viet Nam	Passenger cars: 55 (import consumption tax: 100, actual total: 210) KD parts: 5- 50 (import consumption tax: 0-100, actual total: 5- 200) Parts: 30- 60 Note: Minimum price system that determines minimum taxable base is in place.	Local content (guideline): 5% in five years, 30% in 10 years	Basically exceptional items	Not yet a member	
Thailand	Passenger cars: 42- 68.5 (domestic commodity tax: 35.75- 41.8) Diesel PU trucks: 60 (domestic commodity tax: 0) KD parts: 20, Parts: 15- 60	Local content: Passenger cars: 54%, Diesel pickup truck: engines: 70% (from 1998 onward), other designated items are allowed	Basically exceptional items. Most enthusiastic about AICO.	TRIM will be abolished in 2000. (Note 1: However, local content regulations will be abolished in July 1998.)	GM, which will begin production in 1998, has been requested to export more than 80% of all vehicles.
Malaysia	Passenger cars: 140- 200 (domestic commodity tax: 25- 65) Commercial vehicles: 30 (domestic commodity tax: 0) KD parts: Passenger cars: 42; commercial vehicles: 0, Parts: 0- 30	Local content: Passenger cars less than 1850 cc: 60%, Passenger cars less than 2850 cc and commercial vehicles: 45%	Basically exceptional items	TRIM will be abolished in 2000. (See Note 1 above)	
Indonesia	Passenger cars: 125- 200 (luxury tax: 0- 35, national cars: 0) Commercial vehicles: 50- 105 (luxury tax: 0-35, subcompact cars: 0) KD parts: 0- 65 (no customs duties on vehicles with local content of 40% or more) Parts: Established for each item, provided that tariffs are reduced to 25% by 2000	Local content corresponds to customs duties on KD parts. Exempt from customs duties and luxury tax for vehicles having local content of 60% or more.	Basically exceptional items. Most opposed to BBC and AICO. Note 2	TRIM will be abolished in 2000 (recent tendency to strengthen TRIM). Note 1.	After Indonesia made its national car policy public in February 1994, a complaint was filed with the WTO.
Philippines	Passenger cars: 40 (domestic commodity tax 15- 100) Commercial vehicles: 30 (domestic commodity tax 15- 100) KD parts: 3 Parts: 10- 30	Local content: Passenger cars: 40%, Commercial vehicles: 45%, Mandatory procurement of foreign exchange (passenger cars: 45%, 50% from 1998, and commercial vehicles: 5%) No national car is produced.	Basically exceptional items	TRIM will be abolished in 2000. (See Note 1).	
Singapore	Passenger cars: 41 (additional registration tax: 150) Commercial vehicles: 0 (additional registration tax: 5) Parts: 0 (No KD production)		Parts are general items; others are basically exceptional items.		

Notes

- 1) For the abolishment of TRIM at the end of 2000, extension of the transition period may be allowed by the Commodity Trade Council. In addition, it is possible that new import bans and trade-related investment regulations will be developed in response to imbalances in the international balance of payments and to protect infant industries.
- 2) Products of the other ASEAN countries are not considered to fulfill local content requirements.

### 1.3.3 Comparison of Investment Environment Among ASEAN Countries and Viet Nam

Low labor costs is the only favorable factor that Viet Nam's investment climate has over other ASEAN countries. (see Table 1.6) Land is leased rather than sold in Viet Nam, and yet land is cheaper in the four ASEAN countries. Electricity and water charges are double in Viet Nam than in Thailand. Further, in terms of institutional incentive to promote direct investment, Viet Nam is clearly far inferior to the four ASEAN countries. In the case of the period of corporate-tax credit, for example, in Viet Nam it is one year for exemption, and two years following that period for a 50% reduction, while in Thailand, exemption in the Third Zone is for 8 years, 50% reduction is for 5 subsequent years, and for "supporting industries," exemption is for 8 years regardless of location. Moreover, in Viet Nam the tariff system for automobile components is distorted (the tariff rates for child parts are higher than the rates for CKD parts) and has become a disincentive for the component manufacturers. Consequently the investment climate for component manufacturers has become even more unfavorable than for other industries.

Although not indicated in the table, the difficulty in running business due to poorly organized or unclear laws and regulations has been a cause of serious grievance among foreign corporations. The extraordinary time and effort required to obtain authorization or permits has become in effect a cost increasing element and is directly responsible for the deterioration of the investment climate.

It may be possible in some cases for import-substituting industries to induce investment in spite of the above climate if Viet Nam protects industries by means of tariff, for example. However, in the case of export industries, Viet Nam, operating in the business climate described above, will unlikely be as successful in inviting export industries as it hopes to be, because it has to compete with other countries. In fact, the amount of direct investment is increasing, but many in import-replacing industries, and relatively few export industries have come in.

Concerning the number of investments in the automobile industry, there are more than enough KD assemblers, but there have been relatively small numbers of direct investments in the components segment. Due in part to the disincentives mentioned above, there are still no signs of business moving largely into the component segment. If Viet Nam aims to export automobile components within the ASEAN region by inducing direct investment, it needs to considerably improve its investment climate.

Table 1.6 Investment environment in ASEAN countries and investment incentives for the automobile industry

	Systems and incentives applicable to foreign automobile and auto parts manufacturers										
	Land Prices		Power rates	Water rates	Wages			Middle managers	Possibility of 100% foreign ownership, especially in auto parts	Corpo rate tax rates	Incentives
	\$/m <sup>2</sup>	\$/KWh	\$/m	Min. wages	Workers	Engineers	Eng. S/month				
Thailand (Bangkok)	86 (Bangpoo, Bangkok Industrial Complex allotment sale prices)	0.04	0.24	6.15/day	140 to 330	280 to 780	780 to 1960	100% foreign ownership is possible (supporting industries, or zone No.3, etc)	30	Investment incentives are determined by separating the district into three zones. Zone No. 3: 100% foreign-owned corporations are allowed with no export restrictions. Exempt from corporate tax for eight years; 50% exemption for five years thereafter 75% Reduction from import duty for KD parts. Fourteen supporting industries are exempt from corporate tax for eight years, regardless of location.	
Malaysia (Kuala Lumpur)	108 - 129 (Sbah Alam Industrial Complex allotment sale prices)	0.08	0.48	No system available	210 to 360	600 to 1070	1200 to 3700	Joint ventures are basically mandatory.	30	Enterprises designated as "pioneers" have taxes levied against only 30% of corporate income for five years after the start of production. Investors may also choose investment tax abatements (a tax abatement limit of 60% is given for capital investment within five years of the initial capital expenditure; a maximum of 70% of annual corporate profit may be offset, with the unused balance carried over to the following year.	
Indonesia (Jakarta)	90 (Jakarta MM2100 Industrial Complex allotment sale prices, 30/cm from Jakarta)	0.035 (off-peak) to 0.074 (peak)	0.5 (small businesses) - 1.4 (large business)	2.2/day	94 to 160	210 to 530	300 to 2050	100% foreign ownership is allowed.	30	Restrictions on foreign capital were substantially relaxed in June, 1994 (100% foreign ownership was approved, minimum investment rule was abolished, and the clause requiring localization in 20 years was repealed.) Tax holiday system up to 10 years (detailed regulations under development). Foreign subsidiaries are exempt from customs duties on machinery. Exchanges controls were completely lifted.	
Philippines (Manila)	76 (Cavite EPZ allotment sale prices, 45km from Manila)	0.09	0.24	6.8/day	210	285 to 335	600 to 800	100% foreign ownership is allowed	35	Newly registered pioneer enterprises or export businesses that meet certain conditions are given preferential treatment on corporate tax for six years (with extensions of up to two years). Newly registered non-pioneer enterprises are given preferential treatment on corporate tax for four years (with extensions of up to two years).	
Viet Nam (Hanoi)	3 <sup>1</sup> (Gia Lam Industrial Park (Sai Dang A) annual rent) : 175 for a 50-year lease	0.075	0.50	45/month	86 to 130	170 to 250	305 to 350	Joint ventures are basically mandatory.	25	Exempt from corporate tax for one year after profits are generated, and reduced by 50% for two years thereafter.	

Remarks ☺ favorable environment compared to other countries, ☻ unfavorable environment compared to other countries

Sources JETRO, ASEAN Center (Tokyo), etc.

## 1.4 Supplement 2 :Some Findings From Interviews With Automobile Companies in Viet Nam

Valid responses were received from seven companies. A hesitant attitude was generally noticeable in answering the questions; however on major management issues there were specific answers though moderate in expression. The following enumerates the points of importance especially as regards management issues. The specific content of the answers is summarized in Table 1.7.

### **(1) On imports of components, etc.**

#### **1) Tariff-related**

- There are many problems regarding the business environment because related laws and regulations are unclear and changeable. (3 companies)
- Many kinds of fees and charges have to be paid. (4 companies)
- Imports of machinery and equipment are duty-free, but if there is any difference from the feasibility study submitted with the investment application, duty has to be paid. (1 company)
- The base price for taxation is assessed higher than the actual contract price. (1 company)

#### **2) Foreign exchange acquisition**

Many companies answered that as of February 1997 they have had no problem in obtaining the foreign currency for the import of components. However, one company answered that it had experienced difficulty raising sufficient amounts of the foreign currency (especially after the Vietnamese dong's declining value was rumored about in the 4th quarter of 1996).

#### **3) Other import-related procedures**

- The procedure to obtain the Trade Ministry's approval for imports is unclear and time-consuming. (1 company)
- The laws and regulations are generally changeable. (1 company)
- It is obvious that there are delicate issues. (1 company)
- The procedures are too complicated. (1 company)

### **(2) Production**

#### **1) Quota on KD parts**

Two companies appreciated that the quota on KD sets beyond CKD2 had been abolished in January 1997; however, many complained about the quota approval procedures prior to that.

#### **2) Local Procurement of Parts**

- It is difficult to procure parts within Viet Nam at present because of lack of reliable suppliers and technology. (3 companies)
- Cannot compete with other countries because the market is too small. (1 company)

### **(3) Personnel**

#### **1) Workers**

Many companies expressed no problems. However, one company stated that wages for trained workers were too high, and one company replied that it was difficult to hire good workers 2 or 3 months after graduation time. Also, one company stated that the procedure for sending workers overseas for training purposes is difficult and time-consuming.

### **2) Engineers**

Many companies said that basically there were no problems. However, one company said there was a problem in technical capability, and two companies said it was difficult to hire engineers who could speak English.

### **3) Managers**

Many companies expressed no problems. However, one company stated there was a problem in their English-speaking capabilities, and one company said few could do a job good enough to deserve their salaries.

Table 1.7(1) Summary of interviews with automobile companies in Viet Nam

Company	A	B	
Import	Import duties and levies	* Equipment and machinery in accordance with the feasibility study (including vehicle) is exempted from taxes. * Parts and accessories of SKD, IKD, CKD1, CKD2 forms and materials for assembly is in accordance with the import tariff. However, the feasibility study is different from real situation, and this difference can hardly be exempted from taxes.	Import tax, Special consumption tax, Custom fee, Stock fee, Fee for Forwarding company The Law of Viet Nam is not stable. The application of the Law when it changes is unclear, so businesses have disadvantages.
	Foreign exchange	At present, we have not met with significant difficulties in getting foreign exchange. We have the support of the foreign partner in providing foreign exchange. We sell our products in VND, then buy USD in the banks.	Up to now, we have not met any obstacle in this problem because we have not yet started the distribution of products in Viet Nam.
	Procedure and others	The difficulty is the instability of the tax tariff and the regulations.	Licensing procedure of MOT is not clear and it can take a long time. It is necessary to provide more knowledge for people in charge.
Production	Quota	In past years, we made a plan and submitted it to the Ministry of Trade for approval. From 1997, the import of CKD2 form is not limited, but other materials and chemicals has not been stipulated yet. Up to now, we have to use quota of 1996.	According to the Decree No. 28 dated January 13, 1997 of the Government, no more import quota control, but there is not guideline yet, so we must wait to know the details.
	Local content ratio	We have not local content ratio for CKD2 form yet. We are ready to carry out the localization once Viet Nam has enterprises producing automobile parts and accessories. But we think up to now, there is no automobile companies which carried out the localization. The automobile industry of Viet Nam can hardly compete to other countries, because the Vietnamese market is small. The localization should be implemented when the income of Vietnamese people is higher and the Vietnamese market is expanded.	We plan to reach the localization of 10 % within a period of 5 years, in compliance with the stipulations of Vietnamese Government. The expectation of local content ratio in the future is good. However, Vietnamese supporting industries has not yet achieved international standards. Therefore, in the next stage, product quality will not able to achieve quality standards as in ISO 9000.
	Plan and others	There are many difficulties such as the low development of the economy, the bureaucracy of the national administration.	We plan to produce 20,000 units/year.
Personnel	Worker	No answer.	No problems.
	Engineer	Skillful enough to meet our requirements, but lacking middle-man between engineers and workers (student graduated from higher technical school).	No problems.
	Manager	Specific works are conducted by Vietnamese managers. Vietnamese managers trained by our company are attracted to other joint ventures.	No problems.
Sale	Our sales tax rate is 4 %.	We have not yet started the distribution.	



Table 1.7(2) Summary of Interviews with Automobile Companies in Viet Nam

	Company	C	D
Import	Import duties and levies	* Import tax in accordance with import-export tariff stipulated by the Ministry of Finance. * Custom Fee : Comprising : stock fee, loading - container fee, transportation and other fees in the process of import in accordance with regulations of General Custom Office.	* Import tax : including • Import tax of capital goods • Import tax of parts, materials  * Special Consumption tax * Custom fee, many of which are "subtle fees". We have met with many difficulties because regulation are unstable and unclear.
	Foreign exchange	Up to now (2/1997), foreign exchange is favorable to us when it has been needed.	We have many advantages in getting foreign exchanges.
	Procedure and others	In general, there are not any problems, but there are some 'subtle troubles' and it is obvious.	In general, we have not met with significant problems or obstacle.
Production	Quota	Our company has not been given quota in 1997.	We are in pilot phase.
	Local content ratio	Our local content ratio in accordance with the feasibility study is not so high. In the future, it may be higher because of the development of industry in Viet Nam.	Our local content ratio is inconsiderable. We are planning to raise local content ratio, but we have not predicted this ratio yet. Workers have not high skills and technology engineers are not skilled enough to achieve such expectation on the local content ratio. And Viet Nam has not mechanical technology suitable for the development of automobile assembly branch.
	Plan and others	400 - 500 units/year	In general, we intend to produce 3 kinds of products.
Personnel	Worker	Our worker are trained in keeping with our production stage.	Expense for training workers is too high. The lack of middle-man between engineers and workers (student graduated from higher technical school) in terms of number and qualification.
	Engineer	Our engineer are trained to meet our requirements.	We have met with difficulties in skill and ability of mechanical workers and engineers. At present, Viet Nam is lacking manufacturing technology engineers.
	Manager	Our manager and administration clerk are trained by us, and we have no problem.	The problems is working style.
Sales		Trucks : 1 %. Cars : 4 %	We have not sold our products yet.

Table 1.7(3) Summary of Interviews with Automobile Companies in Viet Nam

		E	F
Import	Import duties and levies	Although we listed the company cars in the Master List for duty free, we had to pay the specified amount	1) Import taxes applied for import parts, materials and parts in form SKD, CKD1, CKD2, IKD are in compliance with regulations of Viet Nam Government on import-export taxation. 2) Fees and charges applied for import parts, materials and parts are in compliance with regulations of Custom Office : Freight, Container fee, Dispatch and unloading fee, Stock fee. Our company has not to pay import duties and levies more than rates on amounts ruled in the law.
	Foreign exchange	No problems so far.	Until the end of 1996, we can find easily foreign exchange resources according to the exchange rate published by banks.
	Procedure and others	Procedure is too complicated.	No answer.
Production	Quota	MOT state that unless we fulfill the additional quota which has given so far that they will not issue any new quota.	According to our F.S., the local content ratio of our company will be 15% - 20%. However, the local content ratio at present is 0%. In 1997, the localization program will be started, with the local content ration of about 2 %.
	Local content ratio	We are targeting to start partly in April 1997. We wish to achieve in line with the guideline given from the Government. No reliable local vendors in terms of quality/price and delivery time. We have to rely on mainly Japanese J/V or BCC companies.	Procedure of sending staff abroad is difficult and it can take a long time. In some cases, our company was notified of the conference or training program (held in abroad) 15 days to 1 month before the beginning, but we could not participate that conference/program because the procedure requires 1 month to complete.
Personnel	Worker	We don't have problems for human resources for the factory worker as most of our workers are employed from the region in which the factory located.	No answer.
	Engineer	As our factory is located away from the central area of the city, it has been difficult to find good English speaking engineers. As we are an international joint venture company, English is our communication language. The people employed from the August 19 factory make a barrier to Ha Noi employed people.	No answer.
	Manager	Same as above. People came from the Vietnamese Party can not communicate in English.	* Sales tax Automobiles : 4 % Parts/Components : 2%
	Sales	1% of turn-over tax.	

Table 1.7(4) Summary of Interviews with Automobile Companies in Viet Nam

		G
Import	Import duties and levies	<p>Import duty : including</p> <ul style="list-style-type: none"> <li>* Parts : 60 %</li> <li>* Equipment : 0 %</li> <li>* Sub-material : 1%-25%</li> </ul> <p>CKD1: Load not over than 5 tons : 16% of 5 seats to 15 seats : 40%</p> <p>CKD2: of 5 seats to 15 seats : 20%</p> <p>1) There are specific import tariff for CKD1-2 but the Customs evaluated our KD parts with a higher price in comparison with the Contract price.</p> <p>2) Some commodities are not listed in the tariff and evaluation of custom list. Therefore, the customs officer have to check and compare with the market price of imported and similar goods. As a result, so they assessed the unit price of imported commodity higher than the contract price.</p>
	Foreign exchange	<p>However due to thin availability currencies here, we have been facing great difficulties in getting enough foreign exchange when we make payment for import material authorized by the quota. The difficulties have become remarkable since possibilities of devaluation of VND were alleged in the last quarter of 1996. The Government or the State Bank is requested to guarantee availability of foreign exchange for each payment which is authorized by the quota or the governmental license through proper foreign exchanges control.</p>
Production	Quota	<p>There are too many regulation and complicated procedure for getting approval :</p> <ul style="list-style-type: none"> <li>* Import Quota</li> <li>* Customs Clearance</li> </ul> <p>More flexible and speedy treatment is preferable.</p>
	Local content ratio	
Personnel	Worker	<p>The current local content ratio of the Company is less than 1%. Preferably, we would like to reach the localization of 15% within 10 years.</p>
	Engineer	<p>Difficult to get good employees especially after passing graduation season 2-3 months.</p>
	Manager	<p>It is quite difficult to find people at reasonable costs who have enough experience and knowledge for doing business in market economy. The foreign experts began thinking that it would take much more time to carry our technical transfer to Viet Nam in this field than had expected.</p> <p>1) The high rates of income tax make employment at reasonable salaries difficult and on the other hand, this is one of the biggest factors which discourages capable persons from working hard at their maximum capacity.</p> <p>2) Lack of modest and flexible mind to learn ways of business from the foreigners if often observed.</p> <p>3) Royalty to societies including company is so weak yet.</p> <p>4) Many are still sticking to papers such as language or computer certificates and considering them more important than job experience and actual hard working.</p>
Sales	<ul style="list-style-type: none"> <li>* Turn-over tax</li> </ul> <p>Cars : 1% Others : 4%</p> <p>This tax make the assembled vehicles in Viet Nam much less competitive than the imported ones.</p>	