

1.2.6 Volkswagen AG

Volkswagen AG (VW) plans to realise sales of 850 thousand units and production of one million units in the Asian and Pacific area by the year 2000.

VW will concentrate its production bases in China and Taiwan. As for automobile sales, VW attaches importance to such countries as Japan, Thailand, Indonesia, Singapore, Hong Kong and New Zealand in addition to China and Taiwan.

In China, VW started the production of its Santana model at Shanghai VW in 1985 and started the licensed production of the Audi 100 at the joint venture company in Changchun in 1988. VW started production of the Jetta at the joint venture company in Changchun in 1993. In Taiwan, VW started passenger car production at a joint venture company in 1993.

1.3. TREND OF AISAN CAR PRODUCTION IN RELATION TO THE MUTUAL COMPLEMENTATION SYSTEM IN THE ASIAN AREA

1.3.1 Toyota Motor Corporation

(1) Outline of Toyota's Asian Car Plan

Toyota Motor Corporation (Toyota) envisions that its Asian car will be a passenger car of the TERCEL or STARLET level. Toyota will not use any existing model as a base model for the Asian car but will develop a new model. However, Toyota's Asian car will use major components from existing or older models. Toyota will newly develop outer styling but it will commonly use trim parts and components of as many other models as possible.

Toyota plans to start production of the Asian car at a scale of 50 thousand units a year in Thailand around 1997. Toyota contemplates that it can easily expand production capacity to 100 thousand units a year because it has already acquired sufficient land for the production.

Toyota will set the sales price at the same level as the annual income of middle class families where

both a husband and a wife work in order to generate larger demand. Toyota intends to carry out thorough cost reduction activities covering all the ASEAN region in order to achieve the above price target.

(2) Policy for Parts and Components Procurement

After initiating the production of the Asian car in Thailand, Toyota plans to start the production of the Asian car in other ASEAN countries. Therefore, Toyota intends to allocate the production of large-sized parts and components in various ASEAN countries instead of concentrating them in one country.

In Thailand, Toyota plans to manufacture body panels and trim parts and components. Toyota will use local dies for body panels. These dies will be developed and manufactured with CAD/CAM systems. Dies will be manufactured not only at Toyota's factory, but by local die makers, with both Japanese capital and local capital.

Toyota will find parts and components which can be used in the Asian car among the parts and components currently manufactured in Malaysia and will send them to Thailand. The procurement process will be controlled by Toyota in Thailand. Toyota plans to procure Malaysian parts and components for Malaysian national cars such as Proton for its Asian car. These parts and components require significant design modifications for use in the Asian car. Therefore, Toyota in Japan will control the procurement process. In addition, there is a plan that steering gears will be procured from T&K, the joint venture of a Japanese parts manufacturer, Koyo Seiko, in Malaysia.

There is a possibility that Indonesia will be the production base of engines for the Asian car on account of its experience in 5-piston engine production.

In the Philippines, Toyota has a transmission factory. Products of this factory can not be immediately used for Toyota's Asian car because this factory produces mostly transmissions for commercial vehicles. However, Toyota will examine the possibility of making the factory a source of engine supply.

1.3.2. Nissan Motor Co., Ltd.

(1) Outline of Nissan's Asian Car Plan

Nissan's Sunny AD Van will be the base model for the Asian car of Nissan Motor Co., Ltd. (Nissan). Nissan will produce its Asian car in four Asian countries, Taiwan, Thailand, Malaysia, and the Philippines. These countries will divide the production of parts and components for the Asian car.

(2) Policy for Parts and Components Procurement

One of the characteristics of Nissan's Asian car production is that individual production bases will divide the production of press parts for panels and supply them to others. Each production base will carry out final assembly with panel parts supplied from other countries. Precision level and quality must be standardised within these four factories in order for this production system to work.

The divided production of unit parts for the Asian car started in 1994. However, Nissan envisions difficulty in promoting the divided production of parts and components in the subject countries because Nissan must coordinate requests from the local partners in these countries.

As for large-sized parts and components, press parts and transmissions will be supplied from the Philippines, power steering parts and components from Malaysia, and engines and air-conditioning system parts and components from Thailand.

1.3.3. Mitsubishi Motors Corporation

(1) Outline of Mitsubishi's Asian Car Plan

An Asian car plan is under examination at Mitsubishi Motors Corporation (Mitsubishi Motors) with the basic idea that an Asian car will be a multi-purpose car based on a small-sized commercial car. Mitsubishi Motors attaches priority to a multi-purpose car because it considers that an Asian car

should widely meet the diversified needs of Asian countries where the business environments, such as purchasing power, economic development, and tariff systems, differ. Another reason is that the need for multi-purpose cars is high in the Asian area considering the large family system, which still remains in this area, and road conditions.

(2) Policy for Parts and Components Procurement

Mitsubishi Motors has not yet established a clear idea of its Asian car. Therefore, the examination of parts and components complementation among Asian countries has not started. It is considered that the way in which the intentions of local partners are coordinated will have a crucial influence on the scale of mutual complementation.

1.3.4. Honda Motor Co., Ltd.

(1) Outline of Honda's Asian Car Plan

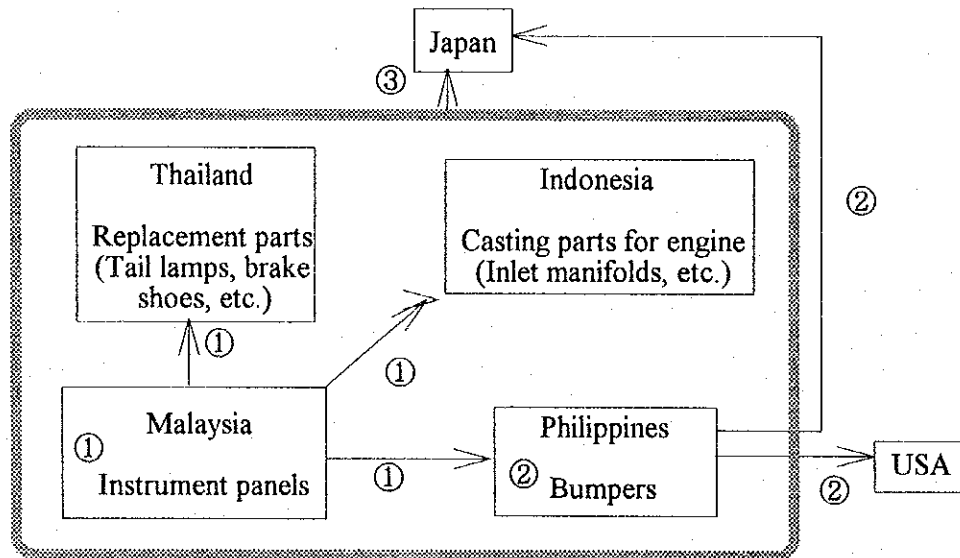
Honda Motor Co., Ltd. (Honda) has a plan to use the existing or former Civic as a base model for its Asian car and develop a new outer design. Honda will introduce a 4-door model because 4-door passenger cars are popular among consumers in the Asian area.

(2) Policy for Parts and Components Procurement

Honda has a policy of actively promoting the divided production and mutual supply of parts and components for the Asian car. Honda plans to produce aluminum cylinder blocks in Indonesia, making the most of its cheap aluminum materials; large plastic parts from Malaysia, on account of its low equipment cost; and wire harnesses from the Philippines. Honda plans to produce parts and components which require large investments and bulky large-sized parts in Thailand where the biggest market demand is expected among the ASEAN region.

The existing plan of Honda for the system of mutual complementation of parts and components is as shown in Fig. 4-1-6.

Fig. 4-1-6 Parts and Components Mutual Complementation System in the Asian Area of Honda Motor Co., Ltd.



Note: ③ Honda plans to import OEM and REM parts from ASEAN countries.

Japan	<p>Honda plans to select parts manufacturers in the ASEAN region which can supply OEM parts and import them since 1993 in addition to the establishment of international procurement system of REM parts.</p> <p>At the first step, Honda import REM parts for models which has been sold for more than 5 years since the introduction. Honda provides technical assistance to suppliers in order to secure the quality of products.</p>
Indonesia	<p>Machining facility for inlet manifolds is set up in Honda Prospect Engine Manufacturing. Production of aluminium engine parts was planned to be started in order to replace imports.</p>
Philippines	<p>Honda Parts Manufacturing is planned to be set up with the investment of about 1.1 billion yen for a new factory. This factory is planned to start the production of bumper structure and press parts which attach bumper to a body. Annual production volume is planned to be 140 thousand sets.</p> <p>All products are to be exported, mainly for older models in Japan and the U.S.</p>
Malaysia	<p>Honda Autoparts Sdn. Bhd. was established to produce instrument panels of 100 thousand units and exported to assemble plants in Thailand and Indonesia in addition to domestic use.</p>

Source: Forin

2. BUSINESS OPERATIONS OF JAPANESE AUTOMOTIVE PARTS ASSEMBLERS IN THE ASIAN AREA

2.1. OUTLINE OF BUSINESS OPERATIONS OF AUTOMOTIVE PARTS ASSEMBLERS IN THE ASIAN AREA

An increasing number of automotive parts manufacturers have been investing into the Asian area in response to enlarged business operations in this area by automobile manufacturers.

Joint development efforts and the OEM supply of models are proceeding among automobile manufacturers. These trends in the automotive industry are also affecting business strategies of automotive parts manufacturers. In response to these trends, the number of mergers and acquisitions between automotive parts manufacturers is increasing and more and more parts manufacturers are trying to gain new buyers beyond the existing relationship with automobile manufacturers. These trends also have an influence on the overseas operations of the automotive parts manufacturers.

Table 4-2-1 shows the number of overseas subsidiaries of Japanese automotive parts manufacturers by region.

Table 4-2-1 Overseas Subsidiaries of Japanese Automotive Parts Manufacturers

		No. of Companies		Share (1993)	Changes 91/93
		June 1991	June 1993		
Asia		372	391	42%	19
	Taiwan	86	88	9%	2
	Korea	52	51	5%	-1
	China	5	11	1%	6
	Thailand	73	79	8%	6
	Indonesia	35	39	4%	4
	Malaysia	37	39	4%	2
	Singapore	37	35	4%	-2
	Others	47	49	5%	2
North America		338	353	38%	15
	U.S.A.	295	306	33%	11
	Canada	26	24	3%	-2
	Mexico	17	23	2%	6
Europe		142	147	16%	5
Others		53	46	5%	-7
Total		905	937	100%	32

Source: *Nippon no Jidosha Buhin Kogyo* (The Automotive Parts Industries in Japan), Japan Auto Parts Industries Association

How to supply spare parts for exported Japanese automobiles was the main issue of overseas business operations of automotive parts manufacturers before. The current issues of their overseas business operations are:

- i. How to be involved in local production systems at Japanese automobile manufacturers' overseas production bases;
- ii. How to respond to national car projects in developing countries and requests for the participation of Japanese automobile manufacturers; and
- iii. How to find new buyers in the world market beyond the existing relationships with automobile manufacturers.

In ASEAN countries, automotive manufacturers were obliged to choose CKD production due to the ban and/or high import tariffs on completely built-up unit imports. Automotive manufacturers have been required to increase their local content according to the local content regulations of these countries. Therefore, in many cases, parts manufacturers made investments in the Asian area on the basis of requests from automobile manufacturers which were required to increase the use of local parts and components in this area.

Automotive parts manufacturers are experiencing big changes in the business environment around the Asian area. They are: i) ASEAN countries have introduced the BBC scheme and CEPT scheme; ii) Japanese automotive manufacturers have set up Asian car plans; and iii) Japanese automotive manufacturers in the Asian area are looking for low-cost suppliers instead of Japanese suppliers due to the Yen appreciation. Therefore, business opportunities for the automotive parts and components industries in the ASEAN region are expanding. It is necessary for Japanese automotive parts manufacturers to re-examine their business strategies taking the future of the ASEAN region into consideration.

2.2. CHARACTERISTICS OF OVERSEAS INVESTMENTS BY COUNTRY IN THE ASEAN REGION

2.2.1, Thailand

(1) Outline of the Automotive Parts and Components Industry

The assembly process is dominant in automotive parts manufacture in Thailand. Among processing processes, pressing has been moving ahead in localisation but machining has not got as far. As for casting, the local production of products which do not require high precision has increased, however, precision casting has fallen behind. Forging is not sufficient in Thailand.

A wide variety of automotive parts manufacturers including those in electrical equipment, casting, and die making have entered the Thai market, backed by the Government's localisation policy of engines for small-sized commercial vehicles. Foreign manufacturers' investments have been directed mainly to the production of labour-intensive parts. Japanese manufacturers of electrical equipment and dies have come to Thailand in search of a low-cost production base because of the Yen appreciation and some of them have already acquired export competitiveness.

Import duties on CKD parts both for passenger vehicles and commercial vehicles were decreased by 20% in 1993. This has reduced the merits of localisation of KD parts. Many kinds of materials for automotive parts manufacture are subject to import duties higher than KD parts. This also weakens the competitiveness of local automotive parts manufacturers.

The labour cost in Thailand has tended to increase. The competition with low-labour-cost countries such as China, Indonesia, and Vietnam will be more severe in the area of labour-intensive industries. Therefore, the Thai automotive parts industry should improve its competitiveness in labour-intensive products by increasing quality and efficiency and, at the same time, shift the priority to more capital-intensive and high-technology products.

(2) Investment Trends of Japanese Automotive Parts Manufacturers

In the area of electrical equipment, Japan Storage Battery Co., Ltd., and Furukawa Battery Co., Ltd. have invested in Thailand to manufacture batteries, Koito Manufacturing Co., Ltd. and Stanley Electric Co., Ltd. have started the production of lighting equipment, and Nippondenso Co., Ltd., NGK Spark Plugs Co., Ltd. and Yazaki Corporation have entered for the production of other electrical equipment. In the area of die casting, such companies as Art Metal Manufacturing Co., Ltd., Asahi Tech Corporation, Izumi Industries, Jidosha Buhin Kogyo Co., Ltd., and Riken Corporation have entered for the manufacture of engine-related parts.

Since 1993, new entries and the expansion of existing factories have been continuing for the following reasons:

- i. The size of the automobile market has been expanding most rapidly among ASEAN countries;
- ii. Toyota Motor and Honda have decided to make Thailand a production base of their Asian car; and
- iii. Mitsubishi Motors concentrated the production of 1-ton pick-up trucks in Thailand.

Examples of Japanese automotive parts manufacturers which have set up new factories since 1993 are as follows:

<u>Name of Company</u>	<u>Production Item</u>
Stanley Electric Co., Ltd.	Electrical equipment
Showa Corporation	Shock absorbers
Sanden Corporation	Condensers and evaporators
Yuasa Corporation	Batteries
Daido Metal Co., Ltd.	Bearings
Izumi Industries	Pistons for middle to large-sized engines
Hayashi Telempu Co., Ltd.	Floor carpets
Jidosha Buhin Kogyo Co., Ltd.	Fly wheels for middle to large-sized trucks and passenger cars, ring gears

Tokyo Buhin Kogyo Co., Ltd.	Fan clutches, engine pumps
Asahi Tec Corp.	Die casting parts such as hubs, disks, clutch housings, fly wheels, and drums
Nissin Kogyo Co., Ltd.	Die casting parts for engines, brake pads
Mitsuba Electric Mfg. Co., Ltd.	Electrical equipment such as wiper motors, starter motors, winker relays, window washers, wiper links
Toyoda Gosei Co., Ltd.	Plastic parts for steering wheels
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Source: Forin	

2.2.2. Indonesia

(1) Outline of the Automotive Parts and Components Industry

Major operations by Indonesian automotive parts manufacturers are stamping and assembly. Almost all the materials for automotive parts and components are imported.

Machining, heat treatment, and die casting have been started in Indonesia. However, they are limited to simple processing. Aluminum die casting is expected to be potential area because low-priced materials are domestically available.

At the time Japanese automobile manufacturers established production bases in the ASEAN region in order to cope with the strong yen, their investments were mostly directed to Thailand and Malaysia. Indonesia has fallen behind in inviting investments of foreign automotive parts manufacturers compared to Thailand and Malaysia.

It is expected that China and Vietnam will be attractive targets of investments by the automotive industries from now on. It is difficult for Indonesia to set up export-oriented automotive parts and components industries only with its low-cost and abundant labour force.

For the moment, it is considered that parts and components of less capital-intensive production, and of which the materials can be easily procured, will lead the growth of the automotive parts and components production in Indonesia.

(2) Investment Trend of Japanese Parts Manufacturers

Many Japanese automotive parts manufacturers have invested into Thailand in order to cope with the former local content regulations. Major investment areas are shock absorbers, wire harnesses, batteries, and relays. There are also investments related to the requests for engine localisation.

In June, 1993, the localisation programme was drastically revised. Since then, automotive parts manufacturers have been reconsidering the business opportunity of parts and components production in Indonesia.

Examples of Japanese automotive parts manufacturers which announced business expansion plans or new entry after the introduction of the new localisation programme are NSK Ltd., Nihon Plast Co., Ltd., Kanbishi Corporation, Daido Steel Co., Ltd., Riken Corporation, and Showa Corporation.

2.2.3. The Philippines

(1) Outline of the Automotive Parts and Components Industry

The development of the automotive parts and components industry is far behind in the Philippines and the local content ratio is less than 50%.

In the Philippines, automobile manufacturers should gain the foreign currency necessary for CKD parts imports by exporting automobiles and automotive parts and components. Therefore, they are obliged to develop export-oriented parts businesses by themselves.

Major examples of parts production by automobile manufacturers are as follows:

Transmissions:	Mitsubishi Motors, Toyota
Wire harnesses for dashboards:	Nissan
Bumpers for repair markets:	Honda

Examples of parts and components exported by parts and components manufacturers are wire harnesses, aluminum wheels, radiators, springs, and rubber products.

(2) Investment Trend of Japanese Automotive Parts Manufacturers

The major motivation of investments in the Philippines has been to respond to the foreign currency requirements for CKD parts imports. Therefore, most investment projects have planned to export some portion of their products. The major parts and components manufacturers are investments by automobile manufacturers and investments by automotive parts manufacturers with high international competitiveness.

Major automobile manufacturers are expanding the capacity of press parts production and requesting secondary or tertiary vendors under their *Keiretsu* to invest in the Philippines. Examples of Japanese parts and components manufacturers which have announced new investment or business expansion in the Philippines are Yutaka Giken Co., Ltd., Aichi Steel Works, Ltd., Kosei Aluminum Co., Ltd., and Clarion Co., Ltd.

3. AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN MAJOR ASIAN COUNTRIES

3.1. OUTLINE OF THE AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN MAJOR ASIAN COUNTRIES

The direction of the automobile industry and automotive parts and components development policies in ASEAN countries has tended forward the liberalisation of the market. As the background of this liberalisation trend, GATT's requirement for market liberalisation and the transition to the CEPT system in the ASEAN can be pointed out.

ASEAN countries have been relaxing regulations on the automotive industry through such measures as the lifting of the ban on CBU unit imports, reduction of import tariffs on completely build-up (CBU) units and CKD kits, and relaxation of regulations on local content.

At the same time, these countries have been introducing incentives to localisation and to exporting companies from the viewpoint of developing the automotive industry. They are taking more flexible approaches to the promotion of localisation, for example, through the provision of export credit and the application of BBC scheme. Automobile manufacturers have been obliged to concentrate on specific market segments and specific models in order to achieve localisation targets in such countries as Thailand and Indonesia. However, with the more flexible localisation approaches, they tend to reduce the concentration on specific models.

In these countries, the basic policy for the development of the automotive industry has been shifted from import substitution to export promotion. Instead of conventional all-around localisation promotion measures, which have resulted in the localisation of assembly and simple processing of parts and components manufacture, these countries have tended to focus on localisation priority of specific parts and put emphasis on high value-added parts and components.

Neighbouring countries around the ASEAN region are also engaged in such tasks as the liberalisation of the market, promotion of localisation, expansion of local production, and increase in export competitiveness for the automobile and automotive parts and components industries. Especially

China and Vietnam have the advantages with their rapidly-growing markets and low-cost and abundant labour force. The development policies for the industries of these two countries are having a big impact on the future business strategies of automobile manufacturers and automotive parts manufacturers.

Major indicators and policies related to the automotive industry in ASEAN countries excluding Singapore are shown in Table 4-3-1.

Table 4-3-1 Comparison of Indicators and Policies Related to the Automotive Industry in Major Asian Countries

	Malaysia	Thailand	Indonesia	The Philippines	China
Automobile Production (1992)(Units)					
Passenger Cars	171,437	324,608	172,234	46,000 (1991)	1,080,000
Commercial Vehicles	136,383	104,565	29,368	26,000(1991)	160,000
	35,054	220,043	142,866	20,000(1991)	920,000
No. of Automobiles Registered (1991)(Units)					
Passenger Cars	2,462,000	2,727,509	3,001,508	615,434	6,114,089
Commercial Cars	1,819,000	825,072	1,416,157	456,606	1,764,871
	643,000	1,902,437	1,585,351	158,828	4,346,218
Population per Automobile (1991)(Persons)	9	69	136	144	652
Per Capita Income (1991) (US \$)	2,490	1,303 (1990)	560	719	257
Automobile Imports (1991) (Units)					
Passenger Cars	131,116	104,699	59,301	48,157	111,544
Commercial Cars	58,131	66,679	38,105	34,149	62,454
	72,985	38,020	21,196	14,008	49,090
Restriction on CBU Unit Imports	Principally prohibited. (Licenses are given to Malay importers)	Free. License is necessary for KD imports.	Liberalised.	Commercial vehicles: free. Large passenger car: 1 year libera- lisation from Jun.93	Only import license holders can import.
Import Duty on CBU Unit	Passenger cars: 140 - 300% progressively. Commercial vehicles: 0% 4WD vehicles: 50%	Passenger car: (2.0l or less) 180% (more than 2.0l) 220% Commercial Car: 60%	60 - 300%	Large passenger car: 40% Commercial vehicle: 55%	Passenger car: More than 2.0l 220%, 2.0l or less 180% Truck: 50%
Taxes on Automobile Sales	Excise duty: 25 - 65% for passenger car & 15% for commercial vehicles Sales tax: 10%	Excise duty: Passenger car less than 2.4l: 35.75%, 2.4l or more: 41.8%	Luxury tax: Passenger car more than 1600cc: 35% Commercial vehicle and other passenger car: 20% or 35%	Excise duty: 15 - 100% according to size of vehicle Value Added Tax: 16%	40,000 yuans per one imported vehicle. In addition, industry and commerce unity tax and local value added tax are imposed
Import Duty on KD Parts	Passenger car: 42.0% Commercial vehicle: 5.0%	KD parts: 20.0% (Parts: 15 - 60%)	KD parts: 0 - 100% (Parts: 0 - 40%)	For passenger car: 30%, for commercial vehicle: 20%	
Localisation Target	Mandatory Deletion Items: 30 items Local Content Target: Passenger car (1,850 cc or more) 50%(94) 60%(96) Passenger car (more than 1,850cc) and 2.5t commercial vehicle 35%(94) 45%(96)	Passenger car: 54% Commercial vehicle: 65% (chassis basis) Assembly of engines for pick-up trucks: 70% since 1995	Import duty reduction according to localisation ratio.	Localisation ratio was raised year by year since 1988, but no increase since 1990. Passenger car: 40% Commercial vehicle: 57.24%	Foreign currency for KD parts imports must be obtained by exports. When localisation ratio exceeds 50%, import license is not necessary for parts imports.

Source: Automotive Industry Handbook, Daily Automobile Journal Automotive Statistics of Major Countries, Japan Automotive Manufacturers Association

3.2. AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN THAILAND

3.2.1. Automobile Industry Development Policies

The Thai government had banned imports of passenger vehicles of 2.3 litres or less and large-sized buses since 1978 as part of their protective measures for the domestic automobile industry.

The ban on imports of CBU units was lifted and import duties on CBU vehicles and CKD kits were reduced. The Thai government gave preferential treatment to commercial vehicles. However, the tax differential between passenger vehicles and commercial vehicles has been reduced with the introduction of new tariffs.

Table 4-3-2 Import Duty on Automobiles and CKD Kits

	Passenger Car			Pick-up Truck	
	CBU Unit		CKD Kit	CBU Unit	CKD Kit
	2.3 litres or less	Over 2.3 litres			
Before Jul., 1991	180%	300%	112%	120%	30%
After Jul., 1991	60%	100%	20%	60%	20%
After Jan., 1992	42%	68.5%	20%	60%	20%

Source: Forin

A 7% value-added tax (VAT) is imposed on automobiles and automotive parts and components. CBU units and CKD kits of passenger vehicles, station wagons, and jeeps are subject to an excise tax of 32.5% for engine of 2,400 cc or less, or 38% for those exceeding 2,400 cc; and a municipal tax of 3.25% for 2,400 cc or less, or 3.8% above 2,400 cc.

Passenger vehicle assembly plants needed a license for establishment in Thailand. A complete ban was placed on new passenger vehicle assembly plants in 1979 although a limit or ban was not placed on the establishment of new assembly plants of trucks, buses, pick-up trucks of 4 ton or less, or motorcycles. However, the ban on the establishment of new passenger vehicle assembly plants was lifted in November, 1993.

In April, 1994, the Thai government announced incentives for automobile assembly plants in order to invite foreign investments and promote exports. An outline of the new incentives is as follows:

i. Incentives by region

- Zone 1 (6 provinces around Bangkok)

No incentives

- Zone 2 (10 provinces around Zone 1)

7 year exemption of corporate income tax for export income

50% import duty reduction on machinery

- Zone 3 (Other provinces and Laem Chabang Industrial Estate)

8 year exemption of corporate income tax for export income

Full import duty exemption on machinery

Deduction from the taxable income of 25% of the expenses for water supply, electricity and transportation

ii. Import duty reduction for materials for a company which exports more than 1,000 units annually

iii. Exemption of corporate income taxes for export income for a company which moves to a local area

3.2.2. Automotive Parts and Components Industry Development Policy

Local content requirements for vehicles in Thailand are 54% for passenger vehicles and 65 - 80% for commercial vehicles on the basis of the parts lists for local content calculation formulated by the government.

The local content requirement of Thailand is controlled based on the given-percent system. The Ministry of Industry formulated the lists in which automotive parts are classified and each part is given a localisation ratio in percent form. As for passenger vehicles, parts are classified into 21 categories, into 75 sub-categories, and into 299 items. These items are given localisation ratios in percent and the sum of these ratios is 100 percent. List A consists of 29 compulsory items and the total of localisation ratios of compulsory items is 20.07%.

The Thai government started the local engine production programme for small-sized commercial vehicles in 1989. The local content requirement for engines was set at 20% for 1989 and it will be increased consecutively by 10% annually so that it will reach 80% within 7 years.

Since September, 1993, Thai government have introduced new incentives for the supporting industries. Four industries were designated as priority industries in September, 1993. In April, 1994, 10 industries were added to the priority industries. The outline of incentives to these industries is as follows:

- Corporate income 8 year exemption regardless of location
- Import duty on machinery
 - Zone 1 and Zone 2 50% reduction except categories of which the import duty is less than 10%
 - Zone 3 Exemption
- Foreign investors are permitted to hold 100% equity.
- Subject industries
 - 4 industries announced in September 1993 Moulds and dies, jigs, forging, casting (by induction furnace)
 - 10 industries announced in April 1993 Tools, cutting tools, grinders, surface treatment, heat treatment, sensors of precision machinery, electronics connectors, nickel cadmium batteries, engineering plastic parts

In June, 1994, investment incentives were applied to 20 industries locating in Zone 2, including tyres and automotive parts and components, which had been subjected to incentives only when located in Zone 3.

3.2.3 Future Direction

The Thai government is now preparing a new automotive industry development policy which will be published in 1995. This automotive industry development policy will cover the five years up to 2000. It is envisaged that the main point of the policy will be how to make possible the survival of the country's automotive industry in face of international competition, which will be brought about by the progress of the CEPT scheme, and how to develop the industry to be an exporting sector.

The Thai government divides automotive parts and components into three groups in the formulation of development policy. These three groups are:

- First group: Parts and components requiring high technology
 Casting, forging, engine parts, transmission parts, etc.
- Second group: Parts and components requiring middle-level technology
 Body parts, electrical equipment, suspensions, springs, shock absorbers, etc.
- Third group: Labour-intensive parts and components
 Rubber products, trim parts, safety glasses, etc.

It is considered that the production of the first group will be for domestic demand and the export potential of this group is small. The main part of parts and components will be those in the second and third group. It is also considered that Thailand will weaken its international cost competitiveness in parts and components production when economic conditions are considered. Therefore, the Thai government plans to develop an internationally-competitive automotive parts and components industry with priority on the second group, the strength of which is not only low labour cost.

Besides automotive parts and components, the Thai government emphasises the development of such supporting industries as die-making, surface treatment including plating, painting, and surface finishing, casting, and forging.

3.3. AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN INDONESIA

3.3.1. Automobile Industry Development Policy

Following the ban on CKD unit imports in 1969, the Indonesian government introduced domestic automobile industry development policies which consisted of CKD assembly by local assemblers and licenses to assemblers. Since 1976, the government started the localisation programme of commercial vehicles which promoted localisation by introducing preferential tariffs and setting time limits of localisation by types of parts.

In June, 1993, the Indonesian government promulgated the policy of relaxing controls on the automotive industry instead of a protective policy. The government aimed to strengthen local industry

and to expand the domestic market through demand by stimulating domestic consumption with such measures as lifting the ban on CBU unit imports, reduction of import tariffs on parts, and reduction of the luxury tax.

As for passenger vehicles, models which are assembled in Indonesia are permitted to be imported with 200% import duty. Models which are not assembled in Indonesia are permitted to be imported with a 300% import duty by a sole distributors.

Table 4-3-3 Import Duty on CBU Unit Imports in Indonesia

	Models Which Are Assembled in Indonesia	Models Which Are Not Assembled in Indonesia
Passenger Car	200%	300%
Commercial Vehicle:		
Category I	60%	100%
Category II & III	40%	80%
Category IV	100%	140%
Category V	5%	5%

Source: Forin

The luxury tax imposed on commercial vehicles of category IV and passenger vehicles of 1600 cc or less is as follows:

In case localisation ratio is 60% or less: 35%

In case localisation ratio exceeds 60%: 20%

The luxury tax is not imposed on commercial vehicles of category II, III, and V.

3.3.2. Automotive Parts and Components Industry Development Policy

The Indonesian government, in January 1994, introduced a new automotive parts and components industry development policy in which automobile manufacturers can enjoy a reduction in import duty on parts according to the level of localisation ratio. The localisation ratio list shows the localisation ratio of an individual part in the form of percent which is given to an automobile manufacturer when that part is localised. The localisation ratio of a model is calculated by adding localisation ratios

of localised parts.

The following import tariffs as shown in Table 4-3-4 are applied according to the localisation ratios:

Table 4-3-4 Import Duty on Automotive Parts and Components in Indonesia

	Localisation Ratio				
	Less than 20%	30% or less	40% or less	60% or less	More than 60%
Import Duty on KD Kit					
Commercial Vehicle I & IV	40%	30%	20%	0%	0%
Commercial Vehicle II & III	40%	30%	0%	0%	0%
Passenger Car & Station Wagon	100%	80%	60%	0%	0%
Import Duty on Parts					
Passenger Car & Commercial Vehicle I & IV	40%	30%	20%	0%	0%
Commercial Vehicle II & III	20% (40%*)	0%	0%	0%	0%

Note: * Import duty of 40% is applied when a localisation ratio is less than 10%.

Source: Forin

3.4. AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN THE PHILIPPINES

3.4.1. Automobile Industry Development Policy

In the Philippines, imports of CBU units were restricted in 1951 through the introduction of a foreign currency allocation system and local assembly was started at that time. In 1971, the Philippine government inaugurated a plan for the local production of passenger cars and approved foreign automobile manufacturers to assemble cars with the condition that they would promote progressive localisation. In 1977, the government started the plan for local production of commercial vehicles.

However, since the end of the 1970s, the domestic car market became sluggish due to the economic recession. In the 1980s, several automobile manufacturers withdrew from the Philippine market.

In the latter half of the 1980s there were only three passenger car assemblers, Philipinas Nissan Inc. (PNI), Philippine Automotive Mfg. Corp. (PAMC), and Toyota Motors Philippines Corp. (TMPC).

The Philippine government announced the Car Developing Program (CDP) for passenger vehicles in 1987, and the Commercial Vehicle Developing Program (CVDP) for commercial vehicles in 1988 for the promotion of localisation and protection of local assemblers. The participants in the Car Developing Program were limited to the above three assemblers.

In March, 1990, the Philippine government started the People's Car Program (PCP) with the purpose of supplying low-priced passenger cars so that a wider range of the population could afford a passenger car. Under this Program, seven assemblers were admitted to assemble passenger cars of 1.2 litres or less. In 1991, the assembly of passenger cars of more than 2.8 litres was also liberalised.

3.4.2. Automotive Parts and Components Industry Development Policy

The Philippine government has set targets of localisation by type of automobiles. The localisation target of passenger cars under PCP was set at 51% in 1993. Commercial vehicles are also subject to the localisation targets and the targets as of 1990 were as follows:

Table 4-3-5 Localisation Targets of Commercial Vehicles in the Philippines

Category	Localisation Target
Category I: Asian Utility Vehicle of GVW 3.0 tons or less	54.86%
Category II: Small truck, van, and 4WD vehicle of GVW 3.0 tons or less	44.42%
Category III: Truck and bus of GVW 3.001 - 6.0 tons	21.90%
Category IV: Truck and bus of GVW 6.001 - 18.0 tons	
(A) GVW 6.001 - 9.0 tons	21.44%
(B) GVW 9.001 - 12.0 tons	22.24%
(C) GVW 12.001 - 15.0 tons	13.53%
(D) GVW 15.001 - 18.0 tons	13.77%

Source: Forin

Automobile manufacturers are obliged to gain foreign currencies necessary for CKD kit imports through their exports. They must procure 50% of necessary foreign currencies for passenger vehicles and 25% for commercial vehicles. The content of their exports is also regulated. There are indications of the ratio of foreign currency earnings coming from exports of automobiles and automotive parts and components. As for automobiles under the CDP and CVDP, the indications were 60% in 1991, 80% in 1992, and 100% in 1993. As regards automobiles under the PCP, they were 20% in 1990, 30% in 1991, 60% in 1992, and 100% in 1993.

In 1992, the Philippine government announced the following plan of import duty reduction on automotive parts and components.

Table 4-3-6 Import Duty Plan for Automotive Parts and Components

	1991	1992	1993	1994	1995
Passenger car parts	20%	20%	20%	20%	10%
Commercial vehicle parts	30%	30%	20%	20%	10%
Truck chassis with engine	30%	30%	30%	20%	20%
Body of passenger car and commercial vehicle including cab	30%	30%	30%	20%	20%
Chassis for Asian Utility Car, fuel tank, arm rest, sun visor, and battery	30%	30%	30%	30%	30%

Source: Amendment to the Philippines Customs & Tariff Code, July 20, 1991

3.4.3. Future Direction

It is anticipated that the Philippine automobile market will be liberalised within two years by relaxing regulations on CBU unit imports and local assembly. Foreign automobile manufacturers including PROTON plan to start production in the Philippines in reaction to the liberalisation of the market.

The Philippine government is preparing the formulation of a mid- and long-term master plan on automotive industry policy including the examination of the long-term balance between imports and local production. It is expected that this master plan will include measures for the replacement of obsolete vehicles. The basic policy for replacement is that environmental control will be

introduced for new vehicles at the first step and then it will be progressively applied to existing vehicles.

3.5. AUTOMOTIVE INDUSTRY DEVELOPMENT POLICIES IN CHINA

3.5.1. Automobile Industry Development Policy

China established the China Car Industry Corporation in 1964 to promote the integrated development of the automotive industry through divided production by region. During the period of the Great Cultural Revolution, the integrated production in individual regions was pursued and, in 1972, the system of one factory in each province was established. Since the fifth 5-year plan (1976 - 80), China's policy turned to the modernisation of the country and policies for the liberalisation and opening-up of the market were promoted. As a result, many automotive factories proceeded with technical tie-ups and joint venture projects with foreign automotive manufacturers. In 1982, the China Automotive Industry Corporation was founded to manage directly the country's automotive plants by grouping them into seven groups in order to realize the economies of scale of automobile production. In 1990, this corporation was reorganized to the China National Automotive Industry Corporation, a governmental body which supervises all automobile factories in the country.

In 1989, the China government announced the big-three and small-three project in which investments for the local production of passenger vehicles would be principally directed to 6 automobile manufacturing groups. Three large projects were planned to produce 300,000 units a year each, and three smaller projects, 100,000 units a year each. Volkswagen AG, Chrysler Corp., Citroen, and Peugeot participated in these projects as joint venture partners. Daihatsu Motor provided technical assistance to one of these projects. As for passenger vehicle production, the China government has restricted the participation of foreign manufacturers.

In the China Automotive Industry Policy published in July, 1994, the China government set the following targets:

- Domestic production will satisfy more than 90% of local market demand; and

- Passenger vehicle production will occupy more than half of total production volume.

The China government also plans to reorganize the automotive industry into 2 or 3 large-scale groups and 6 or 7 medium-scale groups during the 9th 5-year plan period (1996 - 2000). As for motorcycle production, 8 to 10 companies will be supported.

Automobile and engine production projects which will be newly admitted are as follows:

- Production of passenger vehicles of 1,600 cc or less with the minimum capacity of 150,000 units a year
- Production of small-sized commercial vehicles with a minimum capacity of 10,000 units a year
- Production of large-sized commercial vehicles with a minimum capacity of 10,000 units a year
- Production of small-sized buses with a minimum capacity of 50,000 units a year
- Production of motorcycles of 150 cc or less with a minimum capacity of 200,000 units a year
- Production of automobile engines of 2,500 cc or less with a minimum capacity of 150,000 units a year.
- Production of automotive diesel engines of 3,500 cc or less with a minimum capacity of 100,000 units a year

Foreign investment will be admitted for the production of automobiles, motorcycles and engines on condition that more than 50% of equity is local capital. Foreign investment projects will be subject to various requirements established by the China government. Major requirements are:

- Preference to local parts procurement
- Transfer of up-to-date technologies
- Establishment of R&D facility for the development of new products

3.5.2. Automotive Parts and Components Development Policy

The China government put emphasis on intensive production and technical improvement of automotive parts and components industries. Among automotive parts and components, the following items are designated as priority products:

- | | |
|---|--|
| - Automotive parts and components: | Key parts and components of passenger vehicles |
| - Man transportation vehicles (Category M): | Chaises of large- and medium-sized buses |
| - Goods transportation vehicles (Category N): | New types of engines |
| - Motorcycles (Category L): | Engines |
| - Technical equipment: | Moulds and dies |

- Basic parts:

Casting and forging parts

In order to encourage the automotive parts and components industries, the China government will designate priority items on the basis of the new automotive industry policy. The government will provide preferential measures in terms of financing and taxes with the production of designated items. The government has a policy of making intensive investments in projects newly starting the production of most important parts so that large-scale production may be possible at the time of start-up.

The China government will take the following measures against automotive manufacturers for the promotion of localisation.

i. Restriction on assembly of imported SKD and CKD parts

A localisation target will be given at the approval of a new CBU unit production project. The local content ratio will be a minimum of 40% at the start, 60% from the third year after the start of production, and 80% in the future.

ii. Application of preferential import duty rates on parts imports according to the level of localisation ratio

The preferential import duty rate will change at 40%, 60%, and 80% localisation ratios for man transportation vehicles (Category M) manufactured with technical assistance. It will change at 50%, 70%, 90% localisation ratios for goods transportation vehicles (Category N) and motorcycles (Category L) manufactured with technical assistance. As regards i) automobiles and motorcycles, and ii) vehicles based on technical assistance with key parts, it will change at 50%, 70%, and 90% localisation ratios.

CHAPTER 5. POSSIBILITY OF INVESTMENT AND TECHNICAL TIE-UPS FROM JAPAN

1. FOREIGN DIRECT INVESTMENT OF JAPAN IN ASIA

1.1. Trends in Investment by Japanese Companies in the Manufacturing Sector in Asia

(1) Growing Investment in Asian Manufacturing

Japan's foreign direct investment reached a cumulative US\$463.6 billion for the fiscal years 1951 to 1994 (Ministry of Finance, "Figures on Notifications of Foreign Direct Investment"). Of this, 27.8% or US\$128.9 billion, went to the manufacturing sector.

The reason Japanese companies have been investing so heavily in the manufacturing sector is their need to cope with the sharp appreciation of the yen which followed the September 1985 Plaza Accord and rising domestic labor costs. From FY1986 to 1988, Japanese foreign investment in the manufacturing sector pretty much doubled each year. Investment hit a peak in FY1989 when it reached US\$16.28 billion. As a result of this, foreign investment in the manufacturing sector for the three years from FY1988 to 1990 reached US\$45.58 billion or about four-tenths of the cumulative investment for 1951 to 1993 (Refer to Table 5-1-1).

As the 1990s rolled around and the economic bubble of speculative real estate and stock prices in Japan burst, companies began reevaluating their overseas strategies in light of their deteriorating profits. They became more selective and prudent over foreign investment. As a result, foreign investment in the manufacturing sector in the three years from FY1991 to 1993 fell to US\$33.5 billion, down 27% compared with the preceding three years.

Since the spring of 1993, as the yen has appreciated even faster, foreign investment in manufacturing enterprises has begun to increase once again. In FY1994, investment rose 23.8% compared with the previous year to hit US\$13.78 billion. Further, with the yen hovering at about the US\$1=85yen exchange rate, domestic production costs have grown in relative weight and the profitability of existing exports has deteriorated. The increase in overseas production aimed at reverse imports should therefore continue in 1995 and onward.

Due to the growth in foreign direct investment since the mid-1980s, the rate of overseas production by Japanese companies (sales of local affiliates/sales of domestic company) has also steadily risen. According to a basic survey of overseas business activities run by the Japanese Ministry of International Trade and Industry, the rate of overseas production has continued rising each year from the 3.0% of FY1985 and reached 7.4% in FY1993. In particular, there has been high growth in machinery and equipment. The rate of overseas production for these items rose from the 4.8% of FY1986 to 17.5% in FY1992.

The rate of overseas production of machinery and equipment is expected to grow in the future as well. Along with this, foreign investment by automotive parts manufacturers should also increase. At the same time, local demand for durable consumer goods has been rising in the Asian countries since the mid-1980s along with the rise in the level of income in those countries. Direct foreign investment in the manufacturing sector in Asia (ASEAN and China) should continue to grow.

(2) Gradual Shift in New Japanese Investment in the Manufacturing Sector from ANIEs to ASEAN and China.

The following is a review of the trends in foreign investment in the manufacturing sector of Asia (flow) in the past 10 years. Japanese investment in the manufacturing sector in Asia stood at around US\$500 million in the two fiscal years of 1984 and 1985. Due to the appreciation of the yen which began after the Plaza Accord, however, investment in Asia rose sharply. It rose 74.7% in FY1986 from the previous year to US\$804 million, rose 108.8% in FY1987 to US\$1.68 billion, essentially doubling, and hit US\$3.22 billion in FY1989. Along with the collapse of the "economic bubble" in Japan, however, investment fell to US\$3.07 billion in FY1990 and US\$2.93 billion in FY1991. FY1993 saw the yen appreciate again and consequently a 17.8% increase in investment to US\$3.66 billion. The share of Asia in the overall investment in the manufacturing sector has grown steadily since FY1990. It climbed to 23.8% in 1991, 30.9% in 1992, and 32.9% in 1993 and is now the largest it has ever been in the past 10 years. This reflects the shift of Japanese businesses to Asia. (Refer to Table 5-1-1)

A review of the new foreign investment in the manufacturing sector for the past 10 years also shows that the trend in investment by Japanese companies has been for a major shift away from the ANIEs (South Korea, Taiwan, Hong Kong, and Singapore) to ASEAN (Malaysia, Thailand, Indonesia, and the Philippines) and from ASEAN to China. Investment in the

ANIEs jumped 40 to 60% a year from FY1984 to FY1987. It fell once in FY1988, but hit a peak of US\$1.35 billion in FY1989. In the 1990s, however, investment retreated up until 1992.

Investment in ASEAN plummeted from the US\$300 million, 1.7-times the investment in the ANIEs, in FY1984 by 45% in the following year, but grew continuously from FY1986 to FY1990 when it reached US\$2.03 billion. Since FY1991, however, investment in ASEAN has fallen as a general trend due to (1) the impact of the bursting of the economic bubble in Japan and (2) the shift to China.

Japanese investment in the manufacturing sector of China increased 2.9-fold in FY1988 from the previous year to reach US\$200 million. Investment tumbled in FY1990 due to the after-shocks of the June 1989 Tiananmen Square crackdown, but broke through the US\$300 million mark in FY1991 and doubled to US\$650 million in FY1992 and doubled again to US\$1.38 billion in FY1993.

A comparison of the trends in Japanese investment in the overseas manufacturing sector (not including reinvestment of profits and local loans) over 5-year terms shows that there has indeed been a clear shift from the ANIEs to ASEAN and on to China. Investment in the ANIEs totaled US\$2.65 billion from FY1984 to 1988 and US\$3.97 billion in FY1989 to 1993. The change from one five-year period to the next was 49.4%. Investment in ASEAN totaled US\$2.75 billion from FY1984 to 1988 and US\$8.81 billion from FY1989 to 1993 for an increase from one five-year period to the next of 223%. A look at investment in China shows that investment totaled US\$3.38 billion from FY1984 to 1988, which was just 12.3% of the investment in the ANIEs and ASEAN, but totaled US\$2.70 billion from FY1989 to 1993 or no less than an 8-fold increase from one five-year term to the next.

Statistics on investments notified to the Japanese Ministry of Finance, however, do not include local reinvestment of profit and increased investment using loans. Accordingly, if these are included, then probably Japanese investment in the manufacturing sectors of both ASEAN and China should continue increasing for 20 to 30 years or so starting from the mid-1990s, assuming political stability.

Table 5-1-1. Trends in Japanese Investment in Asian Manufacturing Sector

Unit: US\$ million

	FY1984	FY1985	FY1986	FY1987	FY1988	FY1989	FY1990	FY1991	FY1992	FY1993	FY1984 to 1988 total	FY1989 to 1993 total	FY1984 to 1993 total
ANIEs	175.4	232.5	573.0	878.2	774.6	1,346.7	804.7	640.3	439.1	736.2	2,653.7	3,967.0	6,620.7
R. of Korea	37.5	36.9	142.6	247.2	253.9	250.7	146.9	157.3	90.6	77.0	718.1	722.5	1,440.6
Singapore	74.6	92.3	104.5	268.1	173.2	677.6	269.7	176.9	136.9	202.7	712.7	1,463.8	2,176.5
Hong Kong	5.7	14.0	52.4	108.0	84.8	116.3	113.5	120.6	85.3	260.6	264.9	696.3	961.2
Taiwan	57.6	109.3	273.5	254.9	262.7	302.1	274.6	185.5	126.3	195.9	958.0	1,084.4	2,042.4
ASEAN	301.0	166.5	193.2	704.2	1,359.8	1,553.1	2,028.2	1,944.6	1,808.0	1,473.8	2,724.7	8,807.7	11,532.4
Malaysia	114.1	32.8	64.6	147.8	346.2	470.6	582.3	612.7	465.4	684.8	705.5	2,815.8	3,521.3
Thailand	79.4	25.3	87.3	210.2	626.1	789.1	714.3	594.8	297.2	414.5	1,028.3	2,809.9	3,838.2
Indonesia	91.0	66.1	26.5	294.9	297.9	165.8	535.8	578.5	941.3	244.5	776.4	2,465.9	3,242.3
Philippines	16.5	42.3	14.8	51.3	89.6	127.6	195.8	158.6	104.1	130.0	214.5	716.1	930.6
China	20.7	22.0	22.8	70.1	202.7	206.3	161.0	308.8	649.7	1,377.1	338.3	2,702.9	3,041.2
Asia	516.0	460.0	804.0	1,679.0	2,370.0	3,220.0	3,068.0	2,928.0	3,104.0	3,659.0	5,829.0	15,979.0	21,808.0
North America	1,242.0	1,223.0	2,199.0	4,848.0	9,191.0	9,586.0	6,793.0	5,868.0	4,177.0	4,147.0	18,703.0	30,571.0	49,274.0
Europe	337.0	323.0	370.0	851.0	1,548.0	3,090.0	4,593.0	2,690.0	2,101.0	2,041.0	3,429.0	14,515.0	17,944.0
Total	2,505.0	2,352.0	3,806.0	7,832.0	13,805.0	16,284.0	15,486.0	12,311.0	10,057.0	11,132.0	30,300.0	65,270.0	95,570.0

Source: Prepared from "Annual Report of International Finance Bureau of Ministry of Finance".

(3) Transport Equipment and Parts Makers Stress ASEAN and China

Now presented is a look at the trends in investment by Japanese companies in the transportation equipment sector of Asia since the Plaza Accord, as broken down by recipient region or country (Refer to Table 5-1-2).

Investment in the ANIEs totaled US\$259.5 million from FY1986 to 1988 (11.7% of total investment in the ANIE manufacturing sector), US\$164.6 million from FY1989 to 1991 (5.9%), and US\$94.3 million from FY1992 to 1993 (8.0%). Investment has accordingly fallen as a general trend.

Investment in ASEAN rose from the US\$193 million of FY1986 to 1988 (8.5% of total investment in ASEAN manufacturing sector) to US\$511.6 million (9.3%) in FY1989 to 1991, thereby increasing 165% from one three-year period to the next. There can be said to have been a continued shift from the ANIEs. Investment totaled US\$159 million from FY1992 to 1993. The share in total investment in the ASEAN manufacturing sector consequently fell to 4.8%.

The trends in investment by Japanese companies in the transport equipment sector of Malaysia will be compared here with those of competing countries. Investment totaled US\$91.2 million from FY1986 to 1988. Malaysia came in third behind Taiwan and South Korea and accounted for 47% of the investment in ASEAN. Investment fell to US\$40.4 billion from FY1989 to 1991, causing Malaysia to fall to fifth place behind, in order, Indonesia, Thailand, South Korea, and the Philippines. Malaysia's share in investment in ASEAN also plummeted to 7.9%. Investment faltered further to US\$11.5 million from FY1992 to 1993. Malaysia received one-tenth of the investment going to China and secured only a 7.2% share of investment in ASEAN – less than the shares of Thailand, the Philippines, and Indonesia.

Investment in China doubled from the US\$4.9 million total of FY1986 to 1988 to US\$11.2 million for FY1989 to 1991 and reached US\$116 million in the two years of FY1992 and 1993 or a seven-fold rise from the US\$16.7 million total for FY1983 to 1991. This shows the gradual shift of new foreign investment by Japanese transport equipment (and parts) manufacturers from the ANIEs to ASEAN and on to China.

Table 5-1-2. Trends in Japan Investments in Major Asian Manufacturing Sectors

Unit: US\$ million

	Transport equipment and parts			Electrical and electronic equipment			General machinery			Total, including others		
	FY1986 to FY1992			FY1986 to FY1992			FY1986 to FY1992			FY1986 to FY1992		
	1988 total	1991 total	1993 total	1988 total	1991 total	1993 total	1988 total	1991 total	1993 total	1988 total	1991 total	1993 total
ANIEs	259.5	164.6	94.3	748.4	609.9	317.6	198.8	254.2	140.5	2,225.8	2,791.7	1,175.3
R. of Korea	103.8	136.7	35.6	245.9	101.7	26.4	67.3	41.5	33.0	643.7	554.9	167.6
Singapore	9.0	-	0.6	182.7	198.9	99.3	37.8	54.7	53.1	545.8	1,124.2	339.6
Hong Kong	0.6	0.6	45.2	85.9	109.6	126.4	36.4	72.4	36.8	245.2	350.4	345.9
Taiwan	146.1	27.3	12.9	233.9	199.7	65.5	57.3	85.6	17.6	791.1	762.2	322.2
ASEAN	193.0	511.6	159.0	670.9	1,767.5	562.3	236.7	491.3	225.4	2,257.2	5,525.9	3,281.8
Malaysia	91.2	40.4	11.5	285.6	817.5	248.5	39.4	132.8	77.0	558.6	1,665.6	1,150.2
Thailand	39.4	152.7	69.0	320.5	623.9	173.2	185.2	316.9	130.0	923.6	2,098.2	711.7
Indonesia	32.8	221.8	34.7	20.3	103.6	80.4	7.0	31.6	8.3	619.3	1,280.1	1,185.8
Philippines	29.6	96.7	43.8	44.5	222.5	60.2	5.1	10.0	10.1	155.7	482.0	234.1
China	4.9	11.2	116.0	149.0	225.7	521.2	16.6	121.2	279.2	295.6	676.1	2,026.8

Source: Prepared from "Annual Report of International Finance Bureau of Ministry of Finance".

1.2. Motivation of Japanese Companies in Investing in the Asian Manufacturing Sector

The results of the examination of the motivations behind the investment by Japanese companies in the Asian manufacturing sector, using surveys of the Japan External Trade Organization (JETRO) and the Export-Import Bank of Japan, are as follows.

(1) "Local Market" Biggest Motivation Behind Investment in ASEAN Manufacturing Sector

In a 1987 survey (330 companies responding) of JETRO, 65.2% of the companies which had made investments in the four major ASEAN nations (Malaysia, Thailand, the Philippines, and Indonesia) since the Plaza Accord (fall of 1985) responded that their motivation was to "secure local market". This was followed by 16.7% responding "export to Japan" and 13.3% "export to third countries other than Japan".

Here, the findings of a survey conducted in December 1993 are discussed. The survey covered the four main ASEAN nations, Singapore as representative of the ANIEs, and four countries in Southwest Asia (India, Sri Lanka, Pakistan, and Bangladesh), nine countries in total, and was sent out to a total of 913 companies, of which responses were obtained from 866 companies.

Among the valid responses, the no. 1 motivation for investment by Japanese companies in Asia (multiple answers) was "expansion of channels into local market", given by 336 companies or 38.8% of the total. This host market-oriented motivation for investment proved to be the no. 1 reason for investment in ASEAN as well, with 255 companies (37.0%) out of 690 indicating it. This may be seen as corresponding to the improvement in income levels and the increase in demand potential in the ASEAN countries. The no. 2 motivation for investment in Asia was the export-oriented "export to third countries", given by 146 companies (16.9%), and the no. 3 motivation was "requests by Japanese customers", given by 134 companies (15.5%). The no. 2 motivation for investment in ASEAN was a tie between "export to third countries" and "requests by Japanese customers", given by 108 companies each (15.7%). Despite the continued appreciation of the yen since 1993, only 100 companies (14.5%) gave "dealing with the higher value of the yen" as a motivation for their investment in ASEAN. This was less than even the 106 companies (15.4%) mentioning "securing manpower".

A look by country shows that the no. 1 motivation for all countries was "expansion of channels". The no. 2 motivation, however, was "requests by Japanese customers" for Malaysia, given by 24.3% of the respondents, "securing manpower" for Thailand, given by 18.1%, "export to third countries" for the Philippines, given by 23.7%, and a tie between "securing manpower" and "export to third countries" for Indonesia, given by 13.2% each. The no. 3 motivation for Malaysia was "export to third countries" and the no. 4 one was "dealing with the higher value of the yen". "Securing manpower" can be said to indicate an orientation toward labour intensive operations and was ranked no. 5 for Malaysia. This would seem to suggest that unlike in Thailand and Indonesia, investments made by Japanese companies in Malaysia were shifting away from labour intensive projects to export oriented projects (Refer to Table 5-1-3).

Table 5-1-3. Motivation Behind Investments by Japanese Businesses in Asian Manufacturing Sector
(Multiple Responses)

	Malaysia	Thailand	Philippines	Indonesia	Singapore	India	4 ASEAN countries	4 Southwest Asian countries
No. of responding companies	866	214	281	59	136	118	24	58
Expansion of channels into local market	336	69	99	20	67	62	12	19
	38.8	32.2	35.2	33.9	49.3	52.5	50.0	32.8
Avoidance of import restrictions	46	5	16	4	17	-	2	4
	5.3	2.3	5.7	6.8	12.5	-	8.3	6.9
Export to third countries	146	39	37	14	18	29	1	9
	16.9	18.2	13.2	23.7	13.2	24.6	4.2	15.5
Securing raw materials and parts	58	22	12	8	6	5	-	5
	6.7	10.3	4.3	13.6	4.4	4.2	-	8.6
Securing technical information and market information	9	2	1	-	1	5	-	-
	1.0	0.9	0.4	-	0.7	4.2	-	-
Securing manpower	123	24	51	13	18	5	2	12
	14.2	11.2	18.1	22.0	13.2	4.2	8.3	20.7
Dealing with higher value of yen	119	34	45	8	13	16	-	3
	13.7	15.9	16.0	13.6	9.6	13.6	-	5.2
Requests of Japanese customers	134	52	46	2	8	17	7	9
	15.5	24.3	16.4	3.4	5.9	14.4	29.2	15.5

Notes: Figures in upper rows indicate number of responding companies, figures in lower rows %.

Source: Japan External Trade Organization, December 1993 survey.

(2) Increase in "Export to Third Countries" as Motivation for Investment

The Export-Import Bank of Japan has run questionnaire surveys of reasons for investment by Japanese manufacturing enterprises with investments in Asia (companies having three or more overseas affiliates including one or more production bases) since 1990.

The Ex-Im Bank survey found the no. 1 reason for investment in the ANIEs from FY1990 to 1993 was "maintaining and expanding the local market", given by 50% to 60% of the respondents. This was followed by "development of new markets" by 13.6% to 19.7%. The FY1993 survey, however, found "export to third countries" given by 26.3% of the respondents - a great increase from the 5.6% of FY1990. On the other hand, "dispersion of production bases overseas (horizontal international specialization)" continued to fall as a reason for investment each year from the 18.5% of FY1990 and hit 8.8% in FY1993. "Reverse imports to Japan" dropped sharply as a reason from the 16.7% of FY1990 to 6.5% in FY1992, but recovered to 11.3% in FY1993.

The no. 1 reason for investment in ASEAN from FY1990 to FY1993 was "maintaining and expanding the local market", given by 46.4% to 50.5% of the respondents. Investment for "export to third countries" grew by a large margin from the 13.3% of FY1990 to 32.4% in FY1993. The percentage of companies which stress "securing an inexpensive labour force" as a reason for investment in ASEAN has been dropping. It fell from the second place 38% of FY1990 to 20.0%, fourth place, in FY1993. Also with 20%, fourth place, came "development of new markets" and "dispersion of production bases overseas (horizontal international specialization)". "Reverse imports to Japan" fell as a reason from the 17.7% of FY1990 to 8.7% in 1991, but recovered to third place, 21.0%, in FY1993 (Refer to Table 5-1-4).

Table 5-1.4. Trends in Reasons for Investment by Japanese Businesses in Asian Manufacturing Sector

	Unit: %										
	ANIES				ASEAN			China			
Reasons for investment	FY1990	FY1991	FY1992	FY1993	FY1990	FY1991	FY1992	FY1993	FY1991	FY1992	FY1993
Maintenance and expansion of market in host country	55.6	59.1	50.0	60.0	39.8	47.8	46.4	50.5	22.9	39.0	33.6
Development of new market	18.5	13.6	19.4	17.5	19.5	12.2	15.5	20.0	28.6	37.3	44.9
Reverse imports to Japan	16.7	10.2	6.5	11.3	17.7	8.7	10.3	21.0	8.6	8.5	19.6
Export to third countries	5.6	11.4	8.1	26.3	13.3	16.5	12.4	32.4	8.6	6.8	15.9
Dealing with voluntary export restrictions, dumping assessments, and other trade restrictions of host country	0.0	1.1	0.0	0.0	0.9	2.6	3.1	1.0	2.9	3.4	0.9
Part of in-house division of labor (inter-process division of labor)	11.1	12.5	16.1	2.5	9.7	12.2	16.5	7.6	2.9	5.1	3.7
Dispersion of production bases overseas (horizontal international specialization)	18.5	18.2	11.3	8.8	31.9	23.5	18.6	20.0	14.3	6.8	15.0
Securing inexpensive labor force	11.1	6.8	3.2	2.5	38.1	27.8	27.8	20.0	40.0	11.9	30.8
Supply of parts to assembler (including Japanese)	7.4	2.3	0.0	3.8	4.4	6.1	8.2	17.1	0.0	3.4	12.2
Securing stable supply of resources and raw materials	5.6	10.2	8.1	2.5	6.2	12.2	9.3	1.0	5.7	11.9	1.9
Request of host country	5.6	4.5	0.0	1.3	0.9	4.3	5.2	1.9	14.3	16.9	6.5
Avoidance of exchange risks	3.7	1.1	1.6	3.8	2.7	0.9	4.1	10.5	0.0	5.1	6.5
Product development tailored to local market	3.7	2.3	1.6	1.3	2.7	3.5	2.1	2.9	2.9	3.4	1.9
No. of valid responses	54	88	62	80	113	115	97	105	35	59	107

Source: Export-Import Bank of Japan

1.3. "Political and Social Stability" Major Reason For Selection of Malaysia

According to a December 1993 survey by JETRO, the reason most frequently mentioned by Japanese companies for selection of a host country in Asia (ASEAN and Southwest Asia) was "political and social stability". This was mentioned by over half of the 877 companies giving valid responses, that is, 476 companies or 54.3%. This was followed by "the low level of labour costs". (Refer to Table 5-1-5)

This reason was given by 58.0% of the companies for ASEAN on an average. By individual country, it was the no. 1 reason for selection of Indonesia, given by 66.4% of the respondents, and of Thailand, given by 62.2%. The no. 1 reason in the case of the Philippines was securing a "labour force", given by 68.3% of the respondents, and the no. 2 reason was "the low level of labour costs", given by 51.7%. This shows the high weight of labour-intensive type investments.

The biggest reason given by Japanese companies for the selection of Malaysia as a site for investment, however, was its "political and social stability", given by 163 or 75.8% of the 215 companies responding. The degree by which Malaysia is so highly evaluated exceeds the 74.2% for Singapore and far outstrips the 55.1% average for the four main ASEAN countries. Malaysia has enjoyed continued political stability, including law and order, since 1980. Stability of the society will continue to be sought after in the future as a plus point in investment environments. The second biggest reason given for the selection of Malaysia as an investment site was "incentives for foreign investment", given by 115 or 53.5% of the companies. This is higher than the average 34.1% for ASEAN and the 28.3 % for Thailand. Other highly appreciated factors were "the low level of labour costs", mentioned by 105 companies (48.8%) and the "infrastructure", mentioned by 99 (46.0%). In particular, this high evaluation of Malaysia's infrastructure stands second only to the 74.2% of Singapore and, compared with the average 17.4% for ASEAN as a whole, shows Malaysia's superiority in this regard. The "export incentives" of Malaysia were given high marks by 42 or 19.5% of the companies, which comes in second behind the 21.2% of Thailand.

A factor which was less highly regarded compared with ASEAN as a whole, on the other hand, was the "future potential of the domestic market". This was mentioned by a low 28.4% of the responding companies for Malaysia, compared with 73.1% for India, 59.1% for Indonesia, and 40.3 % for Thailand.

Table 5-1-5. Reasons for Selection of Host Country by Japanese Companies in Asia (Multiple Responses)

	Malaysia	Thailand	Philippines	Indonesia	Singapore	India	4 ASEAN countries	4 South-west Asian countries
	877	215	283	60	137	120	26	62
Total companies responding	476	163	165	3	52	89	1	383
Political and social stability	54.3	75.8	58.3	5.0	38.0	74.2	3.8	55.1
Foreign investment incentives	277	115	80	20	22	29	1	237
Export promotion	31.6	53.3	28.3	33.3	16.1	24.2	3.8	34.1
Infrastructure	135	42	60	6	9	12	1	117
	15.4	19.5	21.2	10.0	6.6	10.0	3.8	16.8
High level of supporting industries	213	99	15	-	7	89	3	121
	24.3	46.0	5.3	-	5.1	74.2	11.5	17.4
Polities for tariffs and imports of parts and materials	76	23	16	5	9	21	2	53
	8.7	10.7	5.7	8.3	6.6	17.5	7.7	7.6
	102	24	21	6	12	30	2	63
Labor force	11.6	11.2	7.4	10.0	8.8	25.0	7.7	9.1
	366	84	128	41	36	52	10	289
Low labor cost	41.7	39.1	45.2	68.3	26.3	43.3	38.5	41.6
	461	105	176	31	91	24	12	403
Financing situation	52.6	48.8	62.2	51.7	66.4	20.0	46.2	58.0
	14	3	1	1	2	6	1	7
Flexibility in administrative procedures	1.6	1.4	0.4	1.7	1.5	5.0	3.8	1.0
	54	8	9	3	2	29	1	22
Tax system	6.2	3.7	3.2	5.0	1.5	24.2	3.8	3.2
	43	13	10	4	-	8	1	27
Future potential of domestic market	4.9	6.0	3.5	6.7	-	6.7	3.8	3.9
	330	61	114	24	81	17	19	280
	37.6	28.4	40.3	40.0	59.1	14.2	73.1	40.3
								53.2

Notes: Figures in upper rows indicate number of responding companies, figures in lower rows %.

Source: Japan External Trade Organization, December 1993 survey.

1.4. Problems in Operations of Japanese Businesses in Asia (9 Countries)

The Japanese manufacturing enterprises engaged in local production in the four main ASEAN countries, Singapore, and four Southwest Asian countries (these nine countries in Asia hereinafter referred to as "Asia") are facing various problems in management and operations.

The December 1993 JETRO survey found that the biggest problem mentioned was "labour problems". A total of 58.9% of the companies operating in Asia, 57.7% for the four ASEAN countries as a whole, and 80.7% or eight-tenths of the 212 companies in operation in Malaysia mentioned this as a problem. "Labour problems" were also given as the no. 1 difficulty by companies operating in Thailand (Refer to Table 5-1-6). This is due mainly to the job hopping, in particular, head-hunting, in those countries.

Mentioned second most frequently as a problem in Asia and ASEAN was the "wage increases for workers". This was mentioned by 48.4% of the companies for Asia and 45.4% for ASEAN as a whole. Rising wages proved to be the biggest problem in Singapore and was mentioned by 80.6% of the respondents. Even Japanese companies operating in Malaysia and Thailand have given rising wages as the second most difficult problem they face since the start of the 1990s.

On the other hand, a balanced system of wages is considered necessary in the sense of ensuring a level of wages enabling an increase in demand for durable consumer goods, among other factors. The problem mentioned third most often for Malaysia was "unstable exchange rates" (39.6%), followed by "quality control" (39.2%), "competition with other companies" (36.3%), "visa and working permits" (29.7%), "capital procurement" (27.4%), "infrastructure" (22.6%), and "complex administrative procedures" (21.2%).

Among the problems from no. 3 on down, the ones which stand out most particularly in Malaysia as compared with the average for ASEAN are "visa and working permits", "royalties", and "foreign investment policy". "Visas and working permits" was considered a problem especially highly compared to the 12.7% of companies mentioning it for Thailand, 11.5% for India, 10.5% for the Philippines, and 9.3% for Singapore. Hopefully, the Malaysian authorities will take steps to improve this situation. "Tariffs", on the other hand, was considered a problem by 51.9%, or the majority, of the Japanese companies in Thailand, but only 9.9%, hardly a problem, in Malaysia. Further, those companies in Malaysia which considered the infrastructure to be insufficient wanted improvements in

their industrial water supplies and power supplies. A smaller percentage considered this a problem compared with the other ASEAN countries.

**Table 5-1-6. Problems in Operations of Japanese Companies in Asia
(Multiple Responses to Questionnaire)**

	Malaysia	Thailand	Philippines	Indonesia	4 ASEAN countries	Singapore	4 South-west Asian countries	9 Asian countries
No. of responding companies	212	283	57	140	692	129	60	881
Foreign investment policy	38	17	7	24	86	1	4	91
Capital procurement	17.9	6.0	12.3	17.1	12.4	0.8	6.7	10.3
Local content requirement	58	53	20	38	169	5	32	206
Obligatory export	27.4	18.7	35.1	27.1	24.4	3.9	53.3	23.4
Remittance of profits	19	9	3	12	43	3	4	50
Royalties	9.0	3.2	5.3	8.6	6.2	2.3	6.7	5.7
Tariffs	18	33	9	3	63	-	3	66
Domestic taxes	8.5	11.7	15.8	2.1	9.1	-	5.0	7.5
Complex administrative procedures	10	9	-	1	20	2	4	26
Labor problems	4.7	3.2	-	0.7	2.9	1.6	6.7	3.0
Visas and working permits	23	7	1	7	38	5	9	52
Infrastructure	10.8	2.5	1.8	5.0	5.5	3.9	15.0	5.9
Law and order	21	147	16	55	239	4	30	273
Political instability	9.9	51.6	28.1	39.3	34.5	3.1	50.0	31.0
Unstable exchange rates	9	30	14	41	94	6	26	126
Market conditions	4.2	10.9	24.6	29.3	13.6	4.7	43.3	14.3
Competition with other companies	45	76	21	68	210	2	25	237
Joint venture partners	21.2	26.9	36.8	48.6	30.3	1.6	41.7	26.9
Technical transfers	171	162	23	43	399	98	22	519
Quality control	80.7	57.2	40.4	30.7	57.7	76.0	36.7	58.9
Wage increases for workers	63	36	6	28	133	12	5	150
Others	29.7	12.7	10.5	20.0	19.2	9.3	8.3	17.0
	48	91	31	56	226	2	26	254
	22.6	32.2	54.4	40.0	32.7	1.6	43.3	28.8
	5	8	19	7	39	-	11	50
	2.4	2.8	33.3	5.0	5.6	-	18.3	5.7
	-	4	5	-	-	1	11	21
	-	1.4	8.8	-	1.3	0.8	18.3	2.4
	84	102	34	55	275	79	21	375
	39.6	36.0	59.6	39.3	39.7	61.2	35.0	42.6
	39	74	7	35	155	33	14	202
	18.4	26.1	12.3	25.0	22.4	25.6	23.3	22.9
	77	69	13	47	206	71	16	293
	36.3	24.4	22.8	33.6	29.8	55.0	26.7	33.3
	8	15	4	22	49	2	5	56
	3.8	5.3	7.0	15.7	7.1	1.6	8.3	6.4
	43	69	4	27	143	20	6	169
	20.3	24.4	7.9	19.3	20.7	15.5	10.0	19.2
	83	129	12	50	274	38	23	335
	39.2	45.6	21.1	35.7	39.6	29.5	38.3	38.0
	98	155	22	39	314	104	8	426
	46.2	54.8	38.6	27.9	45.4	80.6	13.3	48.4
	12	13	4	1	30	3	9	42
	5.7	4.6	7.0	0.7	4.3	2.3	15.0	4.8

Notes: Figures in upper rows indicate number of responding companies, figures in lower rows %.

Source: Japan External Trade Organization, December 1993 survey.

2. REASONS FOR INVESTMENT AND PROBLEMS IN OPERATIONS OF JAPANESE TRANSPORT EQUIPMENT MANUFACTURERS IN MALAYSIA

2.1. "Securing Market" and "Requests of Clients", Main Reasons for Investment

JETRO Kuala Lumpur conducted a questionnaire survey of 566 Japanese affiliated manufacturers in Malaysia in December 1994. It received replies from 254 of them.

The survey found that the biggest reason Japanese companies invested in the Malaysian manufacturing sector was "expansion of channels into local market", given by 83 companies (33.3%). This was followed by "requests of Japanese customers", given by 62 companies (24.9%), "dealing with the higher value of the yen", given by 40 (16.1%), "securing manpower", by 37 (14.9%), and "export to third countries", given by 36 (14.5%).

In the transport equipment sector (12 manufacturers, including manufacturers of auto parts), the no. 1 motivation for investment was "expansion of channels", given by six companies (50.0%), followed by "avoidance of import restrictions", given by four companies (33.3%), and "requests of Japanese customers", given by three companies each (25%). (Refer to Table 5-2-1).

The four companies which gave import restrictions as reasons for investment were all automobile manufacturers. Most of the automotive parts manufacturers, including companies making electrical equipment, invested for "expansion of channels" and "due to requests of Japanese customers".

Table 5-2-1. Reasons for Investment by Japanese Businesses in Malaysian Manufacturing Sector (Multiple Responses)

	No. of responding companies	Expansion of channels into		Avoidance of import restrictions	Export to third countries	Securing raw materials and parts	Securing technical information and market information	Securing manpower	Dealing with higher value of yen	Requests of Japanese customers
		local market	83							
	249		83	8	36	27	3	37	40	62
		33.3		3.2	14.5	10.8	1.2	14.9	16.1	24.9
Food and agricultural and marine product processing	5	1		-	-	1	1	1	1	-
Textiles and textile products	8	20.0		-	-	20.0	20.0	20.0	20.0	-
		-		-	3	-	-	5	2	-
		-		-	37.5	-	-	62.5	25.0	-
Wood, pulp, and paper	15	1		-	-	12	-	1	-	1
		6.7		-	-	80.0	-	6.7	-	16.7
Chemicals and pharmaceuticals	14	7		-	-	3	-	-	-	4
		50.0		-	-	21.4	-	-	-	28.6
Petroleum products	2	1		-	-	-	-	-	1	1
		50.0		-	-	-	-	-	50.0	50.0
Ceramics	9	5		-	-	1	-	2	3	1
		55.5		-	-	11.1	-	22.2	33.3	11.1
Ferrous and nonferrous metals	14	5		-	1	-	-	1	1	6
		35.7		-	7.1	-	-	7.1	7.1	42.9
Metal products	22	8		-	4	-	-	3	1	6
		36.4		-	18.2	-	-	13.6	4.5	27.3
General machinery	4	2		-	1	-	-	-	-	2
		50.0		-	25.0	-	-	-	-	50.0
Electronic and electrical equipment	78	24		-	16	1	1	9	18	23
		30.7		-	20.5	1.3	1.3	11.5	23.1	29.5
Transport equipment	12	6		4	1	-	-	1	1	3
		50.0		33.3	8.3	-	-	8.3	8.3	25.0
Precision equipment	6	1		-	-	1	-	1	2	2
		16.7		-	-	16.7	-	16.7	33.3	33.3
Other manufacturing	48	17		3	9	7	1	10	7	11
		35.4		6.3	18.8	14.6	2.1	20.8	14.6	22.9
Non classified	12	5		1	1	1	-	3	3	2
		41.7		8.3	8.3	8.3	-	25.0	25.0	16.7

Notes: Figures in upper rows indicate number of responding companies, figures in lower rows %.
Source: Japan External Trade Organization, December 1994 survey.

2.2. "Political and Social Stability", Biggest Reason for Selection

The biggest reason that Japanese companies decided to set up production in Malaysia was the "political and social stability". A total of 177 or 72.8% of the 243 responding companies gave high marks to Malaysia for its social stability. This was followed by "incentives for foreign investment", given by 50.6% of the respondents, and "infrastructure", given by 46.1% – all high marks (Refer to Table 5-2-2).

The no. 1 reason why the transport equipment manufacturers selected Malaysia was again the "political and social stability" (72.7%). This was followed by "infrastructure", given by seven companies (63.6%).

Only about one-tenth, or 25, of the 243 responding companies gave "high level of supporting industries" as the reason for their selection of Malaysia. Of these 25, 9 electronic and electrical equipment manufacturers, three ferrous and nonferrous metal manufacturers and two metal products and other manufacturers, and transport equipment manufacturers, each gave a good assessment of the level of technology in Malaysia.

Regarding the Malaysian subcontractors which constitute the supporting industries, of the 151 companies responding, 2 firms indicated that they were "very satisfied" with them, 104 firms indicated that they were "fairly satisfied", and 45 firms indicated that they were "dissatisfied". Ten of the 12 transport equipment manufacturers surveyed responded. Out of these, one indicated "very satisfied", while five stated that they were "fairly satisfied", and four firms indicated "dissatisfied".

Note that of the 137 Japanese manufacturers in Malaysia responding, 104 gave "training of local subcontractors" in response (multiple) to the question over the "means for increasing local procurement". This was followed by 39 companies mentioning "increased in-house production" and 29 mentioning "requests to Japanese subcontractors to invest locally".

Table 5-2-2. Reasons for Selection of Host Country by Japanese Businesses in Malaysia (Multiple Responses)

		Food and agricultural and marine product processing	Textiles and textile products	Wood, pulp, and paper	Chemicals and pharmaceuticals	Petroleum products	Ceramics and nonferrous metals	Ferrous and metals	Metal products	General machinery	Electronic electrical equipment	Transport equipment	Precision equipment	Other manufactur- ing	Non classified
No. of responding companies	243	5	8	14	14	2	9	13	21	4	75	11	6	49	12
Political and social stability	177	3	7	11	11	2	6	9	15	2	58	8	5	31	9
Foreign investment incentives	72.8	60.0	87.5	78.6	78.6	100.0	66.7	69.2	71.4	50.0	77.3	72.7	83.3	63.3	75.0
Export promotion	123	1	7	4	9	-	4	6	13	3	42	2	4	22	6
	50.6	20.0	87.5	28.6	64.3	-	44.4	46.2	61.9	75.0	56.0	18.2	66.7	44.9	50.0
Infrastructure	36	1	1	2	1	-	1	2	1	-	9	3	2	13	-
	14.8	20.0	12.5	14.3	7.1	-	11.1	15.4	4.8	-	12.0	27.3	33.3	26.5	-
High level of sup- porting industries	112	-	1	5	6	1	4	4	9	2	37	7	4	25	7
Polities for tariffs and imports of parts and materials	46.1	-	12.5	35.7	42.9	50.0	44.4	30.8	42.9	50.0	49.3	63.6	66.7	51.0	58.3
Labor force	25	-	-	-	1	-	-	3	2	-	9	2	-	7	1
	103	-	-	-	7.1	-	-	23.1	9.5	-	12.0	18.2	-	14.3	8.3
Low labor cost	42.4	20.0	75.0	57.1	28.6	-	44.4	46.2	23.8	50.0	45.3	36.4	66.7	34.7	66.7
	6	-	-	-	-	-	-	-	1	1	1	-	-	2	1
Flexibility in administrative procedures	2.5	-	-	-	-	-	-	-	4.8	25.0	1.3	-	-	4.1	8.3
Future potential of domestic market	16	-	2	1	-	-	3	1	2	-	3	-	1	2	1
	6.6	-	25.0	7.1	-	-	33.3	7.7	9.5	-	4.0	-	16.7	4.1	8.3
	57	2	-	1	6	1	3	2	10	2	9	2	-	15	4
	23.5	40.0	-	7.1	42.9	50.0	33.3	15.4	47.6	50.0	12.0	18.2	-	30.6	33.3

Notes: Figures in upper rows indicate number of responding companies, figures in lower rows %.
Source: Japan External Trade Organization, December 1994 survey.

2.3. Problems in Operations

The 12 Japanese transport equipment manufacturers operating in Malaysia gave the following as problems in operations as of December 1993:

Table 5-2-3 Problems in Operations of Japanese Transport Equipment Manufacturers in Malaysia (Multiple Responses)

Problem	No. of responses	%
Labor problems	10	83.3
Unstable exchange rates	6	50.0
Wage increases for workers	5	41.7
Local content requirements	4	33.3
Competition with other companies	4	33.3
Domestic taxes	4	33.3
Market conditions	3	25.0
Foreign investment policy	3	25.0
Obligatory export	3	25.0
Technical transfers	3	25.0
Tariffs, customs	3	25.0
Visas and working permits	2	16.7
Quality control	2	16.7
Capital procurement	2	16.7
Infrastructure	2	16.7

Source: Japan External Trade Organization, December 1994 survey.

Of the 208 manufacturers in Malaysia which responded to the survey, 175 (84.1%) gave "labour problems" as their no. 1 problem in operations. This was followed by 139 (66.8%) with "wage increases for workers", 109 (52.4%) with "unstable exchange rates", 77(37.0%) with "visas and working permits", 71 (34.1%) with "quality control", 64 (30.8%) with "competition with other companies", 52 (25.0%) "technical transfers", 51 (24.5%) with "tariffs, customs", 48 (23.1%) with "complex administrative procedures", 43 (20.7%) with "capital procurement", and 40 (19.2%) with "foreign investment policy".

The manufacturers as a whole share with the transport equipment manufacturers a common perception of the following as problems: labour problems, mostly head hunting of workers,

the low level of quality control, the unstable market conditions, and rising wages.

The "local content requirement" mentioned as a problem by four of the transport equipment manufacturers was mentioned by only seven of the 79 electronic and electrical equipment manufacturers, and by only 27 (10.6%) of all of the respondents. This reveals that the automobile assemblers are more troubled with the process of conversion to local content in Malaysia.

An institutional problem mentioned was the difficulty associated with obtaining issuance of "visas and working permits". Twenty six (32.9%) of the electronic and electrical equipment manufacturers gave this as a problem. Hopefully the Malaysian government will do something to improve this situation.

"Technical transfers" was given as a problem by 12 (out of 65 responding) electronic and electrical equipment manufacturers with deep relations with the automotive parts industry, four (out of 18) metal product manufacturers, four (out of 14) ferrous and nonferrous metal manufacturers, two (out of four) precision equipment manufacturers, and three (out of 10) transport equipment manufacturers, or a total of 25 out of 208 responding companies. This corresponds to 25.0%, which is higher than the average 20.5% for the whole. Behind this, in part, is the need for programs for training manpower.

3. TRENDS IN OVERSEAS INVESTMENT BY JAPANESE AUTOMOTIVE PARTS MANUFACTURERS - From the Questionnaire Survey of the JICA Study Team

3.1. Possibilities for Investment in Malaysia

(1) Objective of the Questionnaire Survey

Malaysia has been undergoing remarkable economic development and industrialization in recent years due to the aggressive investments being made by private sector companies from Japan and other countries, and the efforts of the Malaysian government to promote industrialization. On the other hand, however, a major problem has arisen due to the underdevelopment of the supporting industries required for that rapid growth.

The Malaysian government is trying to promote the automobile industry as a strategic industry to follow the electrical and electronics industry. From this point of view, it has requested the assistance of the Japanese government in formulating a master plan for promotion of the automotive parts industry.

Japanese automotive parts companies, which have assisted the Japanese automobile industry with their sophisticated technical expertise, are for their part facing pressing issues such as the need for internationalization of their businesses and boosting competitiveness due to (1) the rising rate of overseas production of automobile assemblers, (2) increasing competition with parts imported from abroad due to the appreciation of the yen, and (3) the increasing demands for reducing costs from the automobile assemblers.

In view of this situation, the Study Team conducted a survey on the current state of internationalization efforts in Japanese automotive parts companies and the future direction of their business expansions into the countries of Asia so as to try to find ways for Malaysian companies and Japanese ones to cooperate in the future. The responses to the questionnaire were collected from June to September 1994.

(2) Summary of Survey Coverage

Of the approximately 3,600 companies to which the questionnaires were sent, valid responses were obtained from 611. Of these 611 companies, 129 responded that they might engage in some business with Malaysia, such as trade, investment, and technical tieups. Of these, 41 responded that they currently (middle of 1994) had concrete plans for

investment in Malaysia or wanted to invest there in the future.

Table 5-3-1 Future Intentions to Expand Business Overseas

Interest in Overseas Business Activities	No. of companies	Share (%)
Not considering overseas investment	323	52.9
Intend to invest overseas or arrange technical tie-ups (of which, interested in Malaysia)	288 (129)	47.1 (21.1)
No. of effective responses	611	100.0

Source : Questionnaire Survey of Automotive Parts Manufacturers in Japan, 1994,
JICA Study Team

The 129 companies which indicated they might operate in Malaysia were distributed regionally as follows: 59 in Kanto (45.7%), 49 in Tokai (38.0%), 18 in Kinki and Chugoku (14.0%), and none in Hokkaido, Tohoku, and Shikoku.

By size of capital, the greatest number, 38, were in the 10 to 50 million yen range, followed by 27 in the 3 to 10 million yen range, 24 in the 500 million yen or more range, 21 in the 100 to 500 million yen range, 14 in the 50 to 100 million yen range, and five in the less than 3 million yen range.

The average capitalization was 66 million yen. The average number of employees was 463. By listings of stocks, five companies were listed on the First Section of the Tokyo Stock Exchange, six on the Second Section, and 118 were not listed. This shows that medium and small Japanese enterprises are finally looking closely at Malaysia.

The products made by these companies are shown in the following table. Engine parts are made by the greatest number, 46 companies (35.7%), followed by chassis related parts by 39 (30.2%) and transmission parts by 19 (14.7%).

By type of vehicle, 118 companies (94.4%) were making parts for passenger cars, 67 (53.7%) for pickups and trucks, 56 (44.8%) for large sized trucks, 36 (28.8%) for large sized buses, and 35 (28.0%) for motorcycles.

Table 5-3-2. Products of Companies Interested in Doing Business in Malaysia

Products	No. of companies	Share (%)
Engine parts	46	35.7
Transmission related parts	19	14.7
Electrical components	7	5.4
Brake parts	13	10.1
Suspension and steering related parts	3	2.3
Wheel parts	6	4.7
Chassis related parts	39	30.2
Accessories	6	4.7
Others	21	16.3
No. of companies giving valid responses	129	

Notes: Total of shares exceeds 100% due to multiple responses.
Source: Same as previous table.

The customers to which these products were delivered were, most often, assemblers in the case of 87 companies (67.4%), followed by primary subcontractors in the case of 62 companies (48.1%). However, 26 companies (20.2%) were also shipping repair parts directly to the REM market.

In recent years, the rate of overseas procurement of parts by the auto makers has risen. Just under 80%, or 100, of the 129 automotive parts companies which indicated they wanted to do business in Malaysia said that the value of their transactions has gone down as a result, as shown in the following table.

Table 5-3-3. Effects of Overseas Parts Procurement Strategy of Business Partners
on Value of Transactions

Effect	No. of companies	Share (%)
Considerably down	30	23.8
Somewhat down	70	55.6
Almost no change	18	14.3
Somewhat up	8	6.3
No response	3	2.3
Total	129	100.0

Source: Same as previous table.

3.2. Intentions of Japanese Automotive Parts Manufacturers to Invest Overseas

(1) Companies Which Might Invest in Malaysia Still in Minority

Of the 129 companies which indicated that they wanted to do business in Malaysia from June to September 1994, 93 (72.1%) had no experience with overseas investment, while 36 (27.9%) did.

Of the 36 automotive parts manufacturers which already had invested overseas, four had invested in Malaysia. In ASEAN, nine companies had invested in Thailand, three in Indonesia, and two in the Philippines. The most frequent site for investment was North America, by 22 companies. In the ANIEs, eight companies had invested in Taiwan, four in South Korea, and one in Singapore. Four companies had also invested in China.

Of the Japanese 129 automotive parts manufacturers interested in doing business in Malaysia, 13 responded that they "currently have concrete plans for overseas investment" and 108 indicated that they "still have nothing concrete, but intend to invest overseas". These 121 companies constitute less than 4% of the approximately 3,600 automotive parts makers to which the questionnaires were sent. But 46.8% of the 258 companies indicated that they "have plans for investment/intend to invest" in other countries.

By way of note, of the 611 auto parts manufacturers which responded to the survey, 127 gave China as a prospective site for foreign investment as of mid-1994, followed by 57 mentioning Thailand, 41 Malaysia, 29 North America, 27 Indonesia, 15 the Philippines, nine Taiwan, and eight South Korea.

(2) "Dealing With Higher Value of Yen" Top Motivation for Foreign Investment by Japanese Automotive Parts Manufacturers

Of the 302 companies giving valid responses (multiple), 162 (53.6% of responses) gave the "reduction in price competitiveness of domestic production in Japan due to appreciation of yen" as the biggest reason/motivation behind overseas investment. Coming in at second place was avoidance of the "high costs in Japan for land, labour, power, etc.", noted by 124 companies (41.1%). This was followed by "shrinking of Japanese domestic market due to overseas investments of customers" given by 112 companies (37.1%), "meeting request for overseas investment from parent company or other affiliated company" by 84 companies (27.8%), and "part of aggressive overseas strategy" by 81 (26.8%).

The no. 1 motivation for investment in Malaysia was "dealing with the higher yen", mentioned by 61.5% of the companies interested in doing business in Malaysia (122 companies, multiple responses), no. 2 was "shrinking of Japanese domestic market" by 45.9%, no. 3 was "production costs" by 36.1%, no. 4 was "part of overseas strategy" by 31.1%, and no. 5 was "requests by parent company" by 24.6%.

(3) Stress in Selection of Investment Site is on "Competitiveness in Quality and Cost of Labour"

When Japanese automotive parts manufacturers decide whether to select Malaysia as an investment site, the factor they stress most is "labour competitive in quality and costs". Among the multiple responses of the 100 companies, 76 stressed labour productivity.

This was followed by a stress on the domestic Malaysian market, the acquisition of raw materials, the state of the infrastructure such as power, water, transportation, and communications, the securing of engineers and skilled workers, and the existence of reliable local partners. (Refer to Table 5-3-4).

Table 5-3-4. Points Stressed in Selection of Malaysia for Investment

Points stressed	No. of responding companies	Rank
Are there domestic customers and market in host country?	67	2
Can engineers and skilled workers be secured?	51	5
Is labor competitive in quality and costs?	76	1
Can materials be obtained locally?	62	3
Are there part suppliers and other related companies locally?	36	8
Can factory sites be acquired inexpensively?	18	10
Is infrastructure, e.g., power, water, transport, and communications, sufficient?	60	4
Are there generous incentives for overseas investment?	35	9
Are there full inspection organizations, laboratories, and other facilities?	1	14
Is there reliable local partner?	49	6
What about the local financial situation? Are interests low?	5	13
Are feelings toward the Japanese good? Is there enthusiasm over attracting investment?	17	11
Is country politically stable?	38	7
Is there economic growth potential? Is inflation low?	14	12

Notes: Multiple responses by 100 companies giving valid responses.

Source: Same as previous table.

(4) Evaluation of Investment Factors Stressed

Regarding the "labour competitiveness" stressed the most when Japanese auto parts manufacturers invest, 43 of the 84 companies giving valid responses rated Malaysia as "relatively superior", 32 rated it as "usual", and nine as being something to be "apprehensive" about. Regarding the second ranked "market", 30 (34.5%) of the 87 companies rated Malaysia as superior, but 34 (41.5%) of 82 companies were "apprehensive" of Malaysia when it came to the third ranked "raw materials". (Refer to Table 5-3-5).

Table 5-3-5. Evaluation of Malaysian Investment Environment by Japanese Businesses

Points stressed	No. of valid responses	Relatively superior	Usual	Apprehensive
Are there domestic customers and market in host country?	87	30	29	28
Can engineers and skilled workers be secured?	75	15	37	23
Is labor competitive in quality and costs?	84	43	32	9
Can materials be obtained locally?	82	15	33	34
Are there part suppliers and other related companies locally?	69	12	34	24
Can factory sites be acquired inexpensively?	60	27	27	6
Is infrastructure, e.g., power, water, transport, and communications, sufficient?	77	20	45	12
Are there generous incentives for overseas investment?	64	14	42	8
Are there full inspection organizations, laboratories, and other facilities?	50	4	22	24
Is there reliable local partner?	69	12	40	17
What about the local financial situation? Are interests low?	53	-	38	15
Are feelings toward the Japanese good? Is there enthusiasm over attracting investment?	64	37	22	5
Is country politically stable?	69	50	16	3
Is there economic growth potential? Is inflation low?	53	33	18	2

Source: Same as previous table.

Malaysia was rated highly for "political stability" and "economic growth potential" and "low inflation" among these factors. These are major pluses when it comes to the investment environment in Malaysia.

(5) Hurdles up to Decision on Investment

Japanese automotive parts manufacturers, especially those which have had no experience with overseas investment, have various difficult fears and worries which they must overcome before deciding on overseas investment. The companies which might operate in Malaysia but were having trouble in the decision-making process or had trouble in the past (108 companies giving valid responses) face various troubles. These are indicated below:

Table 5-3-6. Hurdles in Decision on Overseas Investment by Companies Which Might Operate in Malaysia (Multiple Responses)

Hurdles	No. of responding companies	%
Want to conduct local survey, but host country has no place which can assist us.	4	3.7
Don't know how to conduct pre-investment survey (feasibility study).	29	26.9
Don't have the manpower to send over and station from Japan even if constructing factory locally.	46	42.6
Want to hold majority or 100% of shares, but cannot due to restrictions in host country.	13	12.0
Don't know how to find partner in host country.	30	27.8
Insufficient funds for investment.	37	34.3
Cannot pin down customers for products made locally.	37	34.3
Apprehensive over managing local workers due to different language and customs.	49	45.4
Don't know various procedures, laws, accounting systems, etc.	48	44.4
Apprehensive about safety of locally dispatched staff, education of their children, etc.	20	18.5

Notes: Valid responses obtained from 108 of the 129 companies which might do business in Malaysia. No response obtained from 21 companies.

Source: Same as previous table.

The factor considered to be the most difficult hurdle is the "unease over language and customs". The problem which most managers and engineers of small and medium sized Japanese enterprises still confront is the language barrier. This is a problem of language education in Japan. No quick solution is in sight. It would be wonderful if the Malaysian side could promote the study of the Japanese language as one countermeasure to this. Overcoming "differences in custom" is a matter of mutual effort, but the Malaysian side could, as one countermeasure, publicize audio-visually the situation in Malaysia more aggressively.

Regarding the "laws, institutions, and other methods", the Malaysian Industrial Development Authority (MIDA) could supply information more positively to offices in Tokyo and Osaka. As to the problems with "advance surveys" and "investment funds", it would be possible to obtain some directions from various institutions in Malaysia and Japan as to resolution of the problems.

Turning to the "partner in the host country", mention may be made of the spread of the RICOM system of MIDA in Japan. Among the 73 companies giving valid responses, 69 companies indicated they desired to make use of the RICOM registration system.

(6) Auto Parts Manufacturers with Plans for Investment in Malaysia and Desiring to Register in RICOM System

There were 36 Japanese automotive parts manufacturers having plans for investment in Malaysia, or scheduled to formulate such plans, and desiring to register in the RICOM system. And there were 38 companies desiring for registration, but no intention to invest. Hopefully MIDA will approach them quickly. (Refer to Table 5-3-7)

Table 5-3-7 Companies Planning to Invest in Malaysia and Desiring Registration under RICOM System

Company code	Year of est.	Capital (\$ millions)	No. of employees	Lines of reduction	Investment plans (note 1)	Investment motive (note 2)	Factors emphasized (note 3)	Desire for registration
I. Investment plans plus desire for registration								
I-1	1925	8,603	2,320	Brake cylinders for passenger cars	0	3,5	1,3,5,10,12	0
I-2	1949	884	950	Auto parts, blowers, machine tool	0	1,3	-	0
I-3	1954	120	97	Wiper blades	0	1	3,7,8,10,13	0
I-4	1964	58	96	Engine valves	0	1,2	-	0
I-5	1977	5	30	Plastic moldings	0	1,2,3	4,5,6,7,8,10	0
II. Intent to invest plus desire for registration								
II-1	1917	1,677	900	Disc brakes, drum brakes, automatic transmission parts	Δ	1	1,3,4,10,13	0
II-2	1920	1	35	Hose assemblies	Δ	-	10,13	0
II-3	1921	48	250	Oil pumps, intake manifolds	Δ	1,2	2,3,4,7,10	0
II-4	1921	410	400	Parking brake devices	Δ	3,4	1,2,4,5,7	0
II-5	1923	300	270	Gaskets (for automobiles, motorcycles, and industry)	Δ	5	3,5,8,10,13	0
II-6	1937	24	40	Brake drums, brackets, and flanges	Δ	1,2,3	2,3,6,7,8	0
II-7	1939	100	187	Brake hoses, metal caps for fuel hoses	Δ	1,3	1,3,4,7,10	0
II-8	1943	50	240	Auto brake parts	Δ	1	1,2,3,4,5,13	0
II-9	1946	265	450	Stay dampers, cam shaft brackets	Δ	1,5	1,3,5,7,10,13	0
II-10	1946	4	21	Oil pumps, power steering units	Δ	1,3	1,3,8,12,13	0
II-11	1947	2,366	2,000	Wiper motors, power window motors	Δ	1,5	1,4,5,7,8	0
II-12	1948	1,836	1,300	Wheels, globe boxes, air bag modules	Δ	1,3	1,3,7,10,14	0
II-13	1949	1,090	1,300	Fuel filters, pressure regulators	Δ	1,2	-	0
II-14	1949	20	140	Tappets, rotor rings	Δ	3	1,2,3,8,10	0
II-15	1951	30	60	Tappets, rotor rings	Δ	4,5	3,5,7,12,14	0
II-16	1951	15	100	Camshafts	Δ	3	2,3,4,13,14	0
II-17	1954	220	251	Doors, covers, roofs, etc.	Δ	3,4	1,4,5,12,13	0
II-18	1956	2,167	409	Floor interiors	Δ	1,3,4	1,2,3,7,8	0

Company code	Year	Capital (\$ millions)	No. of employees	Products	Investment plans	Motives	Factors emphasized	Desire for registration
II-19	1957	10	20	Seat back panels, half terminals, connector terminals	Δ	5,6	2,3,10,13,14	0
II-20	1958	11	64	Arm valve rockers	Δ	2	1,2,3,8,13	0
II-21	1959	24	70	Seat adjusters, seat link parts	Δ	2,3	-	0
II-22	1961	12	80	Coolant hoses for car air conditioners	Δ	1,2,3	1,3,4,10	0
II-23	1962	10	20	Auto hubs, pulleys	Δ	3	1,2,3,4,7	0
II-24	1965	42	32	Auto bodies	Δ	1,2,5	2,3,4,6,7,8,10	0
II-25	1965	120	90	Meter cables, hand brake cables	Δ	1,2,3,5	-	0
II-26	1965	20	60	Transmission gears, differential gears, rear accelerator shaft	Δ	1,2	-	0
II-27	1968	10	15	Motorcycles	Δ	1	-	0
II-28	1969	12	85	Plastic products	Δ	1,2,3	2,3,4,6,7,8	0
II-29	1972	3	35	Internal combustion engines, switches	Δ	1,2	-	0
II-30	1973	3	45	Auto chassis parts	Δ	1	1,3,4,5,13	0
II-31	1993	10	28	Auto parts	Δ	1,2,3	1,2,3,4,7	0
III. Only intent to invest								
III-1	1928	98	950	Cross member assemblies	Δ	6	2,3,7,10,14	X
III-2	1936	84	640	Fuel tanks, rear side member assemblies	Δ	2,3	2,3,6,7,8	X
III-3	1939	1,478	1,800	Seat slide rails, seat recliners	Δ	1,4,6	1,3,4,6,7	X
III-4	1968	100	650	Bumpers, instrument panels, door trim	Δ	3,4	1,2,3,4,5	X
III-5	1970	15	95	Pistons for internal combustion engine	Δ	2,4	3,4,7,10,12	X
IV. Only desire for registration								
IV-1	1924	9	65	Felt, paper boxes	X	3	1,4,7,8,10,13	0
IV-2	1938	1,114	1,300	Drive shafts	X	1,4	1,2,3,4,7	0
IV-3	1947	246	1,000	Floor carpet, trunk liners	X	1,3,4,5	1,3,4,10,12	0
IV-4	1948	8	197	Interior fittings	X	-	-	0
IV-5	1949	12	220	Door lock subassemblies, door check assemblies	X	1,2,3,5	1,4,5,10,13	0

Company code	Year	Capital (\$ millions)	No. of employees	Products	Investment plans	Motives	Factors emphasized	Desire for registration
IV-6	1949	101	930	Locker shaft assemblies, lifter valves	X	3	1,3,8,10,14	0
IV-7	1950	3,600	1,500	Seat fabric, molded ceilings	X	1,3,5	1,7,10,12,13	0
IV-8	1950	25	43	Power steering units, etc.	X	-	-	0
IV-9	1950	50	140	Automatic transmission hubs, sleeve ICs, shafts	X	1,2,3,4	1,3,4,6,7	0
IV-10	1954	22	105	Throttle shafts, nipples, choke shafts	X	3	1,2,4,5,7	0
IV-11	1955	98	180	Motorcycle mirrors, various interior accessories	X	1,5	1,3,4,5,7	0
IV-12	1956	153	580	Auto parts, coating	X	1,2,3	1,5,7,10,13	0
IV-13	1958	12	191	Power axes, radiator pumps	X	1,3	2,4,6,7,8	0
IV-14	1959	35	30	Carburetors	X	3	1-5,10,12-14	0
IV-15	1961	4	20	Bearings, internal and external wheels, machine parts	X	-	-	0
IV-16	1964	680	803	Disc brakes, pressure plates	X	1,2,3	1,3,4,7,13	0
IV-17	1964	30	48	Aluminum bodies, wing bodies	X	2	2,3,4,5,8	0
IV-18	1964	20	60	Out wheel###, out red###	X	1,2	-	0
IV-19	1965	36	80	Splash boards, dust covers, grills	X	1,2	2,3,4,6,7	0
IV-20	1965	4	20	Packing gaskets, packing engine	X	5	1,2,4,5,7,10	0
IV-21	1965	11	45	Aluminum engine parts	X	1-4,6	1-8,11-14	0
IV-22	1967	48	260	Shaft drive, rough bars###	X	1,2,3	1,2,4,5,7	0
IV-23	1968	10	43	Turbochargers, brackets, pistons	X	1	-	0
IV-24	1968	300	370	Instrument panel pads, etc.	X	1	1,3,4,7,13	0
IV-25	1969	10	70	Wind moldings, weather stripping	X	1	1,3,10,13,14	0
IV-26	1970	20	30	Center plates, housings, flanges	X	3,4	3,5,9,10,13	0
IV-27	1970	40	161	Radiators	X	2,5	1,3,7,8,10	0
IV-28	1971	5	20	Water pumps	X	1,2	2,3,4,7,12	0
IV-29	1972	5	18	Wheel accessories (wheel balance weight)	X	2,5	-	0

Company code	Year	Capital (' millions)	No. of employees	Products	Investment plans	Motives	Factors emphasized	Desire for registration
IV-30	1974	2	25	Tube connectors, joint nipples for hydraulic lines	X	2	1,2,3,4,8	0
IV-31	1974	200	464	Gears, shafts, camshafts	X	4	1,4,7,8,10	0
IV-32	1975	17	225	Gearshift levers for automatic transmissions, oil separators	X	1,2,3,4	3,4,6,7,13	0
IV-33	1978	10	10	Engine valves	X	1	1,2,3,4,5	0
IV-34	1981	1	5	Mufflers	X	2	-	0
IV-35	1984	5	18	Front bumper spoilers, rear bumper spoilers	X	2,5	2,4,5,7,8,10,11	0
IV-36	1986	1,312	1,070	Exhaust converters, press/torque converters	X	1,3,4,5	1,3,7,8,14	0
IV-37	1988	5	12	Parts for OA equipment, transmissions, engine vibration damping components	X	1,3,4	1,2,3,4,5	0
IV-38	-	5	4	Auto repair materials	X	5	-	0

Notes:

(1) O: Has concrete plans to invest.

A: Intends to invest; no concrete plans

X: No intention to invest

(2) Motives for investment

1. Domestic production has lost price competitiveness because of strong yen.
2. High cost of land, labor, electricity, etc. in Japan.
3. Shrinking of the Japanese market as customers (parent firms) establish factories overseas.
4. In response to requests from parent firms or other related companies for relocation overseas.
5. As part of an aggressive overseas strategy.
6. Other

(3) Factors emphasized when choosing an investment site

1. Presence of local customers and markets
2. Availability of engineers and technicians
3. Competitive labor quality and costs
4. Local availability of raw materials and supplies
5. Local presence of parts suppliers or other related firms
6. Availability of inexpensive industrial land
7. Enough infrastructures such as electricity, water, and transportation
8. Substantial incentives for foreign investors
9. Presence of inspection and testing facilities
10. Presence of a trustworthy local partner
11. Local credit situation, low interest rates
12. Local feelings towards Japan, enthusiastic promotion of investment
13. Political stability
14. Potential for economic growth, low inflation rate

Source: Questionnaire Survey of Automotive Parts Manufacturers in Japan, 1994, JICA Study Team

3.3. Possibility of Transfer of Technology to Malaysia

(1) Technical Transfers Mostly by Medium and Large Sized Companies

Of the 611 Japanese automotive parts manufacturers which responded to the questionnaire survey, 507 gave valid responses regarding technical transfers (licensed). Of the 507 companies, 130 indicated that they were "already transferring technology" overseas. The country receiving the most transfers of technology from these 130 companies was Taiwan - receiving technology from 48 companies (37.8%). This was followed by South Korea, receiving technology from 47 companies (37.0%), Thailand from 41 companies (32.3%), and Malaysia from 36 companies (28.3%).

Of the 47 companies interested in doing business in Malaysia, 14 were already transferring technology to that country. At the same time, 19 were transferring technology to North America, 19 to Taiwan, 18 to South Korea, 17 to Europe, 12 to Thailand, five to Indonesia, and two to Finland. (Refer to Table 5-3-8).

A look at the capitalization of the companies providing technology to Malaysia shows that the greatest number of companies, 15 out of 36, gave 500 million yen or more as their capital. Further, nine companies indicated they had capitals of 50 to 100 million yen, and six, 100 to 500 million yen. This speaks of the fact that most of the companies providing technology were large corporations or medium sized firms.

(2) Technology Transfers to China on Verge of Increase

A total of 169 companies indicated that they would positively respond to requests for technical transfers from other countries. Of these, 152 specified which countries they would be interested in. Of these 152 companies, 100 companies indicated that they were interested in China as the country to transfer technology to. The previous table shows that 10 companies were transferring technology to China as of mid-1994. The potential is therefore 10 times that number.

Fifty-six companies indicated they would look positively at transferring technology to Malaysia, but this is less than the 67 interested in Thailand. Further, 34 companies were interested in Indonesia and 23 in the Philippines, so these countries are also becoming competitors when it comes to technical transfers.

(3) Companies Positive over Technical Transfers to Malaysia

There were 12 Japanese automotive parts manufacturers which indicated that they either were already transferring technology to Malaysia as of mid-1994 or would respond positively if requested to do so in the future. (Refer to Table 5-3-10)

There were 12 companies which had not yet transferred technology to Malaysia, but had transferred technology to other countries and would look positively over the transfer to Malaysia if so requested. (Refer to Table 5-3-10)

Further, there were 20 companies which had not transferred technology overseas as of mid-1984, but would respond to requests for the same from Malaysia in the future. (Refer to Table 5-3-10)

Table 5-3-8. Countries to Which Japanese Auto Parts Makers Have Transferred Technology

No. of cases		Malaysia	Thailand	Indonesia	Philippines	Singapore	Taiwan	R. of Korea	China	Hong Kong	North America	Europe	Others	Valid responses	No response
Total		130	36	41	18	6	48	47	10	-	48	38	14	127	3
			28.3	32.3	14.2	4.7	37.8	37.0	7.9	-	37.8	29.9	11.0	100.0	2.3
<Capital>															
~ ¥3 million		1	1	-	-	-	1	-	-	-	-	-	-	1	-
			100.0	-	-	-	100.0	-	-	-	-	-	-	100.0	-
~ ¥10 million		8	1	2	-	-	2	3	1	-	1	1	-	8	-
			12.5	25.0	-	-	25.0	37.5	12.5	-	12.5	12.1	-	100.0	-
~ ¥50 million		16	4	4	1	1	4	6	-	-	4	2	-	15	1
			26.7	26.7	6.7	6.7	26.7	40.0	-	-	26.7	13.3	-	100.0	6.3
~ ¥100 million		26	9	6	1	2	5	7	3	-	8	4	6	26	-
			34.6	23.1	3.8	7.7	19.2	26.9	11.5	-	30.8	15.4	23.1	100.0	-
~ ¥500 million		33	6	6	3	-	13	9	2	-	9	7	1	32	1
			18.8	18.8	9.4	-	40.6	28.1	6.3	-	28.1	21.9	3.1	100.0	3.0
¥500 million ~		46	15	23	13	3	23	22	4	-	26	24	7	45	1
			33.3	51.1	28.9	6.7	51.1	48.9	8.9	-	57.8	53.3	15.6	100.0	2.2
<No. of employees>															
~ 30		6	1	2	-	-	3	2	-	-	-	-	-	6	-
			16.7	33.3	-	-	50.0	33.3	-	-	-	-	-	100.0	-
~ 50		6	1	2	-	-	1	2	1	-	-	1	-	6	-
			16.7	33.3	-	-	16.7	33.3	16.7	-	-	16.7	-	100.0	-
~ 100		11	2	5	1	-	6	3	-	-	3	2	1	11	-
			18.2	45.5	9.1	-	54.5	27.3	-	-	27.3	18.2	9.1	100.0	-
~ 500		46	11	7	3	2	6	11	4	-	15	8	6	44	2
			25.0	15.9	6.8	4.5	13.6	25.0	9.1	-	34.1	18.2	13.6	100.0	4.3
~ 1,000		25	9	8	5	1	13	10	1	-	9	6	2	25	-
			36.0	32.0	20.0	4.0	52.0	40.0	4.0	-	36.0	24.0	8.0	100.0	-
1,001 ~		36	12	17	9	3	19	19	4	-	21	21	5	35	1
			34.3	48.6	25.7	8.6	54.3	54.3	11.4	-	60.0	60.0	14.3	100.0	2.8
<Intention of overseas investment>															
Companies which might operate in Malaysia		47	14	12	5	2	19	18	4	-	19	17	6	45	2
			31.1	26.7	11.1	4.4	42.2	40.0	8.9	-	42.2	37.8	13.3	100.0	4.3
Companies which might operate overseas		63	17	25	8	3	26	23	6	-	25	19	6	63	-
			27.0	39.7	12.7	4.8	41.3	36.5	9.5	-	39.7	30.2	9.5	100.0	-
Companies with no interest in doing business overseas		20	5	4	5	1	3	6	-	-	4	2	2	19	1
			26.3	21.1	26.3	5.3	15.8	31.6	-	-	21.1	10.5	10.5	100.0	5.0

Source: Same as previous table.

Table 5-3-10 Companies Transferring Technology to Malaysia

Company code	Year of establishment	Paid-in capital (¥ millions)	No. of employees	Lines of production	Transfer of technology	
					Now transferring	Will respond to requests
I. Transferring technology to Malaysia, Will respond to requests in future						
I-1	1920	1	35	Hose assemblies	A	o
I-2	1928	98	950	Cross member assemblies, catalytic converter assemblies	A	o
I-3	1939	1,478	1,800	Structural parts (seat recliners, etc.)	A	o
I-4	1943	2,760	1,679	Auto parts	A	o
I-5	1946	110	550	-	A	o
I-6	1947	2,366	2,000	Electrical auto parts	A	o
I-7	1958	50	328	Damping sheets, top sealing, dash insulation	A	o
I-8	1968	100	650	Interior fittings	A	o
I-9	1973	3	45	Cast, resin parts (incl. rubber)	A	o
I-10	1977	5	30	Auto parts	A	o
I-11	1986	1,312	1,070	Disc brakes for motorcycles, etc.	A	o
I-12	1991	490	100	-	A	o
II. Transferring technology to countries other than Malaysia, Will respond to requests in future						
II-1	1917	1,677	900	Parts for automobiles and industrial machines	B	o
II-2	1923	300	270	Auto gaskets, packaging	B	o
II-3	1925	8,603	2,320	Brake cylinders for passenger cars	B	o
II-4	1936	84	640	Manufactured goods	B	o
II-5	1947	246	1,000	Interior fittings	B	o
II-6	1948	1,836	1,300	Plastic auto parts	B	o
II-7	1948	8	197	Interior fittings	B	o
II-8	1949	1,090	1,300	Fuel system parts	B	o

Company code	Year of establishment	Paid-in capital (¥ millions)	No. of employees	Lines of production	Transfer of technology	
					Now transferring	Will respond to requests
II-9	1952	2,118	850	-	B	o
II-10	1953	2,700	2,000	-	B	o
II-11	1956	12,600	7,270	-	B	o
II-12	1965	120	90	Push-pull cables	B	o
III Not yet transferring technology overseas, Will respond to requests in future						
III-1	1921	410	400	Parking brake devices	C	o
III-2	1937	24	40	Machine processing	C	o
III-3	1940	45	150	-	C	o
III-4	1946	4	21	Oil pumps	C	o
III-5	1951	30	60	Tappets, cast and shaved parts	C	o
III-6	1954	120	97	Wiper blades	C	o
III-7	1957	10	20	Auto and electric appliance parts	C	o
III-8	1957	50	151	-	C	o
III-9	1958	11	64	Arm valve rockers	C	o
III-10	1959	24	70	Parts for construction equipment and air-conditioners	C	o
III-11	1961	12	80	Coolant hoses for car air conditioners	C	o
III-12	1965	42	32	Auto bodies	C	o
III-13	1972	3	35	Auto parts, etc.	C	o
III-14	1972	10	45	-	C	o
III-15	1974	45	144	-	C	o
III-16	1978	10	10	-	C	o
III-17	1984	10	27	-	C	o
III-18	1985	80	140	-	C	o
III-19	1993	10	28	Auto parts	C	o
III-20	-	18	90	-	C	o

Note: A: Technology being transferred to Malaysia

B: Technology being transferred to countries other than Malaysia

C: Have never transferred technology overseas

O: Hope to actively transfer technology in response to demands from Malaysia

Source: Questionnaire Survey of Automotive Parts Manufacturers in Japan, 1994, JICA Study Team

