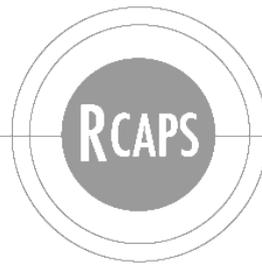


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*Globalisation and the Malaysian Automotive Industry:
Industrial Nationalism, Liberalisation, and the Role of Japan*

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ABSTRACT

This paper examines the attempts by Malaysia to foster production by national automotive producers in a global industry dominated by a small number of major multinationals. Despite the use of a wide range of industrial policies, both standard import substituting ones and more targeted policies, the main national producer, Proton, has been unable successfully to enter the global automotive value chain. We argue that Malaysia is probably faced with a choice of accepting foreign majority ownership, as in its second national producer, Perodua, or reconciling itself to Proton lagging in both technology and marketing. One hopeful sign is the intensified assistance being provided by Japanese motor firms to Malaysian producers under the current Malaysia-Japan Economic Partnership Agreement.

Key words: Malaysia, Japan, automotive, motor, global value chain, industrial policy

The dream of producing a national car became the pride of Malaysia – so much so that its first nationally produced car, the Proton¹, found its way onto the back of the Malaysian 100 ringgit (RM) note. For developing countries such as Malaysia, such state-led industrialisation was extremely challenging. To date, Malaysia is the only country in Southeast Asia where national automotive producers account for well over half of domestic sales (approximately 60 percent in 2010), having displaced the previously dominant multinational automotive producers.

Rosli (2006: 89) has argued that the story of Malaysia in producing automobiles should be the pride of all Islamic nations. However, it is also a story that has been beset by problems as Malaysia moved from an automotive industry based on import-substituting

foreign investment with a multiplicity of models towards production based on a national car. This article addresses the question of how Malaysia has tried to solve the problems of inserting nationally-owned producers into the automotive global value chain (GVC), and of dealing with its loss-making national car company and its network of inefficient components suppliers.

Unlike the electronics sector in Malaysia, which has been open to foreign investors, the Malaysian government pursued state-led industrialisation within the automotive sector with the introduction of a series of protectionist measures. The Malaysian automotive industry also has been very politicised. The National Car Policy (NCP) was developed in line with the New Economic Policy (NEP), which aimed to enhance *bumiputra* (local indigenous Malay) economic position in the country (Anazawa 2006, Tham 2004, Torii 1991a), set up in 1971 following serious inter-ethnic conflict in 1969. On the one hand, the Malaysian government's intervention helped to develop the local automotive assemblers and components industry, particularly *bumiputra* vendors. On the other hand, state protection effectively reduced any competitive pressure on local producers (Yoshimatsu 2000). For instance, Rasiah's empirical study (2009) suggested that Malaysia's industrial policy towards automotive parts companies were not effective for upgrading technological capabilities, due to the lack of external competition. Rosli and Kari's study (2008) also indicated that even among Proton's vendors, local suppliers performed worse than foreign suppliers. Wad and Govindaraju (2011) argued that the Malaysian automotive industry failed in the areas of industrial upgrading and international competitiveness due to a lack of effective government's policy, low technological and marketing capability, and limited participation in the global value

chain. Furthermore, Abdulsomad (1999) pointed out that the Malaysian government is handicapped by having to develop the NCP within the constraints of its *bumiputra* policy.

With the rise of globalisation under the World Trade Organisation (WTO) and the signing of the regional trade agreement of the Association of Southeast Asian Nations' (ASEAN) Free Trade Area (AFTA), the Malaysian government has been facing increasingly strong pressure to liberalise its automotive industry in recent years (Alavi 2001, Rasiah 2005). The WTO's Trade-related Investment Measures (TRIMs) and also the General Agreements on Trade in Services (GATS) requirements have been of some importance in limiting developing countries' policies towards the automotive industries since 2000.² Dunkley (1997: 68) suggests that TRIMs can be classified into 'positive' (e.g. tax concession to attract investment) or 'negative' (various requirements imposed on foreign investors). In the case of Malaysia, the government used 'negative' policies such as local content (LC) requirements, which are no longer admissible under the WTO.

This paper examines Malaysia's automotive industrial policy in more depth. We focus on the transition from the era of import substitution (IS) policies and LC requirements between 1967 and 1982, to the state-led industrial development of 1983 to 2003, and then examine the emergence of the liberalisation period from 2004, using mainly existing literature for the wider regional and global context. We use a wide range of secondary and survey resources, including the Japanese literature, together with a programme of qualitative interviews undertaken in 2012. Our next section provides our

theoretical framework of global value chain analysis. Section 2 gives an overview of the Malaysian automotive industry. Section 3 investigates Malaysian automotive development over the period of 1960-2003, and Section 4 discusses policies over this period. Section 5 examines how the Malaysian automotive industry has been faring under liberalisation under AFTA and WTO from 2004. Section 6 discusses Proton's problems further. Section 7 considers the impacts on the automotive industry of the role of Japan and the 2005 Malaysia-Japan Economic Partnership Agreement, and Section 8 concludes.

1. Theoretical Framework: The Automotive Global Value Chain

Global value chain analysis is now well established,³ and is still the most useful framework within which to view Malaysia's automotive industrialisation. GVCs can be seen as a set of input-output relations spread across countries, tracing the production of a product from its raw materials⁴ to its final retail sale. Although these input-output relations could be conducted using arms-length market transactions, for many goods produced by developing countries the transactions along the chain are governed by contractual relations of varying degrees of tightness. As a result, economic actors at particular stages of the GVC often can exert influence on, or control over, actors in other stages. This is 'governance', and it can greatly influence the distribution of 'rents' (excess profits) over the chain. GVCs are generally classified in the literature according to who governs, or 'drives', them. In *buyer-driven* chains, such as apparel, governance occurs at the retail end and rents primarily accrue there. The automotive GVC is best seen as a *producer-driven* GVC, where major automotive multinational companies, such as the Japanese motor assemblers Toyota or Honda, control the location of production

and usually also the retail distribution. In recent years it has been argued that large suppliers of automotive components, such as Denso in the case of Japanese companies, which have extensive multinational production networks, also exercise some governance (see, eg, Wad 2008).

The motor industry is one which can be initiated in a developing country using assembly operations, with all components imported as CKD (completely knocked down) kits. Over the industrialisation process individual components can be ‘deleted’ from the kits as local component production develops. Although some local component production may start as a result of market forces, more often developing countries have used industrial policy to – in Robert Wade’s (1990) famous phrase – ‘govern the market’ and foster such component production with special measures. These include mandatory deletion programmes and LC requirements, though since 2000 these have been outlawed under WTO rules (see later). The development of component supply is seen as a crucial aspect of automotive development since there are thousands of different components in a motor vehicle. Component production offers opportunities for local firms to develop through ‘backward linkage’ and thereby spread industrialisation as well as improving the balance of payments by replacing imported components. However, as has long been known, there can be ‘bad’ as well as ‘good’ linkages (Thoburn 1973) in the sense that production promoted by policy measures will not always meet the eventual goal of being internationally competitive.

Component production also may occur through inward direct investment. If so, the inward investors can play a role in encouraging inputs from local producers, since

production in the motor industry has long been organised into several tiers, where first tier firms play a lead role (see eg Thoburn and Takashima 1992, ch.5). In principle, first tier firms can help lower tier firms to upgrade the latter's products, production processes and functions, although the first tier firms also may decide to limit the functions (such as independent design) that the lower level subcontractors are allowed to undertake. But of course, inward investment by foreign component producers can also displace local producers, either pushing them out of business or pushing them into lower tiers.⁵

Governments using industrial policy to develop an automotive industry often 'govern' the market by, on the one hand, offering incentives such as tariff protection to attract foreign investors in assembly and component manufacture, and on the other hand, as mentioned, by LC provisions to develop local ancillary firms. In Malaysia's case the government has gone further, inserting majority nationally owned producers such as Proton and Perodua into the chain, albeit with initially minority foreign (in these cases, Japanese) partners.

In the highly oligopolistic context of the global motor industry, which has become more and more concentrated in terms of the number of firms since the 1960s, and where technical change is very rapid (Nolan 2012:25), an independent national producer may face difficulties. These particularly relate to attempting to export, where they may have to develop retail outlets and marketing in the face of an industry suffering from excess capacity in relation to the North American, European and Japanese markets (Abe 2009). In other words, a national producer can easily be inserted into the production end of the

automotive GVC by a determined government, but it still has to cope with the fact that the parts of the chain outside of the country, particularly at the retailing end, are governed by major foreign assemblers.

Foreign firms in joint ventures may exercise their governance by controlling their JV partners' exports, or prohibiting them from exporting altogether.⁶ Where there is majority foreign control over vehicle production, exports occur where a firm decides to use a particular country as a global or (more often) regional base from which to feed its production into its global or regional sales outlets. In this sense different countries – such as Malaysia or Thailand – may find themselves in competition with each other in using policy to try to influence such decisions. If the foreign partner has minority ownership, the help that it is willing to offer for exporting may be limited, yet with several producers serving the domestic market (see next section), exports may be essential to achieve economies of scale. We shall examine how Proton, in particular, has tried to address these difficulties, and what has been achieved by policy.

2. Overview of the Automotive Industry in Malaysia

In the last decade, global automotive production has expanded over 30 percent, from 58.4 million units in 2000 to 77.9 million in 2010. During this period, we can identify a significant global shift of automotive production: developed countries such as the USA, Japan and Germany have lost their global share in automotive production, while industrialising countries such as China, India and Brazil have rapidly increased their shares (see Table 1).

Among the ASEAN countries, Thailand expanded the volume of vehicle production

four fold, accounting for over 1.6 million units and 2.1 percent of the global share in 2010. In the case of Malaysia, vehicle production doubled in this period, accounting for 0.28 million in 2000 to 0.57 million in 2010, and its global share shifted from 0.5 percent to 0.7 percent, respectively. In 2010, Malaysia was ranked 22nd among the producers of the World, in comparison with Thailand (12th) and Indonesia (21st).

Table 1 Global Production Volume of Vehicles by Country in 2010 and 2000

<i>Rank in 2010</i>	<i>Country</i>	<i>No. of Vehicles in 2010</i>	<i>Share in 2010</i>	<i>Rank in 2000</i>	<i>No. of Vehicles in 2000</i>	<i>Share in 2000</i>
1	China	18,264,667	23.5%	8	2,069,069	3.5%
2	Japan	9,625,940	12.4%	2	10,140,796	17.4%
3	USA	7,761,443	10.0%	1	12,799,875	21.9%
4	Germany	5,905,985	7.6%	3	5,526,615	9.5%
5	South Korea	4,271,941	5.5%	5	3,114,998	5.3%
6	Brazil	3,648,358	4.7%	12	1,681,517	2.9%
7	India	3,536,783	4.5%	15	801,360	1.4%
8	Spain	2,387,900	3.1%	6	3,032,874	5.2%
9	Mexico	2,345,124	3.0%	9	1,935,527	3.3%
10	France	2,227,742	2.9%	4	3,348,361	5.7%
11	Canada	2,071,026	2.7%	7	2,961,636	5.1%
12	Thailand	1,644,513	2.1%	19	411,721	0.7%
21	Indonesia	704,715	0.9%	25	292,710	0.5%
22	Malaysia	567,715	0.7%	26	282,830	0.5%
	Others	12,893,853	16.6%		9,974,273	17.1%
	Total	77,857,705	100.0%	Total	58,374,162	100.0%

Source: Data Compiled from the website of OICA (International Organisation of Motor Vehicle Manufacturers: <http://oica.net/category/production-statistics/> (accessed on 29th January 2012).

There are 15 assembly plants,⁷ and over 690 vendors (from the first-tier to the third-tier suppliers) in Malaysia producing over 5,000 components in 2011.⁸ It is estimated that over the whole of vehicle production 70 percent of vendors are local or have a local majority ownership, while 30 percent are foreign or have a foreign majority ownership.⁹ The four largest assemblers organise their supply chain networks in Malaysia (see Table 2). In addition, as of 2012, 98 vendors belong to the independent organisation, the Malaysian Automotive Component Parts Manufacturers Association (MACPMA).

Table 2. Vendor Associations in Malaysia in 2011

Vendor Association	Estimated Number of Member Firms
Proton Vendors Association (PVA)	150-200*
Perodua (KVP: Klub Vendor Perodua)	105
Toyota Suppliers Club	65
Honda Suppliers Club	Just started

Note: There are many overlapping firms among associations

*150 firms are PVA official members and 200 are suppliers

Source: Data Supplied by MACPMA in 2012

With regards to employment creation within the automotive industry, official statistics indicate that there are 47,947 employees in the manufacturing of automotive vehicles and parts,¹⁰ accounting for 4.8 percent of the total employment within the manufacturing sector in 2010 (Department of Statistics, Malaysia 2011:60-61). However, the Malaysian Automotive Institute (MAI) estimated the direct employment plus the spillover effects of the automotive industry (including other manufacturing and service sectors) is much larger, creating over 700, 000 jobs in the country in 2011 (see Table 3).

Table 3. Employment in the Malaysian Automotive Industry, 2006-2011

Year	Estimated Number
2006	605,000
2007	660,000
2008	673,000
2009	675,000
2010	683,000
2011	704,000

Note: direct and indirect employment number

Source: Data supplied by MAI in 2012

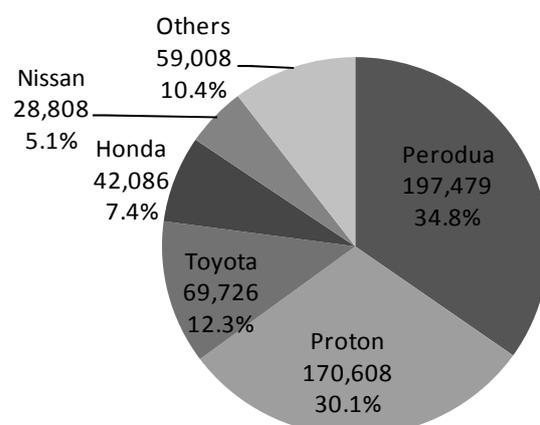
The volume of production reached approximately 450,000 units before the Asian Crisis in 1997. However, production recovered by early 2000, reaching its highest peak of 567,715 units in 2010 (see Figure 1). The largest producer in the country, Perodua¹¹ - a partly nationally owned company about which more later - accounted for 197,479 units and 34.8 percent of the production share, ahead of Proton with 170,608 units and 30.1 percent, and Toyota with 69,726 units and 12.3 percent (see Figure 2).¹²

Figure 1 Total Number of Vehicles Produced in Malaysia, 1970-2010



Source: Data Compiled from Fourin (1991, 1996, 1999, 2002, 2004, 2008, 2011)

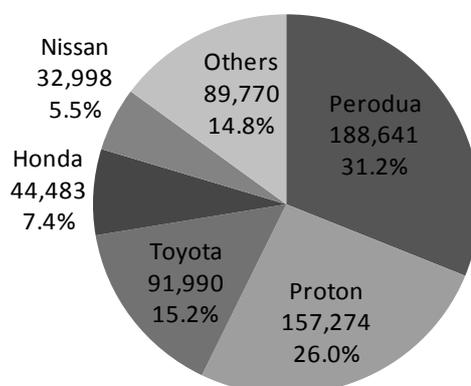
Figure 2. Production Share of Automotive Producers in Malaysia in 2010



Source: Data Compiled from Fourin (2011)

In Malaysia, domestic automotive sales were 37,441 units larger than domestic production (that is, indicating net imports), accounting for 605,156 units in 2010 (Fourin 2011:235). There are two important characteristics in the Malaysian automotive market. Firstly, demand for passenger vehicles (PVs) is very high, accounting for approximately 90 percent (and 543,594 units) of the market share. This is very different from neighboring Thailand, where PVs accounted for 43 percent (346,644 units) of the domestic market in 2010. In fact, Malaysia has the biggest domestic PV market in the ASEAN countries.¹³ Secondly, the Malaysian automotive demand has reached an early stage of maturity. In 2008, Malaysia's ratio of vehicle per capita stood at 33 percent, which was more in line with the standards of Korea (34 percent) and Taiwan (29 percent), than those of other ASEAN countries (e.g. Thailand with 14 percent and Indonesia with 5 percent).¹⁴ In this regard, it is difficult to expect further rapid growth in automotive demand in the Malaysian market in the near future.

Figure 3. Market Share of Automotive Producers in Malaysia in 2010



Source: Data Compiled from Fourin (2011)

With regards to market share, Perodua accounted for 31.2 percent, followed by Proton with 26.0 percent and Toyota with 15.2 percent in 2010 (see Figure 3). In addition, other Malaysian national automotive firms such as Industri Otomotif Komersial Malaysia (Inokom) and Malaysian Truck and Bus (MTB) sold merely 5,258 units (0.9 percent) and 4,366 units (0.7 percent), respectively in 2010. Thus, the total of the Malaysian national car producers accounted for 58.8 percent of the domestic market.

3. The Development of Proton and the Automotive Industry in Malaysia

3.1 The background of import substitution

When Malaysia first started the development of Proton in 1983, the country's automotive industry had been in being since the mid-1960s (Abdulsomad 1999, Jayasankaran 1993, Jomo 1994).¹⁵ The industry had been protected by typical import substituting industrialisation (ISI) policies of heavy tariff protection, and of local content (LC) requirements backed by a mandatory deletion policy. There was also tariff protection for component suppliers and duty exemptions for assemblers, and import

licensing for all distributors and dealers (Torii 1991a). From 1970 to the early 1980s, the total production of vehicles grew over 3 fold, from approximately 28,000 units in 1970 to reach over 100,000 units for the first time in 1980 (see Figure 1).

With seven foreign assembly plants set up by the mid-1970s,¹⁶ and a further five¹⁷ soon after, the industry suffered from an excessive number of producers and of models, with typical costs of locally assembled CBUs (completely built-up vehicles) some 50 percent more than imported ones (Doner 1991). However, LC levels had risen from only 8 percent in 1979 to 18 percent by 1982 (and 30 percent in 1986) (Jayasankaran 1993: 273-274) as part of policies to develop local suppliers, albeit not necessarily efficient ones.

3.2 The early development of Proton and Perodua

In the early 1980s, the Malaysian government promoted the second stage of ISI with strong state intervention in order to enhance *bumiputra* participation in heavy industries. The government founded the state owned enterprise (SOE) Heavy Industry Corporation of Malaysia (HICOM) in 1980, and established various joint venture SOEs between HICOM and foreign capital that included the steel, motorcycle and automobile sectors (Anazawa 2006, Rasiah 2011:97-99).

In October 1982, Prime Minister Mahathir announced the first National Car Project under HICOM within the automotive sector. In May of the following year, Proton was established as a joint venture between HICOM (with 70 percent of initial capital of RM 150 billion) and Mitsubishi Motor Corporation (MMC) and Mitsubishi Corporation

(with 15 percent stake each). Proton planned to produce a Malaysian-made vehicle known as the 'Saga' for the domestic market in 1985 (Jomo 1993, Tham 2004).¹⁸ The NCP was expected not only to rationalise the automotive industry through the introduction of a national car, but also to foster supporting industries, encourage the upgrading of technology and technical skills, and supply an affordable and original automobile in the market. Above all, as the production of a national vehicle was thought to require over 20,000 components, it could offer opportunities for *bumiputra* entrepreneurs to enter the industry as suppliers (Anazawa 2006, Torii 1991a, Jomo 1994).

The production of Proton's Saga commenced with an output capacity of 8,000 units a year in July 1985 with a target to produce 84,400 units in 1988, and eventually 120,000 units by 1995. According to the first Industrial Master Plan (IMP) (1986-1995), the market share of Saga was expected to reach 6.4 percent in 1985 and 50.3 percent by 1987 (Torii 1991b:279-280). However, and unluckily, when production commenced in 1985-6, Proton suffered from a collapse of local demand due to the worst economic recession since independence in 1957, and also from higher prices of imported components from Japan due to the appreciation of the yen as a result of the Plaza Accord in 1985 (Abdulsomad 1999). As a result, Proton recorded continuous losses from 1985 until 1988, and did not achieve pre-tax profits until 1989 (Abdulsomad 1999:279). After this period, Proton became the most popular vehicle producer in Malaysia, accounting for around 50 percent of market share until 2002. Furthermore, Proton commenced its first export to Bangladesh in 1986, and later to diversified markets including the UK, which was the largest, accounting for 21,000 units and 23

percent of total sales in 1994 (ibid.).

In the 1990s, the Malaysian government actively pursued their state-led automotive development policies by trying to diversify the industry. In 1991 Prime Minister Mahathir revealed the second NCP, this time for small cars, a relatively underdeveloped part of the Malaysian domestic market. As a result, Perodua was established as a joint venture between Daihatsu Motors and Malaysian firms in 1993,¹⁹ and commenced production of its 660cc-capacity 'Kancil' model (based on Daihatsu's Mira) in 1994. It was expected that Perodua would be able to utilise Proton's vendor networks, which enabled both firms to reduce the cost of parts procurement by achieving economies of scale (Anazawa 2006:303). By the same token, the MTB company was established by a joint venture between HICOM and Isuzu Motors in 1994, and commenced truck and bus production in 1997. In addition, Inokom was established between Hyundai Motors and Malaysian firms and commenced small truck production in 1997.

In November 1996, under the new IMP (IMP2, 1996-2005) the automotive industry was placed first out of the eight strategic industries, aiming 1) to enhance efficiency and strengthen the competitiveness of the industry; 2) to develop an offshore market; 3) to expand the new market segments of national cars (as the above-mentioned); 4) to strengthen production technology, R&D, and marketing capacity; and 5) to strengthen the components industry (Fourin 1999:112).

By the 1990s the Malaysian government was becoming increasingly concerned about Proton's partner Mitsubishi's reluctance to transfer technology and about its high

licensing fees (Jomo 1994). Proton was eager to become more self-sufficient, shifting away from its heavy dependence on MMC. In 1995, Proton entered into a technical licensing agreement with the French producer, Citroen, to provide the technology to produce the 'Tiara' model (based on Citroen AX), which commenced production in April 1996 (Fourin 1996). More importantly, just prior to the introduction of IMP2, Proton took over 64 percent of the equity in the British Lotus International Group in October 1996,²⁰ a producer of high-performance sports cars, which was intended to allow Proton access to necessary engineering technology and R&D capacity (Fourin 1999). Consequently, Proton was able to develop its own platform for their 'Waja' model in 1998, and finally an engine in 2003. Furthermore, Proton developed the new Campro (Camshaft Profile) engine technology in association with Lotus, and introduced its 'Gen-2' model by using their own platform and engine, which achieved 90 percent of local content ratio in 2004 (Fourin 2005). IMP 2 also aimed to develop an industrial cluster in the automobile industry, so as to allow vendors to enjoy the advantages of collective efficiency²¹. In 1996, the collaborative industrial estate project, 'Proton City', commenced between the government and Proton in order to locate their vendors around Proton's second assembly plant in Tanjung Malim, north of Kuala Lumpur. This project was temporarily suspended after the Asian Crisis, but finally completed in 2002 (Fourin 2002: 255).

In the late 1980s, Malaysian automotive demand recovered from the mid-1980s recession and the volume of production increased to over 200,000 units in 1990. By 1995, it accounted for over 300,000 units, reaching its first peak of 449,765 units in 1997. After the Asian Crisis, the production volume dropped rapidly, but recovered by

the early 2000s, accounting for over 450,000 units in 2002. Proton's production commenced with 7,047 units in 1985, and expanded rapidly after this, had reached a peak of 235,936 units in 1997. The production volume recovered after the crisis, accounting for over 200,000 units in 2001 and 2002. Meanwhile, Perodua commenced their first production with 10,184 units in 1994 and continued to expand their capacity, accounting for over 130,000 units in 2003 (see Figure 1).

4. Policies

4.1 Special industrial policies for Proton

The Malaysian government introduced a series of discriminatory and protective policies in order to assist the growth of Proton. The Malaysian automotive industry, particularly its national producers, was protected from foreign competition by establishing tariff and non-tariff barriers, heavier for example than those of Thailand. The effective rate of protection (that is, protection on value-added) for the Malaysian transport and equipment sector as a whole was 252 percent in 1987 (Alavi 1996:174), a very high figure. To this overall protection was added a series of special measures to help Proton and to some extent other national producers.

For procurement of components there was favorable treatment for national car assemblers. CKD kits attracted a 40 percent import duty, while Proton was exempted from this obligation until the early 1990s (Torii 1991b:280-281). In July 1992, this rate was set at only 13 percent for Proton (and later Perodua) but remained at the 40 percent level for other producers until December 2003 (see Appendix Table 2).

Non-tariff barriers consisted of import quotas for an Approval Permits (AP) system, manufacturing licensing (ML), and the discriminatory allocation of incentives. The first AP system for dealers and distributors and the first ML for manufacturers were introduced in 1966 and 1967 respectively. AP was used to limit import of CBU vehicles during the early stage, and later extended to CKD kits (Rosli and Kari 2008). Discriminatory incentives were set for national car producers. For example, Proton and Perodua were given a 50 percent discount on excise duties until December 2003 (see Appendix Table 3). Furthermore, low interest, subsidised automobile loans were exclusively provided for public servants for their purchase of Proton vehicles (Anazawa 2006).

4.2 Vendor development and Local Content strategy

Malaysian industrial policy was based not only on fiscal measures, but also on the more direct encouragement of local industries and the upgrading of technological capability, particularly of *bumiputra* entrepreneurs. The Vendor Development Programme (VDP) was introduced in order to create greater industrial linkages between small and medium sized enterprises (SMEs) and large firms. In 1988, Proton was selected as the first VDP company to develop SMEs as their suppliers. New start-up *bumiputra* firms were encouraged to join the scheme, and subsequently the number of vendors increased rapidly after the commencement of the scheme, from 17 firms in 1985, to 134 in 1994 and 186 in 1999. Eighty percent of these were registered with the Proton Vendor Association and supplied more than 3,000 locally produced components (Rosli and Kari 2008: 108). Under VDP, Proton conducted a traveling guidance programme to individual vendors to enhance their productivity and technological skills, while also

facilitating a ‘match-making’ type of technical cooperation between MMC’s Japanese suppliers and their other vendors in the late 1980s and early 1990s. Proton employed a single sourcing system,²² enable vendors to achieve economies of scale (Anazawa 2006). At the same time, the Ministry of International Trade and Industry of Malaysia (MITI) provided a total of RM22 million in subsidies to Proton during the 1986-1995 period in order to expand *bumiputra* participation in high-technology component manufacturing and supporting industries, such as forging, electroplating, tool-making and machining (Abdulsomad 1999:292). Under this component scheme, Proton selected potential SMEs that had initial capital of less than RM2.5 million, a minimum *bumiputra* equity of 70 percent, and a total *bumiputra* work force of more than 55 percent. The selected SMEs were qualified to apply for a maximum of RM1 million government grant (Yoshimatsu 2000:187-188).

Several further reasons can be identified for the implementation of this scheme. Firstly, due to the appreciation of yen from 1985, already mentioned, imported components from Japan had become expensive. Secondly, and more importantly, in order to meet the General System of Preference (GSP) criteria for exporting to the UK market, the local content ratio needed to exceed 60 percent (Anazawa 1998). With regards to LC policy, the Malaysian government implemented a mandatory deletion programme in 1980, later adopting a new Local Material Content Policy in 1992 that required an increase of LC each year, reaching 60 percent for PVs of less than 1,850 cc and 45 percent for PVs of 1,851- 2,850 cc by 1996 (see Table 4). Proton was able to achieve 67 percent local content based on the GSP scheme in 1995 (Abdulsomad 1999:290). However, the associated vendor development placed a burden on Proton, resulting in higher cost and

poorer quality products. Nevertheless, former Prime Minister Mahathir viewed Proton's higher prices and poor quality as playing an acceptable role in the building up of Malaysia's automotive engineering capability (EIU 2005: 17).

Table 4. Local Content Requirements in Malaysia

Type of Vehicle	1992	1993	1994	1995	1996	2002-4
PVs: less than 1,850 cc	30.0%	40.0%	50.0%	55.0%	60.0%	Abolition
PVs: 1,851- 2,850 cc	20.0%	30.0%	35.0%	40.0%	45.0%	
PVs: over 2,850cc	Mandatory deletion items only					
CVs: less than 2,500 GVW						
CVs: over 2,500 GVW						

Note: GVW: gross vehicle weight

Source: Tham (2004:55)

5. Facing Liberalisation from 2004: Policy Responses

5.1 Liberalisation of the automotive industry in Southeast Asia

The regional context of the Malaysian automotive industry changed considerably in the 2000s with the establishment of greater free trade under AFTA. Here we examine Malaysian policy responses

The automotive industry in Southeast Asia had already started to shift towards a regional liberalisation process as a result of the extensive negotiations between multinational automotive producers, particularly the Japanese, and ASEAN governments since the late 1980s. This resulted in automotive-led regional industrial cooperation, such as the Brand to Brand Complementation (BBC) scheme in 1988, followed by the ASEAN Industrial Cooperation (AICO) scheme²³ in 1996 (Yoshimatsu

2002). More importantly, the ASEAN Free Trade Area (AFTA) agreed to establish a free trade regime by 2008 (later re-set to 2003) at the Fourth ASEAN Summit in Singapore in 1992.²⁴ In consequence, the Common Effective Preferential Tariff (CEPT) was introduced initially in 1993 in order to help the moving towards reducing existing tariffs and aiming to eliminate non-tariff barriers within the ASEAN region.

The automobile industry faced difficulties when dealing with AFTA. The ASEAN 4 countries initially registered automobile and automobile components on the Temporary Exclusion List (TEL).²⁵ However only three countries, Thailand, Indonesia and the Philippines, transferred automobile and automobile components from the TEL to the Inclusion List in 2000, which aimed to reduced the tariffs to 0-5 percent by 2003 and finally to 0 percent by the end of 2010. In contrast, Malaysia announced that tariff reductions on automobiles and components would be rescheduled from 2003 to 2005. (Nomura 2001:116). In fact, the Malaysian automotive industry was deemed to suffer less damage than others, but Thailand, Indonesia and the Philippines selected the liberalisation approach, while Malaysia selected to continue protecting its local automotive industry (Tham 2004:64).

The Malaysian government responded to its liberalisation obligations under AFTA by setting lower automotive tariffs, and under WTO by abolishing LC requirements and the mandatory deletion programme in January 2004²⁶ (see Table 4 and Appendix Tables 1 and 2). However, other policies were introduced so as to maintain *de facto* protection. While all the tariffs on CBU vehicles and CKD kits were reduced,²⁷ the government at the same time started imposing a 60-100 percent excise tax (depending on categories,

see Appendix Table 3), and later tactically linked tax refunds according to the level of local content achieved. Shortly after, in January 2005, the Malaysian government revised the tax structures by reducing tariffs for CBUs and CKDs, while at the same time, increased excise duties. However, in March 2006, when the tariffs on CBUs under the CEPT were further reduced to 5 percent, the excise tax was also slightly *reduced* (to 75 percent) with the announcement of the National Automotive Policy (NAP) under the IMP 3 (2006-2020).

Unfortunately, these countervailing measures seem not to have been effective in helping Proton to develop. While Malaysian automotive production slightly expanded in the 2000s, reaching over 500,000 units in 2005 for the first time, and 567,715 units in 2010, Proton's production rapidly decreased by approximately 50 percent - from 233,297 units in 2001 to 118,871 units in 2007 (see Figure 1), and its market share dramatically dropped from 52.9 percent to 24.2 percent over the same period. In contrast, Perodua increased their presence, accounting for 197,479 units in production and 31.2 percent market share. Since 2006, then, the position of Proton and Perodua has reversed, with Perodua becoming the largest producer in Malaysia.

5.2 The New Automotive Policy

The NAP was introduced in order to promote the competitiveness of the Malaysian automotive industry, and facilitate its integration into the global automotive GVC.²⁸ One of the most significant elements of this policy was to advocate a strategic partnership between Proton and global automotive producers that would allow the national car producer to enhance its competitiveness, long-term viability, access to the

latest technology such as R&D activities, and enable Malaysia to play the role of regional hub for the industry by increasing exports (MITI 2009). In addition, the NAP was further revised in October 2009, in response to the global environment changes, particularly in relation to attracting investments in high technology sectors such as electric and hybrid vehicle production (MIDA 2010). This time, the NAP seems to be more realistic than idealistic. The Malaysian government's ambition of producing a national car has subsided somewhat, primarily due to the various problems associated with Proton, which requires both external assistance and links with the global market. In addition, higher added-value segments of the automotive sector (such as electric and hybrid) were seen to need to be developed not by national but by foreign assemblers.

The Malaysian government also introduced various new measures under the NAP. Firstly, the Automotive Development Fund (ADF)²⁹ was established in order to rationalise and restructure supporting industries by providing low interest loans to vendors. These loans were to allow the merger and acquisition of weaker vendors affected by the reduction of the CKD tariff (Onozawa 2008). In particular, Proton, which had a number of weak suppliers, would be able to undertake the inevitable reorganisation of its supply chain network.

More controversially, the Malaysian government introduced a new industrial policy in 2006, the Industrial Adjustment Fund (IAF), which is linked with LC. This has enabled assemblers to receive incentives such as interest free loans and grants based on scale and industry linkage subject to a sustainable level of overall capacity. In addition, further consideration will be provided to firms that promote sustainable and competitive

bumiputra participation (MACPMA 2008:8). The Malaysian government also linked the existing Industrial Linkage Programme (ILP) with LC, which allows assemblers to access a refund of the excise duty according to the level of locally added value³⁰ (METI 2011:90-91). These industrial policies are very contentious. It is true that there is no discrimination between national and foreign assemblers to receive the benefits,³¹ So the policies do not directly contravene TRIMs and GATS rules under the WTO. However, it is clear that national car producers get a lot of advantages from them. For instance, national car producers are more likely to access the excise tax refund scheme, which enables them to set lower selling prices³² in their dealerships (see Table 5 for estimated LC ratio).

Table 5. Estimated Local Contents of Major Assemblers and Models

Company	Models	Estimated Local Content Ratio	Main country of components import
Proton	Saga, Wira	90%	from Japan and France
Perodua	Myvi	60-70%	from Japan and Indonesia
Toyota	Vios	50%	from Japan and Thailand
Honda	Jazz	40-50%	from Thailand
Nissan	Sunny	40-50%	from Japan

Source: Data Supplied by MAA in 2012

5.3 Non-tariff barriers

Two non-tariff barriers, which do not conform to WTO's GATS rules, still exist in the Malaysian automotive sector.³³ With the introduction of the NAP, the Malaysian government initially announced that the AP system would be phased out by December 2010, but after the revision of the NAP in 2009, the abolition of the AP system was postponed. Open AP for used vehicles would not be abolished until December 2015. In

addition, it started to charge RM10,000 for every permit given after 2010, using this income to assist *bumiputra* entrepreneurs. By the same token, Franchise AP (which deals with a particular producer's new vehicles) would continue to December 2020 (METI 2011, MITI 2009).

The Malaysian government also froze any new issuing of MLs. However, by introducing the NAP, the government opened up some segments of vehicle production, such as luxury vehicles with engine capacity of over 1,800 cc and a price of over RM 150,000, pick-up trucks and commercial vehicles, and hybrid and electric vehicles, which are based on no equity conditions (MACPMA 2008, MITI 2009, MIDA 2010). Despite this, the Malaysian government still protects small size engine vehicles, which is not a problem for already existing automotive producers such as Toyota and Nissan, but might be a problem for newly advancing automotive producers such as Indian TATA Motors.³⁴

6. Is Proton an Obstacle for the Development of the Malaysian Automotive Industry?

Even though Malaysian automotive production has been steadily increasing, Proton is facing various problems. One of the most significant of these is Proton's weak product development and marketing capacity, which have not been able to deliver what consumers want.³⁵ Although Proton released their new, original vehicle, the Gen-2 model, in 2004, it failed to capture consumer demand, selling 20,066 units in 2004, 40,173 units in 2005, and only 4,248 units in 2010 (Fourin 2011:72). By the same token, Proton also failed to promote successfully the other models, such as Waja and Savvy, in

the domestic market. Furthermore, Proton's export strategy was not successful. Targeting the UK market, where Proton sold relatively well in the 1990s, became problematic due to the low quality and decline in reputation as a result of additional costs in servicing, despite the pricing of the vehicles at below production costs (Wad and Govindaraju 2011:166). In fact, 21,000 units were sold in the UK in 1994, but this dramatically declined to a mere 767 units in 2010 (Fourin 2011:74). Since 2006, Proton has shifted its strategy to developing ASEAN markets, which enables them to use the CEPT scheme. Thailand has become the largest off shore market for Proton, exporting 5,264 units out of total export of 11,869 units in 2010 (ibid.), though these export sales are minimal when compared to the vehicle exports of Thailand.

As a result of its failures in both the domestic and foreign markets, capacity utilisation in Proton's two assembly plants, with a total of 350,000 units potential output, has been low - estimated to be approximately 50 percent since 2003. The lack of opportunities to produce its full volume of production, as well as the small volume of each model, has increased production costs. Consequently, Proton recorded a loss of RM587 million in 2007 and RM339 million in 2009. In order to reduce production costs, Proton, by using the ADF scheme, began rationalising production management by employing more of an effective use of JIT production (inventory control), and enhancing quality by discarding vendors who were uncompetitive technologically. This resulted in a decrease of supplier numbers, from 291 firms in 2005 to 228 in 2008. As a consequence, the defect product rate was improved by 58 percent in the Tanjung Malim plant in 2007 (Fourin 2008:62).

Proton has recognised the importance of foreign cooperation for access to technology

and marketing since its inception. However, its original partner, Mitsubishi, as a result of MMC's financial problems in Japan and diminishing sales within Malaysia, sold their equity holdings in Proton in January 2004. Consequently in October that same year, Proton began negotiations with Volkswagen with a view of forming a strategic partnership instead of MMC. This partnership would have enabled Proton to access Volkswagen's technology, while Volkswagen would be able to utilise Proton's spare production capacity and export to other ASEAN countries under the CEPT, where Japanese firms currently dominate. In the negotiations, the main obstacle was the issue of management control: the initial proposal for Volkswagen's equity share was 49 percent, but the Malaysian government believed that Volkswagen would take over the management of the company in the long term (Fourin 2008:66). Eventually, negotiations broke down due to Malaysia's industrial nationalism, which could not allow a foreign producer to take over a national flagship company (Athukorala and Kohpaiboon 2010, Fourin 2008, Nizamuddin 2008). By the same token, negotiations with Peugeot, Citroen and General Motors also failed in 2007. As a consequence, Proton decided to return to MMC for technical cooperation in December 2008, and released the Inspira model in 2010.³⁶ Proton also initiated a possible cooperation with Nissan Motors by signing a memorandum of understanding on the 2nd March in 2011.³⁷

As a result of Proton's continuous losses, its Malaysian biggest shareholder, the sovereign wealth fund Khazanah Nasional, sold all of its shares on January 2012³⁸ to a large Malaysian conglomerate, DRB-Hicom, for RM1.29 billion (US\$410 million). It is apparent that the selection of DRB-Hicom's bid was influenced by the government's desire to keep the company in Malaysian hands (Nehru 2012). DRB-Hicom has

announced that it may sell unprofitable Lotus International if Lotus fails to meet its performance targets.³⁹

In an instructive contrast to Proton, the second national car producer, Perodua, had its Japanese partners, Daihatsu and Mitsui Corp, taking over 51 percent of equity in 2001. The company then came under Japanese management control, utilising Japanese technology and global networks. It has been increasing production and market share; and even exporting vehicles under Daihatsu's brand. In this regard, Perodua seems to play the role of a production and export base for Daihatsu Motors.

In contrast, Malaysia's real problem with Proton is its inability to cultivate markets with its own capacity. Malaysian automotive policy still has a lot of protectionist elements. These policies are, in general, not for Perodua or other automotive producers, but only for Proton. In an interview with one of the executives of the Malaysian automotive sector it was remarked that Proton is a political creation and a political problem, and the reality is that local suppliers cannot win in competition with foreign suppliers in such an environment!

Significantly, the stumbling block in negotiations with prospective foreign partners for Proton like Volkswagen was the Malaysian government's reluctance to cede majority ownership to the foreign partners. The contradiction here is that without majority foreign ownership, as with Mitsubishi in Proton, the foreign partner may be unwilling to give Proton full access to its technology and to its production and sales network within the automotive GVC. Yet, with majority foreign ownership as in Perodua, allocation of

Malaysian production to service regional and potentially global markets is under the brand of the foreign partner – in which case the car may no longer be perceived as a truly national one. Foreign majority ownership too may well involve the foreign partner choosing component suppliers only on the basis of competitiveness, with less regard to their *bumiputra* status. It is noteworthy in this context that the LC ratios for Proton are much higher not only than those of the major Japanese assemblers such as Toyota and Honda, but also higher than those of Perodua (see Table 5). In this case one suspects that some of the backward linkages generated by Proton are not ‘good’ ones.

7. The Role of Japan

As outlined above, the Malaysian automotive industry has faced its own series of problems. Japan has been playing an increasingly important role in Malaysia’s moves to automotive liberalisation. There are four main reasons for this, the first being historical: the Malaysian automotive industry was established in association with Japanese producers such as MMC, Daihatsu and Isuzu. Secondly, many of the foreign firms that have a high market share in Malaysia are Japanese companies such as Toyota, Honda and Nissan. Furthermore, Japanese automotive MNCs dominate the ASEAN markets. In this regard, the main competitors for Proton are actually Japanese automotive producers. Thirdly, the political and economic relations between Japan and Malaysia have been close for many years, particularly in view of Malaysia’s Look East policy. In fact, Japan was Malaysia’s third largest trading partner and its largest foreign investor in 2011. Therefore, fourth, Japan became the first country to form a bilateral trade agreement with Malaysia when it signed the Malaysia-Japan Economic Partnership Agreement (MJEPA) in 2005, which included official support for the Malaysian automotive

industry. The MJEPA is a significant agreement for the Malaysian automotive industry because its deadline matches that of automotive liberalisation, which is the end of the AP system in 2015.

Table 6. Automotive and Components Tariff Reduction Scheme under MJEPA

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
PV: over 3000cc	50	35	20	0-5	0-5	AB					
PV: 2000-3000cc	50	40	30	20	10	AB					
MPV, Bus and Truck*	50	40	30	20	10	AB					
CUBs except above	50	45	40	35	30	25	20	15	10	5	AB
CKD parts	10	AB									
Non-CKD Parts	20	20	20	0-5	0-5	AB					

Note: Unit (%); AB (Abolition)

* Multi- Purpose Vehicle with over 3000cc and Bus and Truck with over 20t.

Source: METI (2006)

Table 6 indicates the tariff reduction schedule in the automotive sector under the MJEPA. The automotive categories that did not conflict with Japan were already liberalised in 2010. It was finally agreed that the category of vehicles with less than 2,000 cc engine – Malaysia’s biggest concern – would be liberalised by 2015.

During the MJEPA negotiations, the automotive sector became the most sensitive issue. The Japanese government emphasised the liberalisation of the automotive industry and requested the abolition of tariff barriers. In contrast, the Malaysian government was against Japan’s proposal, as it was eager both to influence the survival of *bumiputra*

vendors and to promote a *bumiputra*-centred industrial nationalism. As a consequence, the Japanese government-business alliance, which is a typical Japanese-style industrial cooperation consisting of various governmental organisations, industry associations and MNCs,⁴⁰ established extensive official industrial linkages with Malaysia,⁴¹ so as to complement the EPA by transferring technology selectively and fostering human resources. In May 2005, the Japanese government set up the MAJAICO agreement with the Malaysian government to provide industrial and technical assistance for the automotive and components industry for the transition to automotive liberalisation in Malaysia. The scheme aimed to improve the global competitiveness of the Malaysian automotive industry, particularly targeting weak *bumiputra* vendors.

Malaysia-Japan Automotive Industry Cooperation

MAJICO commenced a comprehensive five-year scheme in order to assist the development of the Malaysian automotive industry, financed by Japanese ODA in November 2006. The scheme consisted of 10 programmes, including human resource development, technical upgrading such as mould and dies, and business development (see Table 7). Of these ten programmes, three were highly evaluated by the Malaysian government. The A1 programme, which was supported by Japanese technicians dispatched from Toyota and Daihatsu through JODC, could help the Malaysian vendors to employ lean production system including *kaizen* activities (Muslimen *et al.*, 2011). After training, local vendors made a presentation of the outcomes every half or one year. The technical level of *bumiputra* vendors was much lower than that of the Japanese supply chain networks. However, through this programme, the level of some vendors came closer to the Japanese standard,⁴² with some companies achieving a 50 percent

reduction in total lead time.⁴³ Although MAJAICO was completed in 2011, the programme still continues and is currently supported by the MAI under MITI, targeting all vendors in Malaysia – initially the first tier OEM suppliers and later the second tier suppliers.⁴⁴

Table 7. Overview of MAJAICO

No.	Project	Activities	Malaysian organisation	Japanese organisation
A1	Automotive Technical Assistance Programme	Dispatching Japanese experts to individual firms in Malaysia to teach lean production system	SMIDEC	JODC (Toyota and Daihatsu)
A2	Mould & Die Centre	Dispatching Japanese experts to SIRIM mould centre to enhance technical standards	SIRIM	JODC
A3	Vehicle Type Approval	Dispatching Japanese experts to enhance model certification skill in MOT	MOT	METI
B	Automotive Skill Training Centre in Malaysia	To train master trainers for automotive production in ADTEC	MOHR (ADTEC)	JETRO (Nissan)
C	Automotive Skill Training Centre in Japan	Dispatching Malaysian technicians to production & quality control training in Japan	MOHR (ADTEC)	AOTS
D	Component & Parts Testing Centre	Dispatching Japanese experts to enhance the capacity of components testing centre	SIRIM	JICA
E	Business Development Programme	Sending business mission from Japan to Malaysia, vice versa	MACPMA	JETRO
F1	Cooperation in Automotive Market Information	To provide automotive market and technology related information	MIDA	JAMA
F2	Consultation on JV contract	Consultation with individual firm for JVs	MIDA	METI
F3	Cooperation in Exhibition	To organise Malaysian Automotive EXPO in Japan	MATRADE	JETRO

Source: Takehiro (2011) and Onozawa (2008)

The B programme, which aimed to train master trainers of automotive production, was also a successful programme. 149 Nissan technicians were dispatched and educated 33 local trainers in ADTEC, who in turn trained 1922 local trainees in mechanical, electric and manufacturing technologies and quality assurances. In practice, 155 modules were transferred to the Malaysian automotive industry.⁴⁵ Furthermore, the A3 programme of vehicle type approval skill, which is important for the control of imported vehicles, still continues with Japanese support. MAJAICO has, to some extent, contributed to the development of the supporting industry in Malaysia by levelling up technological capability and human resources of *bumiputra* vendors, and also clearly became a trigger for the Malaysian automotive industry to approach global competition in the future. Moreover, the agglomeration of the supporting industry is currently being strengthened in Malaysian hands.

8. Conclusions, Prospects, and Lessons

This paper has traced the development of Malaysia's auto industrial policy over the past five decades. Encouraged as part of a general policy of import substitution, the industry initially developed in the 1960s and 1970s as an assembly activity based on the import of CKD kits protected by tariffs and licensing; and an increased LC ratio through the mandatory deletion programme for replacing imported components.

The Malaysian government actively employed a state-led auto development policy in the 1980s and 1990s by establishing national car producers such as Proton and Perodua. It provided various discriminatory and protective industrial policies in order to foster the development of the national car producers, particularly Proton. The Malaysian

policy measures included the provision of favorable tariff rates and excise duties for national car producers. In addition, the Malaysian government encouraged many *bumiputra* entrepreneurs into the automotive industry through the Vendor Development Programme in the stage of rapidly expanding the supporting sector, with provision of subsidies to Proton in particular.

When Malaysia was required under the AFTA agreement, and its WTO obligations, to move towards trade liberalisation in the 2000s, it did so in the automotive sector by lowering tariffs, and abolishing LC requirements and discriminatory measures for national car producers, later introducing the National Automotive Policy in 2006. However, it retained controversial policies to link with local content and non-tariff barriers.

The contradiction facing the Malaysian government in its support of Proton as the only majority owned national automotive producer is that Proton has little influence over the automotive global value chain, which is controlled by major multinational assemblers such as Toyota and Volkswagen; and even Proton's minority partner Mitsubishi was not as powerful as these. While the Malaysian government insists on retaining majority Malaysian local ownership and control, it seems that foreign companies are unwilling to treat Proton as one of their own, fully upgrading its (and its vendors') technology and feeding it into their global networks. Perodua, in contrast, is allocated exports as part of its majority Japanese owner's regional production network. Yet, when it exports under its Japanese owner's brand, is it still a national car?

One hopeful sign, though, both for Proton and the Malaysian automotive industry, springs from Malaysia's first bilateral Economic Partnership Agreement, signed in 2005 with Japan. Under this agreement, the Japanese government, in association with the Japanese automotive industry, has been providing extensive industrial cooperation to Malaysia under the MAJAICO (Malaysia-Japan Automotive Industries Cooperation) scheme, in order to assist the Malaysian liberalisation process in the automotive industry in the future.

Unlike Malaysia, neighboring Thailand has employed more of an industry-wide automotive policy that focuses on selecting a national *product champion*, choosing a winning type of vehicle such as pick-up trucks and Eco cars. As a result, the industry has been rapidly developing by attracting foreign investments (Natsuda and Thoburn 2011). In conclusion, there is a lesson for other developing countries: policies should be oriented towards the industry as a whole, not tailored towards one particular firm. In other words, *picking a national champion firm* is no longer an effective strategy in the current global environment.

Appendix

Appendix Table 1. Tariffs on CBU PVs

PVs: CBUs Engine Size	Before 1997.Oct	1997 Oct	2004 Jan	2005 Jan	2006 Mar	2011 Jan
Less than 1,800cc	140%	140%	80%	50%	30%	30%
1,800cc - 1,999cc	170%	170%	100%	50%	30%	30%
2,000cc - 2,499cc	170%	200%	120%	50%	30%	30%
2,500cc - 2,999cc	200%	250%	160%	50%	30%	30%
Over 3,000cc	200%	300%	200%	20%	30%	30%
CEPT: Less than 1,800cc	-	-	70%	20%	5%	0%
CEPT: 1,800cc - 1,999cc	-	-	90%	20%	5%	0%
CEPT: 2,000cc - 2,499cc	-	-	110%	20%	5%	0%
CEPT: 2,500cc - 2,999cc	-	-	150%	20%	5%	0%
CEPT: Over 3,000cc	-	-	190%	20%	5%	0%

Source: Fourin (2002, 2005, 2006) and MAA

Appendix Table 2. Tariffs on CKD PVs

PVs: CKDs Engine size	Before 1997.Oct	1997 Oct	2004 Jan	2005 Jan	2006 Mar
National (Proton etc)	13%	13%	-	-	-
Less than 1,800cc	42%	42%	35%	10%	10%
1,800cc - 1,999cc	42%	42%	35%	10%	10%
2,000cc - 2,499cc	42%	60%	35%	10%	10%
2,500cc - 2,999cc	42%	70%	35%	10%	10%
Over 3,000cc	42%	80%	35%	10%	10%
CEPT: Less than 1,800cc			25%	0%	0%
CEPT: 1,800cc - 1,999cc			25%	0%	0%
CEPT: 2,000cc - 2,499cc			25%	0%	0%
CEPT: 2,500cc - 2,999cc			25%	0%	0%
CEPT: Over 3,000cc			25%	0%	0%

Source: Fourin (2002, 2005, 2006)

Appendix Table 3 Excise Duties on PVs

PVs	1997. Oct		2004 Jan	2005 Jan	2006 Mar
	Non-National	National			
OMV: Less than RM 7,000	25%	12.5%	-	-	-
OMV: RM 7,000 – 9,999	30%	15.0%	-	-	-
OMV: RM 10,000 – 12,999	35%	17.5%	-	-	-
OMV: RM 13,000 – 19,999	50%	25.0%	-	-	-
OMV: RM 20,000 – 24,999	60%	30.0%	-	-	-
OMV: Over RM 25,000	65%	32.5%	-	-	-
CBU/CKD: Less than 1,800cc	-	-	90%	60%	75%
CBU/CKD: 1,800cc - 1,999cc	-	-	120%	70%	80%
CBU/CKD: 2,000cc - 2,499cc	-	-	150%	80%	90%
CBU/CKD: 2,500cc - 2,999cc	-	-	200%	90%	105%
CBU/CKD: Over 3,000cc	-	-	250%	100%	125%

Note: OMV(Open Market Value); Consumers need to pay additional sales tax of 10%

Source: Fourin (2002, 2005, 2006)

Notes

¹ *Perusahaan Otomobil Nasional* - National Automobile Enterprise, in Malay

² See Natsuda and Thoburn (2011) on Thailand. Unless otherwise stated, later comments on the Thai automotive industry are taken from this convenient source.

³ For a clear and concise overview of GVC analysis, see Nadvi (2004).

⁴ We do not go back here as far as basic raw materials like steel, only to automotive components.

⁵ However, we did not find strong evidence of this happening, so we do not discuss it further.

⁶ Our interview evidence suggests this is true of some Japanese component firms in Malaysia.

⁷ 15 plants include Proton, Proton Tanjung Malim, Perodua, Assembly Service (Toyota), Honda Malaysia, Tan Chong Motor Assembly, Plant 1&2 (Nissan), Swedish Motor Assembly (Volvo), Hicom Automotive Manufacturers (Suzuki, Mercedes), Isuzu Hicom Malaysia, Inokom (Kia), Naza Automotive Manufacturing (Kia), Scania Malaysia, Oriental Assemblers (Chery, Hyundai), and Kinabalu Motor Assembly (MAA 2010: 10-11)

⁸ Interview with President of MAA on the 2 March 2012.

⁹ Interview with Head of Strategic Research Division of MAI on the 28 February 2012.

¹⁰ The total number of manufacture of motor vehicles (2,4513), bodies for vehicle (909), and parts and accessories for motor vehicles (22,525).

¹¹ *Perusahaan Otomobil Kedua* - Second Automobile Enterprise

¹² These production figures can be seen against the idea that a minimum efficient scale for automotive production is about 200,000 units per year. See Yoshimatsu (2002: 132). We return

to this later.

¹³ Indonesia was ranked second, accounting for 541,475 units and 71.6 percent in 2010 (Fourin 2011:217).

¹⁴ Developed countries accounted for over 50 percent (e.g. USA for 80 percent, Japan and France for 59 percent and Germany for 54 percent). This data was supplied by Toyota Motor Asia Pacific Engineering & Manufacturing on the 5th March 2010.

¹⁵ Import substitution had not been pursued aggressively at the start of the post-Independence period in 1957 until the mid-1960s because the new Malaysian government worried that it might favour the well-established ethnic Chinese business and industrial community in relation to *bumiputras* (Rasiah 2011:94-95).

¹⁶ These were: Swedish Motor Assemblies, Oriental Assemblers, Kelang Pembena Kereta-Kereta, Cycle & Carriage Bintang, Assembly Services, and Associate Motor Industry (Torii 1991a). Also Tan Chong Motor Assemblers.

¹⁷ These were Sarawak Motor Industries, Kinabalu Motor Assembly, Automotive Manufactures, Tatab Industries, and B.G. Motors.

¹⁸ See Jomo (1994:266-268) for MMC's regional strategy.

¹⁹ Of the RM140 million of total initial investment capital, UMW Holding held 38 percent of the stake, Med-Bumikar MARA had 20 percent, and Permodala National 10 percent, Daihatsu 20 percent, Daihatsu Malaysia 5 percent, and Mitsui Corporation hold 7 percent (Fourin 1994:192).

²⁰ Proton's ownership of equity increased to 80 percent in 1998 and 100 percent in 2002.

²¹ Competitive advantage derives from external economies and joint action. See Schmitz and Nadvi (1999) for more details.

²² A particular component is supplied by only a single firm.

²³ AICO was introduced as a breaching trade scheme after the abolition of BBC scheme in 1995 until CEPT became fully effective in 2010.

²⁴ All members of the ASEAN 6 agreed to a deadline of 2008 for reducing tariffs to 0-5 percent in 1992. However the deadline was moved forward to 2005, and later amended to 2003 at the AEM Meeting in September 1994 in Thailand, which was agreed upon to shorten the time frame for the realisation of AFTA, from 15 to 10 years, finishing by 1 January 2003 instead of 2008 (Fourin 2002 p.14).

²⁵ TEL: all items on the list were temporarily excluded, however, these items on the list must be transferred to Inclusion List by 2000 (Fourin 2002:14).

²⁶ Some mandatory deletion items were abolished in 2002.

²⁷ For example, CBU PVs with less than 1,800cc engine from 140 percent to 80 percent for non-ASEAN countries and 70 percent under CEPT.

²⁸ The NAP consisted of the following six objectives: 1) to promote a competitiveness of the automotive sector, in particular national car manufacturers; 2) to become a regional hub of the automotive industry; 3) to enhance value added and local capabilities in the industry; 4) to promote export-oriented Malaysian manufacturers as well as component and parts vendors; 5) to promote *bumiputra* participation in the industry; and 6) to safeguard the interests of consumers in terms of value for money, safety and quality of product and services (MACPMA 2008).

²⁹ The eligibility of the scheme is for the member firms of the Proton Vendor association, the Perodua vendor association or the MACPMA, and are entitled to access a maximum of RM 10 million.

³⁰ Local added value = ex factory value – input material value (= local procurement costs + labor costs + direct expenditure + profit). The scheme requires over 30 percent of LAV for less than 2500 cc engine cars and 25 percent for over 2,500 cc (METI 2011).

³¹ To be precise, extra consideration is based on race (indigenous) background, not nationality.

³² Dealer prices include vehicle price, excise tax and sales tax.

³³ Actually, Malaysia is an original WTO member. During the trade review with the WTO, the Malaysian government explained the special circumstance of the Malaysian automotive sector, including the *bumiputra* policy, and the WTO understood the situation (Interview with the Deputy Secretary General in MITI, Malaysia on the 28th February 2012).

³⁴ Interview with Commercial Attache at the Japanese Embassy in Malaysia on the 23rd February 2012.

³⁵ Interview with Vice President of MACPMA on the 21st February 2012.

³⁶ Technical cooperation (TC) with MMC did not involve equity participation. MMC plays a complementary role with Proton, the latter of which can produce only 1,300 and 1,600 cc engines with its own technology. TC includes 1) joint development of engines, 2) Proton's platform production for MMC, 3) unification of components between MMC and Proton, and 4) electric and hybrid vehicle technology. See MMC's website:

http://www.mitsubishi-motors.com/publish/pressrelease_jp/corporate/2011/news/detailb915.html (accessed on the 21 March 2012)

³⁷ See Proton's website:

[http://corporate.proton.com/Media-Centre/News---Events/Archives/2011/03-mar/-Media-Centre-News---Events-Archives-2011-03-m-\(3\).aspx/](http://corporate.proton.com/Media-Centre/News---Events/Archives/2011/03-mar/-Media-Centre-News---Events-Archives-2011-03-m-(3).aspx/) (accessed on the 21 March 2012).

³⁸ <http://www.bloomberg.com/news/2012-01-16/billionaire-syed-mokhtar-s-drb-hicom-to-buy-control-of-lotus-owner-proton.html> (accessed on the 21 March 2012).

³⁹ <http://www.topix.com/forum/autos/lotus-elise/T22VUFMJ8VAHDTHL6> (accessed on the 21 March 2012)

⁴⁰ See Natsuda and Butler (2005) and Natsuda (2009) for more details.

⁴¹ The Japanese side included the Ministry of Economy, Trade and Industry (METI), its affiliates, the Japan Overseas Development Corporation (JODC) and the Association for Overseas Technical Training (AOTS), the Japan External Trade Organisation (JETRO), and the Japan Automotive Manufacturers Association (JAMA) and its member firms such as Nissan, Toyota and Daihatsu, and the Japan Auto Parts Industries Association (JAPIA) and its member firm of Denso. The Malaysian counterparts included the Malaysian Industry Authority (MIDA), the Ministry of Human Resource (MOHR) and its subordinated organisation, the Advanced Technology Training Centre (ADTEC), Ministry of Transport (MOT), the Small and Medium Industries Development Corporation (SMIDEC), the Standards and Industrial Research Institute of Malaysia (SIRIM), the Malaysia External Trade Development Corporation (MATRADE), and MACPMA.

⁴² Interview with Commercial Attache at the Japanese Embassy in Malaysia on the 23rd February 2012.

⁴³ MAI website:

http://www.mai.org.my/ver1/index.php?option=com_content&view=article&id=1457:mai-to-spearhead-majaico-programme&catid=91:lean-production-system&Itemid=154 (accessed on the 21st March 2012).

⁴⁴ Interview with the Deputy Secretary General in MITI, Malaysia on the 28th February 2012.

⁴⁵ Interview with Senior Director at JETRO Kuala Lumpur on the 1st March 2012.

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