

## CHANGING THE MANUFACTURING SECTOR, REORGANIZING AUTOMOBILE ASSEMBLERS, AND DEVELOPING THE AUTO COMPONENT INDUSTRY UNDER THE NEW ECONOMIC POLICY

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### I. INTRODUCTION

**T**HE main purpose of this paper is to analyze the role of the manufacturing sector in Malaysia under the New Economic Policy (NEP). While the basic view given here is the same as that of Horii who argues in his paper in this special issue that the process of implementing the NEP is part of the process of dissolution of colonial social and economic structures, my interpretation of NEP is broader than Horii's because the growth in the manufacturing sector is mainly a post-independence phenomenon. Apparently the meaning of NEP for manufacturing sector is mainly a post-independence phenomenon. Apparently the meaning of NEP for manufacturing is quite different from that of NEP for the traditional industrial sectors, such as tin mining and rubber estate, which have been attempting to abolish or reorganize industrial organizations and companies formed in the colonial period. Thus, in addition to the perspective as given by Horii, NEP should also be evaluated in relation to its role of nurturing newly introduced industries such as the automobile industry.

The recommendations in the IBRD Mission's "Report on the Economic Development of Malaya" (1955) gave the impetus to Malaysian (then Malayan) industrial development in the mid-fifties, but the enactment of two sets of laws, first the Pioneer Industries Ordinance of 1958 and the Pioneer Industries Act of 1965, and then, their replacement, the Investment Incentives Act of 1968, made that development a reality. The adoption of the Free Trade Zone Act in 1971 also helped to promote foreign investment, especially from the United States and Japan, which moved export-oriented industrialization forward in the 1970s.

From the 1970s on, the manufacturing sector has been required to fulfill all its NEP targets in parallel with the promotion of industrial development. In other words, in developing manufacturing industries, the Malaysian government pursued a target of fostering enterprises and industrial organizations in the modern sector along the basic plan of weaving all NEP objectives into the corporate and organizational system.

Manufacturing is expected to play an important role in the implementation of NEP. First, on a broader basis, manufacturing provides the economic foundation

of the NEP. If we understand NEP by looking at it only from the aspect of economic policy, it then becomes a program weighted toward income redistribution. A necessary precondition for smoother distribution is sustained by economic growth, i.e., increasing the size of the economic pie. Development of the manufacturing sector is then the most effective method for creating that kind of growth, something given clear expression in every section of the five-year Malaysia plans in which the manufacturing sector is discussed. The Third Malaysia Plan (1976–80) states, for example, that “manufacturing will continue to play a strategic role in the achievement of the goals of the NEP” [12, p. 310].

However, in the narrower sense, manufacturing is expected to play the role of encouraging Bumiputera participation in the commercial and industrial sectors, thereby effecting the restructuring of the Malaysian society, another major objective of NEP.

A reading of the second to fifth five-year Malaysia plans shows three aspects to Bumiputera participation in the commercial and industrial sectors: equity ownership, corporate management and fostering entrepreneurs, and employment. More specifically, Bumiputera participation means restructuring ownership by developing Bumiputera companies and entrepreneurs which have their own capital and management know-how, raising the proportion of Bumiputera ownership to 30 per cent in the corporate sector, and restructuring the patterns of employment by making various economic sectors and occupations reflect the country's ethnic composition.

In the following sections I will undertake a micro-level analysis of Bumiputera participation in the commerce and industrial sectors from the narrower viewpoint, focusing on the automobile industry, or more precisely, automobile assembly and auto component industry.

There are three main reasons for analyzing the automobile manufacturing industry.

First, it is a domestic-oriented industry. In restructuring the ownership of the manufacturing sector, the Malaysian government has more strictly applied the targets of NEP to domestic-oriented than to export-oriented companies (those with 80 per cent or more of manufactures being exported). Specific targets were set for the corporate sector that a configuration of total capital should be realized by 1990 as follows: 30 per cent Bumiputera, 40 per cent non-Bumiputera, and 30 per cent foreign ownership. However, for export-oriented companies, guidelines announced in October 1975 for foreign investment permitted up to 100 per cent of such funding as determined by the company's export rate. This contrasts with the strict adherence up to July 1988, with but few exceptions, to NEP targets of no more than 30 per cent foreign investment in domestic-oriented companies. As can be seen from this difference, in achieving the goal of restructuring ownership the Malaysian government put emphasis on domestic-oriented companies with a view to their greater influence on the domestic economy.

Second, the government positively engaged in the development of manufacturing by setting up PROTON (Perusahaan Otomobil Nasional Sdn. Bhd.<sup>1</sup> [National

<sup>1</sup> Sdn. Bhd. is an abbreviated form of Sendirian Berhad (“private” and “limited,” respectively, in Malay), which refers to a private limited company. For a public company only

Automobile Industry]) in 1983 which marked the beginning of genuine automobile manufacturing and promoted reorganization of the automobile assembly industry.

Third, automobile manufacturing is a major industry with large forward and backward linkage effect and its reorganization affected many companies from material producers and components manufacturers to assemblers. The establishment of PROTON had an especially large impact on the full-scale local content of auto component production and on the development of Bumiputera manufacturing companies.

I want to divide the development of the automobile industry into several stages in order to clarify Bumiputera participation at each stage. The periods of motor industry development in a developing country can be generally divided into:

1. Import and sale of completely built-up (CBU) cars.
2. Assembly of imported completely knocked-down (CKD) parts, and domestication of parts production. There are sub-stages according to technical level and market scale for parts:
  - a. Domestic production of replacement parts (components).
  - b. Domestic production of OEM (original equipment manufacturer) parts for car assembly.
  - c. Domestic production of key parts (OEM): engines and engine related components.
3. Domestic production of materials for cars and components.
4. Domestic design of car bodies and other components.

After going through the first stage (1896–1966) and the 2-a stage (1967–78), development in Malaysia is now at the 2-b stage. In this paper we will examine Bumiputera participation at the second stage, namely, assembly and parts production at 2-a and 2-b stages.

Following a brief historical description of the Malaysian automobile industry in Section II, I will touch upon Bumiputera capital participation in the assembly industry which can be classified into three specific types in Section III. Examining these types leads to the observation that PROTON's establishment in the early 1980s marked the final stage of Bumiputera investment in the assembly industry. Then in Section IV we proceed to the analysis of domestication of components and parts production, a next step forward in the NEP program. We will confirm here the government policy for developing component producing companies as suppliers to PROTON through Bumiputera investment and analyze characteristics of those companies and their degree of local content.

A brief explanation of such terms as Bumiputera capital and Bumiputera capitalists is in order. They refer to capital and owners of such capital as invested by Bumiputera individuals or corporations. Bumiputera corporations include such organizations as the Lembaga Urusan dan Tabung Haji (Pilgrims Management and Fund Board: LUTH). However, as Bumiputera capital and capitalists as defined above remained in an immature stage during the period under study, it is

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Bhd. is added to the company's name. In the following text, a company's full name is given only at its first appearance. Thereafter, it is cited either in a shortened form or in an acronym and without referring to the status, i.e., Sdn. Bhd. or Bhd.

meaningless to follow the above definition strictly. Therefore, I decided to include trust agencies and public corporations in the group of Bumiputera corporations in the broader sense and this well reflects the present condition of Bumiputera investment. This treatment may also be justified by the fact that, in the five-year Malaysia plans, every classification of Bumiputera investment in the capital restructuring targets includes trust agencies, as well as Bumiputera individuals and corporations. The trust agencies often cited are Permodalan Nasional Bhd. (National Equity Corporation: PNB), Perbadanan Nasional (National Corporation: PERNAS), Majlis Amanah Rakyat (Council of Trust for Indigenous People: MARA), the State Economic Development Corporation (SEDC), the Urban Development Authority (UDA), and the Bank Pembangunan Malaysia Bhd. (Development Bank of Malaysia).<sup>2</sup> In other countries, these institutions are usually classified as public or government corporations backed by government financing. However, the Malaysian government ranks public corporations as the main institutions acting on behalf of each and every Bumiputera individual in achieving NEP targets. While the state of the individual Bumiputera capitalist remains one of immaturity, the government acts as trustee of the Bumiputera and uses its own investment for economic programs. This policy first establishes a public corporation, then develops individual Bumiputera capitalists to proper levels, and then transfers the public corporation into Bumiputera private corporate ownership [11, pp. 145-46]. Because most public corporations are considered to be acting on behalf of the Bumiputera individuals, trust agencies and public corporations, as well as Bumiputera individuals and companies, may be considered Bumiputera investment.

## II. FEATURES OF THE AUTOMOBILE INDUSTRY AND ITS DEVELOPMENT PROCESS

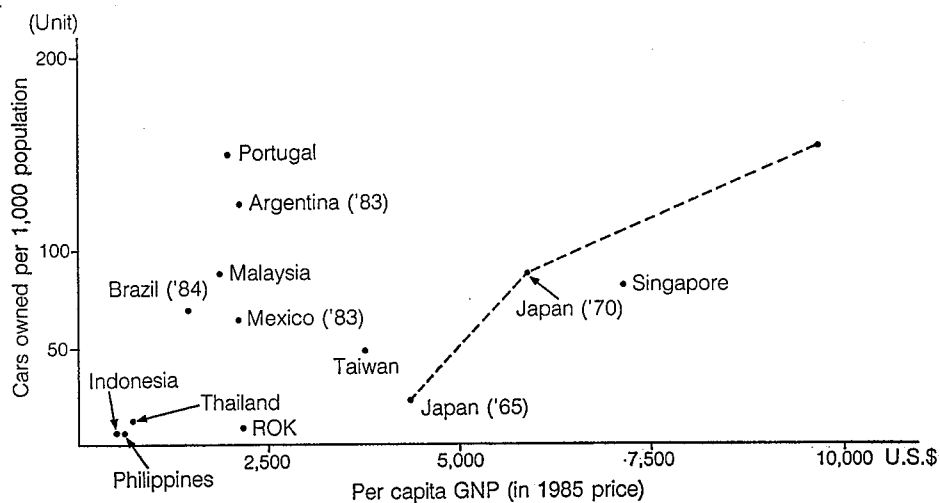
### A. *Automobile Ownership and Market Structure*

Malaysia has a much higher rate of passenger vehicle ownership than other developing countries and other ASEAN countries. That rate has increased from one passenger vehicle for every fifty-five people in 1965 to one for every twenty-five in 1975 and one for every eleven in 1985.

The correlation between rate of automobile ownership and per capita GNP (or national income) is generally positive. A per capita GNP in excess of U.S.\$2,000 seems to give motorization a special boost. Figure 1 shows the relation between per capital GNP and number of passenger vehicles owned for Malaysia and several other countries in and around 1985. From it we can see that Malaysian ownership is particularly high in comparison with other Asian countries. In countries of similar GNP level, it ranks right behind Portugal and Argentina. Malaysia's ownership is twelve to fifteen years behind Japan's: its 1975 level of ownership is about equivalent to Japan's for 1965; its 1985 level corresponds with Japan's in the early 1970s. In the early 1960s Japan's per capita GNP rose above

<sup>2</sup> [13, p. 107]. We should also include the Bank Bumiputra Malaysia Bhd., Food Industries of Malaysia (FIMA), and Komplek Kewangan Malaysia Bhd. in this category.

Fig. 1 Per Capita GNP and Passenger Car Ownership, 1985



Sources: United Nations [23]; Nissan-jidōsha, *Jidōsha sangyō handobukku: 1987-nen-ban* [Guide to the automobile industry, 1987] (Tokyo, 1987).

U.S.\$2,000; in the later 1980s Malaysia's went above the same point. Figure 1 also shows that Malaysia achieved a rather high rate of ownership relative to income level.

Several features of the market structure should be examined in regard to three necessary points. First, unlike the other ASEAN countries, passenger cars are a major market force in the Malaysian market. In 1984, a record year for sales, 78 per cent of the 120,000 (a total that does not include Sabah and Sarawak states) vehicles sold were passenger cars. In the same period, 72 per cent of the motor vehicles sold in Thailand, and 85 per cent in Indonesia, were commercial vehicles. Also, 60 per cent of the market in Malaysia was for vehicles with engines smaller than 1,600 cubic centimeters.

Second, big changes in the market share occurred in 1970. Throughout the 1960s, the Malaysian car market maintained the same pattern it always had, that of domination by European and American cars. Japanese cars reentered the market in 1958 after a long absence during the years immediately after the war, but did not enter the mainstream until 1970 when Nissan captured 15 per cent of the passenger car market, with Ford in first place [20, p. 8]. From then to 1984, Japanese cars rose to an overwhelming share, gaining a maximum of 80 per cent in 1981–82, with Toyota and Nissan combined at close to 50 per cent.

Third, before the establishment of PROTON, eleven companies were assembling a diverse number of car makes and models for a large number of manufacturers in a 110,000–120,000 car market. In 1984, for example, these companies put

together 90 models of passenger cars in 16 makes and 180 models of commercial vehicles in 15 makes.<sup>3</sup>

### B. *Development in the Automobile Industry in Brief*

The first automobile came to Malaysia in 1896 [8, pp. 25–29], almost at the same time as to Japan. The period from then to now can be divided into two major sections: (1) import and sale of completely built-up (CBU) cars (1896–1966) and (2) completely knocked-down (CKD) assembly (from 1967 to the present). The driving forces in this development should now be focused on, to give a general description of its path in the two periods.

#### 1. *Import and sale of CBU cars (1896–1966)*

In 1926–42, Ford company's Malaya factory located in Singapore only fitted wheels and did body touch-ups for finished cars, and in 1942–45, during the Japanese occupation, Nissan built army trucks.<sup>4</sup> But by and large, this period was one in which the Malaysian automobile industry was involved in importing and selling CBU cars from Europe and the United States. The major sales companies were the Chinese-backed Cycle & Carriage; the Australian trading company, Wearne Brothers; and Borneo Motors, an agency house and predecessor to Inchcape. All three have been the driving forces in automobile assembly since 1967, each setting up its own assembly company.

#### 2. *CKD assembly (1967–present)*

Although the CKD assembly production level remains the same, this period should, for the sake of convenience, be divided into two, one before and the other after 1985, the beginning of production by PROTON.

(a) Before 1985: After Singapore separated from Malaysia in 1965, the Malaysian government reinstated its development of the automobile industry. The first actions taken were in February 1966, the levying of duties on all imported CBU cars and the requiring of import licenses for all distributors and dealers. Then in 1967, the government issued assembly licenses to six companies, and they began to assemble cars. In December of that year, Swedish Motor Assemblies Sdn. Bhd. began assembling passenger cars [3, pp. 437–39]. Six companies as a whole produced 319 passenger cars and 947 commercial vehicles in 1967.

(b) After 1985: The origin of the national car concept dates back to 1979. The idea was pushed forward under the political leadership of Prime Minister Mahathir. In 1980, he set down the strategy for heavy industrialization and established the Heavy Industries Corporation of Malaysia Bhd. (HICOM) as the institution for implementing the strategy. During 1980–87, under HICOM eight

<sup>3</sup> Keynote address by Y. B. Tuan Haji Muhyiddin bin Haji Mohd. Yassin (then deputy minister of trade and industry) to the Seminar on Automobile Component Manufacturing: Technologies and Trends, which was sponsored by the Standards and Industrial Research Institute of Malaysia (SIRIM), held on May 14–16, 1985 in Kuala Lumpur.

<sup>4</sup> Army trucks and other vehicles were assembled at a factory in Singapore run by Nissan. *Nissan jidōsha 30-nen-shi: Showa 8–38 nen* [Thirty years of Nissan car history, 1933–63] (Tokyo, 1965), pp. 111–15.

TABLE I  
TRENDS IN PASSENGER CAR MARKET SHARE IN PENINSULAR MALAYSIA, 1984-89

	1984	1985	1986	1987	1988	1989
<b>PROTON:</b>						
Number sold	—	7,047	22,023	22,852	39,159	48,387
Market share (%)	—	(11.0)	(46.8)	(64.8)	(73.2)	(65.6)
Projected share (%) <sup>a</sup>	—	[6.4]	[32.0]	[50.3]	[58.9]	[62.3]
<b>Japanese cars:</b>						
Total (unit)	72,255	48,352	20,748	9,010	11,657	20,519
(%)	(83.3)	(75.7)	(44.1)	(25.5)	(21.8)	(27.7)
Toyota (unit)	19,290	13,826	4,972	1,514	2,951	4,026
(%)	(22.2)	(21.7)	(10.6)	(4.3)	(5.5)	(5.5)
Nissan (unit)	23,828	19,084	7,065	3,431	4,335	8,653
(%)	(27.5)	(29.9)	(15.0)	(9.7)	(8.1)	(11.7)
Honda (unit)	11,302	5,830	3,697	2,179	3,139	5,876
(%)	(13.0)	(9.1)	(7.9)	(6.2)	(5.9)	(8.0)
Mazda (unit)	5,948	3,944	1,817	1,043	225	67
(%)	(6.9)	(6.2)	(3.9)	(3.0)	(0.4)	(—)
Daihatsu (unit)		3,239	1,589	711	966	1,776
(%)	11,887	(5.1)	(3.4)	(2.0)	(1.8)	(2.4)
Other <sup>b</sup> (unit)	(13.7)	2,429	1,608	132	41	121
(%)		(3.7)	(3.3)	(0.3)	(0.1)	(0.1)
<b>U.S.-European cars:</b>						
Total (unit)	14,517	8,458	4,257	3,403	2,716	4,887
(%)	(16.7)	(13.3)	(9.1)	(9.7)	(5.0)	(6.7)
Ford (unit)	n.a.	4,146	2,218	1,094	550	1,294
(%)		(6.5)	(4.7)	(3.1)	(1.0)	(1.8)
Mercedes (unit)	n.a.	1,172	537	623	345	637
(%)		(1.8)	(1.1)	(1.8)	(0.6)	(0.9)
Volvo (unit)	n.a.	1,800	851	960	1,067	1,574
(%)		(2.8)	(1.8)	(2.7)	(2.0)	(2.1)
BMW (unit)	n.a.	679	243	303	303	777
(%)		(1.1)	(0.6)	(0.9)	(0.6)	(1.1)
Other <sup>c</sup> (unit)	n.a.	661	408	423	451	605
(%)		(1.1)	(0.9)	(1.2)	(0.8)	(0.8)
Grand total	86,772	63,857	47,028	35,265	53,532	73,793

Source: Compiled by the author from data of the Malaysian Motor Traders Association (MMTA) and others.

Notes: 1. Excludes Sabah and Sarawak states. Also excludes four-wheel drive passenger cars.

2. Total passenger cars sold in Peninsular Malaysia for 1990 was 106,454: of which PROTON cars 64,785 (60.9 per cent), Japanese cars 31,375 (29.4 per cent), and U.S.-European cars 10,294 (9.7 per cent).

<sup>a</sup> Shares as indicated by UNIDO/MIDA [24].

<sup>b</sup> Isuzu, Mitsubishi, Subaru, and Suzuki.

<sup>c</sup> Fiat, Opel, Peugeot, etc.

TABLE  
AUTOMOBILE ASSEMBLY COMPANIES

Assembly Company	Parent Company <sup>a</sup>	
	At Establishment	As of End of 1989 <sup>b</sup>
1 Asia Automobile Industries Sdn. Bhd.	Asia Motor Group (27.2) Peugeot (36.4) Toyo Kogyo (36.4)	Asia Motor Group (27) Peugeot (36) Mazda (31) Sumitomo Corp. (4)
2 Assembly Services Sdn. Bhd.	Inchcape Holdings (100)	UMW (72) Toyota (18) Toyota Tsusho (10)
3 Associated Motor Industries (M) Sdn. Bhd.	Wearne Brothers Ltd. (100)	Tractors Malaysia Holdings (70) Ford (30)
4 Automotive Manufacturers (M) Sdn. Bhd.	TAB (70) Tata (30)	Automotive Corp. (70) Isuzu (25) C. Itoh & Co. (5)
5 Cycle & Carriage Bintang Bhd.	Cycle & Carriage (Singapore) (100)	Cycle & Carriage Ltd. (49) Bumiputera (26)
6 Kelang Pembena Kereta-Kereta Sdn. Bhd.	Syarikat Fiat Distribution Sdn. Bhd. (100)	UMW (100)
7 Kinabalu Motor Assembly Sdn. Bhd.	Bumiputera (81) such as Sabah SEDC (68.5)	Sabah SEDC (68) Koperasi Berjaya (11) Maltrac (19) and others
8 Oriental Assemblers Sdn. Bhd. <sup>d</sup>	Singaporean individual (75)	Oriental Holdings (78) Honda (22)
9 Perusahaan Otomobil Nasional Sdn. Bhd. (PROTON)	HICOM (70) Mitsubishi Motors (15) Mitsubishi Corp. (15)	Same as at on left
10 Sarawak Motor Industries Sdn. Bhd.	Bumiputera (100) such as Sarawak SEDC (55)	UEP Holdings <sup>e</sup>
11 Swedish Motor Assemblies Sdn. Bhd.	AB Volvo German (50) Federal Auto Company (50)	AB Volvo of Sweden (50) Federal Auto Holdings (50)
12 Tan Chong Motor Assemblies Sdn. Bhd.	Tan Chong Motor Holdings (100)	Tan Chong Motor (70) Bumiputera (30)

Sources: Data on assembly performance from the Malaysian Motor Vehicle Assemblers Association (MMVAA). Data for other items from the author's survey.

Note: The number of cars assembled in Malaysia for 1989 and 1990 are as follows:

	Passenger Cars	of which: PROTON	Commercial Vehicles
1989	93,815	65,800	48,772
1990	130,153	85,613	75,054

<sup>a</sup> Figures in parentheses after name of parent company are the percentage share of investment.



II  
IN MALAYSIA, 1989

Year Established (Period of Operation)	Type of Equity Ownership	Car Types Assembled <sup>e</sup> (Passenger Cars and Commercial Vehicles)	Number of Units Assembled	
			1983	1988
1969 (1969-89)	III	PC (Mazda, Peugeot)	7,188	165
		CV (Mazda)	664	136
1967 (1968-)	II→III	PC (Toyota, Daihatsu)	28,798	4,588
		CV (Toyota, Daihatsu)	3,926	9,260
1967 (1968-)	II→III	PC (Ford, Chrysler)	10,170	689
		CV (Ford, Land Rover, Suzuki)	2,862	4,274
1976 (1977-)	III	PC (Isuzu)	—	1
		CV (Tata, Mitsubishi, Isuzu)	149	3,240
1967 (1968-)	II	CV only (Mercedes Benz)	1,389	637
1966 (1967-86)	II	PC only (Fiat, Mitsubishi)	9,220	—
1976 (1979-)	I	CV only (Isuzu and others)	315	717
1967 (1968-)	I→III→II→III	PC (Honda, Peugeot, others)	9,635	4,271
		CV (Honda)	646	1
1983 (1985-)	Transformation of III	PC only	—	44,700
1973 (1976-88)	I	PC (BMW)	711	—
		CV (Hino, Mitsubishi)	1,838	—
1967 (1967-)	III	PC (Volvo)	5,026	1,260
		CV (Volvo)	94	10
1974 (1974-)	II→III	PC (Nissan, Subaru)	29,478	5,632
		CV (Nissan, Subaru, others)	6,355	5,511
Total: PC			100,226	61,306
CV			18,238	23,786

<sup>b</sup> Data for Kinabalu Motor Assembly are as of 1987.

<sup>c</sup> Vehicle types assembled in 1989. However, part of those assembled before 1989 are included.

<sup>d</sup> Changes in company names are as follows:

Capital Motor Assembly Corp. Sdn. Bhd. (1967-71)

General Motors (Malaysia) Sdn. Bhd. (1971-80) (wholly owned GM subsidiary)

Oriental Assemblers Sdn. Bhd. (since 1980)

<sup>e</sup> In July 1988 Sateras Resources (Malaysia) Bhd. was sold to UEP Holdings.

subsidiaries and five associated companies were established: steel mills (Perwaja Trengganu Sdn. Bhd.), cement factories (Kedah Cement Sdn. Bhd.), three motorcycle engine plants (Hicom-Yamaha Manufacturing Sdn. Bhd., Hicom-Suzuki Manufacturing Sdn. Bhd., and Hicom-Honda Manufacturing Sdn. Bhd.) and, most importantly, the PROTON automobile production program.

Before setting up PROTON, HICOM sounded out the Mitsubishi Group in October 1981 as a potential joint venture partner. It signed a letter of intent with Mitsubishi Corporation and Mitsubishi Motors Corporation in December 1982, and then signed agreements, which included joint venture arrangements and technical assistance and others, in May 1983.

The company's 80,000 unit per annum manufacturing capacity plant began producing a passenger car named Saga (with 1,300 and 1,500 cubic centimeter displacement engines) in July 1985. Table I shows that the Medium and Long Term Industrial Master Plan Malaysia, 1986-95 (IMP), announced around the same time that PROTON began production, aimed for Saga's acquisition of a 6.4 per cent passenger car market share in the first year and 50.3 per cent in 1987. This government plan was criticized both for too small market scale and too high opportunity cost [2, pp. 329-31].

The Malaysian government resorted to a protectionist stance, exempting PROTON, and only PROTON, from 40 per cent of the CKD parts import duty and gave it a 50 per cent discount on excise duties. PROTON's management faced a crisis when Malaysia dipped into a long economic recession in late 1984-86 that forced cutbacks in operating time. However, this changed for the better with an economic recovery that allowed the start of full-time operations, and since 1987 PROTON has maintained a more than 60 per cent share of the Peninsular Malaysian passenger car market. It captured a 73 per cent share in 1988. (See Table I.)

### III. RESTRUCTURING THE ASSEMBLY INDUSTRY'S OWNERSHIP STRUCTURE

#### A. *Three Basic Structures*

Malaysia's automobile assemblers produce on assembly contract. A motor manufacturer in an industrialized country sells a franchise to, and concludes a sales contract with, a local sole distributor or franchise holder. The sales company and the local assembler then conclude a production consignment contract. The foreign motor manufacturer then supplies CKD parts to the local assembler.

Table II shows there were twelve assemblers in 1989 (Nos. 1, 6, and 10 have ceased production). Among them there are three types of capital relations between assembler, foreign motor manufacturer, and local sales company (or franchise holder) at the time of establishment.

Type I is when the assembler uses only its own capital. The local sales company and the foreign motor manufacturer do not invest. This is the simplest ownership structure. One example is Capital Motor Assembly Corp. Sdn. Bhd., predecessor

to Oriental Assemblers Sdn. Bhd. Capital Motor Assembly concluded a production consignment contract in 1968 with Tan Chong & Sons Sdn. Bhd., a sales company owning the Nissan franchise, and with another sales company that had the Opel franchise, and assembled cars for both (see Figure 2A). Other examples are Kinabalu Motor Assembly Sdn. Bhd. and Sarawak Motor Industries Sdn. Bhd.

Type II is when the local sales company and the assembler form a capital affiliation. This type can be divided into two sub-types. One is the assembler as sales company subsidiary, the other when the sales company and assembler are formed from the same capital (usually a holding company) into a kind of business group. Examples of the former are Cycle & Carriage Bintang Bhd. and Kelang Pembena Kereta-Kereta Sdn. Bhd. and of the latter, Associated Motor Industries (Malaysia) Sdn. Bhd. (see Figure 2B). Associated Motor Industries is a wholly owned subsidiary of Wearne Brothers, a Singapore corporation, and is consigned by Universal Cars Sdn. Bhd., the Wearne Brothers Group's auto sales subsidiary, to assemble European and U.S. cars, mainly Ford. Other companies in this category are Champion Motors Sdn. Bhd., predecessor to Assembly Services Sdn. Bhd., and Tan Chong Motor Assemblies Sdn. Bhd.

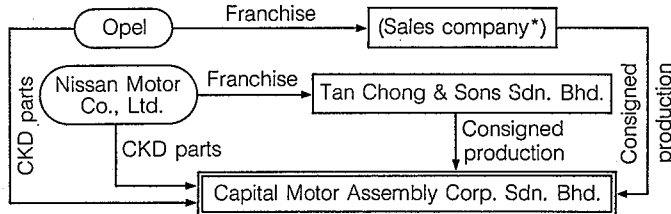
Type III is when a local sales company and a foreign motor manufacturer invest in the assembler. Examples are Asia Automobile Industries Sdn. Bhd., Tatab Industries Sdn. Bhd. (of Tata Group in India) and its successor Automotive Manufacturers (Malaysia) Sdn. Bhd., and Swedish Motor Assemblies Sdn. Bhd. Asia Motor Group, which is built around Asia Motor Bhd. (franchises with Mazda and Peugeot), a local sales company, owns 27.2 per cent of Asia Automobile Industries and Toyo Kogyo (now Mazda Motor Corp.) and Peugeot own 36.4 per cent each (see Figure 2C). PROTON also belongs to this type.

Many different changes have occurred in each company's ownership structure since establishment. Four of the twelve have changed ownership structure since then. From the time it was set up in 1971, until it was bought out by GM (General Motors, U.S.A.) in 1980, Capital Motor Assembly (a predecessor to Oriental Assemblers) went through a mind-boggling series of changes from type I, to type III, to type II, and then back to type III. An important point here is that this resulted in eight companies belonging to type III by 1989. This, viewed together with Table I, shows that companies with large market share are also included in type III, which probably makes it the most stable capital structure for the automobile assembler.

What are the reasons for this change? The change from type I to type II is one of the sales company, which owns the franchise, establishing a new assembly company, or buying out an existing assembly company. Management requirements of both sales company and assembler are reasons why this course is taken. From the assembler's viewpoint, economies of scale are required. This general case is the example of Capital Motor Assembly where several sales companies consign production to one assembler, who puts together cars from several different manufacturers. Mass production effect makes the assembling of different car makes and models unavoidable in a small domestic market where several assembly companies are trying to fulfill an annual maximum new vehicle demand of 120,000.

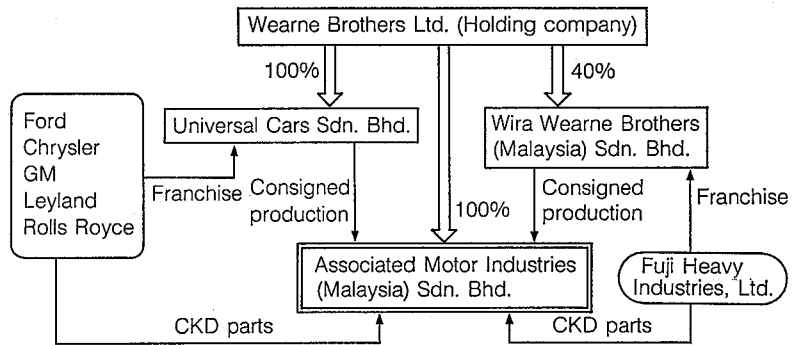
Fig. 2. Capital Relations between Assembler, Foreign Motor Manufacturer, and Local Sales Company

A. Capital Motor Assembly Corp. Sdn. Bhd. (1968)



\*Company unknown.

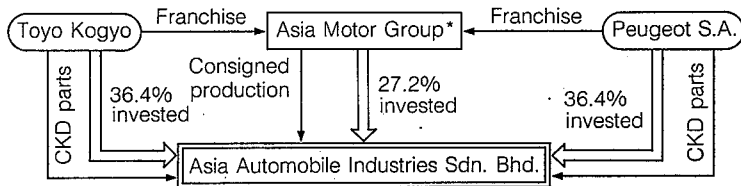
B. Associated Motor Industries (Malaysia) Sdn. Bhd. (1979)



Notes: 1.  $\Rightarrow$  indicates investment relations. Figures show percentage of investment. The same applies to the chart below.

2. Wira Wearne Brothers (Malaysia) Sdn. Bhd. was set up in 1978 to accord with NEP. It was sold in 1983.

C. Asia Automobile Industries Sdn. Bhd. (1969)



\*Consists of Asia Motor Co. (Singapore) Pte. Ltd., Asia Motor Co. Sdn. Bhd., and Asia Motor (Malaysia) Bhd.

Source: Compiled by the author based on various data.

The sales company requires a stable production-supply system to obtain market share. However, in a production consignment relationship with no capital relations, the sales company's strategy is scarcely reflected on the assembler's production system. That lack of power causes the sales company to go into assembly, thus necessitating a move to type II, the manufacturing and sales control type.

The most important point about the change from type II to type III is the foreign manufacturer's investment in the assembler. This is, first of all, a change that occurs by the motor manufacturer from the industrialized country implementing an overseas strategy of moving into Southeast Asia. In the 1960s, there were the Europeans: Fiat, Peugeot, and Volvo; in the 1970s, the U.S.'s GM; and in the 1980s, the Japanese manufacturers Toyota, Honda, and Nissan. This represented a move by manufacturers from different industrialized countries to set up bases in Southeast Asia. From the corporate management aspect, the investment is an impetus for the foreign manufacturer to send personnel to pave the way for plant and capital introduction. These people bring in both production technology and management know-how that improves the abilities of the local assembler.

There is one more common feature to change in ownership, i.e., most Malaysian sales companies are Malaysian Chinese backed. These groups and the companies that make them up are owned and operated by one family: Asia Motor Group by the Phng family, Cycle & Carriage by the Chua family, the Oriental Group by Low Boon Siew, the UMW Group by the Chia family, and the Tan Chong Group by the Tan family. Another feature these companies have in common is growth through acquisition, mainly from Japanese companies, of sole distributorship, in the 1950s and 1960s, when the plan for industrialization through import substitution was being implemented.<sup>5</sup> Moreover, as Section II shows, the capturing of the market by Japanese cars during the 1970s made joint ventures in automobile assembly and sales between Japanese and Chinese companies the central force in the market.

## B. *Methods of Bumiputera Investment*

### 1. *New automobile assemblers in the 1970s*

The investment method of the 1970s was establishing new automobile assembly companies. Between 1967 and 1974, the Malaysian government had granted an assembly license to one company with a view to developing automobile assembly with domestic capital, but limited new investment afterwards. However, it approved five new companies to begin operation in 1976. In its guidelines, the government specified these conditions for approval: (1) relative high level of Bumiputera capital (at least 51 per cent as a rule) and (2) sites for factory should be in either rural areas or development areas specified by the government. The former guideline was a promotion of Bumiputera investment per se, and the latter was a promotion of Bumiputera participation to raise the levels of employment of people from the agricultural sector, a majority of the Malay population.

<sup>5</sup> Tan Tat Wai uses the Kuok Group as an example to show that the typical pattern of development for Chinese corporations was through moves from sales to manufacturing. [21, pp. 171-74, 293-94].

Four out of five newly approved companies began assembly: Sarawak Motor Industries Sdn. Bhd. in Kuching, Sarawak State, with 100 per cent Bumiputera investment, 55 per cent of which came from the Sarawak Economic Development Corporation; Kinabalu Motor Assembly Sdn. Bhd. in Kota Kinabalu, Sabah State, with 81 per cent Bumiputera investment, 68.5 per cent of which was from the Sabah Economic Development Corporation; Tatab Industries Sdn. Bhd., in Kuantan, Pahang State, with 70 per cent investment from the TAB Group; and B.G. Motors Sdn. Bhd., capital relations unknown.<sup>6</sup>

## 2. *Pernas Sime Darby Holdings' investment since 1981*

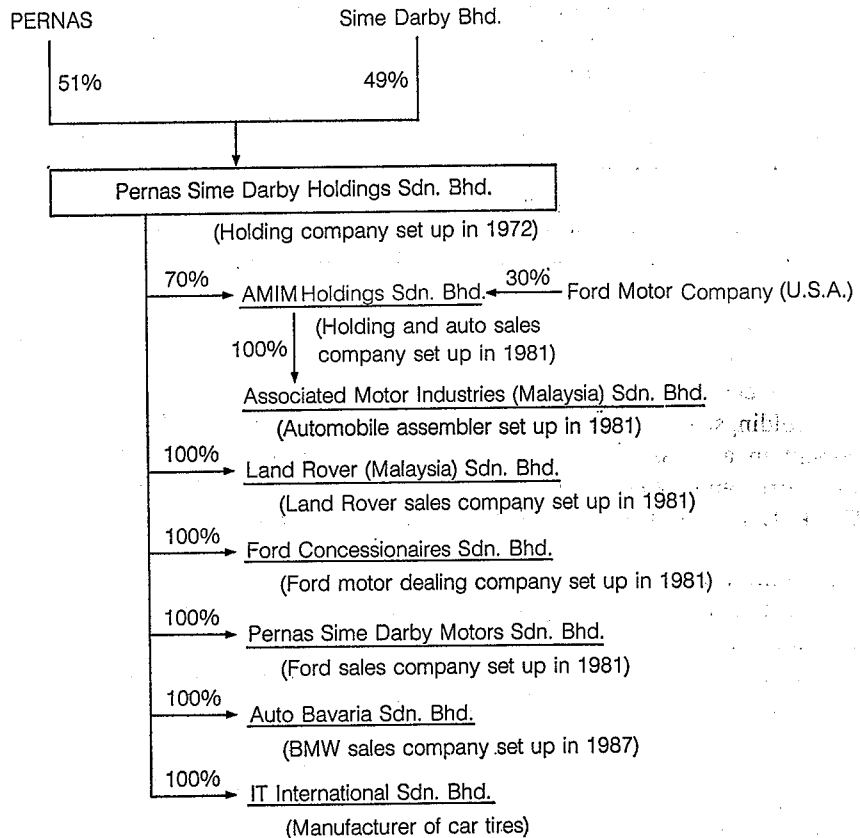
The automobile sales companies backed by Bumiputera capital invested in the same way as the Chinese sales companies did. The major company operating in this manner was Pernas Sime Darby Holdings Sdn. Bhd. (PSD Holdings), which was established in 1972.

PSD Holdings was set up with 51 per cent investment from PERNAS and 49 per cent from the former British agency house Sime Darby Bhd. PERNAS is a representative example of trust agencies established by government investment. PSD Holdings is a Bumiputera capitalized company because Sime Darby was already a Bumiputera owned company. PSD Holdings started in the automobile industry by first acquiring a Land Rover franchise from a company in the Inchcape Group, Champion Orchard Motors Sdn. Bhd., and then setting up Land Rover (Malaysia) Sdn. Bhd. in 1981 [6]. The Inchcape Group did not want this franchise sold. Inchcape's automobile business at the time was handled by the Borneo Toyota Group (five member companies) which sold Toyota cars, and the Champion Motors Group (five member companies) which sold commercial vehicles such as Land Rover and Suzuki. The Inchcape Group had already decided to sell the Toyota franchise in 1981 to the UMW Group, and the loss of the right to sell Land Rover, the major commercial vehicle, would have made Inchcape's reconstruction that much more difficult [7, p. 6]. As the next step, PSD Holdings bought out the Wearne Brothers Group in that year. In 1980, Wearne decided to get out of automobile assembly and entered into an agreement with the Ford Motor Company (Malaysia) Sdn. Bhd., a joint venture between PSD Holdings and Ford Motor Company (U.S.A.), to sell the Ford franchise and Associated Motor Industries, the assembler [26, p. 5].

However, Ford Motor Company (Malaysia) could not get enough funds to make this purchase. PSD Holdings' acquisition of an additional 29 per cent of Ford Motor Company (Malaysia) shares from Ford Motor Company (U.S.A.) in

<sup>6</sup> B. G. Motors Sdn. Bhd. in Selangor State was a truck assembler until 1981, but is now no longer in operation. Tatab Industries is a joint venture between Tab Co. and the Indian Tata Group. The TAB Group is owned by the royal family of Pahang, its chairman is Tengku Tan Sri Ibrahim ibni Almarhum Sultan Sir Abu Bakar, better known as Tengku Ariff Bendahara, young brother of the Sultan of Pahang. At my interview survey in September 1989 in Selangor with the late Lt-Kol Mokhtar Ismail, then chairman of Malaysian Motor Vehicle Assemblers Association (MMVAA), he said that Tatab Industries was bought by Automotive Manufacturers (M) Sdn. Bhd. in 1984.

Fig. 3. Companies in the Pernas Sime Darby Group Involved with the Automobile Industry (1987)



Sources: KLSE [10]; PERNAS [16, various years].

Note: Sime Darby Group in 1988 reorganized its joint venture company with PERNAS under the group structure. At the same time, Tractors Malaysia Holdings Bhd., which is in the Sime Darby Group, purchased four companies: AMIM Holdings Sdn. Bhd., Ford Concessionaires Sdn. Bhd., Land Rover (Malaysia) Sdn. Bhd., and Auto Bavaria Sdn. Bhd.

1984 allowed it to make the purchase [17, p. 51]. This resulted in Associated Motor Industries becoming a wholly owned subsidiary of Ford Motor Company (Malaysia), which was renamed as AMIM Holdings Sdn. Bhd. PSD Holdings invested in AMIM Holdings to eventually acquire Associated Motor Industries.

As of 1987, PSD Holdings owned 70 per cent and Ford Motor Company (U.S.A.) owned 30 per cent of the capital in AMIM Holdings, an auto sales and holding company. Associated Motor Industries (Malaysia) thus became a wholly owned subsidiary of AMIM Holdings [10].

The backdrop of this buy-out is the change in corporate strategy of Wearne Brothers Ltd. which held Ford franchise since 1912. Auto sales was the foundation of the group's business. The group grew from sales into assembly and auto component manufacture so that, by 1978, 72 per cent of its sales were auto-related [25]. However, growth in sales for the Malaysian luxury car market, mainly European and American cars, tapered off in the 1970s. The currency instability of 1978 and the rise in the pound in March 1979 increased the import price of CKD parts from Great Britain, raised production costs, and worsened the group's business performance, mainly in luxury car sales. To counteract this drop, it introduced the new compact car (Subaru) in 1978, but eventually, in 1983, sold Wira Wearne Brothers (Malaysia) Sdn. Bhd., its compact car sales company, and withdrew from the car business. As Wearne Brothers was a member of the Overseas Chinese Banking Corp. (OCBC) group, the sale of Associated Motor Industries (Malaysia) to PSD Holdings meant a shift from Chinese capital to Bumiputera capital.

PSD Holdings, after acquiring Associated Motor Industries (Malaysia), continued investment in auto sales by acquiring the franchise to sell Jeeps from American Motors Corp. and by establishing Auto Bavaria Sdn. Bhd., the sales company for BMW. PSD Holdings position in the group as of 1987, is shown in Figure 3.<sup>7</sup>

### 3. *Bumiputera investment into Chinese-Japanese joint ventures*

The third method of Bumiputera investment is direct and indirect investment in the joint venture assemblers formed by Chinese sales companies and Japanese motor manufacturers. Let us look here at the UMW Toyota Group.

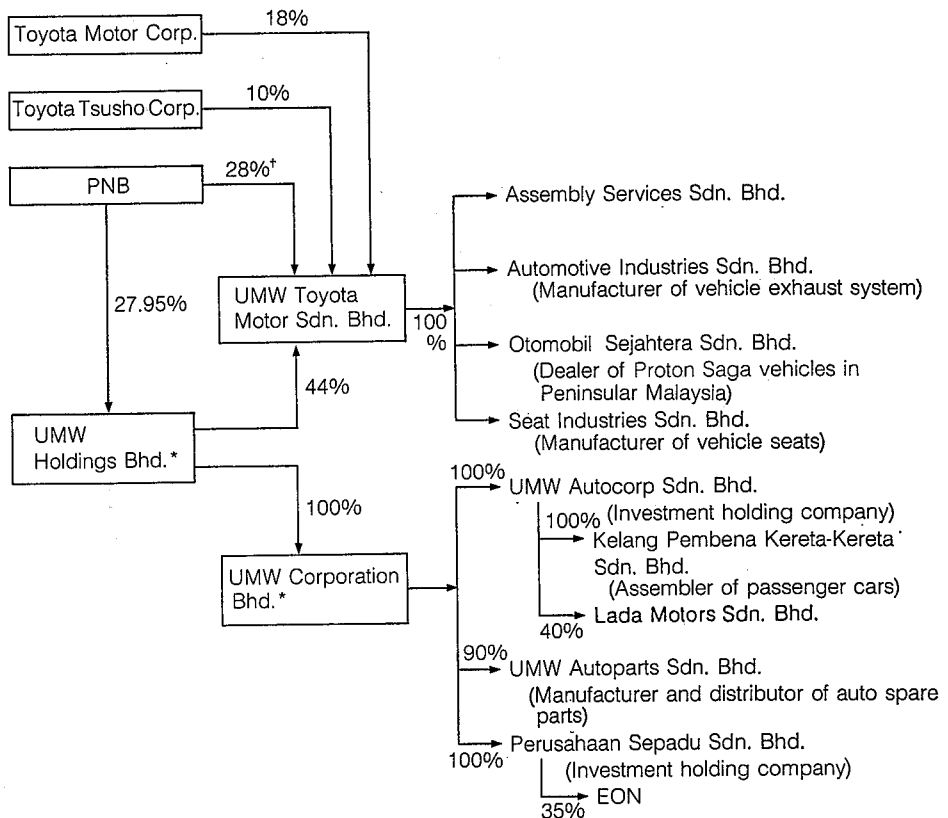
UMW Holdings Bhd. is a Chinese-owned company which bought the Toyota passenger car franchise, an assembler, and others from Inchcape Group in 1981. Assembly Services became the assembler in the UMW Toyota Group under this acquisition. It is a wholly owned subsidiary of UMW Toyota Motor Sdn. Bhd., which is both a holding company and the sales agent for Toyota passenger car (see Figure 4). The capital configuration of Assembly Services thus reflects that of the parent company, UMW Toyota Motor, with 44 per cent held by UMW Holdings, 18 per cent by Toyota Motor Corp., 10 per cent by Toyota Tsusho Corp., both of which are foreign investors, and 28 per cent by PNB which is Bumiputera capital.

Meanwhile, targets for restructuring equity ownership under the NEP are set at 30 per cent for Bumiputera, 40 per cent for other Malaysian residents, and 30 per cent for foreign residents. It must be noted, however, that the target is something to be fulfilled by Malaysian corporate capital as a whole and it is not a target that each individual company is required to achieve. Nevertheless, as Yasuda's paper in this special issue points out, there seems to be administrative guidance which directs that the guidelines of the Capital Issues Committee, the

<sup>7</sup> Management of Sime Darby Group was reorganized in 1987-88. With this reorganization, AMIM Holdings moved from PSD Holdings to the Sime Darby Malaysia Region in 1987, and was then sold to Tractors Malaysia Holdings Bhd., a member of the Sime Darby Group, in 1988.



Fig. 4. Companies in the UMW Group Involved with the Automobile Industry (1987)



Sources: UMW Holdings Bhd. [22]; KLSE [10].

\* A restructuring program was implemented in November 1987 as a means of reconstructing the group. This divided the group into two parts: the Toyota affiliates, a consolidation of UMW Toyota Motor Sdn. Bhd., and industrial machine tool and automotive affiliates other than Toyota, which were consolidated as UMW Corporation Bhd. The figures are the percentage of investment.

† In September 1989, PNB sold all its shares in UMW Toyota Motor Sdn. Bhd. to the UMW Group. This gave an investment share configuration to UMW Toyota Motor: Toyota Motor Corp., 18 per cent; Toyota Tsusho, 10 per cent; and UMW Holdings, 72 per cent.

Guidelines on Foreign Equity Ownership, and Industrial Co-ordination Act be applied in approving applications for corporate establishment or issues of shares so that the structure is as close to NEP targets as possible.

Assembly Services and its parent, UMW Toyota Motor, do not satisfy the 30 per cent guideline of Bumiputera investment if only direct PNB investment in them is accounted. However, those guidelines are achieved indirectly through Bumiputera investment from PNB into their holding company, UMW Holdings. Bumiputera

investment in UMW Holdings was 27.95 per cent in 1987.<sup>8</sup> That allows 27.95 per cent of UMW Holdings' investment in its subsidiary, UMW Toyota Motor, to be regarded as indirect Bumiputera capital. About 12.3 per cent out of the 44 per cent ( $44 \times 0.2795 = 12.3$  per cent) investment in UMW Toyota Motor can be regarded as Bumiputera capital for capital investment applications. Adding the 12.3 per cent through indirect investment to the 28 per cent direct investment by PNB gives Assembly Services a 40.3 per cent share of Bumiputera capital.

In the case of another Chinese-owned company, the situation is similar to UMW Toyota Motor. Direct Bumiputera investment in Oriental Assemblers, the assembler in the Chinese Boon Siew Group, was 17 per cent in 1986.<sup>9</sup> However, if indirect Bumiputera investment in Oriental Holdings Bhd., the parent, is added to the direct one, it became a high 28 per cent.<sup>10</sup>

As seen above, three methods—in the 1970s, new investment, and, in the 1980s, buy-outs of, or direct-indirect investment in, existing companies—were used to bring Bumiputera investment and ownership to fixed levels. Data from the Automobile Federation of Malaysia (AFM) for 1983 shows that a total 143,900,000 ringgit investment in eleven automobile assemblers (except PROTON) gave an ownership structure of 30.3 per cent Bumiputera capital, 42.9 per cent Chinese capital, and 26.8 per cent foreign capital.<sup>11</sup>

However, before PROTON came into existence in 1983, Bumiputera-affiliated companies (with Bumiputera as their main equity owner: 3, 4, 7, and 10 in Table II) are mainly engaged in assembling commercial vehicles and European and American passenger cars. Bumiputera assemblers occupied but a small share of a Malaysian car market where passenger cars, in particular Japanese cars, are in the mainstream. They had 16 per cent of total production in 1983, a low percentage that did nothing to block continued domination of CKD assembly by Chinese-Japanese-capitalized auto sales and assembler companies.

#### 4. *PROTON establishment in 1983*

The final method of Bumiputera investment is shown with PROTON at its establishment in 1983. HICOM invested the Bumiputera capital in PROTON,

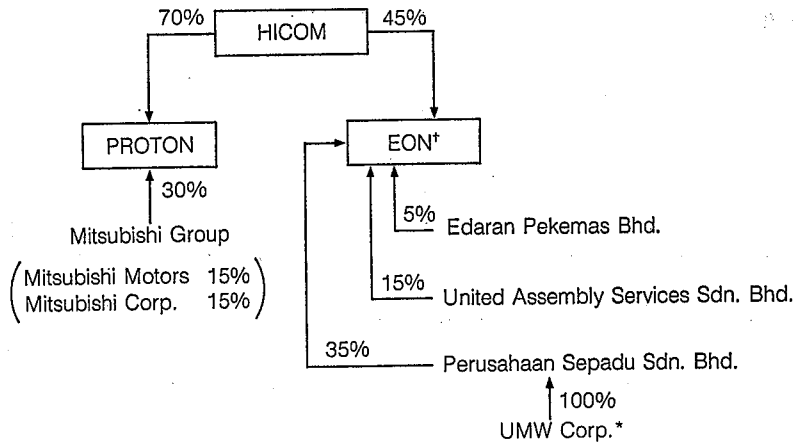
<sup>8</sup> Increasing capital and listing of private corporations on the Kuala Lumpur Stock Exchange, as a rule, requires a 30 per cent reserve of stocks issued to Bumiputera. Acting in accordance with Bumiputera guidelines, UMW Holdings issued 8 million special shares to Bumiputera investors in 1979 and 5 million shares to Bumiputera institutions in 1981. This resulted in an increasing Bumiputera-orientation to stocks in UMW Holdings. Of the top twenty shareholders, the PNB holds 26.03 per cent, Amanah Saham Mara Bhd. 1.18 per cent, and LUTH has 0.74 per cent of the shares. See [22].

<sup>9</sup> From a photocopied brochure provided by Oriental Assemblers.

<sup>10</sup> Bumiputera investment in Oriental Holdings was 16.83 per cent. That allows 16.83 per cent of the 66 per cent invested by Oriental Holdings in Oriental Assemblers to be regarded as Bumiputera investment. Thus, the Bumiputera capital in Oriental Assemblers is 28.1 per cent ( $17 \text{ per cent} + 66 \text{ per cent} \times 0.1683 = 28.1 \text{ per cent}$ ).

<sup>11</sup> The corporations provided this data to the Malaysian government to be referred to in the making of IMP. It shows the ownership structure of automobile assemblers in 1983 before PROTON was established. Source data is from AFM, "Submission of AFM on the Industrial Master Plan."

Fig. 5. Equity Ownership in PROTON and EON (1987)



Sources: Sally Cheong [5, pp. 127–30]; EON data.

Note: EON has undergone major equity restructuring twice since 1988. EON was listed on the Kuala Lumpur Stock Exchange (KLSE) in June 1990.

\* At the end of 1988, UMW Corp. sold all stocks to HICOM which gave HICOM an 80 per cent interest in EON.

† In August 1989, the Ministry of Finance, Inc., a subsidiary of the Ministry of Finance of Malaysia, invested 25 per cent, HICOM 45 per cent, and Kualapura 30 per cent. Kualapura is a company in which Rin Kei Mei, acting managing director of EON, holds 50 per cent, and Mitsubishi Motors and Mitsubishi Corporation each hold 25 per cent.

70 per cent, and Mitsubishi Corp. and Mitsubishi Motors Corp. invested the foreign capital, each 15 per cent. Also, Edaran Otomobil Nasional Sdn. Bhd. (EON), the sales company for Proton Saga, was established in 1985. The Bumiputera investment in EON's capital configuration was 45 per cent from HICOM, 15 per cent from United Assembly Services Sdn. Bhd., and 5 per cent from Edaran Pekemas Bhd. The remaining 35 per cent was Chinese investment from Perusahaan Sepadu Sdn. Bhd. (a wholly-owned UMW Corp. subsidiary). This was probably an attempt by the Malaysian government to make HICOM the core for the sales and assembler companies (see Figure 5) to get Bumiputera enter into those areas. Moreover, as Table I shows, PROTON capture of 73 per cent of the passenger car market in 1988 made the weight of Bumiputera capital in auto sales and assembly substantively greater than before its establishment.

PROTON's establishment is a link in a heavy industrialization strategy, which sought to move the Malaysian automobile industry out of assembly and into the more advanced manufacturing level. However, a reexamination of the process of Bumiputera investment in the automobile industry throughout the 1970s and the early 1980s shows that the establishment of PROTON was a means of using government financing to give the automobile industry a greater Bumiputera orientation. The PROTON project was designed to achieve two goals: to give Bumiputera

capital a greater role in the automobile industry and then, based on that, to use Bumiputera investment to develop the machine industry, and more broadly, to encourage Bumiputera's participation in industrialization.

#### IV. BUMIPUTERA CAPITAL IN THE AUTO COMPONENT INDUSTRY

##### A. *Policies for Local Content in Parts*

Before beginning to examine the policy for local content under PROTON project, we should touch upon the present situation and trends in policies now being implemented by the government. In the latter half of the 1960s, the government began a trial and error approach in its policies on local content in parts, something it still continues [4, pp. 89–92]. The present phase of that approach is called the Mandatory Deletion Programme (MDP). It was adopted in July 1979 and put in force the following year, with automobile safety glass as the first component. In this program, the government specifies certain parts to be domestically produced, forcibly exempts them from the CKD pack after a fixed period of time and prohibits their import. That obliges the assemblers to purchase from Malaysian components sources. Under MDP, the government has adopted as a means to induce the manufacture of parts with greater local content the creation of a list of recommended products for investment. The degree to which domestication was achieved depended on setting up of parts manufacturers and especially the entrance of companies from overseas.

By 1988, forty-three passenger car parts were specified under MDP. Table III gives the names of the main parts and the period of their deletion. Rather than components attached to cars, the first parts to be domesticated were tires, batteries, and other replacement parts as well as components with large market scale. This trend is also seen in the rest of the ASEAN countries. Generally, parts are categorized in six subgroups by function: interior and general parts, car body parts, electronic components, parts for brake and suspension system, engine parts, and transmission and steering parts. Production of the first two subgroups started earlier than others closely followed by production of electronic components and these three subgroups composed twenty-one of the twenty-six parts domesticated by 1985. In the chassis area, some suspension parts began to be domesticated after 1985. The area most behind was engine as well as transmission and steering parts.

In Section I, I have divided domestication of parts into three types according to period produced: (a) replacement parts, (b) car attached parts, and (c) key parts such as engine parts. The order of domestication of these parts can be explained according to characteristic.

First, those with large market share are easy to domesticate. Completely built-up (CBU) cars need replacement parts and these parts are domesticated faster than attached parts required in assembly. It is also easier to domesticate materials of a more general-purpose nature, such as paint. The next factor is the degree of ease with which a manufacturing technology can be introduced to the process.

TABLE III  
PROGRESS IN DOMESTICATION OF PASSENGER CAR PARTS

Year Domestic Production Started	Number of Items	Domestically Produced Parts
Before 1979 <sup>a</sup>	8	Tires, valves, batteries, paints and chemicals, radio accessories, mud guards, air conditioners, seat belts
1980	2	Safety glass, exhaust systems
1981	3	Carpets and underlays, seat pads, side moldings
1982	1	Wire harnesses
1984	4	Regulators, starters, alternators, air filters
1985	8	Windshields, wiper motors, shock absorbers, horns, fuel tanks, coil springs, front washers, radiators
1986	15	Car seats, flasher relays, fuel and brake tubes, radiator hoses, dash panels, air hoses, fuel and oil filters, fuse boxes, etc.
Other <sup>b</sup>	2	

Sources: Compiled by the author based on the following sources: Malaysian Industrial Development Authority (MIDA) data; Malaysian Automotive Component Parts Manufacturers' Association (MACPMA) data; Komala Devi Perumal [9]; and "The Asean Motor Industry: Problems and Prospects," EIU Automotive Special Report No. 2 (London: Economic Intelligence Unit, 1985), p. 610.

<sup>a</sup> Refers to domestically produced parts before the introduction of the Mandatory Deletion Programme, (MDP).

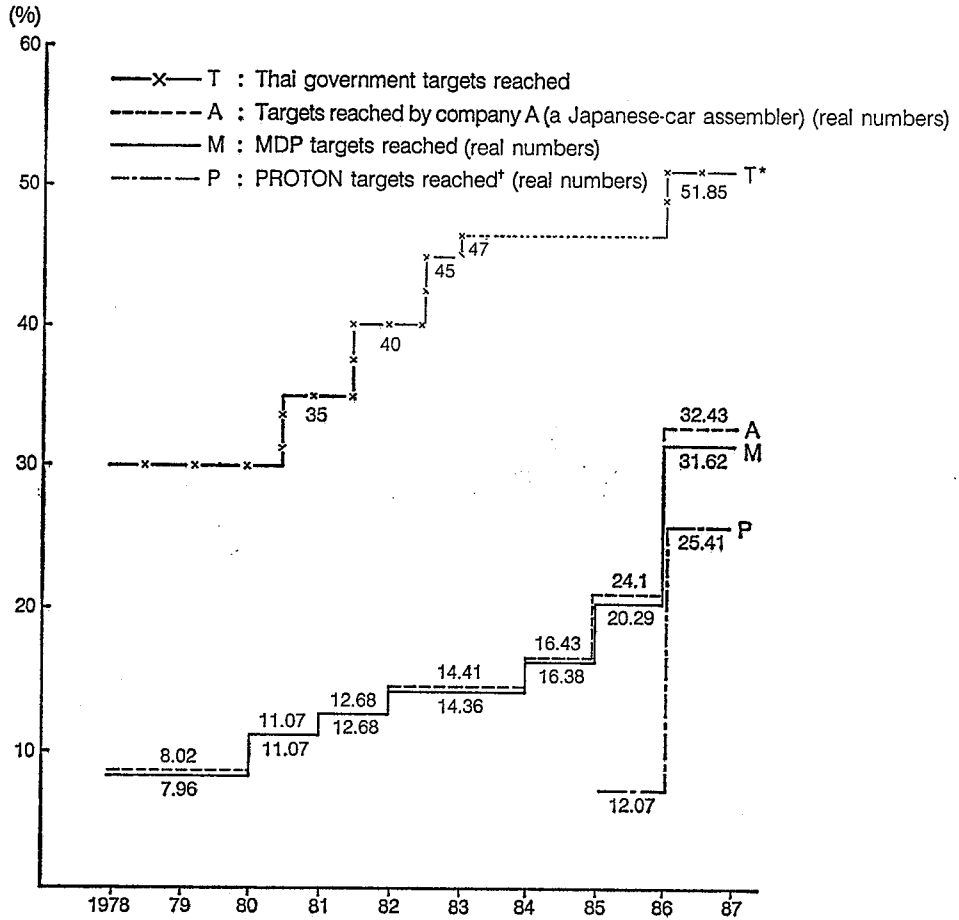
<sup>b</sup> Includes parts for which the period of tariff regulation is unclear.

Those are labor-intensive parts, such as wire harness, and those which require handwork in the final stages of assembly even if the basic technology is capital-intensive such as electrical equipment.

At present, in Malaysia, parts that belong to stage (b) are domestically produced mainly by foreign-investment-backed companies. These companies first transferred labor-intensive parts manufacturing into Malaysia, and then moved to the stage of procuring local parts and materials for components, thereby gradually achieving the transformation of the car manufacturing process from parts production to assembly.

A better understanding of the present stage of domestication in Malaysia calls for a comparison with other countries. Factors important to the government industrial policy are the methods of domesticating parts production, the ratio of local content, and the method by which the ratio is computed, e.g., price or weight criterion. However, there are no formal targets for domestication and no methods of computing the MDP achievement in Malaysia today. Therefore, for the sake of convenience we will use point criterion, the same method used by the government of neighboring Thailand to compute its ratios of local content. This method computes the ratio by assigning fixed points, tires, for example, get 3.00 points, to each domestic product in 299 groups and adding the cumulative total of points [18]. Figure 6 compares Thailand, the MDP parts list, Malaysian company A

Fig. 6 Trends in Rate of Domestication of Passenger Car Production in Malaysia and Thailand (Thai Method)



Sources: For Thailand, [19, p.271]. For Malaysia, calculated by the author based on MIDA data cited in Table III and data from each company.

\* 1984–86 was a period for examining new plan.

† In-house manufactured parts for PROTON not included.

which assembles Japanese cars, and PROTON in regard to ratio of local content in passenger cars up to 1987. Parts domestication in Malaysia has continued to increase since 1987, but because their production scale is minute in many instances, it is impossible to make an accurate comparison of points with Thailand, and these parts are not shown in Figure 6.

As far as the MDP list is concerned, the only three domestically produced items by the end of the 1970s were batteries, tires, and paints and chemicals, for a

mere 7.96 point total.<sup>12</sup> The moves forward in domestication have been made after PROTON's establishment, as can be indicated by the increase in 1985–86 by nearly 4 points. In 1987, it increased by a little more than 11.3. However, these 1987 figures are probably somewhat higher than the actuality because they include not only parts produced but also parts in production and parts being considered for production. Thus, the ratio of local content has increased with the implementation of the PROTON project. However, by this comparison between Malaysia and Thailand, Malaysia in 1987 had just barely come up to the level of Thailand in the later 1970s.

Figure 6 shows that, up to 1980–82, the only parts that company A domestically procured were those on the MDP list. However, in 1983, it began purchasing others, although the increments in those purchases were slight. The reason for this progress was probably to deal with the gradual increase in taxes on the import of CKD parts, a measure taken by the government as a part of protection policy for developing PROTON after the concept of a national car was introduced in 1982.

#### *B. Increasing the Amount of Local Content in the PROTON Project*

Let us turn our attentions to the guidelines for domesticating under PROTON project. I want to look at the policy of parts domestication when production started at PROTON in 1985. Meanwhile, when economic recession gripped Malaysia from the end of 1984 through 1986 it caused some unavoidable changes in the initial approach to PROTON project operation. For one thing PROTON did not include exports strategy in its initial schedule but then started exporting in 1987. By February 1990, it had exported 15,428 cars to various countries including Great Britain. In 1988, the Mitsubishi Group began sending some of its Japanese employees to PROTON to take over the general manager and some staff positions. It is assumed that the changes in economic guidelines led to the re-examination of the initial policy which must have had profound effects on domestication of parts plan. However, first the initial plan will be examined here to clarify what was intended to be accomplished through the establishment of PROTON.

In the first year of production there were two groups of parts that could be considered to be domestically produced: those already on the MDP list and those produced by PROTON. In order to raise the local content the government laid down the basic policy that HICOM, PROTON, and Mitsubishi, the venture partner, were to directly invest in the production of capital-intensive key parts such as engine parts, transmission parts, and chassis. Private capital was to be used for producing all other parts.<sup>13</sup> We see here the strong government intention of driving forward the domestication of parts through the utilization of its funds.

<sup>12</sup> The Thai government method does not include radios, air conditioners, and seat belts in its point framework, so, in computing points for Malaysia, these items have been excluded from domestic Malaysian products given in Table III.

<sup>13</sup> See papers given at the SIRIM seminar (cf. footnote 3) by Y. B. Tuan Haji Muhyiddin bin Haji Mohd. Yassin, pp. 7–8, and by Y. Bhg. Tan Sri Datuk Jamil bin Mohd. Jan (HICOM president), "The Role of HICOM and PROTON in the Development of the Automobile Component Manufacturing Industry." See also [15].

A report on the development of "other parts," submitted by one government institution at the beginning of the project, said: "The automobile industry is very broad, with several thousand parts companies and at the top of them are the assemblers. When we develop the PROTON project, we develop the parts companies."<sup>14</sup> This clearly shows that the government wanted the automobile industry to have a Japanese-type structure, a pyramid with the assemblers at the apex.<sup>15</sup> The government, by developing PROTON, had also decided to develop small and medium businesses as subcontractors to support PROTON. It is also not difficult to imagine that fostering these small and medium Bumiputera-operated businesses constitutes part of the NEP goal.

PROTON's recent announcements on its progress in domestication show 889 parts domestically obtained as of the end of 1989. That is a 400 per cent increase over the 218 parts in 1985 [14, pp. 12-18]. About 60 per cent, or 519, of the 889 were stamped body parts produced in-house by PROTON. No other company has this high a number of in-house products. The higher level of in-house parts than external parts is in itself an issue to be examined, but restrictions of space prevent that at this time, so we will move on to focus on the present problem, the development of external parts producers.

The previously mentioned announcement states that PROTON was receiving 370 externally manufactured domestic products at the end of 1989. The rapidity of growth in externally manufactured domestic parts is shown by Figure 6, a more than twofold increase from the low 12 points of 1985, when production began, to 25 points in 1986. (In Figure 6 in-house products for PROTON are not counted.)

Table IV classifies parts manufacturers outside of PROTON at the end of 1985 and 1989 by characteristics of capital and technical assistance. The number of domestic outside parts manufacturers rose in conjunction with the rise in domestication during that time, from twenty-seven to sixty-six, an increase of almost 250 per cent. Fourteen out of the twenty-seven companies were involved with Japanese corporations in 1985, as represented by five joint ventures backed by Japanese-Bumiputera capital and five Chinese parts companies receiving technical assistance from Japanese companies. This is logical when we consider the market share for

<sup>14</sup> See Y. Bhg. Tan Sri Datuk Jamil bin Mohd. Jan paper and other papers presented at the SIRIM seminar.

<sup>15</sup> The Japanese automobile industry is a multi-layered structure of parts manufacturers, parts processors, and material producers that is sometimes called a pyramid.

The rate of in-house parts for manufacturers of completed cars can be computed as follows:  $\{1 - [(parts\ purchase\ costs + external\ order\ processing\ costs) / total\ manufacture\ costs]\} \times 100$ . The rate is 31 per cent for company A, a typical Japanese car manufacturer. It is estimated that in Japan there are 156 major parts assemblers and processors delivering parts directly to the final manufacturer ("primary" suppliers to the final manufacturer), 2,000-3,000 "secondary" parts processors delivering to the primary parts makers, and 7,000-10,000 "tertiary" parts processors delivering to the secondary level. See *Kōgin chōsa*, No. 217 (March 1988), p. 9 (source data are derived from the Small and Medium Enterprises Agency, *Chūshō kigyō hakusho: 55-nen-ban* [1980 white paper on small and medium enterprises]).



TABLE IV  
EXTERNAL MANUFACTURERS FOR PROTON: 1985 AND 1989

Type of JV Partner	Japanese-related Company						Foreign Investment Other Than Japanese						Locally Owned Company		Total	
	Technical Assistance		Joint Venture		Other		Technical Assistance		Joint Venture		Other		'85	'89	'85	'89
	'85	'89	'85	'89	'85	'89	'85	'89	'85	'89	'85	'89				
Bumiputera	2	1	5	2	0	0	4	1	1	2	0	0	2	14	14	20
Non-Bumiputera	5	6	1	13	0	0	0	1	0	5	0	0	3	19	9	44
Foreign investment	0	0	0	0	1	0	1	0	0	0	1	2	0	0	3	2
Total	7	7	6	15	1	0	5	2	1	7	1	2	5	33	27*	66

Source: Compiled by the author from his own survey, newspaper reports, and others.

\* Grand total does not tally because of an inability to classify one external manufacturer in 1985.

Japanese cars up to 1985. Changes worthy of note from 1985 up to 1989 are (1) the increase in companies funded only by Malaysian domestic capital (local companies) from five to thirty-three, and (2) the big reverse in the ratio of Bumiputera to non-Bumiputera companies, with forty-four, or about two-thirds, of all external parts manufacturers being non-Bumiputera in 1989. A feature of the thirty-five non-Bumiputera (mostly Chinese) companies in this increase is that a majority, eighteen, are either joint ventures with, or received technical assistance from thirteen foreign companies, mainly Japanese. On the contrary, Bumiputera companies' major point of difference with non-Bumiputera companies was the large increase, from two to fourteen, which received neither capital nor technical assistance from Japanese or other foreign companies. Putting these two features together allows us to say that although the number of Bumiputera-owned companies increased over all, the non-Bumiputera companies contributed more as external manufacturers to PROTON's domestication.

However, the so far achieved condition of domestication as seen above may be praiseworthy if we take into the fact that the Bumiputera manufacturers are still on their way to maturity. These conditions are especially apparent in the primary parts suppliers, shown in Table IV, which supply directly to PROTON. The present number of Bumiputera-backed primary parts companies is far too few, reflecting the technical, capital, and human resource strength levels of local Malaysian companies. To give further impetus to Bumiputera capital, the Malaysian government set up a special fund in 1989. It is intended to aid the development of Bumiputera companies in the auto component industry and allow Bumiputera investment in auto parts production. This fund gives extremely low-interest loans to Bumiputera companies that produce parts for PROTON.

## V. CONCLUSION

The establishment of PROTON made Bumiputera investment in assembly companies more substantive, by which I mean it allowed the acquisition of markets. Looking back to the pre-PROTON years we notice that, although Bumiputera investment had progressed to some extent, none of the companies had achieved an important position in the market. Now we find that many Bumiputera companies have been growing as subcontractors under PROTON project. Therefore we can assume that Bumiputera's role is becoming increasingly important in the field of both assembly and auto component manufacturing industries.

However, turning back our attentions to the present conditions of the Malaysian automobile assembly companies centering on PROTON, I can point out two major problems to be dealt with. One is the policy of privatization. The government is now pushing privatization of public corporations based on the Privatization Master Plan. The auto-related company EON was privatized and listed on the Kuala Lumpur Stock Exchange in June 1990. Public corporation PROTON is also scheduled for privatization. The Malaysian government takes mainly five kinds of methods in privatization: (1) listing on the stock exchange, (2) divestiture of ownership by private placement or sale to Bank Negara Malaysia, (3) management contract, (4) lease, (5) build-own-transfer (BOT) measure.<sup>16</sup> At any rate, before divestiture can be considered, there must be a private receiver. When PROTON is privatized, by whichever method, its corporate size and market share will have a great effect on the automobile industry.

One more problem is the network structure of the automobile industry. As economic recession lingered on, it prompted consolidation and rationalization of assembly companies. Nevertheless, the top-ranked companies survived. The problem here is the kind of industrial structure these companies and PROTON will form under relations of mutual coexistence and competition.

Regarding the industrial structure of the parts industry, we have seen that, under PROTON, the development of components companies has been steady. However, rapid forward movement in domestication, and the development of Bumiputera companies to support that domestication, will not be very easy. The important task now is build the parts industry as a multi-layered structure as initially conceived by the government. That then, requires attention to the problem of developing the secondary parts manufacturers and the tertiary parts and materials manufacturers to support them.

<sup>16</sup> The BOT is an semi-public undertaking done by the private companies which involve themselves in construction of infrastructure or utility projects such as water supply or highway using their own capital, run the public utilities business after the completion of the projects for a certain length of period under concession, and transfer the whole business to the government when the concessionary period expired [1]. See also Mohd. Sheriff bin Mohd. Kassim (Economic Planning Unit), "Privatization: Performance, Problems and Prospects," a paper presented to the Malaysian Economic Association's (Persatuan Ekonomi Malaysia [PEM]) 10th Economic Convention, "The Malaysian Economy beyond 1990: An International and Domestic Perspective," held on August 7-9, 1989 in Kuala Lumpur.

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