

2-3

Development Policy on SMEs and Supporting Industries in Viet Nam

Masahiko Ebashi

Meiji Gakuin University

Hitoshi Sakai

Nomura Research Institute, Ltd.

Nobuaki Takada

Nomura Research Institute, Ltd.

I . Necessity of the SME Development Policy for Viet Nam

1) As of July 1995, there were 8,577 enterprises in the manufacturing sector in Viet Nam. Of which, there were 2,122 SOEs, 6,073 private enterprises (includes cooperatives) and 382 foreign enterprises. These enterprises employed about one million workers and exported about US\$1.9 billion worth of manufactured goods in 1995. Total sales reached 66,500 billion dong in 1994.

If SME is defined as "an enterprise with less than 10 billion dong in total capital or with not more than 500 employees," 96.7% of Vietnamese enterprises in the manufacturing sector could be classified as SMEs. The number of employees of these SMEs was about 600,000 which was 61% of total employment in the manufacturing sector

However, the absolute number of manufacturing enterprises is very small when compared with other ASEAN countries. For example, there were 64,000 enterprises in the manufacturing sector in Thailand and 79,000 enterprises in the Philippines. This reflects Viet Nam's shorter history of industrialization and the restricted participation of the private sector in its industry in the past.

In order to accelerate its industrialization, the Government should further encourage its entrepreneurs to establish their own enterprises. A large number of households which engage in manufacturing business are candidates for future big enterprises. There were 531,000 households in the manufacturing sector which employed 1.2 million workers and produced 21% of Viet Nam's gross industrial production in 1995.

2) The objectives of the SME promotion policy differ by country according to the development stage of its economy. The ASEAN countries have set their main objectives since in 1970s to expand exports and to generate employment. However, they are now shifting its emphasis to develop supporting industries in order to attain a more sophisticated industrial structure. As for Korea and Taiwan, the main objectives of their recent SME policy owe to develop supporting industry and at the same time to develop SMEs in the high-tech field. On the other hand, in the case of the US and Japan, the emphasis

of their SME policy is shifting toward encouragement of venture business and SMEs which have high technology. The reason is that such SMEs are considered more effective than the big enterprises in terms of responding to the rapidly changing needs of consumers, since SME generally have more flexibility and dynamism.

3) In Viet Nam, the objectives of the SME development policy can be summarized as follows:

- (a) To expand exports and to substitute imports by way of supplying timely and competitive products to the quickly changing domestic and foreign market
- (b) To raise productivity of capital and labor
- (c) To create employment
- (d) To develop and strengthen its supporting industry
- (e) To upgrade its industrial structure

4) Being still in a transition period from a centrally planned economy to a market economy, Viet Nam's business environment is not favorable compared to other ASEAN countries, especially for those in the private sector. Many regulations and restrictions, various administrative interventions, a still inefficient financial system, a heavy tax burden and ill-equipped business support institutions are the major problems for SMEs. Because of the high transaction cost, it is generally hard for SMEs to grow in such circumstances amidst numerous regulations and restrictions.

In other Asian countries, SMEs basically do not always face such problems; nevertheless, the Governments have been extending various support for SMEs as it is considered that they are the economic weak which can not naturally grow because of the handicap of economy of scale. Government intervention to support SMEs is justified here as a case of "market failure."

Considering the importance of SMEs for its economic development, Viet Nam should guarantee a better business environment and extend further support to SMEs, which at least should be on the same level as other ASEAN countries.

II . Major Claims of SMEs : From a Questionnaire Survey

According to our questionnaire survey conducted February to March 1997 in seven regions across Viet Nam, the top ten policy measures desired by SMEs are, (1) access to financing credit, (2) more streamlined tax system, (3) strengthening of government's investment promotion funds, (4) more simplified administrative procedures, (5) technological support, (6) stable supply of electric power, (7) development of industrial parks for SMEs, (8) export finance, (9) deregulation of export licensing, (10) access to the foreign market information.

III . SME Development Policy in Japan

Japan has eagerly promoted the development of SMEs under the belief that SMEs play an important role in enhancing Japanese industry and economy. SME development measures in Japan cannot directly apply to Viet Nam. However, they suggest some important standpoints that may be useful to Viet Nam.

The following are the effective policies on SME development implemented in Japan.

- 1) Establishment of financial system for SMEs: One is the establishment of Specialized Financial

Institutions for SMEs. The other is the establishment of a Credit Supplementation System for SMEs.

- 2) Establishment of an SMB Basic Law
- 3) Organizing business associations among SMEs
- 4) Establishment of export promotion organization for SMEs
- 5) Organizing public research laboratories

IV. Recommendations for Viet Nam

1. Principles of SMEs Development

For development of small and medium enterprises (SMEs), we propose the following two strategic guidelines:

- 1) Develop export-oriented SMEs since these companies have a competitive advantage with their inexpensive labor-intensive industrial structure, and
- 2) Promote supporting industries which will provide components for foreign companies operating in Viet Nam.

To successfully implement the two guidelines, we recommend a set of following three policies:

- 1) Improve business environment for SMEs:
Correct the difference between SOEs and SMEs in terms of their business environment in order to help stabilize SME business operations and to enhance their potentialities.
- 2) Implement multi-staged SME development policies based on the phases of economic development of Viet Nam and the ASEAN countries.
- 3) Prepare a comprehensive development policy for SMEs which properly links with other economic policies.

2. Recommended SME Development Policies by Different Stages

SME development measures in Viet Nam could be developed on the basis of the following three core areas.

- 1) Building up foundations for SMEs' business activities as soon as possible. The foundations are to be laid through the establishment of an SME Basic Law. This includes the SME development policy, the organization of a financial assistance system, and the formation of SMEs' commercial and industrial associations which will be the major recipients of SME assistance service.
- 2) Foster supporting industries in coordination with developed foreign countries and foreign companies operated in Viet Nam by utilizing local SMEs associations and industrial organizations.
- 3) Promoting exports by utilizing SMEs' associations and industrial organizations.

In these three core areas, there are many important points. Regarding the establishment of an SME Basic Law, we pointed out a concrete idea in this report. Regarding the organization of financial assistance systems, we indicated a detail scheme in this report, too. The original source of funds for the SME financial assistance system may partly be raised by foreign official financial assistance.

Figure Stages to promote SMEs

	I (1997~2005)	II (2005~2010)	III (2010~2015)
Building up foundations for SMEs	Establish an SMEs Basic Law	Provide information and foster experts through SME Industrial Associations	Promote modernization of SME facilities and equipment
Deregulation and liberalization of business environment	SMEs Credit Supplementation system Establish for Financial Institutions for SMEs Formation of SME Industrial Associations Promote investment of SME using by leasing companies	Promote Venture Capitals System	
Fostering supporting industries	Establish Technical Training Centers and foster trainers Promote establishment of metal and machinery industries	Spread technologies by establishing Regional Technology Development Centers Supporting Industry Development Program	Promote Database System for supporting industries Promote modernization of supporting industries' facilities and equipment
Promote export activities of SMEs	Promote Export Credit System Improve export permission system	Establish Export Promotion Center and provide market and technology information Spread technologies by establishing Regional Technology Development Centers	Enact financial laws to promote facility modernization of exporting industries Further promotion of world network for Export Promotion Center

Source Compiled by NRI

V. Supporting Industry Development Measures in Viet Nam

1. Perspective on Supporting Industry Development in Viet Nam

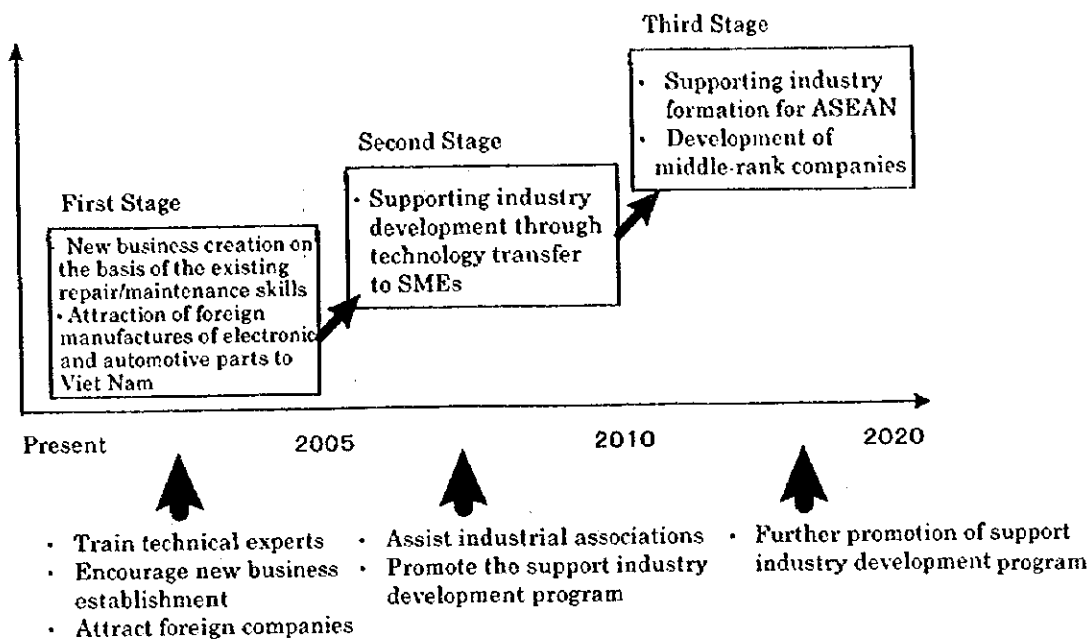


Chart 1 Three-stage development of supporting industry

Source Compiled by NRI

2. Supporting Industry Development Policy

(1) Establishment of technical training centers

- Technical training centers will be furnished with equipment for practical training.
- Training programs will be provided in cooperation with foreign companies in Viet Nam and by utilizing the programs of foreign government agencies and industrial organizations.

(2) Regional Technology Development Centers

The Regional Technology Development Centers will provide the following services to help SMEs solve their technical problems and increase their competitiveness in the export markets by upgrading their technology.

- To provide SMEs with advice on their technical problems and send technical experts to help solve the problems.
- To set up technical training seminars for engineers from SMEs.
- To undertake product/material testing and evaluation for SMEs when requested.
- To make the test equipment of the Centers available to SMEs who want to conduct a product test.
- To conduct R & D in the areas of production technology and production development techniques

necessary for upgrading regional industries and to disseminate the results of their R&D efforts among local companies.

(3) Supporting Industry Development Program

The Supporting Industry Development Program in Viet Nam should be designed to promote the transfer of technology and managerial skills from foreign companies in Viet Nam to help upgrade the local SMEs.

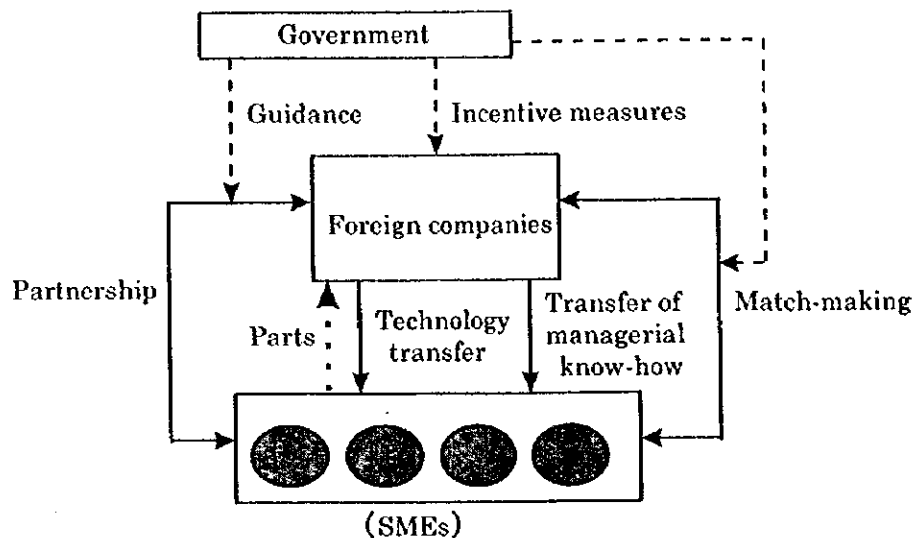


Chart 2 Structure of supporting industry development program

Source Compiled by NRI

VI. Measures for the Promotion of Exports to Viet Nam's SMEs

As indicated by the questionnaire survey, many private SMEs engage in textiles exports under the contract processing scheme. However, there is an argument in Viet Nam that processing under contract from foreign companies may be increasing the nation's imports. We will see what kind of progress is anticipated in contract processing by taking the case of garment exports to Japan.

1) In the first and present stage, because of insufficient domestic availability of raw materials and equipment, Vietnamese firms must increase their dependence on foreign procurement, including that of raw materials, when they engage in contract processing (the period of raw materials imports). This is the phase of increasing imports which is being pointed out at the moment. However, one should keep in mind that because firms are engaged in contract processing, their work helps naturally increasing net exports.

In the second stage, the use of woven fabrics made in Viet Nam increases, as the nation's production technologies, standardization technologies, and quality control improve. This phase will see an improvement in import dependence (progress in the use of materials made in Viet Nam).

In the third stage, the use of yarns made in Viet Nam increases, and the design development capabilities of Vietnamese firms rise based on samples provided by foreign firms (progress in the use

of Vietnamese designs).

In the fourth stage, Vietnamese firms learn designing, and the ratio of local procurement of raw materials increases, creating an environment in which joint ventures can operate. Foreign firms will provide technologies, capital, and marketing channels, enhancing export competitiveness of garments made in Viet Nam.

2) How long it will take to move up from stage I to stage IV depends on the speed of the acquisition of technologies by the Vietnamese. Japanese experience in manufacturing garments in China show that this requires somewhere between five and seven years on average. After China opened up its economy to other countries in 1979, Japanese firms started contract procession on a trial basis in the early 1980s. Entries through contract processing began in earnest in the latter half of the 1980s, and by 1992 most operation developed into joint ventures. In 1996, there were more than 700 Sino-Japanese textiles joint ventures.

VII. A Survey of Exports to Japan in the Case of Garments

As the survey shows, the promotion of Vietnamese products in Japanese markets is an important task for Viet Nam's small and medium-sized textile firms. Therefore, we have studied trends of garment exports to Japan from Viet Nam as a case study to discuss policy options for promoting exports to Japan. As analyzed in this paper, Japan sales of garments made in Viet Nam have been successful, as their sales volume has increased sharply, while unit prices have risen gradually. However, we suggest the following policy options to Viet Nam's small and medium-sized textile firms, so that they can further increase sales in Japan.

- 1) Lowering the ratio of woven garments to knitted garments for Vietnamese products in Japanese market
- 2) Raising the ratio of women's garments to men's garments for Vietnamese products in Japanese market
- 3) Organizing business alliances and business tie-ups in SMEs between Viet Nam and Japan.
- 4) Improvement of delivery control system in Viet Nam because of slow export procedures
- 5) Guarantee system of product quality based on uniform standards and attaching a special mark to products meeting these standards.
- 6) Designers working at SMEs should be sent overseas to gain experience.

Recent Development of Manufacturing Industries in Viet Nam from Statistical Data of Trade and Production

Takashi Sasano

The Japan Economic Research Institute

Atsushi Koyama

The Japan Economic Research Institute

The trade and industrial production statistics of Viet Nam are one of the results of this joint study. Trade data is collected at the SITC (Standard International Trade Classification) 3-digit level, and the industrial production data is collected at the ISIC (International Standard Industrial Classification) 4-digit level. We can compare these data sets with other countries' data. We will make a brief analysis in this paper.

1. Trade statistics

Table 1 shows the items of Viet Nam's main export goods. Most of them are primary commodities. In 1995, 65% of total export are still primary commodities, though the share of industrial commodities' exports was increasing. Crude petroleum and rice were the main exports, but recently there has been progress in diversification. Coffee has overtaken rice; and aquaproducs, natural rubber and fruits are also expanding export shares.

In spite of this, industrial commodities are also expanding export shares. Total industrial commodities' export reached 34.8% in 1995 up from only 24.1% in 1991. Most of these exports are apparel and footwear items.

In trying to measure the international competitiveness of each export item, we calculated via the RCA index -index of Revealed Comparative Advantage- for all SITC 3-digit items. RCA is defined as follows.

$$RCA = \frac{(\text{Export of the commodity in the country}) / (\text{Total export of the country})}{(\text{Export of the commodity in the world}) / (\text{Total export in the world})}$$

If the RCA value equals 1, the country has average level international competitiveness in these goods. The higher the RCA value, the stronger the international competitiveness. Table 2 shows the results for 1991-1994. We could not calculate the RCA in 1995 because we cannot obtain the world's export data in the year.

Most of the highly ranked items are primary commodities. In industrial products, the RCA index is not so high. Only four industrial items made the top 25 list of items, such manufacture of leather, cutlery, ready-made clothes, and footwear. RCA indices of these products are about 7 or 8. In Asian

countries, the clothes and footwear RCA indices have gone beyond 10 at maximum. In consideration of that, Viet Nam may not have made full use of their potential competitiveness yet.

Next, let us look at imports. Main imports are shown in Table 3. Most of them are industrial commodities, especially production intermediary goods for producer, capital goods, and infrastructural materials.

It can be said that the imports of Viet Nam expand in line with domestic industrialization. At present, it is difficult to procure these materials from domestic producers. Increasing of imports as industrialization proceeds can not be avoided until home made production would progress.

Figure 1 shows the change of the trade balance for both primary commodities and industrial commodities. Though the export of the industrial commodities is increasing due to industrialization, the import of industrial commodities is also increasing, but at a pace which exceeds export. The surplus of primary commodities finances the deficit of industrial commodities. Export of primary commodities is largely determined by international market conditions or by weather, which cannot be controlled by exporting country. To achieve the sustainable development, industrial export must be promoted.

In summing up the experiences of Asian countries' industrialization, they start with labor-intensive goods. They are competitive in these industries because of their resource endowment, abundant labor. As industrialization proceeds, the demand for intermediary goods or capital goods grows. In early stages, it is difficult to procure these goods domestically, therefore, import are induced. At the time the demand grows much more, it induces starting domestic production, first from the labor-intensive intermediary goods, which do not require large-scale initial investment. Asian industrialization has occurred as above, downstream industries induce upperstream industries, and as industrial progress is made the trade deficit is alleviated.

Labor-intensive goods are easily induced, but this is more difficult for industries which require large-scale initial investment. In such industries, assets derived from initial investment cannot be sold for purchased value, so it must be retrieved by operation. And, owing to large capital cost, the economies of scale are at work, so large-scale production is required. So, it is needed to secure large-scale stabilized demand to have profitable operation.

In aspect of demand stability, it is very risky to produce for foreign markets. Most industries are oligopolized internationally and it is difficult for new entrants to make long-term, continuous relations with foreign customers. To sell in the foreign market, it is necessary to cut price for new entrants, this is not good considering freight costs.

After all, the domestic market is very important when launching new industries which require large-scale initial investment. To do it, it is necessary to develop downstream industries which use the products of the new industries. For industrial progression, it is crucially important to develop downstream industries.

II . Production Statistics

Next, let us look at the general condition of industrial production. Industrial data classified at the ISIC 4-digit level is very detailed. To simplify the data, we will look at which resemble each other as belonging to the same general group (Table 4).

Food industry occupied the largest share, and its growth is as rapid as industry as a whole. Textile and Electrical Machinery industries, which have played very important roles on Asian industrialization, have not grow much yet. This indicates that structural change in the industrial sector has hardly occurred in Viet Nam yet, and there is potential for growth.

In other industrializing Asian countries, Textile or Electrical Machinery industries have grown very rapidly and widened their share in the industrial sector, as industrialization has progressed in those countries (Figure 2). These industries are labor intensive, so Asian countries have comparative advantage and international competitiveness. These countries have shifted their industrial structure for such industries in order to enjoy the benefits from international trade.

It can be said that Viet Nam has potential for international competitiveness in these same industries. It is needed for Viet Nam to develop these industries more.

III. Conclusion

Though industrial production and export are extending very rapidly in Viet Nam, they need to expand more, especially labor-intensive industries such as textiles in which Viet Nam is regarded to have international competitiveness. In doing so, the trade deficit will be alleviated, industrial progression will be achieved, and absorption of labor will be improved; and thus the economic problems in Viet Nam will be solved.

Table 1 Main export items (in thousand US dollar)

SITC	Description	1991		1992		1993		1994		1995	
333	Crude petroleum	581433	27.9%	805700	31.2%	843949	28.3%	866844	21.4%	1033092	19.0%
845	Ready-made cloths all kinds	133931	6.4%	201974	7.8%	238847	8.0%	475607	11.7%	741575	13.6%
071	Coffee and substitutes	76251	3.7%	91492	3.5%	110764	3.7%	330283	8.1%	598147	11.0%
042	Rice	234482	11.2%	417742	16.2%	361876	12.1%	424393	10.5%	530028	9.7%
036	Crustacean, mollusks and aquatic invertebrates fresh, frozen	201158	9.6%	208824	8.1%	268167	9.0%	367410	9.1%	411604	7.6%
851	Footwear and parts thereof	10542	0.5%	16542	0.6%	68041	2.3%	115354	2.8%	296419	5.4%
846	Clothing accessories	49582	2.4%	66914	2.6%	74721	2.5%	135410	3.3%	288396	5.3%
231	Natural rubber	64519	3.1%	64218	2.5%	104539	3.5%	36993	0.9%	168213	3.1%
037	Fishes prepared, preserved N.E.S.	27109	1.3%	42468	1.6%	44016	1.5%	72384	1.8%	145152	2.7%
057	Fruits, nuts, fresh, frozen	48279	2.3%	61834	2.4%	51900	1.7%	68448	1.7%	110079	2.0%
322	Coal, lignite and peat	1568	0.1%	199	0.0%	80938	2.7%	67039	1.7%	92451	1.7%
334	Petroleum products, refined	685	0.0%	1622	0.1%	49234	1.6%	57930	1.4%	88455	1.6%
635	Wood manufactures N.E.S.	54274	2.6%	36317	1.4%	62643	2.1%	70557	1.7%	79020	1.5%
222	Seeds for "soft" fixed oil	23243	1.1%	25285	1.0%	21936	0.7%	36796	0.9%	52263	1.0%
075	Spices	17033	0.8%	10892	0.4%	22093	0.7%	8947	0.2%	48710	0.9%
658	Made-up textile articles,...	7381	0.4%	10854	0.4%	14250	0.5%	31713	0.8%	47390	0.9%
612	Manufactures of leather or of compound leather	33203	1.6%	36170	1.4%	23613	0.8%	15169	0.4%	42188	0.8%
054	Vegetables fresh, simply preserved	3790	0.2%	7630	0.3%	4443	0.1%	4494	0.1%	39468	0.7%
653	Fabrics, woven of man-made materials	238230	11.4%	209338	8.1%	227945	7.6%	338439	8.3%	39054	0.7%
899	Miscellaneous manufactured articles, N.E.S.	16560	0.8%	23147	0.9%	33207	1.1%	34535	0.9%	35551	0.7%
034	Fish, fresh, chilled or frozen	3200	0.2%	1077	0.0%	1888	0.1%	4422	0.1%	26230	0.5%
831	Travel goods, handbags and similar containers	295	0.0%		0.0%		0.0%	1644	0.0%	25731	0.5%
775	Household type, electrical and non-electrical equipment	9221	0.4%	16122	0.6%	26645	0.9%	29614	0.7%	25293	0.5%
074	Tea and mate	85	0.0%	435	0.0%	3518	0.1%	16147	0.4%	21986	0.4%
666	Poultry	17797	0.9%	24285	0.9%	14641	0.5%	16298	0.4%	19937	0.4%
687	Tin										

Source Government of Viet Nam

Table 2 Change of RCA (Revealed Comparative Advantage)

	1991				1992				1993				1994			
	Code	Description	Value	Code	Description	Value	Code	Description	Value	Code	Description	Value	Code	Description	Value	
1	042	Rice	89.9	042	Rice	126.7	042	Rice	99.8	042	Rice	74.4				
2	899	Miscellaneous manufactured articles, N.E.S.	32.4	223	Other seeds for "soft" fixed oil	33.2	036	Crustacean, mollusks and aquatic invertebrates fresh, frozen	23.4	232	Natural rubber	26.0				
3	264	Jute and other textile fibres	31.1	075	Spices	25.2	232	Natural rubber	22.6	071	Coffee and substitutes	24.1				
4	075	Spices	27.9	687	Tin	24.2	075	Spices	19.5	036	Crustacean, mollusks and aquatic invertebrates fresh, frozen	23.3				
5	036	Crustacean, mollusks and aquatic invertebrates fresh, frozen	25.8	036	Crustacean, mollusks and aquatic invertebrates fresh, frozen	22.9	899	Miscellaneous manufactured articles, N.E.S.	19.3	264	Jute and other textile fibres	23.1				
6	687	Tin	23.5	232	Natural rubber	21.7	037	Fishes prepared, preserved	18.3	075	Spices	22.9				
7	232	Natural rubber	19.7	899	Miscellaneous manufactured articles, N.E.S.	21.4	071	Coffee and substitutes	16.3	899	Miscellaneous manufactured articles, N.E.S.	20.7				
8	037	Fishes prepared, preserved	16.5	071	Coffee and substitutes	16.8	074	Tea and mate	14.6	261	Silk	15.2				
9	071	Coffee and substitutes	14.4	037	Fishes prepared, preserved	14.5	687	Tin	14.4	687	Tin	13.4				
10	223	Other seeds for "soft" fixed oil	13.1	245	Fuel wood and wood charcoal	11.9	264	Jute and other textile fibres	14.0	074	Tea and mate	13.3				
11	261	Silk	12.3	025	Eggs, birds' s. Fresh, dried or otherwise preserved	11.2	261	Silk	12.7	025	Eggs, birds' s. Fresh, dried or otherwise preserved	9.1				
12	222	Seeds for "soft" fixed oil	9.0	074	Tea and mate	10.6	223	Other seeds for "soft" fixed oil	12.2	223	Other seeds for "soft" fixed oil	8.5				
13	025	Eggs, birds' s. Fresh, dried or otherwise preserved	8.5	333	Crude petroleum	6.9	025	Eggs, birds' s. Fresh, dried or otherwise preserved	11.0	612	Manufactures of leather or of compound leather	6.8				
14	074	Tea and mate	5.8	679	Iron, steel castings, unworked	6.2	222	Seeds for "soft" fixed oil	7.9	265	Vegetable textile fibres (exc. Cotton and jute)	6.8				
15	282	Iron and steel scrap	5.3	222	Seeds for "soft" fixed oil	5.4	333	Crude petroleum	6.7	222	Seeds for "soft" fixed oil	6.5				
16	333	Crude petroleum	5.1	291	Crude animal materials, N.E.S.	5.3	635	Wood manufactures N.E.S.	6.4	245	Fuel wood and wood charcoal	5.5				
17	679	Iron, steel castings, unworked	5.0	322	Coal, lignite and peat	5.0	291	Crude animal materials, N.E.S.	5.3	333	Crude petroleum	5.5				
18	247	Wood in the rough or roughly squared	4.9	264	Jute and other textile fibres	4.6	245	Fuel wood and wood charcoal	5.2	291	Crude animal materials, N.E.S.	5.4				
19	655	Knitted or crocheted fabrics	4.4	612	Manufactures of leather or of compound leather	4.2	612	Manufactures of leather or of compound leather	4.4	635	Wood manufactures N.E.S.	5.3				
20	211	Hides and skins, raw	3.9	261	Silk	4.2	322	Coal, lignite and peat	4.0	037	Fishes prepared, preserved	5.1				
21	322	Coal, lignite and peat	3.8	247	Wood in the rough or roughly squared	4.0	679	Iron, steel castings, unworked	3.8	696	Curly	4.6				
22	266	Synthetic fibres for spinning	3.8	054	Vegetables fresh, simply preserved	2.8	658	Made-up textile articles...	2.8	322	Coal, lignite and peat	4.5				
23	612	Manufactures of leather or of compound leather	3.8	057	Fruits, nuts, fresh, frozen	2.7	847	Clothing accessories	2.6	841	Ready-made cloths all kinds	3.7				
24	658	Made-up textile articles...	3.1	841	Ready-made cloths all kinds	2.5	851	Footwears and parts thereof	2.5	035	Fish, dried, salted or smoked	3.3				
25	054	Vegetables fresh, simply preserved	2.9	655	Knitted or crocheted fabrics	2.4	841	Ready-made cloths all kinds	2.5	851	Footwears and parts thereof	3.2				

Source Government of Viet Nam

Table 3 Main import items (in thousand US dollar)

SITC	Description	1991		1992		1993		1994		1995	
899	Miscellaneous manufactured articles, N.E.S.	370431	15.8%	468153	18.4%	34063	0.9%	494822	8.5%	1440431	17.7%
334	Petroleum products, refined	501907	21.5%	576763	22.7%	694601	17.7%	719237	12.3%	867147	10.6%
728	Other machinery, equip. For special industries and parts thereof	471381	20.2%	184992	7.3%	649935	16.6%	736507	12.6%	866897	10.6%
562	Fertilizers	216680	9.3%	249352	9.8%	222680	5.7%	371332	6.4%	545403	6.7%
785	Motorcycles and bicycles; parts thereof	4430	0.2%	51019	2.0%	286640	7.3%	345399	5.9%	404499	5.0%
671	Pig iron, ...	35260	1.5%	89899	3.5%	233339	5.9%	223434	3.8%	360273	4.4%
846	Clothing accessories	37791	1.6%	56689	2.2%	96203	2.5%	152260	2.6%	304711	3.7%
575	Plastic materials	37198	1.6%	56431	2.2%	81947	2.1%	178996	3.1%	229771	2.8%
266	Synthetic fibres for spinning	65228	2.8%	38573	1.5%	79774	2.0%	125373	2.2%	194635	2.4%
851	Footwears and parts thereof	18157	0.8%	592	0.0%	8741	0.2%	70953	1.2%	185598	2.3%
541	Medical and pharmaceuticals products	45675	2.0%	95311	3.8%	133865	3.4%	181226	3.1%	134298	1.6%
661	Lime, cement, and fabricated construction materials	1627	0.1%	4636	0.2%	17181	0.4%	61960	1.1%	118452	1.5%
782	Motor vehicles for transport goods and special purpose motor vehicles	8530	0.4%	4616	0.2%	22825	0.6%	52753	0.9%	105193	1.3%
591	Insecticides, disinfectants	22462	1.0%	24098	0.9%	33403	0.9%	58935	1.0%	100393	1.2%
724	Textile and leather machinery and parts thereof	201	0.0%	18446	0.7%	35763	0.9%	81566	1.4%	97762	1.2%
653	Fabrics, woven of man-made materials	32241	1.4%	24386	1.0%	50741	1.3%	59556	1.0%	97226	1.2%
121	Tobacco, unmanufactured and materials for manufacture tobacco	52737	2.3%	53260	2.1%	59007	1.5%	79275	1.4%	97020	1.2%
421	Fixed vegetable fats and oils, "soft", crude, refine or fractionated	9242	0.4%	1349	0.1%	11703	0.3%	11159	0.2%	93685	1.1%
046	Meal and flour of wheat	51397	2.2%	54611	2.1%	51133	1.3%	53262	0.9%	88144	1.1%
751	Office machines	2	0.0%	3896	0.2%	18113	0.5%	42124	0.7%	88058	1.1%
781	Motor cars (up to 12 seats)	5723	0.2%	36567	1.4%	55632	1.4%	77066	1.3%	85954	1.1%
641	Paper and paperboard	12469	0.5%	23150	0.9%	33405	0.9%	40361	0.7%	82296	1.0%
263	Cotton	61005	2.6%	11640	0.5%	20272	0.5%	35250	0.6%	82236	1.0%
727	Food processing machines	4	0.0%	4	0.0%	24170	0.6%	28404	0.5%	77523	1.0%
761	Television receivers (including video monitors)	12257	0.5%	25055	1.0%	54073	1.4%	54882	0.9%	66394	0.8%
764	Telecommunication equipments and parts thereof	514	0.0%		0.0%	75048	1.9%	148371	2.5%	65400	0.8%

Source Government of Viet Nam

Table 4 Gross Output of Manufacturing Industries (in billion dong at constant 1994 prices)

	1991	1992	1993	1994	1995	1996
1 Food, Beverage, Tobacco	15886	18295	20034	22020	29259	33225
2 Textiles, Apparel, Leather, Footwear	5580	6620	7556	8511	11935	13622
3 Wood, Furniture	3021	3099	3200	3384	4788.2	5196
4 Paper, Printing	1624	1834	2061	2780	3640	4108
5 Chemical, Petro & Coal Products	2256.3	2535.5	3002	3708	5249	6097
6 Rubber	870	1062	1253	1597	1959	2267
7 Plastic	123	138	154	172	175	183
8 Pottery, Glass, Non-metal mineral products	3896	4770	5807	7514	8924	10158
9 Iron, Metal	1086	1403	1734	1825	2692	3417
10 Metal products, Non-electrical machinery	2114	2262.4	2593	3180	4081.8	4633
11 Electrical machinery	1176	1327	1948	2231	3324	3937
12 Transport machinery	909	1014	1220	1447	3087	3429
13 Professional and science equipment	84.7	82.1	90.3	112	158	204
14 Other	46.3	57.5	61	67	78	88
Total	38672.3	44499.5	50713.3	58548	79350	90564

Source Government of Viet Nam

Share

	1991	1992	1993	1994	1995	1996
1 Food, Beverage, Tobacco	41.08%	41.11%	39.50%	37.61%	36.87%	36.69%
2 Textiles, Apparel, Leather, Footwear	14.43%	14.88%	14.90%	14.54%	15.04%	15.04%
3 Wood, Furniture	7.81%	6.96%	6.31%	5.78%	6.03%	5.74%
4 Paper, Printing	4.20%	4.12%	4.06%	4.75%	4.59%	4.54%
5 Chemical, Petro & Coal Products	5.83%	5.70%	5.92%	6.33%	6.61%	6.73%
6 Rubber	2.25%	2.39%	2.47%	2.73%	2.47%	2.50%
7 Plastic	0.32%	0.31%	0.30%	0.29%	0.22%	0.20%
8 Pottery, Glass, Non-metal mineral products	10.07%	10.72%	11.45%	12.83%	11.25%	11.22%
9 Iron, Metal	2.81%	3.15%	3.42%	3.12%	3.39%	3.77%
10 Metal products, Non-electrical machinery	5.47%	5.08%	5.11%	5.43%	5.14%	5.12%
11 Electrical machinery	3.04%	2.98%	3.84%	3.81%	4.19%	4.35%
12 Transport machinery	2.35%	2.28%	2.41%	2.47%	3.89%	3.79%
13 Professional and science equipment	0.22%	0.18%	0.18%	0.19%	0.20%	0.23%
14 Other	0.12%	0.13%	0.12%	0.11%	0.10%	0.10%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Growth rate

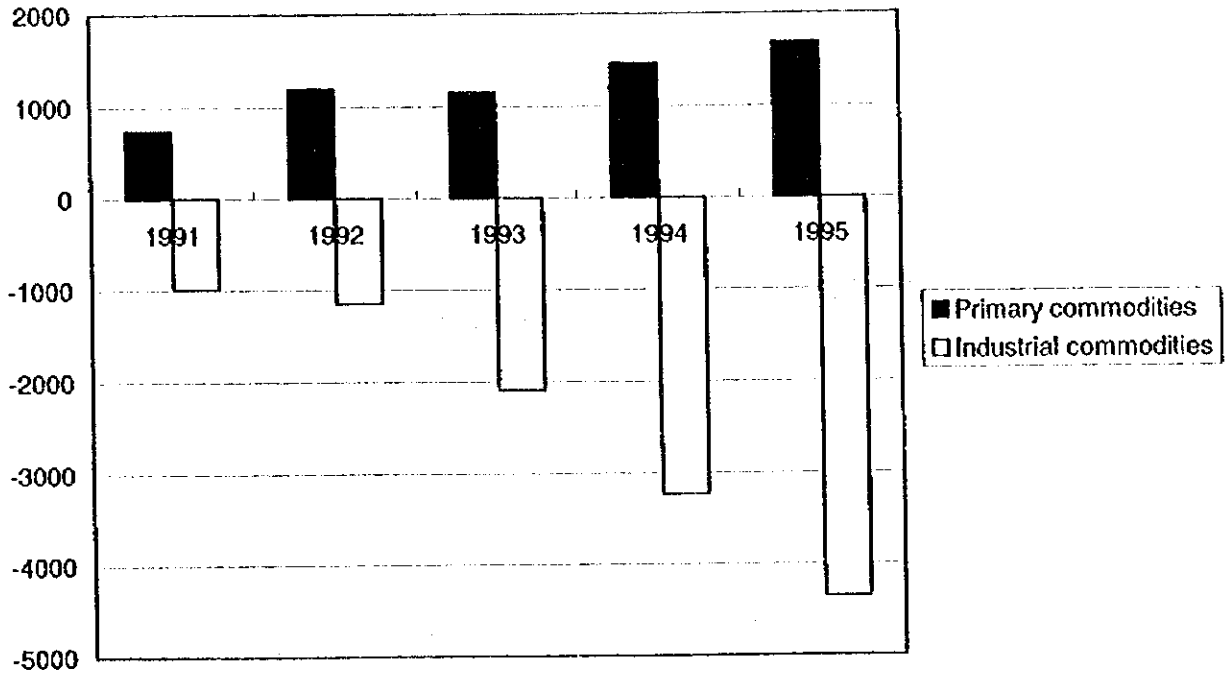
	1991	1992	1993	1994	1995	1996
1 Food, Beverage, Tobacco	-	15.16%	9.51%	9.91%	32.87%	13.55%
2 Textiles, Apparel, Leather, Footwear	-	18.64%	14.14%	12.64%	40.23%	14.13%
3 Wood, Furniture	-	2.58%	3.26%	5.75%	41.50%	8.52%
4 Paper, Printing	-	12.93%	12.38%	34.89%	30.94%	12.86%
5 Chemical, Petro & Coal Products	-	12.37%	18.40%	23.52%	41.56%	16.16%
6 Rubber	-	22.07%	17.98%	27.45%	22.67%	15.72%
7 Plastic	-	12.20%	11.59%	11.69%	1.74%	4.57%
8 Pottery, Glass, Non-metal mineral products	-	22.43%	21.74%	29.40%	18.76%	13.83%
9 Iron, Metal	-	29.19%	23.59%	5.25%	47.51%	26.93%
10 Metal products, Non-electrical machinery	-	7.02%	14.61%	22.64%	28.36%	13.50%
11 Electrical machinery	-	12.84%	46.80%	14.53%	48.99%	18.44%
12 Transport machinery	-	11.55%	20.32%	18.61%	113.34%	11.08%
13 Professional and science equipment	-	-3.07%	9.99%	24.03%	41.07%	29.11%
14 Other	-	24.19%	6.09%	9.84%	16.42%	12.82%
Total	-	15.07%	13.96%	15.45%	35.53%	14.13%

Contribution

	1991	1992	1993	1994	1995	1996
1 Food, Beverage, Tobacco	-	41.34%	27.99%	25.35%	34.80%	35.37%
2 Textiles, Apparel, Leather, Footwear	-	17.85%	15.06%	12.19%	16.46%	15.04%
3 Wood, Furniture	-	1.34%	1.63%	2.35%	6.75%	3.64%
4 Paper, Printing	-	3.60%	3.65%	9.18%	4.13%	4.17%
5 Chemical, Petro & Coal Products	-	4.79%	7.51%	9.01%	7.41%	7.56%
6 Rubber	-	3.29%	3.07%	4.39%	1.74%	2.75%
7 Plastic	-	0.26%	0.26%	0.23%	0.01%	0.07%
8 Pottery, Glass, Non-metal mineral products	-	15.00%	16.69%	21.79%	6.78%	11.00%
9 Iron, Metal	-	5.44%	5.33%	1.16%	4.17%	6.47%
10 Metal products, Non-electrical machinery	-	2.55%	5.32%	7.49%	4.34%	4.92%
11 Electrical machinery	-	2.59%	9.99%	3.61%	5.25%	5.47%
12 Transport machinery	-	1.80%	3.32%	2.90%	7.88%	3.05%
13 Professional and science equipment	-	-0.04%	0.13%	0.28%	0.22%	0.41%
14 Other	-	0.19%	0.06%	0.08%	0.05%	0.09%
Total	-	100.00%	100.00%	100.00%	100.00%	100.00%

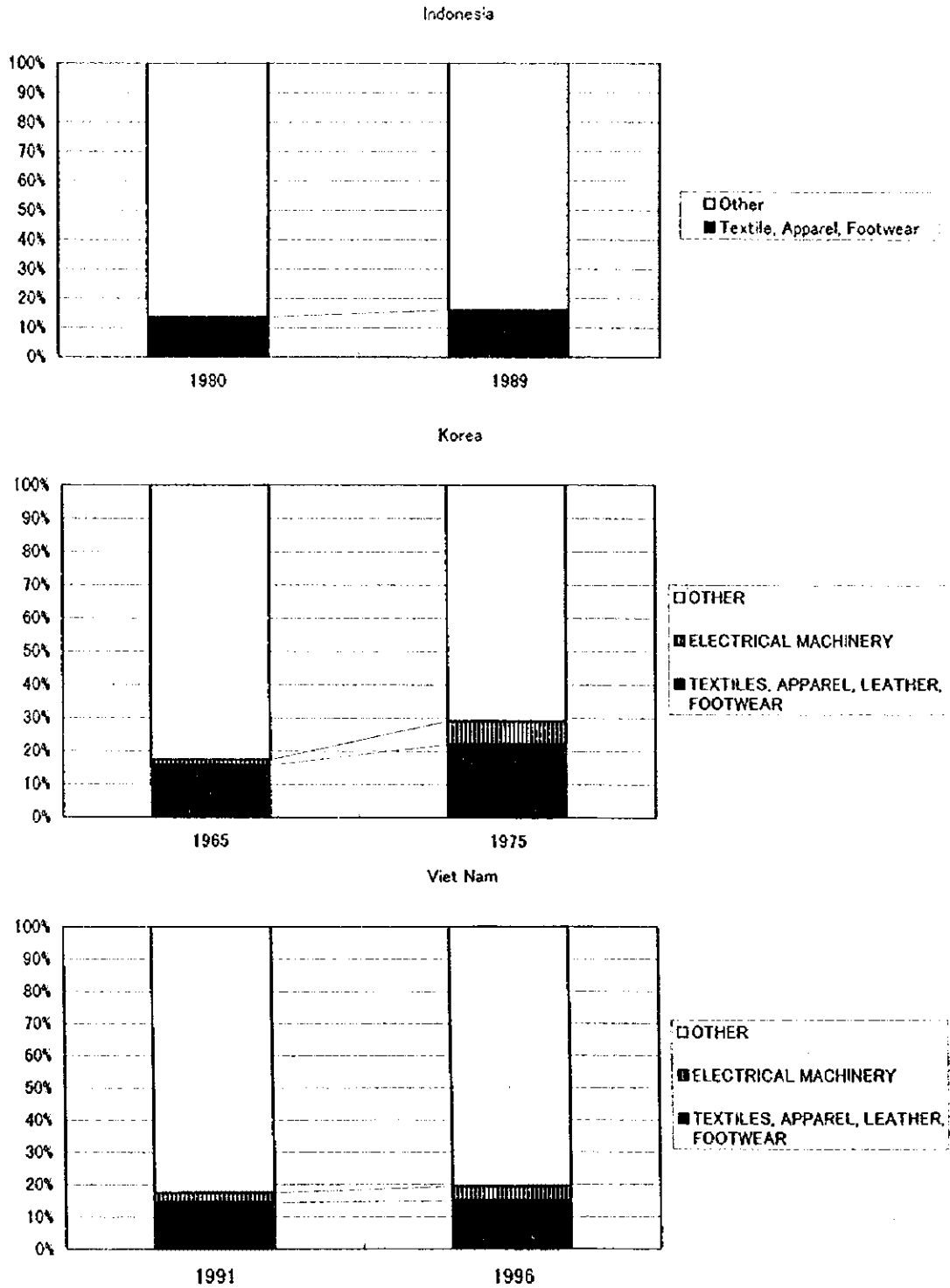
Figure 1 Trade balance by commodities

Billion US \$



Source Government of Viet Nam

Figure 2 Share of Selected Sectors in the Industrial Output



Sources United Nations, Industrial Statistics Yearbook, various issues.
Government of Viet Nam

Viet Nam's Participation in AFTA, APEC, and WTO and the Development of Export Industries by Foreign Direct Investment

Seiichi Masuyama

Nomura Research Institute, Ltd.

Toyomitsu Tamao

Nomura Research Institute, Ltd.

1. The Need for Viet Nam to Make Effective Use of Foreign Direct Investment in Order to Develop Export Industries

1. The Need to Promote Export Industries with Comparative Advantage

Viet Nam urgently needs its export-oriented industries to develop rapidly in order to overcome the constraints of foreign exchange and prepare for the consequences of participation in AFTA, APEC and WTO. Since this participation will lead to reduced trade barriers and thus increased competition, Viet Nam's industrial structure will need to change to become more in line with its comparative advantage. Relative declines in non-competitive import-substitution industries need to be offset by the growth of export industries with comparative advantage.

For a latecomer country such as Viet Nam, comparative advantage lies mainly in labor-intensive industries such as the textile and garment and ship repair industries, and labor-intensive functions of industrial value chains. A major feature of a modern industry is the divisibility of its value chain, whose constituent functions can be situated at different locations of varying distances apart, depending on the economics of transportation and communication. As typically seen in the electrical and electronics industry, where the production process is composed of many stages of assembling small components, the development of transportation and communication technology, the improvement of infrastructure, and the liberalization of international trade and investment policy have accelerated international division of labor. The main force was the investment led by multinational corporations (MNCs) mainly in final assembly plants in East Asia, followed by investment by enterprises of various sizes in supporting industries.

It will be particularly necessary to mobilize Viet Nam's labor force in the manufacturing sector, which is best placed to benefit from technological innovation and the strong complementary relationship between the low-cost labor of Viet Nam and the technological capabilities of MNCs. The development of labor-intensive manufacturing industries will create much needed foreign currency and employment. Most ASEAN countries have developed manufacturing industries very rapidly by

means of FDI (Table 1). As is evident from Table 1, the experience of the other ASEAN countries is that natural resource-based industrialization has certain limitations.

2. The Need to Make Effective Use of FDI

As one of the late-comers to industrialization in East Asia, Viet Nam needs to make maximum use of foreign direct investment (FDI), while at the same time reforming state enterprises, promoting its private sector, and maintaining an outward looking economic structure in order to establish export industries. Viet Nam's relatively abundant labor can be mobilized to establish industries of comparative advantage only in combination with managerial, marketing, technological and financial capabilities, most of which are possessed by foreign enterprises, particularly MNCs. It is extremely difficult for domestic companies in a latecomer country such as Viet Nam to duplicate these capabilities in a reasonable time frame. As shown in Table 2, Japanese corporations are very interested in securing low-cost labor in low-income countries such as Viet Nam, Philippines and Myanmar. Viet Nam currently has a strong advantage in labor supply and cost (Table 3).

These points become clear if one looks into the pattern of industrial policies in East Asia, which generally evolved from import substitution policies to export promotion policies and then to more liberalization-oriented policies. The East Asian nations with a colonial past initially pursued import substitution policies that protected domestic industries, owing to wariness of foreign capital and a rise in nationalism. However, these policies ended in failure. Subsequently, they shifted to export promotion, which was successful. Since the 1980s, when ASEAN countries shifted to export promotion policies, they have liberalized both trade and investment, and have been achieving industrial development through the active introduction of FDI.

ASEAN countries in particular have adopted more outward-looking policies with active utilization of FDI in contrast with such early comers as Taiwan and Korea which depended less on FDI (Table 4). This means that Viet Nam will have to compete vigorously with neighboring countries to attract FDI at a time when competition is intense.

As Table 4 shows, some countries have increased their current account deficits in the course of their rapid export-oriented industrialization by means of effective utilization of FDI. The weakness of their supporting industries including parts manufacturing, metal mold manufacturing, forging and casting, plating and plastic processing, and also the service sector is blamed for the rapid increase in the import of intermediate goods and machinery as well as the increase in the expenditure on services from overseas. However, we do not think that this problem will cancel out the enormous benefits of the strategy of outward-looking industrialization by means of FDI. Rather it shows the importance of prudent management of macroeconomic and exchange rate policy, the long term strategy of developing supporting industries and the service sector, and human resource development.

Based on these Asian experiences, we suggest that Viet Nam should liberalize trade and investment in order to utilize FDI effectively for the development of export-oriented industries. At the same time, it should encourage, from an early stage, education and training of human resources and the development of supporting industries in order to prepare for industrial upgrading at a later stage.

Table 1 Composition of exports of ASEAN countries (%)

	1980	1985	1990	1994	1980	1985	1990	1994
Indonesia								
Agriculture	18.4	11.6	11.6	11.1	11.3	9.1	3.6	2.3
Mining	67.6	65.1	41.2	26.6	1.1	1.2	0.4	0.3
Manufacturing	14.0	23.3	47.2	62.3	87.5	89.8	96.0	97.4
Food	2.2	3.1	3.3	5.2	5.6	4.5	3.6	3.1
Textile	0.7	3.2	13.5	18.6	4.3	4.1	4.9	3.2
Chemical	5.8	5.7	8.1	6.7	32.6	33.0	25.7	16.5
Metal Manufacturing	0.7	0.9	3.3	11.2	30.2	30.5	54.8	68.6
Other Manufacturing	0.2	0.3	0.6	2.7	8.2	8.2	2.2	2.2
Malaysia								
Agriculture	27.9	17.8	11.2	5.0	33.9	28.3	15.6	12.2
Mining	24.8	29.3	17.0	6.4	3.9	5.1	4.6	4.2
Manufacturing	47.3	52.9	71.4	88.6	62.2	66.6	79.8	84.7
Food	12.9	17.8	11.2	8.6	24.2	26.3	17.8	13.2
Textile	2.4	4.8	4.7	5.1	1.9	3.2	5.0	7.3
Chemical	2.7	3.4	6.0	5.3	10.0	15.9	20.8	18.5
Metal Manufacturing	12.3	19.9	41.2	57.8	7.5	11.1	26.0	34.6
Other Manufacturing	0.8	0.7	2.7	2.4	3.9	3.4	6.9	5.5
Philippines								
Agriculture	11.2	11.8	8.8	6.8				
Mining	18.0	5.4	4.9	2.5				
Manufacturing	70.8	82.8	86.3	90.7				
Food	27.5	17.5	11.3	8.2				
Textile	2.8	4.5	5.5	3.6				
Chemical	7.1	7.3	10.8	10.2				
Metal Manufacturing	4.3	9.1	15.5	24.8				
Other Manufacturing	18.1	32.9	34.9	38.7				
Singapore								
Agriculture								
Mining								
Manufacturing								
Food								
Textile								
Chemical								
Metal Manufacturing								
Other Manufacturing								
Thailand								
Agriculture								
Mining								
Manufacturing								
Food								
Textile								
Chemical								
Metal Manufacturing								
Other Manufacturing								

Source UN (1994) Yearbook of International Trade Statistics

Table 2 Japanese companies' reasons for locating direct investment in Asian countries
(% of responding companies)

	Viet Nam	Malaysia	Thailand	Indonesia	Philippines	Myanmar	China
1) Expansion of existing local market	22.9	46.5	55.6	58.1	44.4	17.6	49.2
2) Cultivating new markets	63.5	22.5	35.7	33.6	28.9	58.8	58.3
3) Export to Japan	28.1	22.5	27.0	29.4	33.3	23.5	30.8
4) Export to third countries	30.2	38.0	31.7	35.3	44.4	35.3	27.9
5) Diversifying production	29.2	33.8	33.3	31.9	40.0	35.3	29.6
6) Securing low cost labor	60.4	31.0	32.5	44.5	57.8	76.5	47.9
7) Component supply to assembly manufactures	14.6	23.9	34.1	24.4	33.3	11.8	18.3
8) Avoiding exchange risk	5.2	11.3	9.5	6.7	11.1	5.9	6.7

Source Japan Export Import Bank, The Fiscal Year 1996 Questionnaire Survey of Foreign Direct Investment

Table 3 Labor cost comparison (May-June, 1996)

	Monthly Wage(US \$)			Wage increase since Jan.-Feb. 1996 (%)
	Worker	Engineer	Middle Management	
Kanagawa, Japan	3,096	4,293~5,194	5,349~6,610	1.4
Seoul, Korea	1,130~1,400	2,100~2,200	2,800~3,100	13.7
Taipei, Taiwan	960~1,400	1,400~1,800	2,200~2,900	6.6
Hong Kong	820~1,800	1,200~3,400	1,600~3,600	8.4
Singapore	680~1,400	960~2,600	1,990~3,900	7.6
Kuala Lumpur, Malaysia	200~350	480~1,410	1,180~2,800	11.7
Bangkok, Thailand	150~320	380~660	790~2,200	6.9
Manila, Philippines	190~200	300~350	640~1,100	16.0
Batam, Indonesia	170~200	290~860	860~2,800	0.0
Cebu, Philippines	160~170	440~700	670~900	16.0
Jakarta, Indonesia	100~120	280~560	430~1,400	18.6
Beijing, China	72~170	130~260	300~600	10.0
Sinchen, China	70~160	140~300	200~590	N/A
Shanghai, China	90~160	120~230	150~390	5.2
HCMC, Viet Nam	70~140	180~260	270~530	19.2
Dalian, China	70~140	130~170	230~330	5.2
Hanoi, Viet Nam	60~95	90~200	150~450	19.2

Note Wages converted to US dollars at exchange rate on 15 May 1996.

Source JETRO Sensor, October 1996, pp. 56-60.

Table 4 Economic liberalization in East Asia
Exports, FDI, and current account balance as a share of GNP

		1960s	1970s	1980s	1990s
Singapore	Exports(2)	109.2%	114.9%	140.4%	123.4%
	FDI(3)			3.3%	3.8%
	C.A. Balance(4)	▲8.4%	▲11.5%	▲0.2%	14.6%
Malaysia	Exports(2)	43.5%	45.3%	53.0%	76.2%
	FDI(3)				8.5%
	C.A. Balance(4)	0.3%	▲0.3%	▲2.9%	▲5.7%
Thailand	Exports(2)	13.9%	16.4%	21.7%	30.5%
	FDI(3)				6.8%
	C.A. Balance(4)	▲0.9%	▲3.2%	▲3.9%	▲7.0%
Indonesia	Exports(2)		23.8%	23.9%	23.8%
	FDI(3)			2.4%	8.1%
	C.A. Balance(4)	▲3.9%	▲1.8%	▲2.4%	▲2.5%
Philippines	Exports(2)	10.6%	15.1%	16.4%	21.2%
	FDI(3)				1.9%
	C.A. Balance(4)	▲0.4%	▲3.3%	▲3.7%	▲3.9%
China	Exports(2)		2.8%	9.6%	18.6%
	FDI(3)				4.1%
	C.A. Balance(4)			▲0.5%	1.0%
Korea	Exports(2)	5.3%	23.4%	31.1%	25.5%
	FDI(3)			0.5%	0.4%
	C.A. Balance(4)	▲3.6%	▲0.5%	0.5%	1.9%
Taiwan	Exports(2)	17.1%	42.3%	48.7%	40.6%
	FDI(3)			1.0%	0.9%
	C.A. Balance(4)		0.8%	7.0%	2.5%

Notes

(1) The figures for the 1990s are those until 1996. The current account balance of Malaysia is for the period 1990-95.

(2) FOB basis.

(3) Approval basis

(4) Balance on current account

▲ denotes minus

Source Calculated from the data in "Asian Economy 1997," Economic Planning Agency.

2. The Need to Adapt to Liberalization Commitments in International Trade Regimes such as AFTA

Viet Nam became a member of the ASEAN in July 1995 and joined the AFTA. This means that it is obliged to participate in the very rapid liberalization currently underway in the southeast Asian region. While membership improves Viet Nam's access to markets for labor-intensive industries in other ASEAN nations, at the same time other ASEAN nations will also pressure Viet Nam to import the products of their technology- and capital-intensive industries. Because Viet Nam will benefit from improved efficiency in the currently protected sectors, the trend toward global and regional liberalization will, on balance, have a positive impact on Viet Nam.

Viet Nam has yet to join the APEC or WTO. However regardless of when it gains membership in these organizations, it cannot avoid being affected by the strong trends of liberalization. For example, in the textile industry, the WTO is moving toward the elimination of Multilateral Fiber Agreement,

which should improve Viet Nam's access to markets in the industrialized nations.

The ASEAN Free Trade Area (AFTA) was established in 1992, when the members signed up to the Common Effective Preferential Tariff (CEPT) scheme, which aims to reduce tariffs on goods of ASEAN origin (at least 40% of the product's value must come from ASEAN) in trade with each other to the range of 0-5% by 1 January, 2003. As soon as a member state enjoys lower CEPT tariff rates for the export of a product to other member states, it has to remove quantitative restrictions on the product. There are two instances in which products are excluded from tariff reduction obligations: general exclusions and temporary exclusions. Products in the general exclusion list are those that member states consider need to be excluded from tariff reduction obligations for the purpose of the protection of their national security, the protection of public morals, the protection of human, animal, or plant life and health, and the protection of artistic, historic, or archeological value. Products included in the temporary exclusion list are those that member states are not ready to include in tariff reduction schedules. The temporary exclusion list must be phased out in five equal annual installments, i.e. 20% each year, by 1 January 2000.

The CEPT scheme contains two schedules for tariff reduction — the Fast Track Program (items for which tariffs are to be reduced first) and Normal Track Program for items which are included in the inclusion list. Tariffs are to be reduced to the target range by 2000 for all items covered by the Fast Track Program and by 2003 for all those covered by the Normal Track Program, except for agricultural products. (However, the reduction schedule differs depending on whether or not the existing tariff rate is below 20 percent.)

Since Viet Nam joined AFTA three years later than the other members, its tariff reduction schedule has been delayed three years. The target year for complete tariff reduction is 2006 for Viet Nam. Viet Nam will phase in the temporary exclusion list to the inclusion list in equal annual installments beginning on 1 January 1999 and ending on 1 January 2003.

Under its planned economy, Viet Nam had, essentially, an import substitution policy. Tariff rates were generally high for consumer products and low for machinery, components, and materials. Under AFTA the higher tariff products placed on Viet Nam's temporary exclusion list consist largely of the labor-intensive products in which Viet Nam enjoys comparative advantage, while the lower tariff products on the inclusion list tend to be from capital-intensive basic industries in which Viet Nam lacks competitiveness. Although in the WTO system the lowest income countries like Viet Nam are accorded higher protection to enable them to nurture their infant industries, Viet Nam does not enjoy such protection under AFTA, which tends to treat all Member States equally. This may hamper Viet Nam's industry development strategies - such as infant industry protection strategy.

In addition to the CEPT Scheme for AFTA, the ASEAN members also signed the ASEAN Industrial Cooperation (AICO) Agreement to encourage complementary mutual production in April 1996. This scheme is based on the Brand to Brand Complementation (BBC) scheme, which is currently applied to automobile components. Under the BBC scheme, imports of automobile components of more than 40% ASEAN content enjoy a 50% tariff reduction, but under the AICO scheme, the imports of AICO-designated manufacturing products and components of more than 30% local equity ownership and more than 40% local content, enjoy tariffs of 0-5% ahead of the targeted date of January 1, 2003 under CEPT.

Based on some surveys, automobile and parts manufacturers, which already benefit from the BBC scheme, are very willing to pursue the benefit of AICO, while electronics and parts manufacturers in general do not see real benefits from the scheme. Since electronics components are generally produced in relatively small scale, model changes are so frequent and firms will be able to enjoy the 0-5% tariff rates by 2003 anyway, it is generally thought that the possible benefits will not justify the

cost and time of investment in the effort to obtain AICO project designation. So far, conflicts of interest among the membership as regards actual application have made it extremely difficult to build complementary relationships that are mutually satisfactory. At present, auto-makers and other companies have applied for AICO coverage for such schemes, but none of these has actually been approved and covered so far.

As explained later, the impact of AFTA differs for each industry depending on its characteristics.

Admission to the WTO will provide Viet Nam a most favored nation (MFN) status, and its access to export markets will improve. On the other hand, however, it will be obliged to open its market, particularly by dismantling non-tariff barriers and in the service sector. The TRIM agreement demands that its members dismantle trade-restrictive investment measures such as local content and export requirements on investment firms. Viet Nam will probably be required to dismantle such measures after a transitional period.

II . Policy Options for Export Promotion using FDI

1. Differentiating the Application of Export Promotion Policies

Industrial policies suitable for export industries differ from those suitable for import substitution industries (Table 5). As export industries are based on comparative advantage, theoretically they should not need import protection. A general policy prescription is to eliminate policy biases to import substitution, such as overvaluation of the currency, import duties on intermediate products, and other trade barriers, which work against export-oriented industries.

As seen in Table 5, export industries will be particularly helped by FDI liberalization and promotion, infrastructure development, the development of supporting industries, and general deregulation of the business environment.

2. Need for Offering Competitive Investment Environment

Essentially, in order to attract FDI, a country needs to take steps to reduce the risk and costs borne by foreign enterprises to locate and operate there. Viet Nam needs to offer a competitive investment by environment including financial incentives after careful evaluation of its competitive position vis-à-vis neighboring competing - particularly low-wage - countries such as Indonesia and the Philippines (Table 6).

Japanese companies generally see the following problems in Viet Nam's investment environment.

- 1) Viet Nam needs definite industrial policies. Its foreign investment measures are not particularly attractive compared to those of the other ASEAN countries, and it needs FDI desperately to catch up with the other ASEAN countries, which are significantly more advanced. Japanese companies therefore think that Viet Nam will have to adopt clear-cut strategies such as concentrating on labor-intensive industries, taking decisive measures to attract FDI and developing industries unique to Viet Nam.
- 2) Viet Nam's infrastructure is extremely inadequate. Many Japanese firms depend on their own electric power because Viet Nam's electric power capacity is inadequate. Transportation infrastructure is also inadequate.
- 3) Viet Nam's regulatory system is inadequate and opaque. Some say that the decisions of custom officers are inconsistent.
- 4) Since Viet Nam does not have a developed parts and component industry, it is difficult to satisfy

local content requirements. The only short-term solution is to ask Japanese suppliers to produce the goods locally.

5) The volume and quality of science and engineering students are inadequate.

Table 5 Differentiated policy applications to export industries and strategic industries

Policy options	In General	Export (Comparative Advantage) Industry	Strategic (Infant) Industry
Trade Policy Measures			
Protection	—	—	○
- In the industry	●	●●○	○
- In the supporting industry	●	●	●
- In the general industry	○	○	—
Overseas access	○	○○	—
Domestic Policy Measures			
Deregulation	—	○○	○
- In the industry	○	○○	○
- In the supporting industry	○	○	○
- In the general industry	●	○/—	○○
Subsidies	○	○	○
Information support	○	○○	○
Infrastructure development	○	○○	○
Developing supporting industry	○	○○	○
FDI Policies			
Liberalization and promotion	○	○○	○
Fiscal incentives	○	○	○○

Notes ○○: Highly desirable, ○: Desirable, ●: Undesirable, ●●: Highly undesirable, —: Not applicable

Source Nomura Research Institute

Table 6 Investment environment of ASEAN member countries

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Viet Nam
Minimum required investment	<ul style="list-style-type: none"> * Article of minimum investment was abolished in June 1994 * Amount of investment is to meet the nature of project 	<ul style="list-style-type: none"> * There is no article regulating minimum investment. 	<ul style="list-style-type: none"> * Minimum capital is 5,000 peso. 	<ul style="list-style-type: none"> * There is no article regulating minimum investment. 	<ul style="list-style-type: none"> * There is no article regulating minimum investment. * Investment of 1 million baht besides land and operating capital is required for incentive. 	<ul style="list-style-type: none"> * There is no article regulating minimum investment
Investment application	<ul style="list-style-type: none"> * Government office in charge is BKPM. * Foreign investor is to set up a joint-stock company (P.T.) * Duration term for foreign company (PMA) is 30 years. 	<ul style="list-style-type: none"> * Government office in charge is MIDA (Malaysian Industrial Development Authority) * All investors engaged in manufacturing are to get license from office in charge. 	<ul style="list-style-type: none"> * Investors is to apply Board of Investment or Philippine Economic Zone authority * After approval, partnership or company is to register in SEC. 	<ul style="list-style-type: none"> * Application to Economic Development Board is required for receiving incentive. 	<ul style="list-style-type: none"> * Government office in charge is Board of Investment * BOI provides following services: <ul style="list-style-type: none"> - Appraisal of project - Approval of project - Provision of various incentives 	<ul style="list-style-type: none"> * Government office in charge is MPI. * Part of competence regarding foreign investment is transferred to local government.
Desired investment area	<ul style="list-style-type: none"> * Export oriented manufacturer * Automobile industry * Supporting industry in electronics 	<ul style="list-style-type: none"> * High technology * Natural resources utilizing industry * Capital intensive industry * Supporting industry 	<ul style="list-style-type: none"> * Government specifies "Investment priorities program" every year. * In the program, "Pioneer List" is shown. 	<ul style="list-style-type: none"> * Although there is no desired investment area, following project is welcomed: <ul style="list-style-type: none"> - Investment with new technology - R&D - High technology - Regional headquarter 	<ul style="list-style-type: none"> * Attraction of supporting industry is highly emphasized <ul style="list-style-type: none"> - Tooling, cutting, grinding, metal products, surface treatment, heat treatment, electronic connector, plastic parts, etc. 	<ul style="list-style-type: none"> - Infrastructure construction in rural area - Forestation - Automobile parts - Electronics - Machinery - Fertilizer - Petrochemical
Incentive policy	<ul style="list-style-type: none"> * Exempt of import tax - 5% for spare parts - 50% for supplement * Exempt of tariff for materials and parts equivalent to 2 years' production capacity * Exempt or refund of tariff for materials used in export goods 	<ul style="list-style-type: none"> * Pioneer status - Company approved as pioneer status is taxed on 80% of taxable income (5 years) * Investment Tax Acquittal (ITA) - 60% of Capital investment made within 3 years from project approval is deducted from taxable income. 	<ul style="list-style-type: none"> * Company registered in BOI <ul style="list-style-type: none"> - Exemption of corporate tax - Additional deduction for labor cost - Exemption of tariff for capital goods - Simplification of customs procedure. * Company in Eco-zone <ul style="list-style-type: none"> - 100% share is approved. 	<ul style="list-style-type: none"> * Pioneer status - Exemption of corporate tax (5 to 10 years) * Export promotion - 90% of income earned by increased export is exempted. * Regional head quarter - Corporate tax is reduced to 10% * Expansion of existing facility - Exemption of corporate tax (5 years) 	<ul style="list-style-type: none"> * Location incentive <ul style="list-style-type: none"> - Exemption of corporate tax (3 to 7 years) for zone 1, 2. - Exemption of corporate tax (8 years) for zone 3. * Other incentives are provided for following areas: <ul style="list-style-type: none"> - Supporting industry - Factory relocation - R&D - Export oriented investment 	<ul style="list-style-type: none"> * 10% corporate tax, exemption for 4 years - Infrastructure construction in rural area - Forestation * 10% corporate tax, exemption for 4 years. - Export more than 80%. - Automobile parts, electronics, machinery, fertilizer, petrochemical, chemical, metal
Foreign Investors' ownership	<ul style="list-style-type: none"> * 93% is allowed in 9 special areas (transport, telecom, etc.) * 100% is allowed in all area export for above 9 areas. * Some portion of share is to be transferred after 15 years. 	<ul style="list-style-type: none"> * 100% share - If more than 80% is exported. - High tech product - Up to 75% share - If 51 to 75% is exported. 	<ul style="list-style-type: none"> * 100% share - Operation in Export processing zone or Eco-zone. - Investment in pioneer area. - Export more than 70%. 	<ul style="list-style-type: none"> * Following matters are concerned for 100% share: <ul style="list-style-type: none"> - Technology intensive industry - Export oriented project 	<ul style="list-style-type: none"> * More than 51% share by Thai is required for manufacturer targeting domestic market. * Foreigners can have majority for export oriented manufacturer 	<ul style="list-style-type: none"> * 100% share by foreigner is approved. * Vietnamese company can purchase part of capital.
Land ownership	<ul style="list-style-type: none"> * Land ownership is permitted only for Indonesian. * Foreigner can get the rights of construction, exploitation, utilization. * Valid term is 20-35 years for those rights. 	<ul style="list-style-type: none"> * There is no regulation on ownership by foreigner. 	<ul style="list-style-type: none"> * Land ownership is approved only Filipino or company with more than 60% Filipino ownership. 	<ul style="list-style-type: none"> * Land lease is general 	<ul style="list-style-type: none"> * Land ownership by foreigners not permitted. * Companies approved by BOI and setting operation factory in industrial zone constructed by government can own land. 	<ul style="list-style-type: none"> * Land ownership by foreigner is not permitted. * Procedure of land lease is conducted by local government. * Lease rate is unchanged for 5 years.

Source NRI, based on materials by ASEAN Promotion Center on Trade, Investment, and Tourism

According to our interviews with Japanese corporations, they think that improvements are particularly needed in the consistency and transparency of Viet Nam's regulatory environment, infrastructure, and land prices. Table 7 compares some key non-wage factors related to investment decisions of MNCs.

Table 7 Comparative non-wage costs in East Asian investment destinations (US\$)

	Land and Housing		Telephone		Electricity/Water		Corporate Tax (%)
	Industrial Park (m ²)	Expatriate rent (/month)	Monthly charge	International (3 min. to Tokyo)	Electricity (/Kwh)	Water (/m ³)	
Beijing	1.8-1.9	5800	1.4	6.5	0.1	0.06	15-33
Shanghai	40	5400	5.8	6.5	0.08	0.09	15-33
Dalian	73	2200	4.5	6.5	0.06	0.18	15-33
Sinchen	42	168-660	3.2	6.6	0.12	0.16-0.26	15
Bangkok	87	2180	3.96	5.1	0.04	0.24	30
Kuala Lumpur	174-260	1540-1940	12.5	6.5	0.08	0.48	30
Jakarta	90	2600	13	6.0	0.04-0.07	0.5-1.4	30
Batam	85-132	850-1420	21.5	5.9	0.1-0.11	1.21	30
Manila	5.4	2300	23.7	4.35	0.09	0.24	35
Cebu	4.6	500	17.6	4.35	0.07	0.28	35
Hanoi	3.2	3170	20	9.9	0.075	0.45	25
HCMC	2.25	4200	20	9.9	0.075	0.3	25

Source JETRO Sensor (October 1996)

In Viet Nam, the delays in the resolution of land-related problems, the certificate land usage rights, particularly the delays and length of time in obtaining removal compensation and land surrender, have become major obstacles to investments.

In response to these problems, a new law assigns the peoples' committees at the provincial level to complete related procedures and hand over land-related rights, while previously the responsibility of compensating existing occupants and completing related procedures rested on foreign investors. Moreover, if the counterpart of foreign investment is a Vietnamese enterprise and it contributes land as its investment, it is the responsibility of the Vietnamese enterprise to complete regulatory procedures. It is to be seen whether these improvements will be enough to correct the problems.

Moreover, Viet Nam needs to allow MNCs more managerial freedom in their joint venture operations so that they can make quick decisions, which are essential for MNCs to compete in international markets effectively, especially in the rapidly changing information technology sector. Infrastructure improvement is essential for certain industries, such as the electric and electronics industry, which require a sophisticated operational environment and an efficient transportation and communication infrastructure in order to manage international networks.

3. The Need to Differentiate Industry Types

In attracting FDI, Viet Nam should pay attention to the different types of FDI. One way of classifying FDI is to divide it into the following three categories: export-oriented investment, domestic market-oriented investment, and investment in supporting industries that supply intermediate products and services to both export-oriented and domestic market-oriented firms. The creation of AFTA will have the greatest impact on domestic market-oriented investment, as AFTA will have a trade creation effect and a trade diversion effect from external trade to internal trade. For a

firm that satisfies local content requirements, the internal AFTA market will expand at the expense of export from outside AFTA, depending on the difference between the levels of internal and external custom duties. Moreover, the domestic market will expand into a regional market with the market-creation effect and enhanced market competition with firms established in other ASEAN countries, including other MNCs.

On the other hand, purely export-oriented investments will be barely affected by the creation of AFTA, as there will be very little trade diversion and market creation effects. The markets of these firms are already global and the creation of AFTA will have little impact on them. The import of intermediate goods for the purpose of export is generally duty-free and there will be little additional benefit from the reduction of tariff rates as a result of AFTA. The impact on investment in supporting industries will also depend on whether the industry is domestic market oriented or export oriented.

Investment directed to domestic markets generally results in increasing imports and, if the new businesses are excessively protected, has a negative effect on economic efficiency, at least in the short run, because it increases imports of materials and equipment without any compensating export increases. Moreover, heavy protection in the mid-stream and up-stream sectors would undermine the competitiveness of Viet Nam's export industries in the down-stream sector.

Another dimension of industry classification in relation to FDI is the industry's sensitivity to a variety of factors of industrial economics, the combination of which determines the industry's international competitiveness, or export-orientation. In Table 8, we have taken five factors: labor intensity, economies of scale, technology intensity, brand loyalty, and dependency on industrial linkage. Investments in labor-intensive light industries such as footwear and garments can establish international competitiveness very rapidly in Viet Nam by concluding subcontracting agreements with local producers, thereby linking with foreign investors' designing and marketing capabilities. Marketing capability includes established brand images, which are possessed by MNCs and are difficult for new entrants to duplicate. Even in technology-intensive industries such as electronics, investments in labor intensive assembly operations in Viet Nam, such as consumer electronics assembly, component assembly and IC fabrication, can establish international competitiveness fairly quickly by linking Viet Nam's labor with foreign investors' technology and marketing capabilities.

However, since Viet Nam's domestic market is still rather small because of its low income level, industries which are strongly dependent on economies of scale have a very weak basis for international competition. Industries in this category are generally capacity-dependent industries such as blast-furnace steel mills and commodity-type petrochemicals, and industries such as automobile assembly which require extensive supporting industries. In general, FDI in this type of industry is difficult to justify for some time unless infant industry protection is provided.

Finally, another important element is industrial linkage, both forward with downstream industries and backward with upstream industries. The competitiveness of some industries such as consumer electronics assembly and automobile assembly depends on their backward linkage with upstream supporting industries such as components and metal mold manufacturing. Foreign investments in some labor-intensive supporting industries such as assembly-type electronics and automobile parts have comparative advantage given the current conditions in Viet Nam, and they should be promoted.

On the other hand, upstream sector industries with substantial economies of scale such as blast-furnace steel and petrochemicals depend on the size of demand from the down-stream sector. It is generally difficult for investments in basic industries to establish international competitiveness in Viet Nam until sufficient demand is generated from the down-stream sector. Moreover, the creation of AFTA will increase competitive pressure from imported products from more advanced ASEAN countries with comparative advantage in capital-intensive industries over Viet Nam.

Table 8 Classification of industry types

	Labor Intensity	Economies of Scale	Technology Intensity	Brand Loyalty	Linkage Dependancy		Viet Nam's current competitiveness
					Forward	Backward	
Footwear	⊙	X	X	⊙	X	X	Competitive with subcontract
Ship repair	○	△	△	X	X	○	Possibility of FDI
Textile:							
Garment	⊙	X	X	○	X	△	Competitive with subcontract
Fabrics	○	△	○	X	○	○	Competitive with FDI
Synthetic fibers	X	⊙	○	X	⊙	△	Necessary - demand increase in the down-stream sector; FDI; infant industry protection
Electric/electronics:							
Cons. elec. assembly	⊙	○	○	⊙	X	○	Necessary - demand increase; FDI
Assembly-type components	⊙	△	△~○	X~△	⊙	○	Partly competitive with FDI; necessary - demand increase in the down-stream sector
Material-type components	X	○	○	X	⊙	△	Partly competitive with FDI; dependent on the increase in the down-stream sector
IC/fabrication	⊙	△	○	X	△	△	Competitive with FDI; necessary - demand increase in the down-stream sector
IC/pre-fabrication	X	⊙	⊙	X	○	X	Non-competitive; dependent on demand increase
Information equipment	○	○	⊙	○(2)	△	△	Partly competitive with FDI
Transportation equipment	○	⊙	○	⊙	X	⊙	Dependent on long term demand expansion
Automobile assembly	○	○	○	⊙	X	○	Possibility of establishing competitiveness based on domestic demand with FDI
Motorcycle assembly	○	○	○	⊙	X	○	Partly competitive; depend on demand expansion
Components	△~○	△~○	△~○	X	⊙	△	Dependent on demand increase in the stream sector; necessary - FDI
Metal molding	△	○	△~⊙	X	○	△	
Basic materials:							
Petrochemicals	X	⊙	△	X	X	○	Dependent on long term demand expansion
Steel products	△	○	△	X	X	○	Dependent on medium term demand expansion
Steel/blast furnace	△	⊙	○	X	X	○	Dependent on long term demand expansion

Source: Nomura Research Institute

Notes: (1) ⊙: Extremely applicable; ○: Moderately applicable; △: Not applicable

(2) Competitiveness of information equipment products is often dependent on the ability to establish de facto standards.

4. The Need to Form Industrial Clusters

Thus, in order to establish export industries of long-term viability, the consideration of how to facilitate the development of industrial linkages, or industrial clusters, with the constraint of domestic demand, is very important. By enhancing industrial inter-linkage, export-oriented industries will be able to develop into a permanently viable industrial structure that is not dependent on temporary comparative advantage based on cheap labor.

Inward investment in supporting industries is typically induced by investments in the down-stream sector, either export-oriented or domestic market-oriented. As shown in Table 2, foreigners' intentions of investing for supplying components to assembly manufactures are weaker in latecomer countries such as Viet Nam and Myanmar than in more developed countries such as Thailand. However, the intention of Japanese companies investing in the Philippines is strong even though the Philippines has not developed extensive final assembly industries. Since Japanese investment in the Philippines for the purpose of exporting to both Japan and third countries is also substantial, the Philippines seem to be attracting supporting industries to serve Asian countries because of the liberal investment regime and fairly well established infrastructure.

As a general rule, Viet Nam should pursue a step-by-step enhancement of its export industries by means of backward integration - increasing industrial linkages by developing first the downstream sector, which mainly consists of industries with comparative advantages based on labor cost and supply, such as garment, the assembly of consumer electronics products, and ship repair.

However, in exceptional cases - such as when a potentially competitive down-stream export industry needs infant industry protection for a limited time - some protective measures will become necessary in order to develop export industries over the medium and long terms. For example, the production of some consumer electronics products such as audio-visual products may need infant industry protection until economies of scale are attained with the growth of domestic markets. Many industries such as the electrical and electronics industry, depend for their competitiveness on the strength of supporting industries, which can only develop on the basis of demand from the final assemblers. In other words, in order to establish a beachhead for backward integration in the downstream sector, infant industry protection may be needed for a limited duration.

Another case is when some key supporting industries may need infant industry protection in order to strengthen industrial linkages. For example, in order to establish a fully integrated competitive textile industry, Viet Nam may need to develop polyester fiber production capacity, which is very capital-intensive and subject to economies of scale, and therefore in need of infant industry protection. Such a policy option of infant industry protection may be precluded by Viet Nam's market opening obligations under AFTA, APEC and WTO. Viet Nam needs to explore the viability of such a policy option and adjust its future industrial development strategies accordingly.

5. The Need to Respond to Changes in Behavior of MNCs

In formulating and implementing strategies to attract FDI, Viet Nam should recognize two important changes in the investment behavior of MNCs. The first is that they are pursuing intra-regional division of labor more and more in response to regional trade liberalization, the development of transportation and communication infrastructure, and the development of regional supporting industries. According to a JETRO survey of Japanese manufactures in ASEAN conducted at the end of 1994, high percentages of respondents mentioned that they expected benefit from ASEAN mainly in lowering their costs (49.0%) and expanding regional procurement of raw materials and parts (42.8%). Moreover, it is more and more difficult for MNCs to justify purely export-oriented

investment, as they have more or less completed such investments within ASEAN and need to cope with the creation of trade blocks such as NAFTA and the EU.

To address the first change, Viet Nam should favor such investments to link Viet Nam with operational sites in other ASEAN countries. Investment projects utilizing the AICO Scheme (under AFTA) and export-oriented investments in electronic and electronics components to be used in other ASEAN production bases are good examples of this. As to the second change, Viet Nam should also open its domestic markets to make itself more attractive as a base for export-oriented investments. Excessive requirements of export obligation and local content are counterproductive to attract the type export oriented investments which partially rely on domestic markets. Many Japanese manufactures complain about these restrictions. The Vietnamese government should relax such requirements based on the pragmatic assessment of the viability of such measures.

III. Long-term Strategies for the Development of Export Industries

1. Step-by-step Development

As we have argued, competitive export industries develop in stages. First, industries in which Viet Nam holds comparative advantage (i.e. labor intensive industries at the moment), develop either naturally or with the help of foreign manufactures. Moreover, some industries may first develop on the basis of the domestic market before gradually becoming internationally competitive. The development of both types of industries will attract supporting industries, thus enhancing backward integration from the downstream sector to the midstream sector and then to the upstream sector. At the same time, the existence of viable supporting industries will strengthen exporting industries, and policy measures to facilitate the development of supporting industries are desired. Therefore, strategies to encourage the development of export industries should take into account this sequential aspect.

2. The Development of Human Resources and Industrial Organizations

The development of human resources and industrial organizations is obviously the key to long-term industrial development, including in the export sector, in Viet Nam. FDI is an intermediate means to compensate for the lack of such development in Viet Nam. In this respect, Viet Nam needs a lot of improvement in primary and secondary education, at least as statistics suggest (Table 9). This will accelerate technology transfer from abroad and foreign enterprises in Viet Nam to Vietnamese employees and enterprises. It will also correct excessive dependency on foreign enterprises. Government should play an active role in developing human resources, including asking advanced countries such as Japan ODA for this purpose, and also in developing industrial organizations by promoting the private sector and accelerating state enterprise reform. Moreover, Viet Nam should develop a legal framework that encourages the development of small and medium enterprises and fosters an environment in which the spinning out of employees in foreign enterprises will be facilitated.

Table 9 Percentage of age group enrolled in educational institutions

	Primary		Secondary		Tertiary	
	1970	1992	1970	1992	1980	1992
Viet Nam	N.A.	108	N.A.	33	2	2
China	89	121	N.A.	13	5	N.A.
Indonesia	80	115	16	38	4	10
Philippines	108	109	46	74	28	28
Thailand	83	97	17	33	13	19
Malaysia	87	93	34	58	4	7
Korea	103	105	42	90	16	42
Hong Kong	117	108	36	N.A.	11	20
Singapore	105	107	46	N.A.	8	N.A.
Japan	99	102	86	N.A.	31	32
Brazil	82	106	26	39	12	12
Mexico	104	113	22	55	14	14

Source The World Bank, World Development Report 1995

3. The Indirect Role of the Government

Government's role in promoting export industries should in general be indirect – i.e. to generate a favorable legal and physical infrastructure for both domestic and foreign enterprises, rather than to get involved directly in management issues. It is very important that the government should establish a general policy framework for the development of export industries by designing master plans. This is a very urgent requirement because the available time for Viet Nam is extremely limited due to its position as a latecomer and its ambitious international commitment to liberalization. Since products in the temporary exclusion list will have to be transferred to the inclusion list in annual installments by the year 2003 and the tariffs on the products remaining in the temporary exclusion list at the start of 2003 will have to be reduced drastically to 0 - 5% rate by the start of 2006 under CEPT/AFTA, the internal markets of AFTA countries, including Viet Nam's, will be extremely liberalized around the years 2002-2003. Viet Nam therefore needs to build the foundation for its export industries, which are currently in a weak position, by then. The task of drawing viable master plans is extremely urgent.

IV. Summary of Policy Options for the Development of Export Industries

In conclusion, the following are some policy options for the development of export industries in Viet Nam.

- 1) Policies biased against export industries should be corrected. Infrastructure development is also necessary to improve the competitiveness of export industries. Moreover, in some exceptional cases, infant industry protection may be useful to establish export industries and enhance inter-industry linkages of export industries. Viet Nam needs to make sure such policies are compatible with international trade rules.
- 2) Viet Nam should pursue industrial policies to develop and strengthen export industries step by step. Initially, assembly-type downstream industries, which are mostly labor intensive, should be promoted to establish a base for backward integration into the mid- and upstream sectors to enhance the industries' competitiveness.

- 3) Viet Nam will be able to develop much-needed export industries only by making maximum use of FDI, and it should attract FDI by competing aggressively with neighboring countries. For that purpose, Viet Nam should offer conditions that are attractive compared to the conditions offered by neighboring countries. It may be necessary to offer financial incentives, compatible with international rules, to export industries in order to offset current biases against them. Essentially, Viet Nam needs to allow foreign enterprises much freedom to compete effectively in international markets.
- 4) Moreover, Viet Nam should analyze the types of industries into which it should try to attract export-oriented FDI. Manufacturing export industries with high labor intensity, foreign currency generating service industries, infrastructure industries and supporting industries should be promoted in the initial stage.
- 5) In response to the changing environment of FDI in ASEAN, Viet Nam should promote foreign investments which seek regional industrial linkages, and it should also open its domestic markets to MNCs.
- 6) Human resource development will be a key to the development of Viet Nam's export industries in a liberal trade and investment regime. Viet Nam should seek foreign aid for this purpose. However, real training will be most effectively done in the business environment and FDI will play a key role here.

4-2-1

Developing Leading Export Industries —Electric and Electronics Industry—

Hisami Mitarai

Nomura Research Institute, Ltd.

1. Viet Nam's Electric and Electronics Industry - Current Status and Issues

(1) The investment environment of Viet Nam's electronics industry

Following the external liberalization and switch to a market economy under the "Doi Moi" policy of reform, the Vietnamese economy swiftly advanced with the help of increased investment from other countries in a quickly improved international climate. Viet Nam's electric and electronics industry is aiming for progress on the order of counterparts in the Philippines and Indonesia, and has finally begun to move forward with the assistance of foreign capital. In the Ho Chi Minh area, there are some domestic companies that source components independently as well as design and produce CTV and audio goods without reliance on foreign capital. However, the sole strength of their products is a low price; they are not internationally competitive. To acquire international competitiveness, the industry must rely on the capital and technical capabilities of foreign concerns.

Viet Nam's basic stance on acceptance of investment from other countries may be summarized in two points: a) the switch to a market economy and campaign to attract foreign investment under the Doi Moi policy, which was adopted in 1986, and b) pledges to refrain from nationalization and other guarantees of ownership and other rights of foreign companies (and foreign nationals) investing in Viet Nam under the Foreign Investment Act, which was enacted in 1987. Basically, steady progress is being made in line with this policy.

In Viet Nam, the electric and electronics industry is regarded as a high-tech industry requiring skilled labor and has been designated as a field for encouragement of investment. Foreign concerns are accorded priority in siting in export processing zones and industrial parks, and are also given considerable tax incentives. These provisions have attracted siting by some leading Japanese firms, such as Sony. Nevertheless, there are also some problems associated with the underdeveloped state of the infrastructure and procedural inconsistencies, and this indicates that arrangements, both physical and systemic, for attraction of investment are not entirely in order. There has been criticism that Viet Nam's investment regime is improving at only a sluggish pace. In response to such criticism, the government announced and effected two laws for preferential treatment in industrial zones and contraction of the time required for investment procedures.

1) Foreign Investment Law

a) Rate of capital subscription

In the case of a joint venture, the foreign party (person or enterprise) must provide at least 30 percent of the legal capital, and is allowed to account for all (100 percent) of the subscription.

b) Investment fields

Viet Nam divides industrial fields into three categories: those in which investment is encouraged, those in which it is prohibited by specific legislation, and those in which it requires special governmental approval. The electric and electronics industry is perceived as a high-tech industry requiring skilled labor and is designated as a field for encouragement of investment.

c) Investment term

The investment term, i.e., the number of years of validity of the business license, is said not to exceed 50 years as a general rule, but can be extended up to 70 years upon the approval of the standing committee of the national assembly.

d) Form of investment

Strictly speaking, there are three forms of investment and two approaches. In the ordinary interpretation, however, there are six types when that of consigned processing and trade is included, as noted below.

2) Investment incentives

The main type investment incentive offered to foreign capital by the Vietnamese government is privileges in the aspect of taxation, and particularly corporate tax and import tariffs. The current incentives date from the revision of the Foreign Investment Act in April 1993, and are as follows.

1) Incentives related to the corporate tax

Table 1 Incentives related to the corporate tax

Category	Preferential rate	Reductions and exemptions (requiring prior approval)
<p>* General conditions</p> <p>- Projects in general fields for which preferential tax rates beyond this level or tax holidays will not be provided under any circumstances</p> <p>* Projects for which investment is encouraged</p> <p>- However, the tax incentives are not applied for investment in the fields of hotel business (other than as described below), financing, insurance, accounting, auditing, or commerce even if the conditions noted below are met</p>	25%	Exemption for the first year after realization of a cumulative profit, and 50-percent reduction for the next two years
<p>Class 1</p> <p>* Enterprises meeting at least two of the following conditions</p> <p>a. At least 500 employees</p> <p>b. Use of advanced technology</p> <p>c. Export of at least 80 percent of the production</p> <p>d. Capitalization of at least 10 million dollars</p>	20%	Exemption for the first year after realization of a cumulative profit, and 50-percent reduction for the next three years
<p>Class 2</p> <p>* Enterprises meeting at least one of the following conditions</p> <p>a. Infrastructural construction</p> <p>b. Natural resource development (excluding oil, gas, and rare natural resources)</p> <p>c. Heavy industries (metals, chemicals, machinery, cement, etc.)</p> <p>d. Long-term cultivation of crops with industrial application (jute, cotton, etc.)</p> <p>e. Business in mountainous areas (excluding development of rare mineral resources, but including hotel business)</p> <p>f. BOT projects (including hotel business)</p>	15%	Exemption for the first two years after realization of a cumulative profit, and 50-percent reduction for the next four years
<p>Class 3</p> <p>* Enterprises meeting at least one of the following conditions</p> <p>a. Infrastructural construction in mountainous areas</p> <p>b. Afforestation</p> <p>c. Businesses judged to be particularly important by the government</p>	10%	Exemption for the first four years after realization of a cumulative profit, and 50-percent reduction for the next four years

Notes Preferential corporate tax rates expire (i.e., the rate returns to 25 percent) upon the passage of a certain period after approval of investment by the national cooperation investment committee.

1) In the case of projects for which rates of 15 or 20 percent are applied: expiration from five to seven years after the year after approval

2) In the case of projects for which a 10-percent rate is applied: expiration from eight to ten years after the year after approval

Source Mitsubishi Bank

2) Reinvestment of profit

In the case of reinvestment of after-tax profit for at least three years, the enterprise is eligible for a refund of paid-in corporate tax in an amount equal to that of the reinvestment.

3) Tax incentives related to import

The items noted below are exempt from import tariffs (except in the case of used items). However,

exceptions may be made if it is decided that the item can be procured from within Viet Nam. In addition, enterprises must pay the tariff for products imported for sale in Viet Nam.

- i) Raw materials, machinery, components, and other supplies used in manufacture of products for export
 - ii) Mechanical facilities, components, transportation equipment, and other supplies that are part of investment in kind
 - iii) Mechanical facilities, components, transport equipment, and other supplies imported partially with investment funds
- 4) Incentives in export processing zones and industrial parks

Table 2 Comparison of investment incentives in export processing zones, industrial parks, and general sites

	EPZ	Industrial parks	General sites
Corporate tax			
*Manufacturing industry	10%	12~18%	15~25%
*Service industry	15%	22%	25%
Corporate tax exemption term			
*Manufacturing industry	-Four years beginning from the start of realization of profit	-Two years beginning from the start of realization of profit	-Two years beginning from the start of realization of profit
*Service industry	-Two years beginning from the start of realization of profit	-One year beginning from the start of realization of profit	-None
Export and import tax	Exemption	Application	←
Remittance tax	5%	5~10%	←
Business license term	- 50 years	-Selective licensing up to 50 years	←
Foreign currency controls	- None	-Application of related legislation	←

Source Electronic Industry Association of Japan (EIAJ)

The Foreign Capital Act defines export processing zones as industrial districts with a boundary established by the national government and set aside for production of goods for export and provision of services related to export business. Siting in export processing zones can be done in any of the three forms of independent investment (i.e., establishment of wholly-owned subsidiaries), joint ventures, and business cooperation agreements. Thus far, the six export processing zones noted below have been approved by the competent national committee. However, foreign-affiliated companies have actually established plants and commenced operations only in the Tan Thuan zone.

Table 3 Table of EPZs in Viet Nam (as of August 1995)

EPZ	Location	Scale	Capital	Development partner	State of progress
Tan Thuan	About 4 km to the southeast of Ho Chi Minh City, and about 13 km from the airport	300 ha, of which 130 ha are usable	89.8 million dollars	Taiwan CT&D Group (70% interest)	<ul style="list-style-type: none"> * Phase 1 (40 ha): three sites are still unsold * Phase 2: now being offered * Phase 3: now under preparation * Number of projects already registered: 88 * Number of companies approved for investment: 49 * Total amount of investment: 183 million dollars * 11 plants are already in operation, and another 21 are under construction
Linh Trung	About 19 km northeast of Ho Chi Minh City, and about 5 km from the airport	60 ha (EPZ area)	14 million dollars	Hong Kong SDIC (50% interest)	<ul style="list-style-type: none"> * Land preparation on about half (30 ha) of the area scheduled for development in Phase 1 * Number of projects approved: 4 * Total amount of investment: 5.3 million dollars
Hai Phong	East of Hai Phong City, about 5 km from Cat Be airport	980 ha; 300 ha for the Phase 1 development	Phase 1 development: 25 million dollars; total investment of 150 million dollars	Hong Kong VGI Group, South Africa 88 Textile Group (combined interest of 70%)	<ul style="list-style-type: none"> * Under preparation * Number of projects for which applications have been filed: 25 (600 million dollars) * Possibility of cancellation due to problems in raising funds for development
Da Nang	Da Nang City, Andon district	120 ha	24 million dollars	Malaysia MASS Corp.	<ul style="list-style-type: none"> * Number of tenants: 1 (a candle producer) * Total amount of investment: 1.5 million dollars
Can Tho	Can Tho City, about 20 minutes away from the Ho Chi Minh City airport	- 500 ha, of which 150 ha have already been prepared - EPZ: 57 ha - Industrial park	8.1 million dollars	Developed independently by Can Tho	<ul style="list-style-type: none"> * Number of tenants: 1 (fish net producer) * Total amount of investment: 13.5 million dollars
Noi Bai	- Hanoi	100 ha	30 million dollars	Uncertain	<ul style="list-style-type: none"> * A 100 ha site has been acquired for construction near the Non Bai airport

Source: EIAJ

(2) The present condition of and tasks for Viet Nam's electrical and electronics industry

1) Stages of development of Viet Nam's electronics industry (four stages)

a) 1970-75

The dawn of the electronics industry (Start of black-and-white TV set production by joint ventures with Japanese firms)

b) The 1970's - Latter half of the 1980's

Roles as a COMECON member (Primarily military production, very little assembly work of consumer equipment)

c) The latter half of the 1980's - 1994

The new dawn of the electronics industry (Primarily assembly work consigned from overseas)

d) 1995 -

New development fueled by foreign direct investment

2) Characteristics of related firms and production format

Since introduction of the "Doi Moi" policy of economic reform, there has arisen a new trend in the electronics industry of Viet Nam. Whereas the industry has centered around consigned production of audiovisual equipment for foreign firms mainly by state enterprises, recent years have seen an expansion in assembly-based production of items such as color TV sets, video cassette recorders, and combination radio-tape players by joint ventures linking the major state enterprises with Japanese or Korean counterparts.

Electronics firms owned by indigenous Vietnamese capital consist mainly of national or municipal enterprises that date from the division of production responsibilities among COMECON members and are managed by the national government or by provincial or municipal committees. The leading ones are the Viettronics and HANEL groups. However, management capabilities and technology are essentially unchanged and consequently outmoded. As such, a stream of firms have formed joint ventures with the major Japanese and Korean companies in recent years as noted above for assembly of home electrical appliances.

Import of finished home electrical appliances is difficult because of the tariff rates (which are particularly high for such products). For this reason, both the consigned productions of state enterprises and the joint ventures with foreign capital import major components from Singapore and other countries in the form of SKD, CKD, or IKD kits for assembly in Viet Nam. The circle of components that can be purchased in Viet Nam for these productions is basically confined to the plastic enclosures supplied by the Vietnamese locations of Japanese component manufacturers, CRTs and plastic parts supplied by the joint venture of the HANEL Group and the Korean firm Daewoo, and items such as packing materials and instruction sheets.

While many Japanese manufacturers have already established plants for AV equipment in countries such as Malaysia, Thailand, and China, Viet Nam is the most promising market after Indonesia in their eyes. Similarly, Korean manufacturers were slower to site in ASEAN countries than their Japanese rivals, and are focusing on Viet Nam as a strategically important production site in the Asian region. However, this production has not risen above the level of assembly of mostly imported components due to the limited range of domestically made components.

3) Official measures to encourage investment

The Vietnamese government has positioned the electronics industry as a field in which foreign investment is to be encouraged. In its view, as expressed in foreign investment law, it is a type of

high-tech industry requiring skilled labor as well as intensive investment for the development of latent resources and increase in the production capabilities of existing firms. Besides offering investment incentives and reduced tariffs for component import in order to induce an influx of foreign capital, the government is also conditioning the infrastructure of export processing zones and industrial parks to the same end.

The number of foreign firms actually producing in Viet Nam is still low due to various problems, including the underdeveloped infrastructure, complex approval and licensing procedures, and incomplete legislative provisions for foreign investment. However, siting has begun to gather momentum, especially in the Tantuan export processing zone on the outskirts of Hanoi, where environmental conditioning is quite advanced.

Table 4 Major electronic firms in Viet Nam

Firms	Base	Empl -yees	Amount of sales (millio n dong\$)	Products	Consignee of production or other
VIETTRONICS BIEN HOA	Ho Chi Minh	400	171,060 ('93)	CTV, W&BTV, radio- cassette	Sony, Sanyo, Matsushita, NEC, JVC, Sharp, Samsung, LG (in the form of the joint management with Sanyo at first)
VIETTRONICS THU DUC	Ho Chi Minh	340	142,000 ('94)	CTV, W&BTV, radio- cassette, VTR	Toshiba, Matsushita, Thomson, Samsung, LG, Daewoo(in the form of the joint management with Matsushita at first)
VIETTRONICS BIEN HOA	Ho Chi Minh	—	17.7 (M\$) ('94)	CTV, W&BTV	
VIETTRONICS TAN BINH	Ho Chi Minh	445 ('94)	87,030 ('93)	CTV, W&BTV, audio, VTR	JVC(in the form of the joint management with Sony at first)
VIETTRONICS DONG DA	Hanoi	200	300,000 ('94)	CTV, W&BTV, radio- cassette, speaker	JVC, Sanyo, Samsung, Daewoo
HANEL(Hanoi Electronic Corp.)	Hanoi	500	100 (M\$) ('94)	CTV, radio-cassette, measuring instruments	Daewoo, HANEL (plan)
SEL(Starlight Electronic)	Hanoi	1,000	—	CTV, W&BTV speaker, VTR tape, air-conditioner, refrigerator	LG Established in 1987, as the first private corporation in Viet Nam, main product is Private brand CTV.
POSTEF(Post & Telecommunication Factory)	Hanoi	700	—	telephone, FAX	Canon (FAX)
BDC(Broadcasting Development)	Hanoi	—	—	TV transmit	
VEC(Viet Nam Electronic Equipment)	Hanoi	3,000	—	electronics cable, electric- cable, electric-meter, electric-fan, or other	
CIVICO	Hanoi	226	—	TV, radio	Sharp, Samsung
SAGEL	Ho Chi Minh	350	—	electronics components, equipment components	Sumida Electric, Singer

Notes Million dong\$ = about 100US\$

Source EIAJ

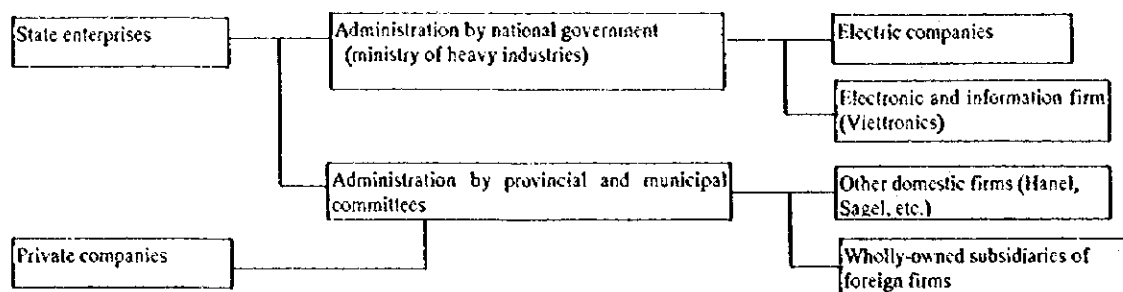


Chart 1 Forms of Vietnamese electronic firms

Source The Japan Electrical Manufacturers' Association

Table 5 Entry of Japanese and Korean electronics companies to Viet Nam (up to September 1995)

Firms	Base	Products	Consignee of production or other
SONY VIET NAM	Ho Chi Minh	CTV, radio cassette, stereo	Private brand In the form of the joint venture with VIETTRONICS TAN BINH (Sony interests of 70 %), established in November 1994
Daewoo Hanel Electronics (under construction)	Hanoi	CTV, CRT, tuner, refrigerator	In the form of the joint venture with Hanel (Daewoo interests of 60 %) established in October 1994.
Daewoo Capacitor	Hanoi	condenser	established in November 1994 (invested independently)
Orion Hanel Picture Tube Factory (under construction)	Hanoi	CRT	In the form of the joint venture with Orion, Korea (Orion interests of 70 %)
Samsung Vina Electronics	Dien Bien Phu	CTV, VCR, FAX, communication equipment, air conditioner	In the form of the joint venture with TIE (Samsung interests of 70 %)
LG (plan)	Hanoi	CTV, CTV tuner (3 million sets / year in planning) refrigerator	-Plan for mass production in May 1996 -In the form of the joint venture with Star Light Electronic (LG interests of 55 %)
Fujitsu (plan)	Bien Hoa industrial park	HDD board	-Plan to established in December 1996 -Developed independently
Sanyo (plan)	Bien Hoa	washer (200 thousands sets / '97)	Plan to established in November 1996
Mabuchi Motor (plan)	Bien Hoa	small sized motor	Plan to established in April 1997
Akai Electric (plan)	Ho Chi Minh	CTV (small / medium sized)	Plan to established in Spring 1996

Notes Production is mainly on consignment. At first, the Japanese presence in the home appliance field was represented by only Sony, in the form of the joint venture with Viettronics Tan Binh established in November 1994 (Sony Viet Nam). Sony has since been joined by not only Sanyo Electric, as shown in the table, but also Sharp, Matsushita Electric, and Toshiba.

Source EIAJ

(3) Trend of production of electric / electronic components

The following outline of the trend of production of electric and electronic components in recent years is necessarily based on fragmentary data due to the lack of full and reliable data. Viet Nam reportedly has a production capacity great enough to turn out 2 million TV sets and 1.5 million radio-cassette players a year. In reality, however, actual 1995 production reportedly came to 810,000 TV sets and 200,000 radio-cassette players. In other words, plants are not producing to full capacity. CTV sets account for about 70 percent of the TV assembly volume. About 70 percent of the sets assembled in Viet Nam are directed to the home market; the remaining 30 percent are exported. About 80 percent of the TV assembly volume concerns CKD sets; IKD sets account for about 10 percent. The circle of components that can be sourced domestically is limited to items such as plastic cabinets and antennas, and embraces only about 10 percent of the total number of requisite components.

Table 6 Transition of production of major electric / electronics products

		(billion dong at 1989 prices)					
	Unit	1990	1991	1992	1993	1994	1995
Electric-fan	thousands	287	223	244	217	312	350
Radio-cassette	thousands	16	139	127	263	110	na
TV	thousands	141	186	365	586	792	810

Source General Statistical Office, Ministry of Industry

Table 7 Transition of production of major electric / electronics products by capital interest

		(billion dong at 1989 prices)					
		1990	1991	1992	1993	1994	1995
State		208	195	220	323	385	404
Private		36	66	60	63	77	na
Others		28	17	20	23	31	na
Total		272	278	300	409	493	514

Source General Statistical Office, Ministry of Industry

(4) Points of electric and electronics industry in Viet Nam

Among the Japanese set makers, Sony, Matsushita Electric Industrial, Sanyo Electric, Toshiba, Sharp, and Hitachi have entered or are contemplating entry into the Vietnamese market mainly by forming joint ventures with state-run enterprises. Few part makers targeting the domestic market have started operations in Viet Nam. Most part makers are taking the wait-and-see stance. (However, there are dozens of part makers operating in the export processing zones. These companies are exporting all of their products.) Among South Korean companies, Daewoo is actively engaged in production primarily in the Hanoi area through a joint venture with Viet Nam's state-run enterprises.

At present, foreign businesses, including Japanese makers, can expect to benefit from Viet Nam's abundant high-quality labor force and low labor costs. Given the need to restructure production bases in Singapore, Malaysia, and Thailand, where there are severe labor shortages, Viet Nam can be regarded as the most promising destination for investment, but the nation is presently beset by the following problems.

1) Obsolete management and technological resources of local businesses (including state-enterprises)

At present, there are approximately 100 companies, including state-run enterprises, in the electric and electronics industry in Viet Nam. Their management and technological resources are often obsolete by international standards. It is deemed very difficult for these companies to be internationally competitive through their own self-help efforts. However, some of the better companies can be expected to improve their management and technological resources by forming joint ventures with foreign businesses. (Among the five major state-run enterprises engaged in the home appliances production, three are deemed to be capable of being partners in joint ventures with Japanese home appliances manufacturers.)

2) Inadequate policies for the promotion of the introduction of foreign capital

There are no consistent policies among the government ministries and agencies that implement policies designed to nurture industries, external trade policy, tariff policy, science and technology policy, etc. The need for building or improving infrastructure, shortening the time required for red tapes, and exemption from or reduction in income taxes is often cited. The more fundamental problem, however, is that the coordination among government ministries and agencies in charge of policies and administration is not functioning properly.

There are not enough incentives attractive enough for foreign businesses. Consistent implementation of policies is essential in relation to the ratio of local procurement, tariffs, profits, royalty, environmental regulations and the ratio of capital participation, the formation of joint ventures, and export obligations. There are many problems in relation to foreign companies operating in Viet Nam, such as the issuance of visas for expatriate workers, the living environment, improvement of red tapes, equal treatments regarding publicly-regulated charges, such as electric power charges, and the evaluation of the status of such organizations as chambers of commerce and industry.

While Viet Nam's politics appear to center on Hanoi, Ho Chi Minh City seems to be ahead in terms of growth and the scale of the economy. If changes are not made, the gap is likely to widen. Hanoi should do much more to promote the transition into a market economy to close the gap, but it appears that the present policy management tends to curb and restrain Ho Chi Minh City's potential.

Last year, Viet Nam's parliament decided that all cases of the introduction of foreign capital should go through MPI, giving it the power for coordination. However, this was only a decision made at the top, and since there is no framework for upward communication from the bottom, the decision does not appear to be penetrating the ranks of middle- and lower-level officials.

The Ministry of Commerce approves the application for foreign exchanges (import quotas) only on kit basis, when set makers import parts from abroad. While makers want to be able to reduce costs by importing different parts from different sources, the Ministry insists on kit-based imports on the ground that otherwise it cannot control the abuses of the system, such as illegal sales to the black market.

3) The absence of parts and supporting industries that meet international standards

At present, the only materials that can be procured in Viet Nam are packing materials and user's manuals. Almost all of electronic components used in the set assembly must be imported. There are few parts makers in Viet Nam that can meet the quality standards of Japanese and other foreign makers. However, set makers must meet the requirement of 20% local contents in order to qualify for a 5% tariff rate for IKD.

The government of Viet Nam wants to attract foreign parts makers. By raising the local contents requirement for set makers, it is strongly encouraging set makers to bring parts makers along into the country. However, parts makers, which are mostly small or medium-sized firms, are cautious about entering the market, because they do not have the capability to form joint ventures with Viet Nam's state-run enterprises or enter into negotiations with them for this purpose. Without healthy parts industry, the development of the electronics industry is almost impossible. Moreover, there are few companies that can build machines and thereby support the electronics industry that can compete internationally.

4) Inadequate infrastructure

With the help of Japanese and ethnic Chinese businesses, Viet Nam is building or improving export processing zones and industrial parks. However, they are still far short of meeting demand. Basic infrastructure, such as electric power, ports and harbors, roads, and communications, take a long time to build. The widening regional gap between Hanoi and Ho Chi Minh City may well become a serious problem.

2. Changes in the Environment of Asian Electric/electronic Industry Surrounding Viet Nam

The changes in the environment of Asian electric/electronic industry surrounding Viet Nam may be summarized as follows.

- (a) Globalization and siting near markets by international businesses**
 - a) Changes in international competitive factors (exchange rates, labor costs, WTO, etc.)
 - b) Global expansion of Japanese, Korean (conglomerates) and Taiwanese (ethnic Chinese) manufacturers
 - c) Transition to free market economies (China, Russia, Eastern Europe, Viet Nam, etc.)
 - d) Formation of regional bloc markets (EU, NAFTA, AFTA, etc.)

- (b) Industrial siting in the ASEAN and related tasks**
 - a) International division of labor--Growth of huge complexes (sets and parts)
 - b) Industrial promotion through the introduction of foreign capital, attempts to shift from labor-intensive to equipment- and technology-intensive industries
 - Enhancement of design and R & D functions, shift from home appliances to information and communications
 - c) Dual structure within the ASEAN region (strategic export bases and production bases to meet domestic demand)
 - d) Primarily transfer of assembly technology, underdevelopment of related industries (parts, etc.)
 - e) Impediments presented by various systems (investment, tariffs, local contents, royalty, etc.)

- (c) ASEAN10 and the start of AFTA—Restructuring of the division of labor within the region**
 - a) High economic growth, common regional tariffs, emergence of a market of 500 million people
 - b) Shift to high value-added industries, development of engineering capability (Singapore and Malaysia)
 - c) Promotion of export industries based on domestic markets (Thailand, Indonesia, etc.)
 - d) Potential markets and labor force in emerging nations (Viet Nam, Myanmar, etc.)

The following section outlines trends in the East Asian electronics industry and in siting in ASEAN countries by Japanese companies, which is anticipated to have a significant impact on the future development of the industry in Viet Nam.

(I) Trends in the East Asian electronics industry

1) Forecast of production by the East Asian electronics industry

In 1996, the value of total production (equipment plus components) by the entire East Asian electronics industry (outside Japan) reached about 210 billion dollars, or about 80 percent of the total for (within) Japan. Of this total, the NIEs (Korea, Taiwan, Hong Kong, and Singapore) accounted for about 40 percent, the major ASEAN members (here meaning Malaysia, Thailand, Indonesia, and the Philippines), for about 45 percent, and China, for 16 percent. The expansion of investment in the ASEAN region by Japanese and other developed-country firms since the mid 1980s led to significant growth there.

The value of East Asian production of electronic equipment in 1996 hit an estimated 131 billion dollars, and has been growing at an annual rate of about 15 percent in the 1990s. As compared to that of Japan, production is more centered around consumer products and electronic components. However, there has been a gradual increase in the share occupied by industrial equipment, production of which is growing at a fast pace.

The value of component production in 1996 was about 79 billion dollars, or nearly 40 percent of the total. Component production in East Asia has therefore become about two-thirds as large as in Japan. Strong growth is being posted by production of electronic devices in NIEs, and relatively high growth, by production of general components in the ASEAN members and China. Production of electronic components outstrips the East Asian demand and is being exported to other regions such as North America and Europe.

The share of the total production occupied by components is estimated at 45 percent in the NIEs, 35 percent in ASEAN members, and 26 percent in China. These figures indicate that the share tends to rise along with the stage of development. With the start of the 1990s, however, there arose a shift in East Asian production of electronic components, and especially general components, from NIEs to ASEAN members and China. Whereas annual rates of growth in component production averaged 8 percent in NIEs, the corresponding rates for ASEAN members and China were 42 and 20 percent.

Table 8 Forecast of production by the East Asian electronics industry (\$ billion, %)

	1990			1994			1996			2000			1996-2000 AAGR(%)		
	Equip- ment	Com- ponent	Total	Equip- ment	Com- ponent	Total	Equip- ment	Comp- onent	Total	Equip- ment	Com- ponent	Total	Equip- ment	Com- ponent	Total
NIEs	38	23	61	39	29	68	45	37	82	54	60	114	4.7	12.8	8.6
ASEAN	8	4	12	46	24	70	61	33	94	88	50	138	9.6	10.9	10.1
China	9	3	12	17	6	23	25	9	34	48	18	66	17.7	18.9	18.0
Total	55	30	85	102	59	161	131	79	210	190	128	318	9.7	12.8	10.9
Ratio															
NIEs	69	77	72	38	49	42	34	47	39	28	47	36			
ASEAN	15	13	14	45	41	43	47	42	45	46	39	43			
China	16	10	14	17	10	14	19	11	16	25	14	21			
Total	100	100	100	100	100	100	100	100	100	100	100	100			

Source Nomura Research Institute (NRI)

2) Positioning of East Asia in the world electronics industry

The value of global production of electronic equipment in 2000 is forecast at 860 billion dollars. This forecast assumes annual growth of just over 5 percent in production of industrial equipment and just over 2 percent in production of consumer equipment, for an overall rate of 4.9 percent, over the four-year period beginning in 1996. Growth at this rate would be more rapid than in most other industries. Production of electronic components to support the equipment production is expected to amount to 280 billion dollars (equivalent to 33 percent of the equipment total) in 2000. At just under 5 percent, growth would be about the same as in the case of equipment production.

For the future as well, factors such as the strong yen, trade friction, and formation of economic communities should motivate a further globalization of electronic equipment production, with major modification of the structure of the component demand and supply. Particularly strong growth is anticipated for East Asia (and especially ASEAN members and China) as a site of production of AV equipment and mass-produced equipment in the field of information-communications by Japanese, ethnic Chinese, and Western capital. The future also holds the prospect of a shift from Japan to ASEAN members and China for the supply of electronic components.

In the information-communications field, U.S. manufacturers retain an overwhelming competitive edge by virtue of the brisk domestic market and their software capabilities. Together with the effects of restructuring in North American plants, their cost competitiveness for sets per se derives from assembly in East Asia, which offers low wage levels and low component sourcing costs. These are the prime factors behind the prospects for further expansion of the demand for components in East Asia, and particularly ASEAN members.

As far as products directed to the North American market are concerned, the launch of NAFTA reduced reliance on East Asia for sets, half-finished goods, and components. It is anticipated to add impetus to siting in, and transfer of assembly processes to, mainly Mexico by set and component manufacturers from Japan and other countries. As such, it will inevitably accelerate component sourcing from within North America. The accompanying effect of restraining interregional trade will presumably make the structure of demand and supply within East Asia more autonomous (i.e., self-contained).

In light of these global factors of change in the demand and supply in the electronics industry, the production of equipment and components in East Asia (NIEs, ASEAN, and China) is forecast to grow about twice as fast as the global total to 2000.

Table 9 Forecast of production by the world and the East Asian electronics industry (\$ billion,%)

	1990			1996			2000			1996-2000 AAGR (%)	
	World	East Asia	Ratio	World	East Asia	Ratio	World	East Asia	Ratio	World	East Asia
Electronics equipment	543	55	10	712	131	18	861	190	22	4.9	9.7
-Industrial equipment	455	33	7	610	91	15	750	138	18	5.3	11.0
-Consumer equipment	88	22	25	102	40	39	111	52	47	2.1	6.8
Electronics component	179	30	17	236	79	33	280	128	46	4.4	12.8
Total	722	85	12	948	210	22	1141	318	28	4.7	10.9
Ratio	World	East Asia		World	East Asia		World	East Asia			
Electronics equipment	75	65		75	62		75	60			
-Industrial equipment	63	39		64	43		66	43			
-Consumer equipment	12	26		11	19		10	16			
Electronics component	25	35		25	38		25	40			
Total	100	100		100	100		100	100			

Source NRI

Table 10 Forecast of production by the major East Asian electronics industry (\$ billion)

		1993	1994	1995	1996	AAGR(%)
Japan	Equipment Total	139.0	149.0	149.0	152.3	3.1
	Industrial Equipment	108.5	120.5	123.7	128.2	5.7
	Consumer Equipment	30.5	28.5	25.3	24.1	-7.6
	Components Total	73.0	85.1	95.5	103.7	12.4
	Active Components	42.4	53.2	61.7	67.9	17.0
	Passive Components	30.6	31.9	33.8	35.8	5.4
	Total	212.0	234.1	244.5	256.0	6.5
South Korea	Equipment Total	14.6	16.8	18.3	19.5	10.1
	Industrial Equipment	7.9	9.4	10.6	11.7	14.0
	Consumer Equipment	6.7	7.4	7.7	7.8	5.2
	Components Total	14.2	19.3	23.9	26.1	22.5
	Active Components	9.7	13.9	18.1	19.9	27.1
	Passive Components	4.5	5.4	5.8	6.2	11.3
	Total	28.8	36.1	42.2	45.6	16.6
Taiwan	Equipment Total	14.0	16.0	17.9	19.3	11.3
	Industrial Equipment	12.7	14.8	16.8	18.2	12.7
	Consumer Equipment	1.3	1.2	1.1	1.1	-5.4
	Components Total	7.2	7.3	7.8	8.2	4.4
	Active Components	2.9	2.7	2.9	3.1	2.2
	Passive Components	4.3	4.6	4.9	5.1	5.9
	Total	21.2	23.3	25.7	27.5	9.1
Hong Kong	Equipment Total	6.5	6.6	6.5	6.4	-0.5
	Industrial Equipment	3.9	3.8	3.7	3.6	-2.6
	Consumer Equipment	2.6	2.8	2.8	2.8	2.5
	Components Total	2.5	2.6	2.6	2.7	2.6
	Active Components	0.6	0.7	0.7	0.8	10.1
	Passive Components	1.9	1.9	1.9	1.9	0.0
	Total	9.0	9.2	9.1	9.1	0.4

Singapore	Equipment Total	16.5	21.6	24.3	26.7	17.4
	Industrial Equipment	14.1	18.8	21.5	23.9	19.2
	Consumer Equipment	2.4	2.8	2.8	2.8	5.3
	Components Total	7.0	10.0	11.2	12.4	21.0
	Active Components	4.9	6.4	7.3	8.2	18.7
	Passive Components	2.1	3.6	3.9	4.2	26.0
	Total	23.5	31.6	35.5	39.1	18.5
Malaysia	Equipment Total	9.3	12.6	15.6	18.3	25.3
	Industrial Equipment	4.5	6.1	7.9	9.7	29.2
	Consumer Equipment	4.8	6.5	7.7	8.6	21.5
	Components Total	6.8	8.3	9.7	10.7	16.3
	Active Components	5.1	6.1	7.1	7.8	15.2
	Passive Components	1.7	2.2	2.6	2.9	19.5
	Total	16.1	20.9	25.3	29.0	21.7
Thailand	Equipment Total	5.4	7.0	8.1	9.2	19.4
	Industrial Equipment	3.9	5.2	6.0	6.8	20.4
	Consumer Equipment	1.5	1.8	2.1	2.4	17.0
	Components Total	1.9	2.7	3.3	3.9	27.1
	Active Components	1.2	1.6	2.0	2.4	26.0
	Passive Components	0.7	1.1	1.3	1.5	28.9
	Total	7.3	9.7	11.4	13.1	21.5
Indonesia	Equipment Total	2.3	3.1	4.0	4.8	27.8
	Industrial Equipment	0.9	1.3	1.6	1.9	28.3
	Consumer Equipment	1.4	1.8	2.4	2.9	27.5
	Components Total	0.5	0.8	1.0	1.3	37.5
	Active Components	0.2	0.4	0.5	0.7	51.8
	Passive Components	0.3	0.4	0.5	0.6	26.0
	Total	2.8	3.9	5.0	6.1	29.6
Philippines	Equipment Total	1.0	1.3	1.7	2.0	26.0
	Industrial Equipment	0.8	1.1	1.4	1.7	28.6
	Consumer Equipment	0.2	0.2	0.3	0.3	14.5
	Components Total	1.9	2.7	3.9	5.0	38.1
	Active Components	1.7	2.5	3.6	4.7	40.4
	Passive Components	0.2	0.2	0.3	0.3	14.5
	Total	2.9	4.0	5.6	7.0	34.1
China	Equipment Total	13.4	17.4	20.7	24.6	22.4
	Industrial Equipment	6.2	8.5	10.5	13.1	28.3
	Consumer Equipment	7.2	8.9	10.2	11.5	16.9
	Components Total	4.4	6.1	7.6	8.8	26.0
	Active Components	1.4	1.6	2.0	2.4	19.7
	Passive Components	3.0	4.5	5.6	6.4	28.7
	Total	17.8	23.5	28.3	33.4	23.3
India	Equipment Total	3.0	3.4	3.9	4.3	12.7
	Industrial Equipment	1.2	2.2	2.5	2.7	31.0
	Consumer Equipment	1.8	1.2	1.4	1.6	-3.9
	Components Total	0.8	0.9	1.0	1.2	14.5
	Active Components	0.3	0.4	0.4	0.5	18.6
	Passive Components	0.5	0.5	0.6	0.7	11.9
	Total	3.8	4.3	4.9	5.5	13.1

Source Elsevier advanced Technology

Table 11 A comparison of the scales of electronics industry in East Asia (\$ billion)

		1993	1994	1995	1996	AAGR(%)	**
Japan	Equipment Total	139.0	149.0	149.0	152.3	3.1	100
	Industrial Equipment	108.5	120.5	123.7	128.2	5.7	100
	Consumer Equipment	30.5	28.5	25.3	24.1	-7.6	100
	Components Total	73.0	85.1	95.5	103.7	12.4	100
	Active Components	42.4	53.2	61.7	67.9	17.0	100
	Passive Components	30.6	31.9	33.8	35.8	5.4	100
	Total	212.0	234.1	244.5	256.0	6.5	100
NIEs	Equipment Total	35.1	39.4	42.7	45.2	8.8	29.7
	Industrial Equipment	24.5	28.0	31.1	33.5	11.0	26.1
	Consumer Equipment	10.6	11.4	11.6	11.7	3.3	48.5
	Components Total	23.9	29.2	34.3	37.0	15.7	35.7
	Active Components	13.2	17.3	21.7	23.8	21.7	35.1
	Passive Components	10.7	11.9	12.6	13.2	7.2	36.9
	Total	59.0	68.6	77.0	82.2	11.7	32.1
ASEAN	Equipment Total	34.5	45.6	53.7	61.0	20.9	40.1
	Industrial Equipment	24.2	32.5	38.4	44.0	22.1	34.3
	Consumer Equipment	10.3	13.1	15.3	17.0	18.2	70.5
	Components Total	18.1	24.5	29.1	33.3	22.5	32.1
	Active Components	13.1	17.0	20.5	23.8	22.0	35.1
	Passive Components	5.0	7.5	8.6	9.5	23.9	26.5
	Total	52.6	70.1	82.8	94.3	21.5	36.8
China	Equipment Total	13.4	17.4	20.7	24.6	22.4	16.2
	Industrial Equipment	6.2	8.5	10.5	13.1	28.3	10.2
	Consumer Equipment	7.2	8.9	10.2	11.5	16.9	47.7
	Components Total	4.4	6.1	7.6	8.8	26.0	8.5
	Active Components	1.4	1.6	2.0	2.4	19.7	3.5
	Passive Components	3.0	4.5	5.6	6.4	28.7	17.9
	Total	17.8	23.5	28.3	33.4	23.3	13.0
India	Equipment Total	3.0	3.4	3.9	4.3	12.7	2.8
	Industrial Equipment	1.2	2.2	2.5	2.7	31.0	2.1
	Consumer Equipment	1.8	1.2	1.4	1.6	-3.9	6.6
	Components Total	0.8	0.9	1.0	1.2	14.5	1.2
	Active Components	0.3	0.4	0.4	0.5	18.6	0.7
	Passive Components	0.5	0.5	0.6	0.7	11.9	2.0
	Total	3.8	4.3	4.9	5.5	13.1	2.1
Grand Total (Exclude Japan)	Equipment Total	86.0	105.8	121.0	135.1	16.2	88.7
	Industrial Equipment	56.1	71.2	82.5	93.3	18.5	72.8
	Consumer Equipment	29.9	34.6	38.5	41.8	11.8	173.4
	Components Total	47.2	60.7	72.0	80.3	19.4	77.4
	Active Components	28.0	36.3	44.6	50.5	21.7	74.4
	Passive Components	19.2	24.4	27.4	29.8	15.8	83.2
	Total	133.2	166.5	193.0	215.4	17.4	84.1

Notes ** = Indexed by setting the amount of Japanese export at 100

Source Elsevier advanced Technology

(2) Offshore activities of Japanese electronic firms, mainly in Asia

This section views the patterns of globalization by Japanese firms from a variety of perspectives.

1) Overseas shift of production due to the strong yen

Japanese companies have shifted to offshore production in all set fields where production is based on low-VA assembly. In addition, the shift to offshore production is being made for all types of general-purpose set products. A case in point is the quickening migration of production of table-top VCRs, which had been regarded as not amenable to offshore production because of the high level of packaging technology required.

There is also a rapid shift to production in East Asia (outside Japan) in electronic component fields where domestic production is no longer cost-competitive. Examples are resistors with lead wires, disk condensers, switches, volume units, speakers, coils, transformers, one-sided PCBs, and small motors

Amid the wave of migration offshore due to the yen's appreciation, the role of production bases in other Asian countries is assuming increasing importance. Plants in Asia outside Japan are rapidly coming to the fore as huge bases of supply to the global market with superior cost competitiveness. In short, the profit from operations underpinned by the expansion of production volumes in locations in other Asian countries is the biggest single force behind the recovery of the consolidated performance of Japanese firms.

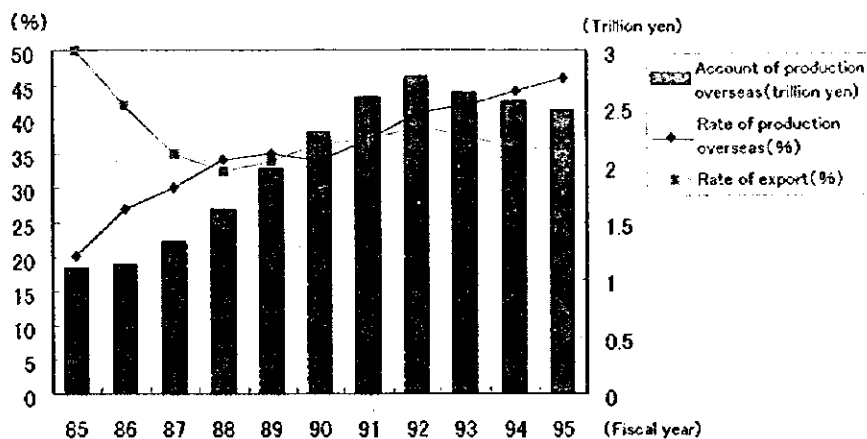


Chart 2 Account of production overseas by major five set manufacturers

Notes

1) Rate of production overseas = account of production overseas ÷ combined account of sales overseas × 100

2) Rate of export = independent account of export ÷ independent account of sales × 100

3) Major five set manufacturers: Matsushita, Sony, Sharp, Sanyo, Pioneer

Source NRI

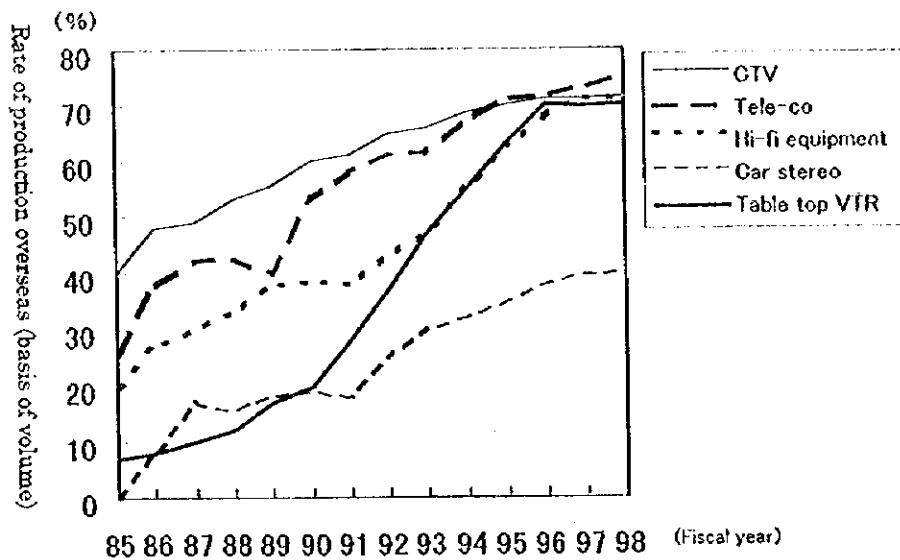


Chart 3 Shift to offshore of major electronics equipment

Notes

- 1) Rate of production overseas = volume of production overseas / (volume of domestic production + volume of production overseas)
- 2) Hi-fi equipments: basis of total by amplifier and tuner
- 3) Tele-co: radio cassette, headphone stereo

Source NRI

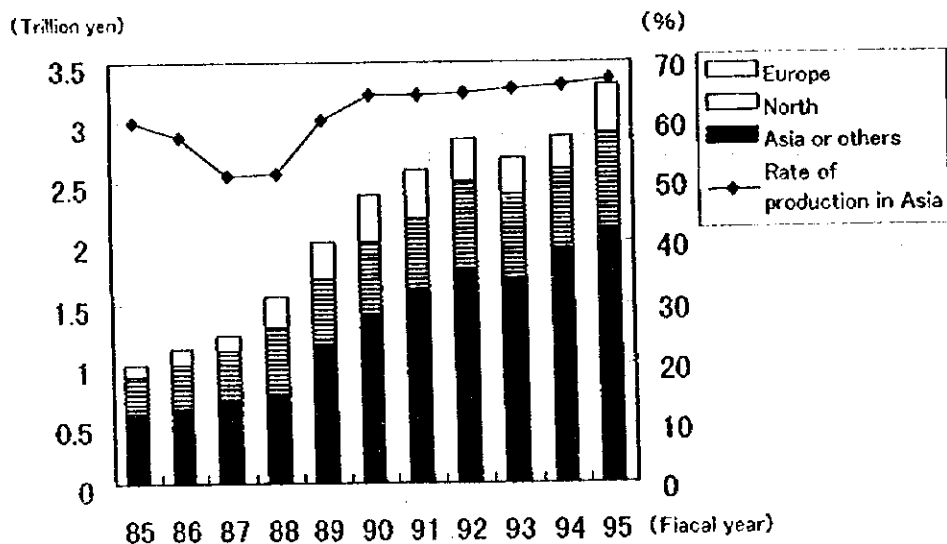


Chart 4 Shift to Asia of production (based on five major set manufactures)

Notes

- 1) Rate of production in Asia = account of production in Asia ÷ account of production overseas × 100
- 2) Major five manufacturers: Matsushita, Sony, Sharp, Sanyo, Pioneer

Source NRI

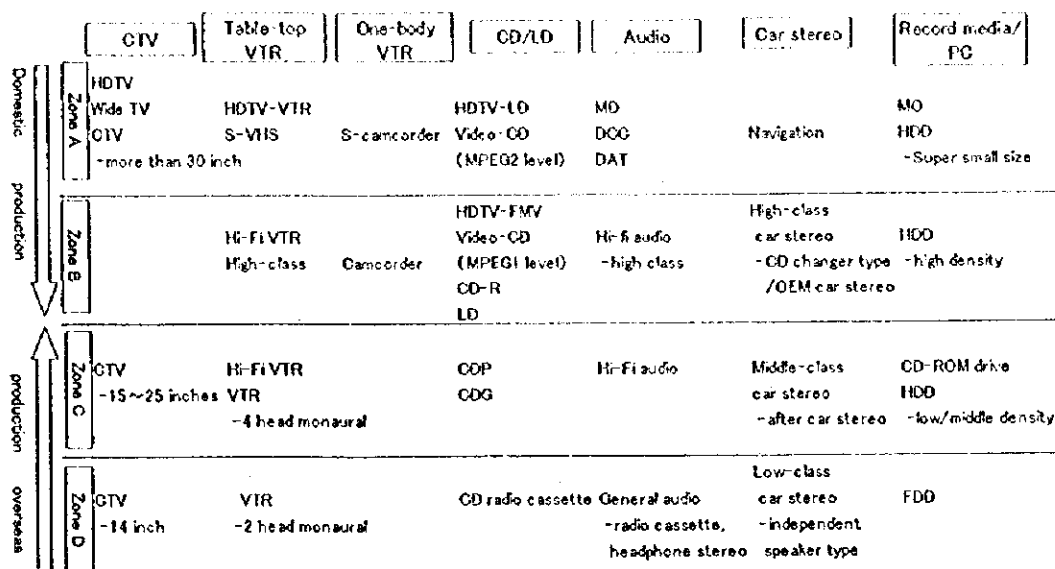


Chart 5 Segmentation of domestic and offshore production for major electronic equipment

Notes

- * Zone A: products which can be produced only in Japan
- * Zone B: products which are produced mainly in Japan to avoid the hollowing out of domestic industry and because of VA levels
- * Zone C: products for which the yen's appreciation is accelerating a shift offshore
- * Zone D: general products for which production has already been shifted offshore

Source NRI

Table 12 Japan's direct investment in Asian Nations

	(upper half: No. of projects, bottom half: \$ million)						(share %)
	1990	1991	1992	1993	1994	1951-94	
South Korea	3	0	3	5	0	329	15.1
Taiwan	11	15	6	7	9	454	20.8
Hong Kong	6	10	3	9	11	151	6.9
NIEs Total	20	25	12	21	20	934	42.7
Singapore	4	5	3	5	5	298	13.6
Malaysia	39	27	21	15	15	315	14.4
Thailand	36	24	14	9	18	245	11.2
Indonesia	3	9	9	4	9	84	3.8
Philippines	4	3	2	5	11	66	3.0
ASEAN Total	86	68	49	38	58	1,008	46.1
China	11	22	34	57	66	243	11.1
Total	117	115	95	116	144	2,185	100.0
South Korea	22	14	18	8	19	581	8.0
Taiwan	62	60	26	40	75	767	10.6
Hong Kong	70	14	15	111	97	447	6.2
NIEs Total	154	88	59	159	191	1,795	24.8
Singapore	54	53	36	63	96	298	4.1
Malaysia	261	284	107	141	165	1,613	22.3
Thailand	178	203	79	94	163	1,311	18.1
Indonesia	5	83	52	28	82	338	4.7
Philippines	138	30	11	49	142	480	6.6
ASEAN Total	636	653	285	375	648	4,040	55.9
China	22	123	189	332	492	1,393	19.3
Total	812	864	533	866	1,331	7,228	100.0

Source Year Book of International Finance Bureau, the Ministry of Finance

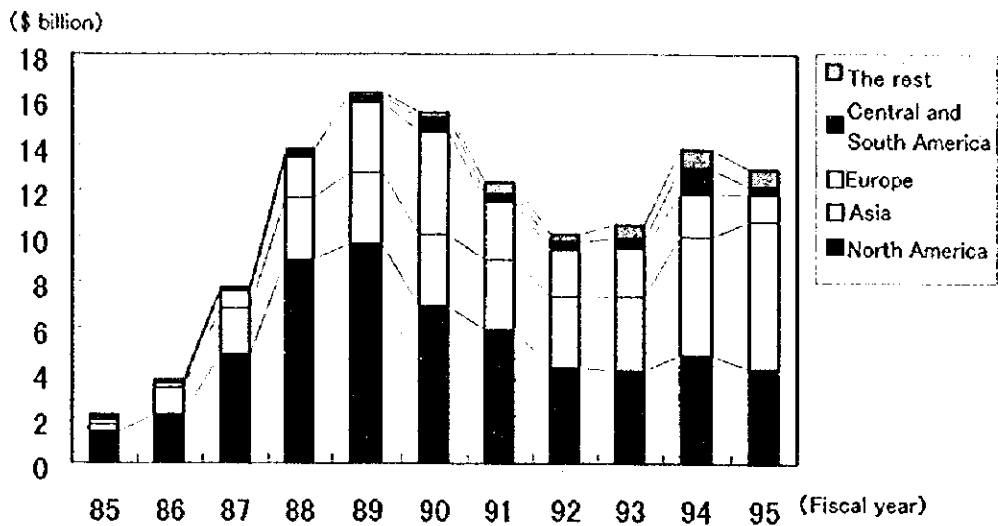


Chart 6 Account of Japanese direct investment by regions

Notes Figure of 1995 is the twice of the first half year
 Source Statistics of entered business of The Ministry of Finance

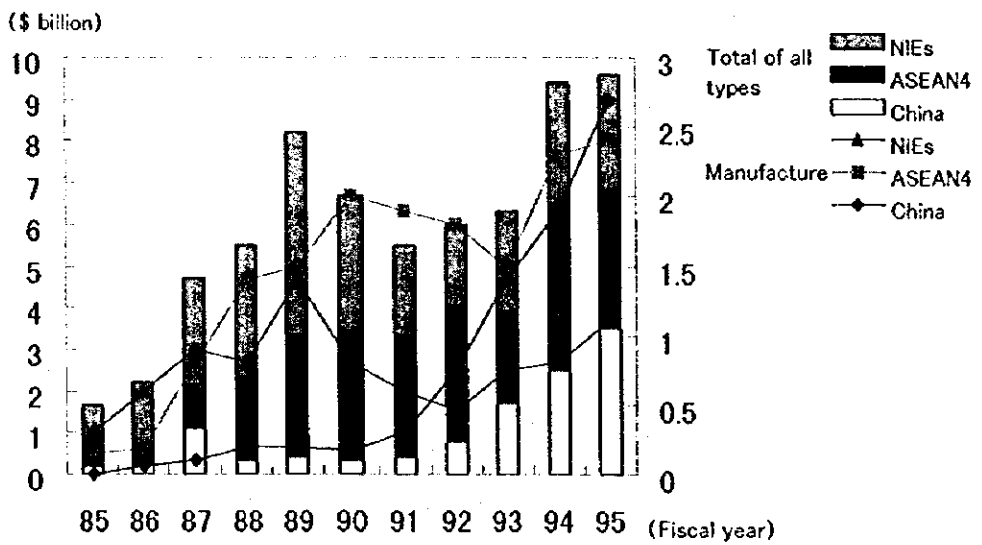


Chart 7 Japanese direct investment to East Asia

Notes Figure of 1995 is the twice of first half year
 Source Statistics of entered business of The Ministry of Finance

2) Interdependence and coprosperity between set and component manufacturers

The rise in the competitiveness of productions of Japanese electronic equipment manufacturers at plants in other Asian countries rests largely on the fact that component manufacturers are transplanting production offshore along with them. Set manufacturers and component manufacturers lie in a mutual relationship of interdependence for mutual prosperity. Together they are entering a phase of spiral-form expansion while pursuing synergistic effects.

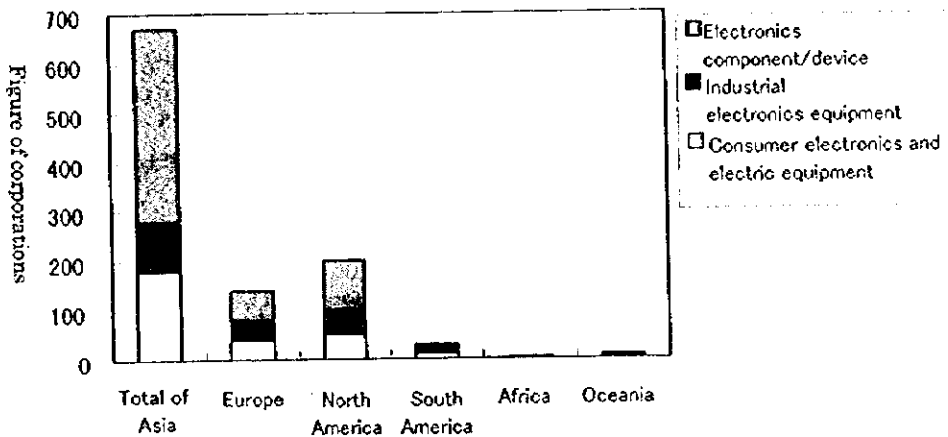


Chart 8 Development offshore of Japanese firms (by regions)

Source EIAJ

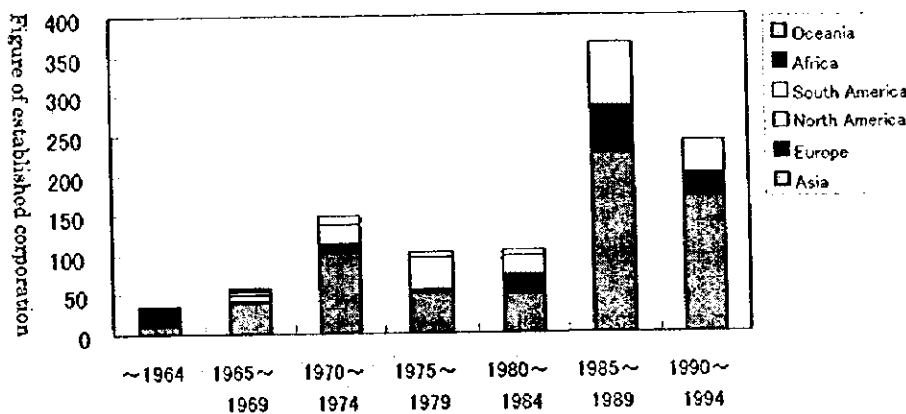


Chart 9 Development in Asia of Japanese firms

Source EIAJ

3) Consigned production processing

Consigned production processing is an approach to siting that makes use of the land, buildings, and employees of local (mainly ethnic Chinese) capital. It is commonly employed in China's Guang-dong province, where operations are managed by Japanese executives stationed in Hong Kong, and in the Malay peninsula, where management is based in the strategic export plants in Malaysia.

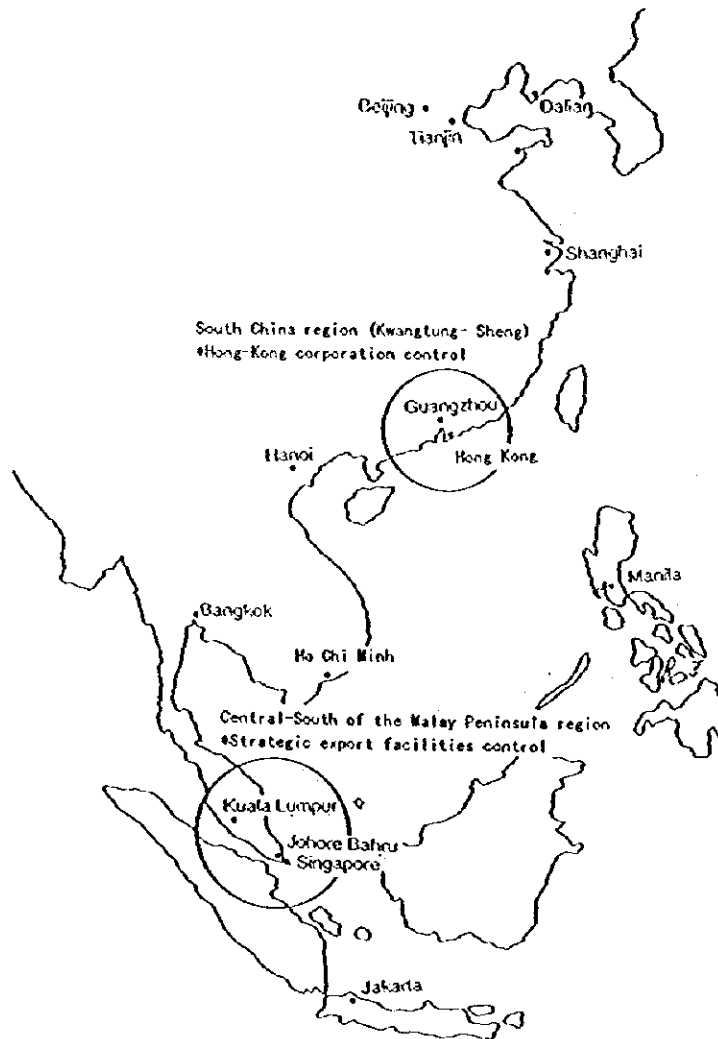


Chart 10 Two major consigned production processing areas in Asia

Source NRI

The expansion of consigned production processing in Asia for assembly of electronic equipment and components for Japanese manufacturers signifies a shift away from production at subcontracting plants and outside sourcing within Japan. As such, it should reinforce technical capabilities within the local (host country) production foundation.

Previously, local subcontracting foundations generally did not exceed the level of "human wave" type tactics on production lines for only certain processes to which the shift to outsourcing was confined. However, host-country suppliers have since acquired more expertise in production technology; some are actively incorporating NC (computer-controlled) machine tools at their own risk for automatic packaging of electronic components and for metal formation work, and now have the ability to carry out contracts embodying higher levels of VA. An increasing number of Japanese firms are joining with such subcontractors for an increase in their production capacity.

In Malaysia, for example, the government has hammered out a scheme of incentives designed to foster the growth of "bumi vendors" (indigenous Malay manufacturers). Under this scheme, siting foreign-affiliated firms are given privileges in the aspect of financing if they increase sourcing from

such vendors. This policy is resulting in a steady transfer of technology from Japanese and other foreign firms which have sited electronic component plants in Malaysia to bumi vendors.

4) Reinforcement of the role of strategic production locations

Centered around the ASEAN region, the strategic export locations of Japanese companies in many cases feature state-of-the-art plants equipped with the latest technology developed and proven at plants within Japan. As such, some of these locations have the power to participate in a horizontal division of production labor with the Japanese head office as far as production technology is concerned. In other words, Japanese headquarters have clearly shown a strong determination to bolster the competitiveness of strategically vital export locations in the ASEAN region.

Table 13 Role of strategic production locations

	Phase I (through the 1970s)	Phase II (early 1980s)	Phase III (late 1980s)	Phase IV (1990s)
Global strategy of Japanese companies	Export expansion	Promotion of localization	Globalization	Accelerated globalization
Positioning of plants in Asia outside Japan	Bases for production and sales directed to the host market - Participation in the host-country market - JV with local capital - Production centered around KD assembly - Low costs	Bases for export to developed-country markets - Overcoming the effects of the oil crises - Pursuit of low-cost production - Response to trade friction	Strategic locations - Response to the strong yen - Decline in the cost competitiveness of plants in NIEs - Pursuit of global logistics - Shift to offshore production for key components	Core global production locations - Overcoming the strong yen - Rise of the Chinese market - Clear segmentation from domestic production - Emergence of full-fledged product import - Response to exchange rate fluctuation
Trends in host-country policy	Industrialization to replace import (various Asian countries) - High import tariffs - Controls on incoming foreign investment	Import-oriented industrialization (mainly NIEs) - Export processing zones - Tariffs in free trade zones - Introduction of tax incentives	Export-oriented industrialization (mainly ASEAN) - Reinforcement of investment incentives - Permission for establishment of wholly-owned foreign subsidiaries	Export-oriented industrialization (ASEAN plus China) - Shift from consigned production processing to JV (China)
Concept behind offshore production	- Attempt at production at low-cost locations	- Production at low-cost locations	- Production at locations close to the market (where the products will sell)	- Production at locations that will pay

Source NRI

5) Siting segmentation on the levels of production technology and R&D

Siting segmentation between Japan and other Asian countries has proceeded primarily in correspondence with the required level of production technology. Whether in the field of equipment or in that of components, items for which production technology has been firmly (or long) established

are subjects of offshore production. By contrast, production still remains centered in Japan for items involving high-density packaging technology or numerous assembly steps for which mass-production technology has not yet been firmly established, as well as for ceramic and other materials-type components and components entailing equipment-intensive investment in pre-processes, such as semiconductors and liquid crystal. However, even in the case of some electronic components for which pre-process work remains in Japan, a shift is being made to offshore sites for attachment of electrodes and other post-processing steps that are already entering the phase of maturity as regards production technology.

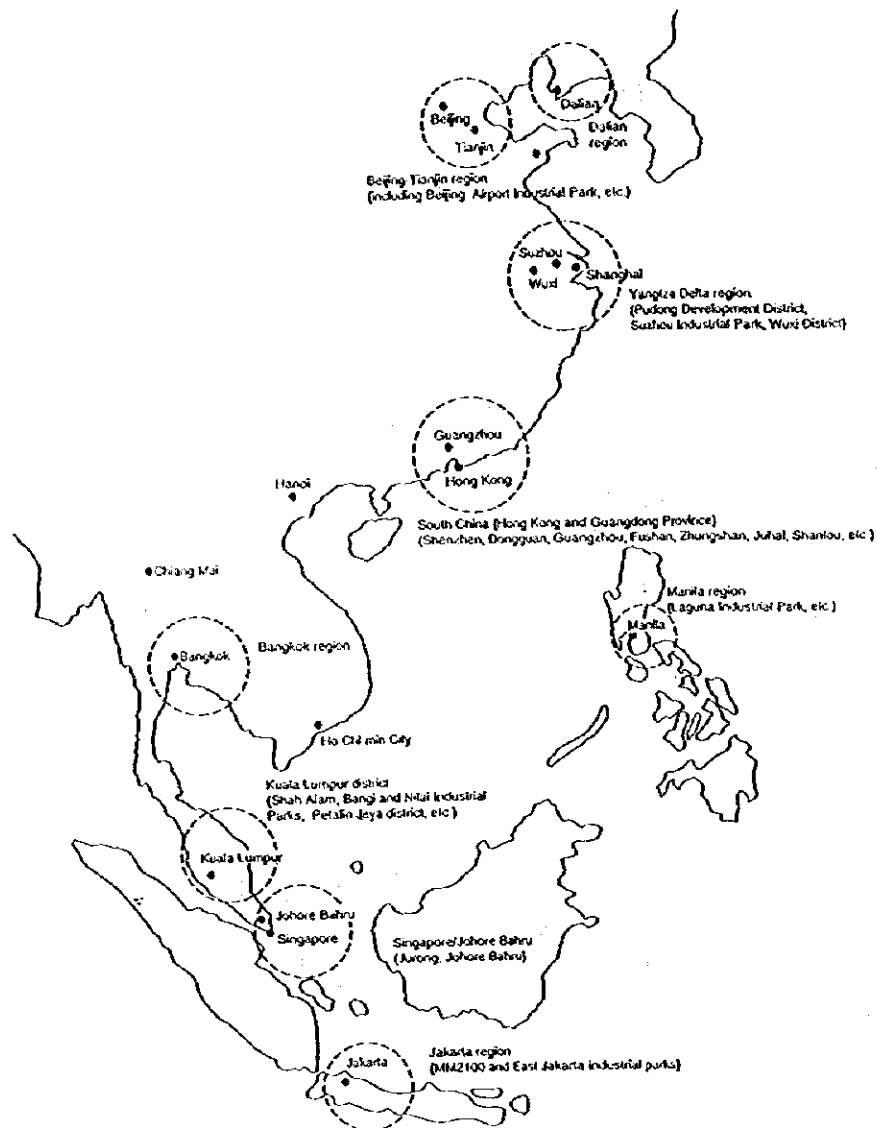


Chart 11 Location of strategic export facilities established by Japanese electronics companies in Asia

Source NRI

As for segmentation in the area of R&D arrangements, there has been no change in the arrangement of siting in Japan and other developed countries for next-generation basic R&D, ordinary R&D, and product R&D. Nevertheless, there is a shift under way mainly to strategic production locations in other Asian countries for work in such areas as new model development linked directly to products already in offshore production, reinforcement of applied development and production technology, and other activities on the level of design, production line construction, and maintenance.

Table 14 Development and production arrangements of Japanese companies in other Asian countries

	Development and production arrangements			Production and supply setup	
	Basic development	Development and mass production design	Partial revision	Component sourcing	External supply
* Assembly-type equipment, consumer	×	○	○	○	○
* Assembly-type equipment, industrial	×	△	○	○	○
* Assembly-type components	×	△	○	○	○
* Materials-type components	×	×	△	△	○
* Semiconductors	×	×	△	△	○
* Molded items	×	△	○	△	△

Notes

○: most companies can cope with the item.

△: indicate that some companies can cope with the item.

×: indicate that most companies cannot cope with the item.

Basic development: theoretical research, materials development, formulation of technical standards, etc.

Mass production development: development of fundamental models, succeeding models, etc.

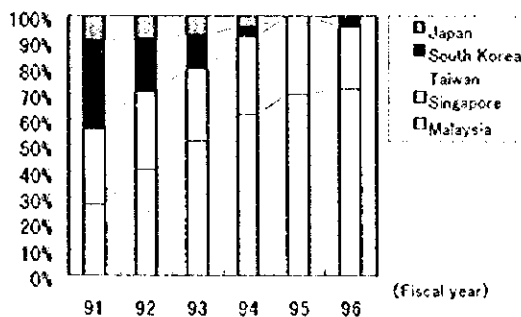
Partial revision: revision of external appearance, characteristics, etc.

Component sourcing: sourcing from local (indigenous) firms and local Japanese-affiliated firms.

External supply: supply or distribution outside the market in question.

Source NRI

(1) Source of raw materials



(2) Type of products

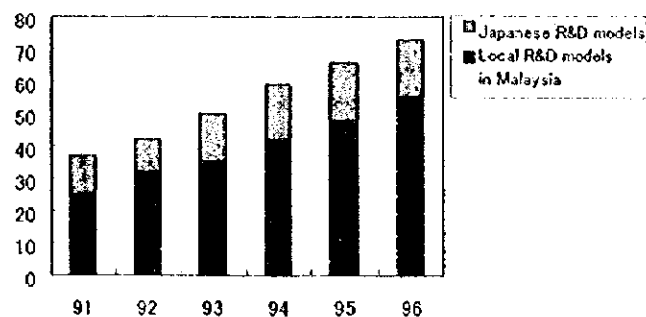


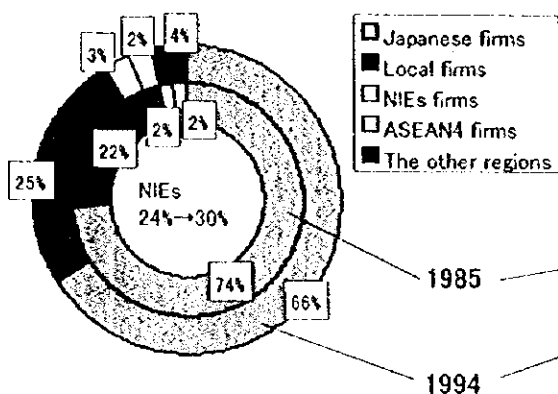
Chart 12 Localization in the case of the ASEAN locations of Company A

Notes "total" is based on the plan of operation of company A
 Source NRI (basis of "Nikkei Electronics" and interviews)

6) Cost competitiveness through increase in local contents

The primary reason for the increase in the cost competitiveness of the strategic export locations of Japanese electronic firms in other Asian countries is the effects of mass production deriving from the jump in production volumes owing to the accelerated shift to offshore production and to the sustained expansion of the global demand.

(NIEs)



(ASEAN)

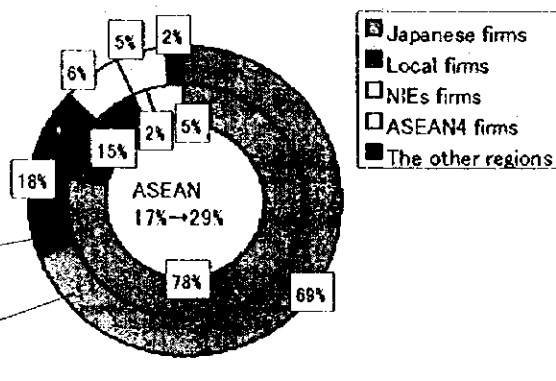
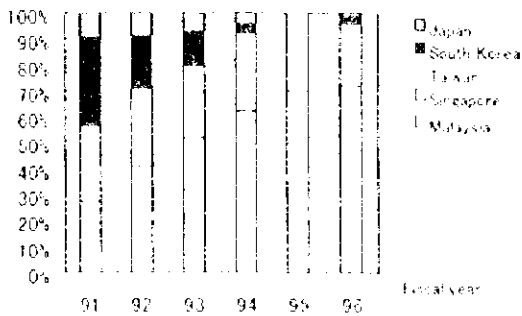


Chart 13 Component supplier of manufacturing local Japanese affiliated firms in NIEs / ASEAN

Source MITI

(1) Source of raw materials



(2) Type of products

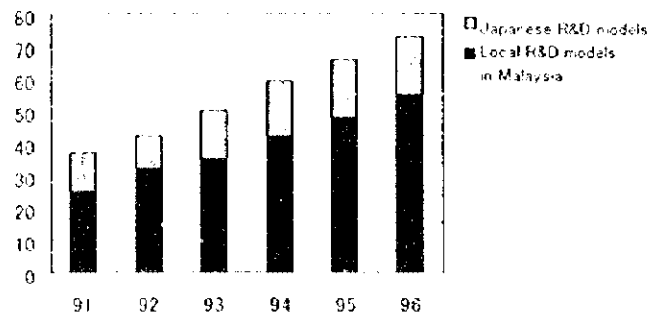


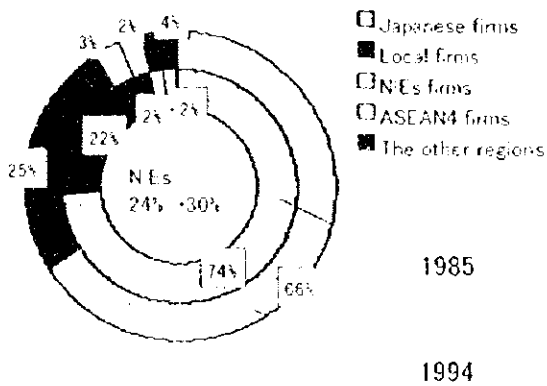
Chart 12 Localization in the case of the ASEAN locations of Company A

Notes "total" is based on the plan of operation of company A
 Source NRI (basis of "Nikkei Electronics" and interviews)

6) Cost competitiveness through increase in local contents

The primary reason for the increase in the cost competitiveness of the strategic export locations of Japanese electronic firms in other Asian countries is the effects of mass production deriving from the jump in production volumes owing to the accelerated shift to offshore production and to the sustained expansion of the global demand.

(NIEs)



(ASEAN)

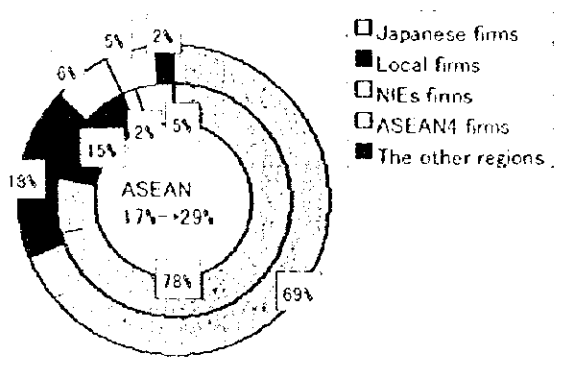


Chart 13 Component supplier of manufacturing local Japanese affiliated firms in NIEs / ASEAN

Source MITI

A second reason is the rise in the rate of local contents of electronic components and materials. Local contents rates for production at strategic export bases in Asia are estimated to be in the area of 95 percent for radio-cassette players and 90 percent for color TV sets, hi-fi audio sets, and table-top VCRs. Sourcing from Japan has already fallen to around 10 percent of the total contents, and is limited to items such as semiconductors, special plastics, and colored steel plate.

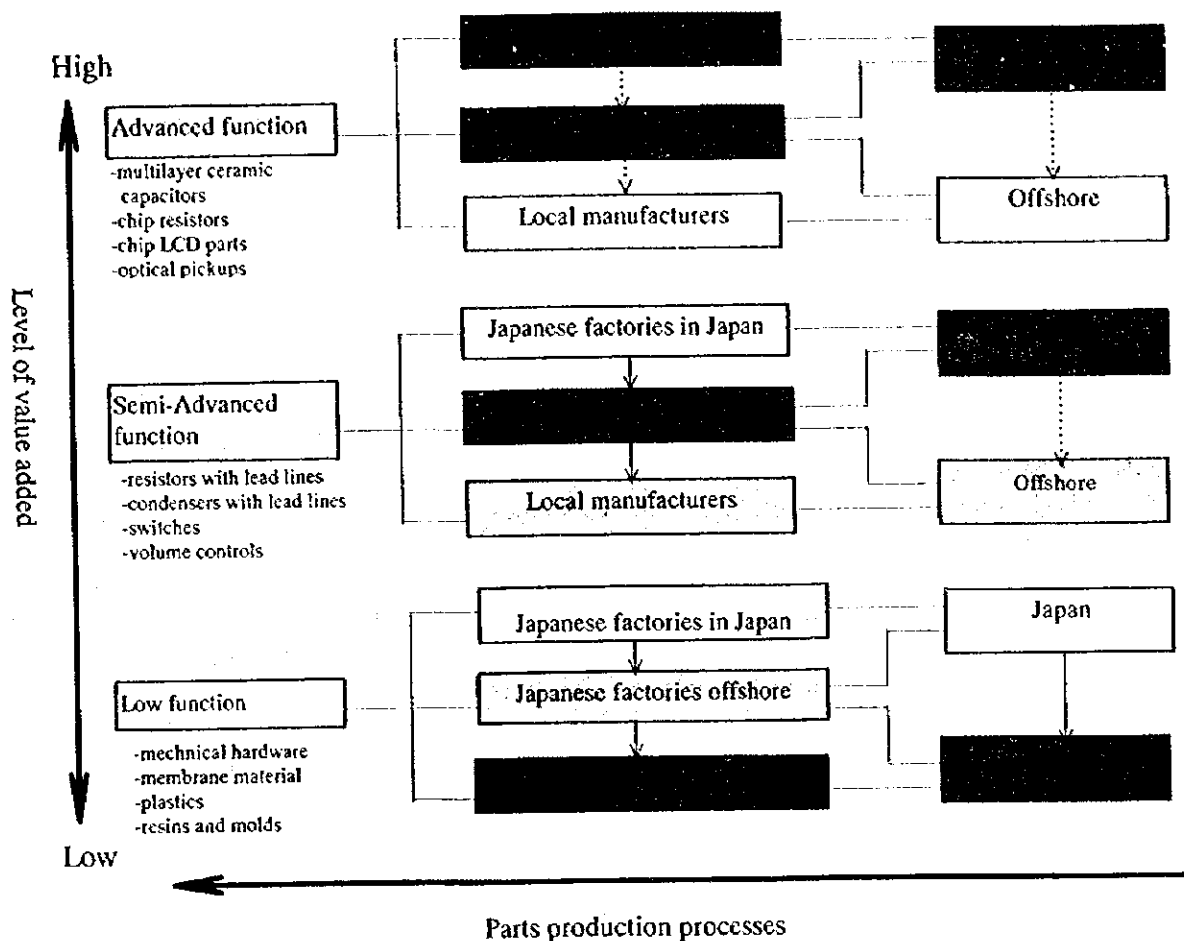


Chart 14 Growing use of local procurement is improving cost-competitiveness

- Notes
- 1) Local manufacturers are non-Japanese
 - 2) [Black box] shows main players at present
 - 3) [White box] shows at most no production activity
 - 4) ↓ indicates direction in which cost-reduction efforts move

Source NRI

A second reason is the rise in the rate of local contents of electronic components and materials. Local contents rates for production at strategic export bases in Asia are estimated to be in the area of 95 percent for radio-cassette players and 90 percent for color TV sets, hi-fi audio sets, and table-top VCRs. Sourcing from Japan has already fallen to around 10 percent of the total contents, and is limited to items such as semiconductors, special plastics, and colored steel plate.

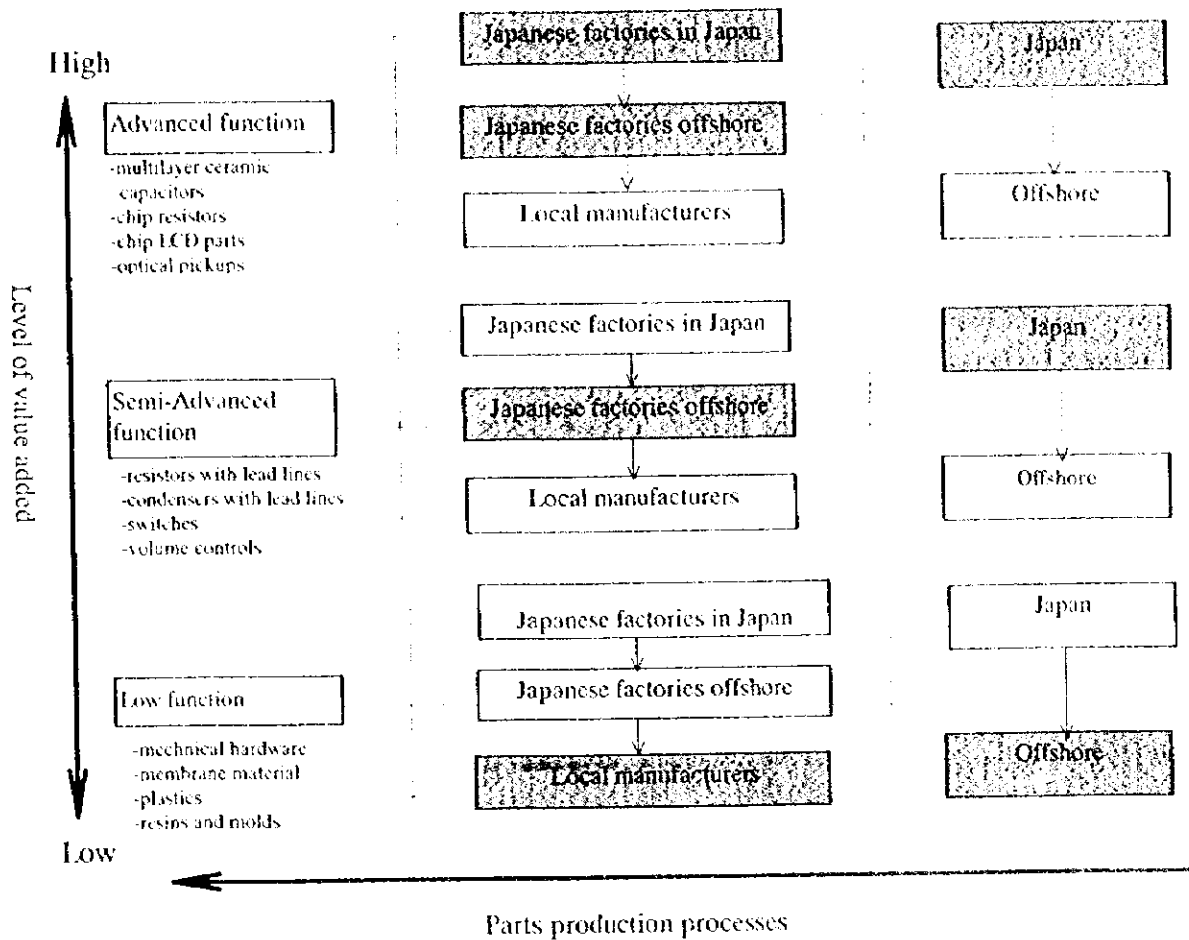


Chart 14 Growing use of local procurement is improving cost-competitiveness

- Notes
- 1) Local manufacturers are non-Japanese
 - 2) [shaded box] shows main players at present
 - 3) [white box] shows at most no production activity
 - 4) ↓ indicates direction in which cost-reduction efforts move

Source NRI

The increase in the local contents rate of electronic component manufacturers is strengthening the cost competitiveness of their production in other Asian countries. At the same time, the rise in the local contents rate on the set manufacturer side signifies a higher rate of mounting with components that have a higher local contents, and is therefore ultimately working to bolster the cost competitiveness of strategic export bases in these countries. Cost competitiveness tends to be higher in the case of electronic components and materials for which localization began at an earlier stage as well as of set products mounted with them.

As a third reason, it can be noted that cost competitiveness is being strengthened by a beneficent cycle of investment. Japanese manufacturers are directing more than half of their capital investment for set products, mainly for assembly lines, to offshore plants mainly in other Asian countries. In addition to expansion of production capacity, investment offshore is placing emphasis on boosting the level of production technology.

7) Formulation of strategy accenting localization and improved productivity

The locations of Japanese manufacturers in other Asian countries have evolved into some of the world's leading plants. They are now moving out of the stage of taking full advantage of the labor cost differential with Japan based on "human-wave" tactics and into that of more developed strategy fully emphasizing localization and improved productivity.

Set manufacturers themselves are promoting a shift to local production for key devices in response to the self-help efforts of local suppliers of items such as color CRTs, compressors, and optical pickups. This is doing much to raise local contents rates and, by extension, to strengthen cost competitiveness.

Some of the companies with a head start in launching production in other Asian countries are promoting local production of precision presses and molds used in plastic formation and sheet metal press processes while also localizing maintenance work. These moves allow them to accelerate deployment of strategy emphasizing localization and improvement of productivity.

Some manufacturers have even begun localizing development and design processes. There has also surfaced activity aimed at rebuilding cost competitiveness with an eye on the global market.

Table 15 Localization of key device

Key device	Manufacturers	Location	Products
CRT	Sony	Singapore	CTV CRT
	Matsushita	Malaysia	CTV CRT
		China	CTV CRT etc.
	Toshiba	Thailand	CTV CRT etc.
	Hitachi	Singapore	CTV CRT
cylinder head	Matsushita	China	VTR cylinder head unit
CD pick-up	Sony	Singapore	CD optical pick-up
	Sanyo	China	CD optical pick-up
compressor	Matsushita	Singapore	freezer / refrigerator compressor
		Malaysia	freezer / refrigerator compressor
		Malaysia	air conditioner compressor
	Sanyo	China	air conditioner compressor
		Singapore	air conditioner compressor
		Indonesia	refrigerator / air conditioner compressor
Hitachi	Malaysia	air conditioner compressor	
	Thailand	refrigerator compressor	
magnetron	Matsushita	China	electronic oven magnetron

Source NRI

Countries such as Indonesia, Viet Nam, and China offer a larger and more low-cost supply of labor than those such as Singapore, Malaysia, and Thailand, which have been the preferred sites of the strategic export locations of Japanese firms to date, and therefore are coming to the fore as additional candidates for strategic siting. Indonesia and China are already developing along this line, and are becoming host to a stream of large-scale plants positioned as strategic export bases that rival those in the Malay peninsula.

As this trend takes hold, the existing strategic export locations, which are mainly in the Malay peninsula, have begun to assume the role of cores of Japanese operations in the region. In this capacity, they are drawing on their experience as export bases to support the establishment of new bases in Indonesia, Viet Nam, and China.

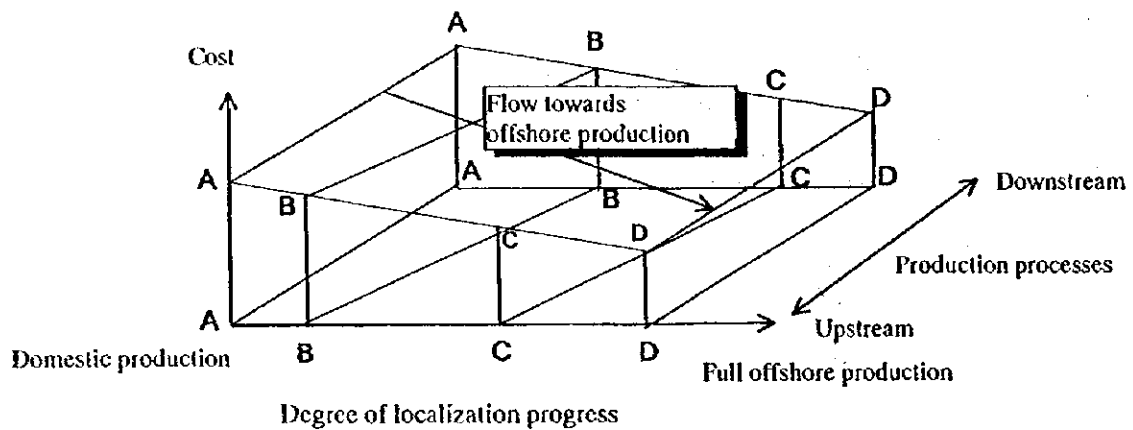
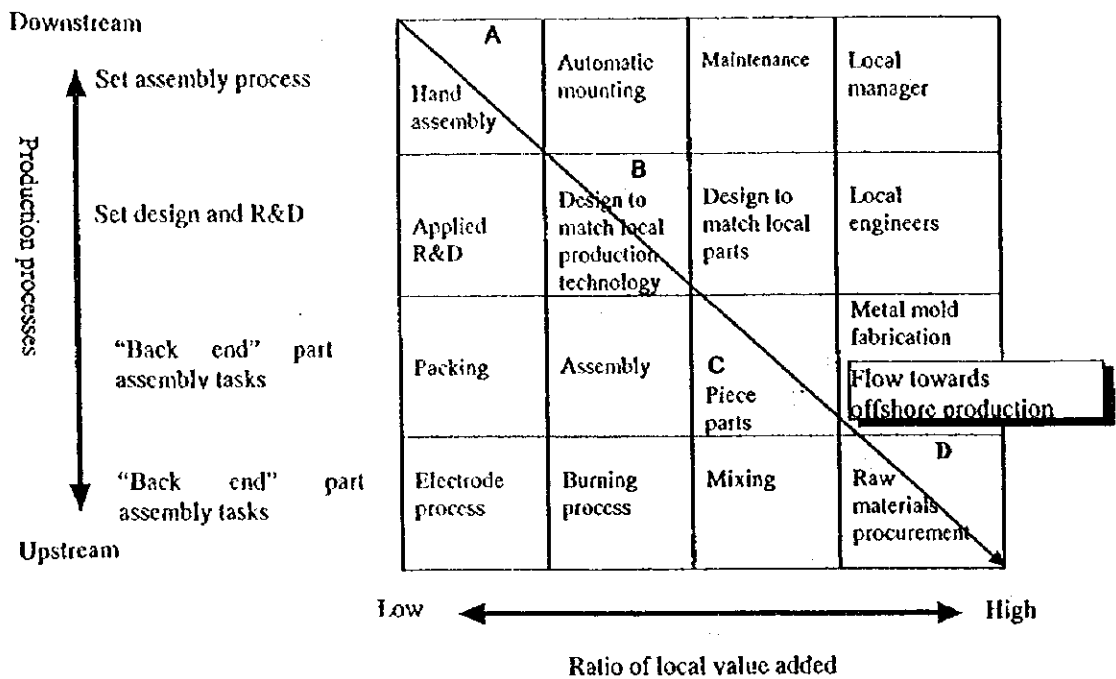


Chart 15 The increase in the ratio of local value added is improving cost competitiveness

Notes

- 1) How to view the upper chart : by increasing the ratio of value added at each process, degree of offshore production increasing (moves toward bottom right corner)
- 2) How to view the upper chart : Letters A, B, C, D correspond to rectangles AAAA, BBBB, CCCC, and DDDD in the lower chart. The area of each rectangles denotes production costs. As the degree of offshore production increases, the area of the rectangle (costs) gets smaller.

Source NRI

In other words, the existing strategic export locations are in possession of core capabilities in the three aspects of management, marketing, and technology, and are moving to transplant the same directly to the new locations from the Malay peninsula instead of having them brought over from the head office in Japan.

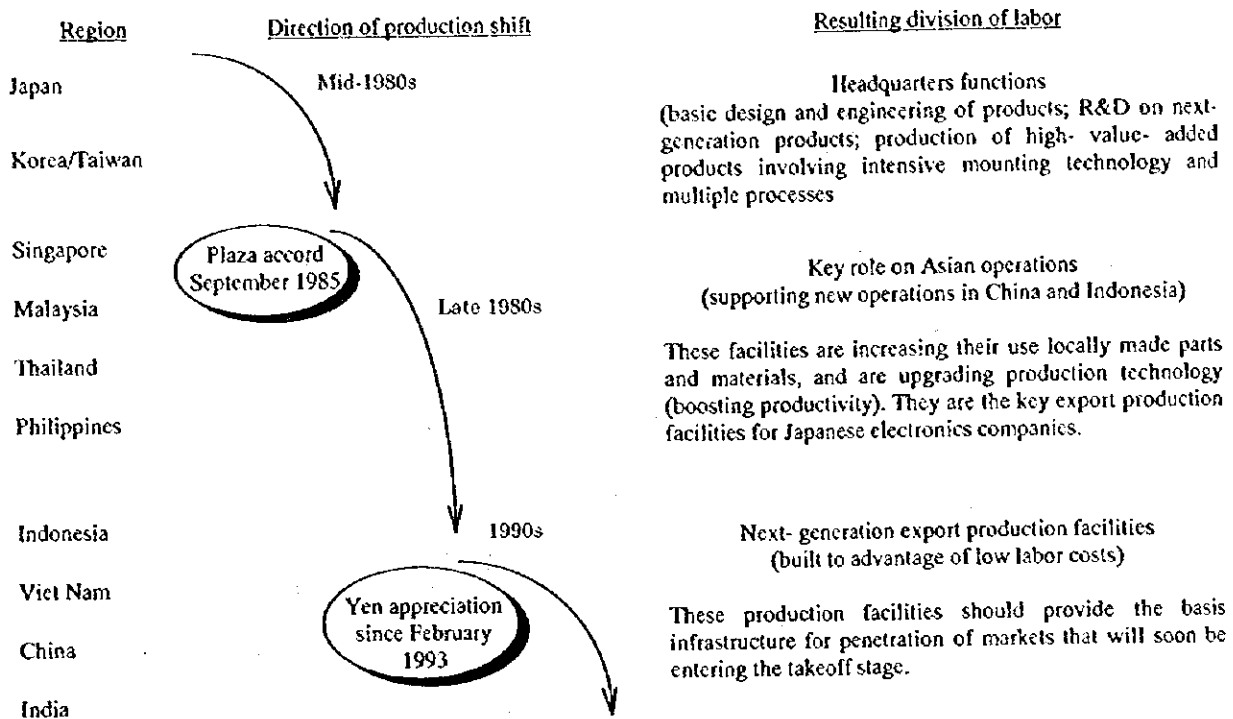


Chart 16 Shift of production from Japan to Asia and the resulting division of labor in key tasks

Source NRI

8) Restructuring of divisions of labor (intensification of branched siting and export competitiveness of production oriented toward the domestic demand)

Japanese production locations in other Asian countries can be divided into two major categories: strategic export bases (i.e., producing products for export as key plants in global strategy), and bases for supply of the domestic demand (i.e., in charge of production and sales of products directed to the market of the host country). The future holds the prospect of a restructuring of production locations in the ASEAN region in response to various changes in the investment environment in such aspects as labor supply, labor cost, and exchange rate levels in host countries. Another factor here is the rising inward (i.e., bloc-type) orientation of the AFTA market.

Table 16 Differences between strategic export locations and locations directed to the domestic demand (in the case of Matsushita Electric)

	Locations directed to the domestic demand (National Thailand)	Strategic export locations (Matsushita Television Malaysia)
Time of establishment	December 1961	May 1988 (start of production in April 1989)
Motivation	* Import tariffs * Response to mounting nationalistic sentiment	- Part of globalization strategy - Establishment of a four-pole system of global CTV production - Response to exchange rate fluctuation
Capital interest	48.7 percent	100 percent (JV with indigenous capital)
Production items	CTV, audio, dry cells, storage cells, electronic components	- CTV (screen sizes in inches: 14, 20, 21, and 25)
Type of production	Large variety, small volume	Small variety, large volume
Scale	Medium	Large
Sales destinations	Mostly within Thailand (high share of export for electronic components)	Markets in the Near and Middle East, Southeast Asia, etc. (export of mainly 14-inch sets to Japan)
Business strategy	* Construction of company geared to earnings from CTVs (mainstay products) * Reinforcement of electronic component capabilities * Consignment of TV design for the domestic market * Response to expansion of the domestic demand (production increase) * Increase in cost competitiveness through operation of advanced facilities	- Establishment of system for production increase in step with the global demand - Adjacent siting of a color CRT plant for delivery to Matsushita Television (Malaysia) - Establishment of R&D center and reinforcement of product development capabilities with a view to higher local contents and a larger share of the regional market - Acquisition of capability for local design and development for all CRTs with a 4:3 aspect ratio
Controlling section of the head office	Regional control division, manufacturing department	Manufacturing department

Source NRI

As the capabilities of strategic export locations in other Asian countries rise, there is occurring intensified competition with their products, which are equipped with great cost competitiveness due to their rigorous pursuit of larger production volumes. Some have pointed out that this is lowering the degree of freedom in development of strategy at locations directed to the domestic demand.

In general, the involvement of the partner in management of locations directed to the domestic demand has lessened relative to the time of establishment. Decisions on matters such as reviews of business domains where the production is competitive and increased investment for rebuilding production lines can no longer be made solely with reference to the wishes of the Japanese side. It is becoming necessary to negotiate them with the partner to an extent commensurate with its rate of capital interest in the venture.

The main advantages of locations directed to the domestic demand are protection by high import tariffs and possession of sales rights in the host country. Today, however, tariff rates are coming down in phases in response to the trend of free trade worldwide as exemplified by the WTO and AFTA. While they could retain sales capabilities over the medium term, plants established for supply of the