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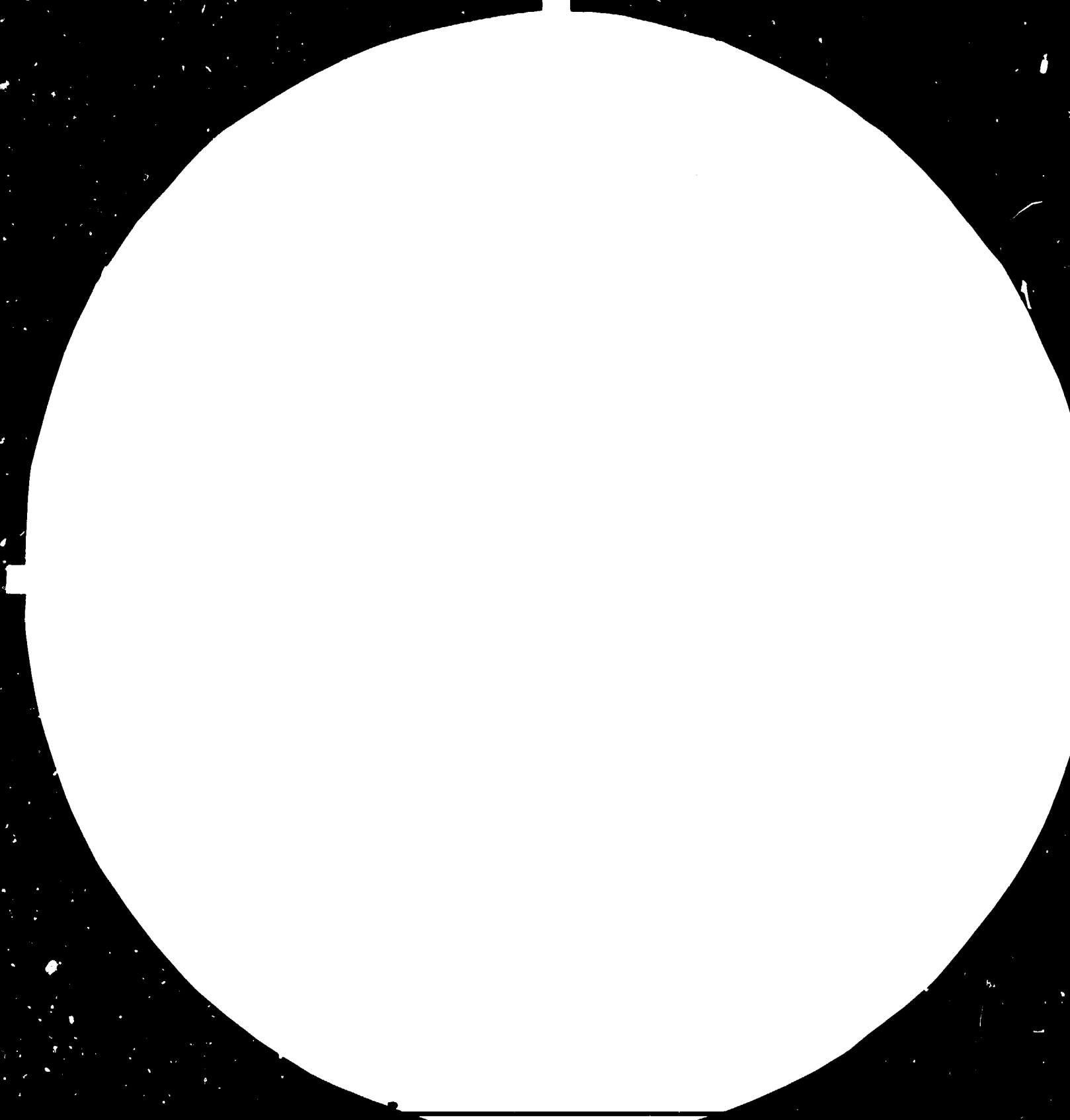

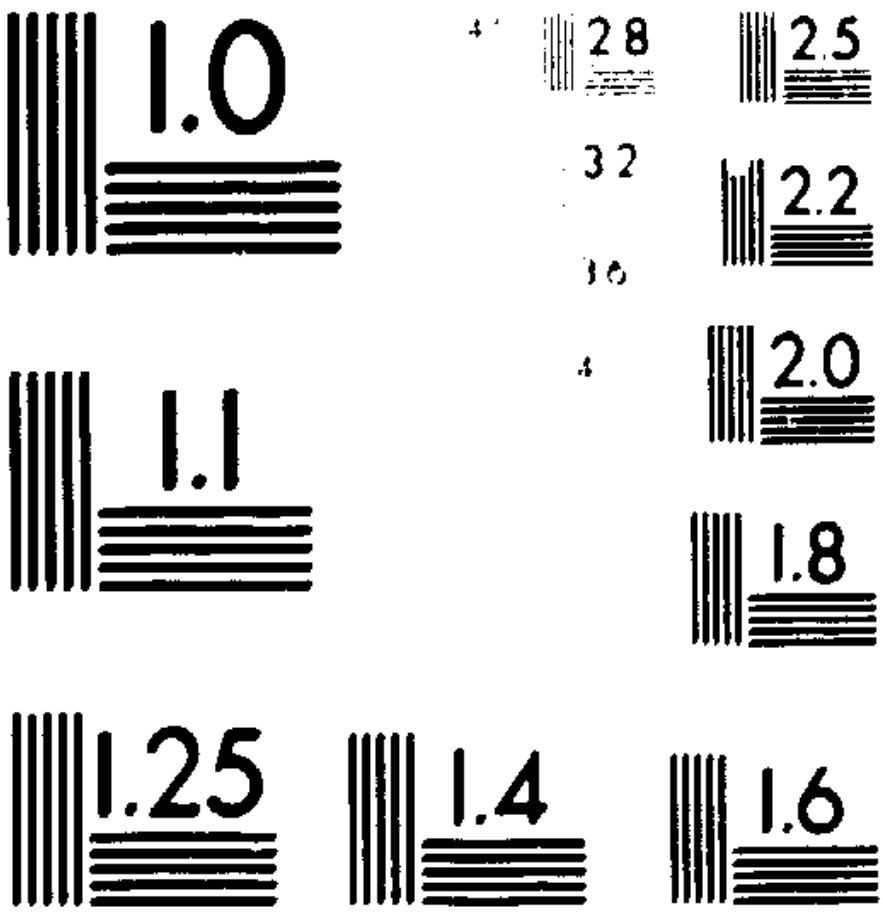

THE AUTOMOTIVE INDUSTRY IN ASEAN: TRENDS AND PROSPECTS

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I. Introduction

Since the second half of the 1970s, the Asean member countries have been striving to formulate and implement a policy towards the automotive industry (AI). In doing so, they have had to face numerous problems stemming both from the fragmented industrial structures in the individual countries and the dramatic changes taking place in the industry on a global scale. When, in the early part of the 1980s, several of the countries initiated fresh approaches to the industry, many questions began to be asked regarding the possibility as well viability of a common policy. The purpose of this study is to examine in some detail the situation in the various Asean members, to try and relate steps taken at national levels with the objectives and schemes laid out on a regional basis, and to set these changes within the context of the reorganization of the AI internationally.

The information for the study draws upon several sources. UNIDO has for some time undertaken work in this field and several studies have already been published analyzing both the changes in the international system as well as recent developments in one of the Asean members, viz Thailand. This work has been largely the responsiblity of a consultant who, in June - July 1984, visited the Asean member countries (with the exception of Indonesia) and Japan in order to collect further information and interview many of the groups involved in decision making within the automotive sector. That visit sought to obtain relevant material pertaining both to the component industry as well as the assembly activities which have more often been the focus of attention. UNIDO wishes to thank the government departments, firms, industry associations and other groups and individuals who provided assistance during that visit. Finally, the present report makes use of

additional publications and information which have become available outside Asean subsequent to the preparation of the earlier studies mentioned above.

The report is organized under two main headings, the first of them referring to the international automotive structure and changes in it, while the second concentrates on developments in the Asean area and seeks to spell out the possible evolution of the sector over the next few years. The text itself elaborates the arguments in detail, but by way of introduction, one central message of the report can be stated at the outset. What happens to AI in Asean will in the future be decided, to a far greater degree than in the past, by the dominant forces in the industry worldwide. In other words, to talk of policy as being simply a matter for the member countries and the firms established within them would be a serious distortion of reality. The attention paid to Asean countries by the automotive transnational corporations (TNC), as well as the detailed aims they may have in the region, will be very much a function of the changing patterns of the international situation. It is for that reason that the initial part of the report examines the prevailing trends in such detail.

II. Driving Forces in the World Automotive Industry: Convergences and Contradictions

A. The Character of Demand

(1) The OECD Countries

The 'core' countries of the OECD currently absorb about 4/5 of world automotive production by value. This statistic alone is enough to underline that, at least in the short to medium term, aggregate growth in world automotive demand will be

largely determined by conditions in those countries. Several aspects of their present situation strongly suggest that such growth will be, at best, quite small for the next few years. Demographic increase is now minimal in all of these countries, the average age of the population is increasing, and income growth has been very low since the mid-1970s at the same time as high rates of unemployment suggest that income distribution may have become more concentrated. In short, these countries are now approaching saturation levels in terms of the numbers of both passenger cars (PC) and commercial vehicles (CV) and demand for the rest of the century is bound to be primarily of the replacement kind. This does not mean that the value of expenditures may not continue to rise; indeed, this study argues that one of the principal changes taking place in automotive production is to render the car a much more sophisticated and high value item than it has been in the past. However, the number of vehicles will not expand very much so that individual firms will have to compete against each other in quality and price if they are to expand sales. The struggle has become, and will continue to be, a classic oligopolistic fight for larger shares of an overall market which is fairly stagnant.

Within the basic demand picture just sketched, various more specific yet nonetheless highly important trends seem to be underway. To begin with, the fact that vehicle numbers in the OECD are now around the saturation point implies that purchases of new cars can be accelerated or retarded quite easily. Hence, the demand for new cars is volatile; since the car firms are interested precisely in that aspect of the market, the situation makes for considerable difficulties in production forecasting and scheduling. From the corporate view point, therefore, any technological developments permitting greater flexibility in production organization are of enormous interest since they allow the maintenance of relatively low manufacturing costs at the same time as model changes can be made to

accomodate demand fluctuations. In fact, the second specific trend to be kept in mind is the sharp reduction in model ranges. Over the period 1964 - 1982 the number of models produced by the leading TNC in the OECD countries was exactly halved, from 50 to 25; current forecasts suggest that number will fall even further in the remainder of the present decade. This narrowing of vehicle range has major implications for corporate behavior. Since for any one company the 'dependence' on a particular model series is increasing, the risks associated with designing and choosing that model are compounded. By the same token, however, if one firm makes a good choice while its competitors make poor ones, then the market advantage which can be extracted will be correspondingly greater. Furthermore, the technological advances made in relation to model development, especially through computer aided design (CAD), have now become a crucial element in design competition. They have simultaneously permitted enormous reductions in overall design time (GM now needs only about 1/4 of the time it required in the 1970s for designing a new model) and the examination of a far wider range of possibilities than could hitherto be handled.

The demand trends outlined in the preceding paragraph point towards a shift in the concept of a PC. Now consumers in OECD countries are able to seek considerably more sophisticated vehicles than was possible even in the recent past. Developments in the microelectronics field, in particular, have permitted the incorporation of improved fuel control devices, better braking systems, and much better access to information concerning both ongoing vehicle performance and external conditions. In a word, the car is now being transformed into a highly advanced information system. Those changes come at a price: While it is true that vehicle selling costs have not risen particularly fast in the last few years, the expectation must be that in the second half of this decade, OECD vehicle purchases will move in the direction of items whose unit cost is significantly above levels

in the recent past. On the assumption that income growth will not be particularly high, the chances are that cars will become a relatively more expensive consumer durable than they used to be.

The panorama for the OECD, therefore, is one of minimal increase in numbers of vehicles sold along with significant changes in the nature and cost of them. That perspective points strongly towards a sharp rise in competition among TNC with an ever greater need for linking production and design processes closely to shifts in consumer requirements. Though it remains true that the competitive fate of individual firms will be decided by their performance in the OECD markets, this high risk setting does suggest that companies will set much store by their possibilities of expanding sales in developing country (DC) markets; the next subsection looks at the situation in those markets.

(2) The Developing Countries

Currently DC purchase about 13% of all vehicles sold internationally. Forecasts in the industry continually present DC as the market hope for the future and regularly suggest that growth rates in the developing world will be much higher than elsewhere. These predictions seem to be founded primarily on estimates of population growth and income growth, and often assign particularly high rates to Asian countries in general as well as Asean in particular--the OECD, for example, in a recent study examining the long term outlook for AI suggests that Asean countries could show aggregate growth rates of vehicle purchases in excess of 5% per annum over the next few years. These forecasts, nevertheless, hide several issues. First, recent events severely question the size and sustainability of income growth in DC for the near future. While the details with regard to Asean will be spelled out later in this report, for the moment it is sufficient to note

that perhaps the most visible feature of the international economic situation during the 1980s has been the huge debt of DC. The policies used to restrain domestic growth as a device for improving the trade balance and generating foreign exchange with which to meet interest payments on this debt are certainly having a strong impact on automotive demand in DC. In fact, recent events would suggest it is most unlikely that the forecasts generally used will materialize. If this is so, then competition in DC markets will also become much fiercer as will the pressures on governments in those countries to alter their policies, primarily by cutting back on local production and reducing taxes on vehicle purchases and use. This point too will be elaborated further in the Asean context.

The impact of the foreign exchange pressures goes beyond the simple matter of income growth: in particular, there are now requirements on governments to cut back public sector expenditures. Since it is precisely that sector which is a major purchaser of CV, it seems unlikely that the compression of the PC market will be compensated for by an expansion in the CV area. Furthermore, the policies now being employed to meet the foreign exchange difficulties may well have regressive impacts on income distribution within DC. Given that PC purchases are made by high income groups, the regressive shift could conceivably lead to an expansion in sales. However, an increase of that kind would be fairly short lived and certainly would not provide the basis for long term sales increases as generally forecast. It seems probable, therefore, that the erratic behavior of automotive demand in DC will continue, at the same time as the long term prospects for sales increases are notably less than is normally forecast.

The demand situation within Asean has some features which create even more uncertainty than is to be found in DC as a whole. In the Asean context the accent is very much on heterogeneity of vehicle sales; most countries have sizable

populations of either two wheelers, jeepneys or make versatile use of pickups to serve both passenger and commercial uses. This demand pattern for vehicles as a whole contrasts strongly with what is found elsewhere in DC; Japanese exports of two wheelers to Asia are at least nine times greater than their sales in Latin America. The point is that consumers demonstrate considerable readiness to substitute one kind of vehicle for another in Asean. This means that they may be ready to switch the kind of vehicle used depending on incomes and vehicle costs. Hence, in Asean the degree of volatility in demand is probably even greater than that observed elsewhere. Within the PC category a key consideration seems to be engine displacement. The bulk of purchases occur within the 1200-1600 cc range and it looks as if, for price and purchasing power reasons, this will continue to be the situation in the next few years. The Malaysian government, in its national car project, is focusing precisely on local output of vehicles in this category which, in the Malaysian case, account for some 80% of all PC sold. The size of vehicle of course influences the competitive position of different TNC. Whereas the American and European firms have tended to specialize in larger vehicles, often of a more luxurious type, the Japanese producers have excelled in the manufacture of precisely this kind of vehicle. In this respect, then, it is no surprise that Japanese firms have captured extremely high shares of the market in all Asean members. It will be argued later that neither the European nor the American producers show any real signs of competing successfully with the Japanese TNC in this market range. Consequently, the demand behavior will affect mostly the aggregate size of Japanese sales and the distribution of them among the different companies.

These comments already hint towards a much lower degree of selectivity among models in DC. Indeed, it is striking that production structures nearly always exhibit an extremely wide range of models and variations being assembled locally in

very small numbers, at the same time as a strong concentration of demand exists in the medium size PC categories. The probability is that the relative degree of sophistication of cars sold in OECD as compared to DC will become greater in the future. It has always been the case that the main consumer countries served as the launching pad for new models and that the time lags before their introduction in DC were generally several years long: that situation will probably become even more pronounced in the next few years. This has an implication on the production side. It means that TNC will be interested in obtaining maximum returns in terms of model life from sales in DC; for those models where competition in the OECD is very severe, firms will try to balance their books by extending model life for as long as possible in DC. If that picture is broadly accurate, it would suggest that the chances for exporting completely built up (CBU) cars from DC, and Asean in particular, are slim.

(3) Profitability

The demand conditions described above suggest that there have been, and will continue to be, severe pressures on profits. The events of recent years have borne eloquent testimony to those pressures. The US has been overwhelmingly the premium market for sales of small cars due to the intrinsic size of the market, the structure of production in the US big three (where the accent is on much larger vehicles), and above all to the quota system (voluntary restraint) which has been imposed on Japanese exports. The Japanese firms hold now a virtual monopoly in small car production and the struggle has been among them to obtain bigger shares of the total quota (now at 1.85 million units) fixed on imports from Japan. To a considerable extent, global profits for Japanese firms in the first half of the present decade have been determined by the size of quota they could capture in the US market (Nissan, for example, is thought to collect about 70% of its global net profits from the US market).

While the Japanese producers have managed to retain a positive balance sheet, the position has been much more difficult for European and US firms. Among the former, the overall trend has been a retreat into their home bases. VW, for instance, continues to produce in the US but has had to close down facilities while within Latin America it has consolidated and expanded operations in Brazil and Mexico whilst reducing commitments elsewhere. Fiat has to all intents and purposes dropped out of international production save for its traditional arrangements in Eastern Europe. The two French producers have also experienced major problems and only Renault continues to fight for a position in US production through its arrangements with AMC. As far as the US firms are concerned, two features of their behavior stand out. First, the bitter struggle for supremacy in the European market. The strategy of GM is undoubtedly premised on wresting control from Ford in that region; correspondingly, the financial position of Ford has depended heavily in recent years on the profit making ability of its European subsidiaries since operations in the US have not been generating adequate receipts. Second, the problems confronting Chrysler have forced it to rein in most of its international production. The firm may be moving back towards profitability yet that is now within the confines of the US market.

So the target area for profit generation, establishment of market shares and new investment has been the US. The changes now underway, and particularly the growth of US based production by Japanese firms either in joint ventures (JV) with US companies or on their own, will lead to a major increase in the supply of small cars to the US market coming from production bases within that country. This will almost certainly imply a sizable reduction in profits per unit and an end to the era of premium pricing which has come from the quota system. By the end of the decade Japanese firms will be making relatively less from their sales in the US, they may have to share some of those profits with local partners, and in any case

may not find it politically sensible to repatriate all of what remains. In that scenario, therefore, Japanese producers must try to improve their profit performance elsewhere if they wish the overall results to be comparable to those obtained in the recent past. It is within that perspective that the profit drive spills over into actions in the Asian context.

The magnet effect of the US market in small cars has encouraged several producers, both Japanese and American, to investigate thoroughly the possibilities of using one or more Asian countries as an export base to serve the US market. In the case of the American firms the incentive has been to find a production location competitive with Japan, while for companies from that country the attraction has been the possibility of sidestepping export quotas through setting up a surrogate export base. Three features of developments in Asia in this regard stand out: first, all the attention has been devoted to Republic of Korea and Taiwan; second, so far none of the big projects has come to fruition; and third, it seems that at no stage have any of the Asean countries been considered seriously as an export base nor has any one of them made overtures to a TNC for this purpose. The preceding paragraphs have argued that premium profits in the US market will not continue for too much longer and that the major production decisions for serving that market have mostly been taken and imply local production supported by investments in Brazil and Mexico. In short, the Asean countries were never really in this struggle and now it is probably too late to enter.

Japanese firms appear to be moving towards a situation where lower profits will be forthcoming given the slowness of demand increase and the progressive erosion of their high profits in the US market. That means increased competition among the Japanese firms and ever closer scrutiny of the possibilities for raising returns in non-US markets, especially Asia. With regard to Asean countries, the

demand and profit perspectives suggest various implications. First, given the conviction of Japanese producers that their home country is by far the most efficient manufacturing location, there will be ever greater resistance to moving parts of the production process out of Japan and into Asean. Second, where some relocation does occur, the firms will try to insure profitability by making certain that the local government is involved in the project through equity shares, guarantees of market, and readiness to facilitate necessary imports. Third, even if Asean continues to be more interesting to the Japanese firms for its market potential rather than actual sales, there will probably be powerful constraints on any sharp changes in market shares among the competing corporations. The reason for this is that even unpromising options must be preserved when overall profits are not too promising. Since Toyota and Nissan are currently by far the largest sellers in Asean, and are also by far the strongest Japanese producers, they are in a position to make sure that smaller companies do not upset the balance. Though these two firms themselves are reluctant to make any significant investments in the region, they will almost certainly utilize their strength to prevent anyone else from displacing them in Asean markets. This has important repercussions as far as the Mitsubishi strategy in Malaysia is concerned.

To summarize the argument regarding trends in international demand:

- o Minimal unit growth in the OECD
- o Shift towards higher value, more sophisticated cars in the OECD
- o Reduction in numbers of models and variations
- o Fairly low and erratic demand growth in DC
- o An end to the US magnet effect on profits
- o Greater competition over market shares
- o Retention by top Japanese firms of control over Asean market
- o Reluctance of Japanese companies to expand investments in Asean

B. Supply Structures

(1) The Production Process

Corporate response to the major shifts in demand for vehicles and changes in petroleum prices has encompassed several dimentions. First and foremost has been the dramatic reduction in employment in the sector; in the US for example, employment levels in early 1984 were about 1/3 below those in the late 1970s and almost certainly will not go back to previous levels. The shift, in other words, is structural and not conjunctural. Much of the employment reduction has been in areas such as painting and welding where robots have now taken over a very high percentage of all tasks--these are some of the activities which used to be considered as appropriate for relocation to cheaper labor areas. While aggregate employment has been cut back, the composition of the labor force is also shifting quite markecly. Whereas before the assembly industry made heavy use of unskilled labor, the switch to computer based and highly automated production systems has put a premium on semi-skilled technicians and highly skilled engineers. Needless to say, supply of this kind of labor is much more abundant in the OECD countries than in DC.

A second and associated change has been the reexamination of possibilities for combining the economies of scale with greater flexibility in models and batches. In this area it is not yet clear what the overall impacts will be since the new technologies may create possibilities for smaller firms to produce as efficiently as larger ones. However, what does seem evident is that the scale ranges under discussion apply still to firms in the OECD rather than to auto production in DC. Moreover, the flexibility in model mixes which the new technologies allow relate much more to the demand conditions in the OECD and consequently are of only limited significance for new investments in DC. By the same token, the advances in design

mentioned earlier also have a far greater impact on conditions in the OECD. After all, no DC has yet managed to design a vehicle on its own and there seems little prospect that this situation will alter in the near future; on the contrary, it looks as if the gap in design will become ever greater.

The third key aspect of supply structure changes has been the move, especially among US firms, towards ever closer ties between the vehicle TNC and supplier firms. The shift towards lower inventories and shorter delivery periods has come at the same time as a renewed emphasis on quality of components. In practice, this has meant huge reductions in the numbers of supplier firms catering to the requirements of vehicle producers along with much larger orders for those firms who are selected. At least as far as the European and US vehicle producers are concerned, the prevailing trends are towards concentration of suppliers and their internationalization. It seems highly probable that local component producers within DC will come under ever more pressure from component firms that are fast turning into important TNC themselves. The Japanese parts suppliers have yet to begin this internationalization process on a large scale but it does seem reasonable to guess that their decisions will be taken in close consultation with the auto TNC for whom they have been the traditional suppliers. Consequently, even from this angle the supply change does not seem promising for DC firms.

The three features of the changing production process just signaled out call into question some of the very fundamental suppositions which have been made concerning automotive production in DC. In the initial stages auto producers were fairly reluctant to invest in production within the Third World. They did so chiefly under pressure from protection policies in local markets and as a positioning strategy to ensure their presence in the event that consumption increased; mostly, the investments were in kind rather than cash and often involved

ties with influential political and commercial groups within the country concerned. Subsequently, it was thought that the relatively labor intensive nature of the industry along with much lower wage rates in DC would represent a powerful incentive for relocation of important parts of the production process towards those countries and indeed many of the local content (LC) schemes played on this factor. The current position suggests that these assumptions do not square with the facts. The economic motives for TNC to establish and/or expand assembly facilities in DC are nowadays very hard to find. AI is fast becoming a highly sophisticated, captial intensive industry where the rate of incorporation of new technologies along with the need to remain close to the main centers of demand dictate that production should, to the maximum degree possible, take place in and around the main OECD locations.

The parts industry was never subject to the same internationalization phenomenon as the assemblers. Now that some internationalizaton is taking place it remains closely linked with the strategies of the auto firms such that there is a tendency for the industrial structure within the OECD to be reproduced, on ownership terms, within the most important DC. Yet the willingness of parts firms to produce abroad is still very limited and there seems little reason to suppose that any major investments are likely to take place.

From these brief comments it seems nonetheless possible to draw a major conclusion. Though there is still uncertainty regarding supply structures in the OECD, the position for the overwnelming majority of DC, including Asean, does seem clear. These countries are perceived to have failed in the attempt to establish an efficient AI. Though in theory the greater competition among auto TNC should create alternatives for DC, it looks as if this is not happening and indeed that their position is getting weaker. The reasons are simply that TNC are no longer

looking for cost cutting locations around the globe but are instead concentrating on high quality production within their traditional bases. Since the new processes require substantial investment and the market is tough, both the financial and management capacities to make new investments or even maintain old ones in DC are severely strained. In the same vein, it has been shown that OECD locations are by far the crucial ones for profit and this too has encouraged firms to concentrate investments within those boundaries, particularly as protectionism has grown. Although significant uncertainties remain, enough has happened to show that AI will no longer be a major provider of employment and is indeed most unlikely to serve as a pole for overall industrial expansion in DC as it used to in some OECD countries. It looks as if TNC are groping towards new forms of producion organization which are likely to have but a limited use for DC, and even that will be concentrated on just a handful of countries. Though the advances in design could offer greater options for developing and producing vehicles more appropriate to the conditions in the Third World, there is no evidence at all to suggest that this is happening. Consequently neither in terms of production processes or in terms of the specific products manufactured is there any reason to think that DC will acquire a major role in the emerging system.

The organization of component production also offers little in the way of substance to suggest that several DC could become heavily involved. Whereas at the beginning of the present decade the world car concept emphasized the production of components in large scale plants scattered around the globe and seemed to suggest that a certain number of DC might become involved, more recent developments indicate that the possible locations are probably very few. To put it crudely, it is probable that DC are regarded as high risk locations not only politically but also technically, in the sense that the new developments can be handled more efficiently within standard OECD locations. Little solace can be found in the

collaborative programs taking place among TNC since their content is overwhelmingly aimed at resolving issues pertaining to the OECD situation. The strategic attention of the firms is unequivocally directed at strengthening their competitive position within the OECD--and they do not believe that DC production can provide too much help in this regard save for some important investments in Brazil and Mexico.

(2) Changes in Corporate and Country Positions

The radical developments in the production process sketched in the preceding subsection have accentuated certain trends which began some years back in terms of corporate and country strengths and weaknesses. Internationalization within the OECD has developed enormously over the past 15 years and one of its manifestations has been the alterations in LC in various markets. Unquestionably the clearest example is the UK where not only has the national producer, BL, been driven to a collaborative arrangement with Honda in order to survive, but particularly the leading sellers and producers, Ford and GM, import a very high proportion of value added in their vehicles. In the US market the current debates between GM and the United Auto Workers focus strongly on the LC issue and there seems little doubt that vehicles produced in that country will, by the end of the decade, have much less than 100% LC. Similar observations apply in Spain, which has been the OECD country where production has grown the most. In other words, the LC issue which will be examined in considerable depth for the Asean countries is also at the center of debate and decision making in the OECD countries. It has, of course, had major repurcussions on the state of the component industry in those countries; in the UK case, the industry is going through a severe crisis and may well fail to consolidate a base for future action.

The choices about where to produce and what to produce in a period when demand is not growing appreciably have also had an impact on the role of individual countries in the global setting. The flood of new investments seems to have overtaken the closures of existing plant such that the threat of over capacity on an international scale is a continuous strategic problem. Despite the higher costs of both investing and disinvesting in OECD locations, the fact is that companies have continued to concentrate their decisions in that area rather than in DC. By and large, the pattern which is emerging shows the US as a major production base for all types of vehicle, with the small car market opened to foreign producers and buttressed by supplies of major components from Brazil and Mexico. Within the European setting, GM and Ford have refined their circuits of component exchange to cover FRG, UK and Spain as major centers, while VW concentrates on FRG and Spain and the Italien and French producers remain much more within their national boundaries. This sketch is enough to show that the position of countries is quite closely identified with the position of specific companies; to the extent that the companies prosper, the chances are that those countries will improve their standing.

The striking feature of the global picture is that, outside of the two largest Latin America countries, no other DC plays a pivotal role in the creation of new capacity by the auto firms. The importance of this finding derives primarily from the fact that so much investment has taken place so recently; in other words, it is most unlikely that Asean countries could find a position in any of the corporate networks since all of the firms have already chosen their options. Although it is often argued that the Pacific basin countries may become the center point of the international economic system by the end of the century, there are at present no grounds for saying that the Asean countries, either individually or collectively, would play much of a role in the auto aspects of such a setting. Emphatically,

these countries have been placed on the rim and are likely to remain so. The second part of this study looks at the situation within those countries and tries to show that numerous problems require resolution within AI. But they cannot be tackled without an awareness of the corporate setting which continues to keep those countries away from a substantive involvement in this sector.

III. The Automotive Industry in Asean

A. An Overview

(1) Historical Development

In all of the member countries the industry has developed mainly from distributor activities, ie. firms with local capital obtained franchises to sell foreign produced vehicles and then, when government policy moved towards encouraging local assembly through the imposition of tariffs on CBU vehicles, these enterprises extended into the assembly business, often with some foreign capital involved. The background is important because the distributor side of the business has always been, and continues to be a major source of profits. The assembly activities have yielded positive returns where sufficient protection has been given but the component side of the industry has rarely been either a profit source or much attraction for foreign capital. The political influence of various groups has mirrored this history: distributor based entrepreneurs have always had a more powerful voice in shaping policy than have other local groups (which does not, of course, suggest that any local groups have necessarily been more powerful than TNC).

In the early stages the objectives for establishing a local assembly industry were usually cited as employment creation, foreign exchange savings, and technology transfer with the latter associated to some extent with possibilities for developing inter-industry linkages. These objectives seem to have remained whether we think of Philippines, where the push for local assembly began in the late 60s, Thailand or Malaysia where the policies date from the early to mid-1970s, or Indonesia where the industry has only begun to operate within the last few years. However, these objectives were set without any rigorous criteria or machinery for

monitoring performance and without the direct involvement of public capital in promoting the industry--in this respect, as in various others, the initiative of the Malaysian government in the national car project represents a major departure from observed behavior in Asean countries. Contrary to what is often suggested, most of these schemes did not set out in the initial period to achieve high levels of LC. The famous program for developing LC in the Philippines, which dates from 1973, proposed a schedule which, had it been adhered to, would not have passed the 60% mark until this year; even now, the Malaysian program is only aiming at a 36% LC target by the end of the decade and this would represent a doubling of the present level. Hence, it is not correct to assert that, in a contemporary historical perspective, the Asean countries have sought to achieve dramatic changes in their assembly industry.

It has just been noted that regular and strict monitoring of the performance of the sector has never been a feature of the Asean countries. As will be seeing later, in fact the objectives have not been met under any of the headings and even the announced LC schedules have hardly been followed. More generally, the development of AI has in no country (with the exception of very recent declarations in Malaysia and Indonesia) been made part of a coherent industrial planning framework. This contrasts sharply with approaches to AI in, for example, Republic of Korea and Taiwan. Those countries have placed AI development firmly within a setting of expansion of heavy industry. It is indeed paradoxical that only now, when AI is undergoing qualitative changes on an international scale and when the very premises on which its initial expansion was founded are being questioned, to Asean members, Malaysia and Indonesia begin to formulate broader planning approaches of which AI forms part. Both in the Philippines and in Thailand this perspective has at no stage commanded attention. In the present decade these two countries have both been recipients of the so called structural adjustment loans of

the World Bank and the philosophy underlying industrial reorganization supported by these funds does not encourage any shift to a planning framework.

The absence of the planning perspective in Asean countries cuts a sharp contrast to both the views expressed on numerous occasions by Japanese firms as to how the AI should develop as well as the heavy reliance placed by all TNC on sophisticated strategic planning. The Japanese firms place crucial importance on the development of ancillary industries, ie. metal working and electrical production and argue that only when these sectors are reasonably well developed is there a chance for creating an efficient auto producing activity (of course, the growth of ancillary industries alone is only a necessary but by no means a sufficient condition for establishing an assembly industry in this perspective). What is required according to the Japanese view is the systematic provision of government support for these ancillary activities and then a gradual move, by stages, into manufacture proper. To start with assembly industries and work backwards is not, according to that perspective, a good way of tackling things. But the Asean position is even worse in that, having chosen to begin with assembling, that has not been related to a consistent plan linking public support to private activity.

Historically, the Asean countries have never been a preferred zone as far as internationalization of AI goes. The leading firms on the international production axis have been chiefly Ford and GM, and their targets were Europe and Latin America. As far as Asia is concerned, the net result today of dealings which go back some 50 years when both companies were first involved in Japan, is a series of cross-equity links in that country (GM with Suzuki and Isuzu, and Ford with Mazda), the GM tie with Daewoo in Republic of Korea, and the fully owned subsidiaries which both firms have in Philippines (even that has now just been reduced, since Ford

officially closed down its Philippine operations in August 1984). European firms have never been especially strong as far as international production goes; although, as will be shown later, many of them do have links in the region, in no case are they of much quantitative significance. To summarize on the international production dimension, Asean countries have not been and are not closely associated with a major production location for any of the leading TNC.

AI in the Asean countries thus exhibits some quite distinctive features. Its growth has not been part of an articulated planning framework. The industry has not shown any of the export oriented characteristics which are to be found in many other branches of manufacturing in the member countries. The Asean region has not been a pole of attraction for foreign investment in the sector. Governments have been reluctant to do much except introduce tariff and LC legislation affecting the assembly and component industries while steering away from any more direct forms of commitment. The impression is thus that the industry has never really found a policy home and that its orientation remains uncertain and unpromising. That observation on the contemporary history itself goes quite some way to pointing up the difficulties which have been found not only in the handling of the sector at individual country level but also the problems for Asean as an organization.

(2) Some Issues

The industry has thus had a contemporary history which is one of a failure to meet objectives, which themselves were never rigorously implemented. It seems to have grown in a topsy turvy fashion without at any stage being rooted in either a heavy industry strategy of growth or in an ancillary industry approach. With the passage of time, two critical developments have placed the sector at the center of controversy. Internally, though admittedly to very different degrees, the countries of Asean are being forced to examine the nature of

industrial activity with the accent now firmly on the foreign exchange implications of each sector. In other words, the old objectives of employment creation, technology transfer, and inter-industry linkages have largely disappeared unannounced. Now the criterion for assessing any manufacturing sector seems to be the foreign exchange impact of its operations. Relatively little economic calculation is required to show that, at least in the short to medium term, AI does not perform well on this measure. Hence, there has been an implicit if not explicit tendency to treat policy questions in terms of how to reduce the extent of assembly activities. Externally, the reorganization of the industry on a global basis has sapped away the grounds for supposing that AI could develop through linkages with foreign firms who would be only too happy to set up production facilities within Asean.

These conditions are forcing governments and other interested groups to answer several key questions. Should AI have any part of an industrial strategy for the second half of the 1980s and beyond? If the answer is in the affirmative, what sorts of an industry could be built? What activities should be chosen, for which markets, and with what sort of foreign support? How can a change from the existing structure to a new one be carried out? What time horizon is there for making choices and implementing them? Is it possible for haphazard patching up of existing regulations to be done or is it necessary for countries to take a clear cut line and try to force it through (there being no guarantee that even this would work, as is evidenced by the present experiences of the Republic of Korea and Taiwan)? In such a setting what place, if any, is there for policies covering all Asean countries and handled through their common institutional framework?

The search for answers to these problems is by no means a simple one since they involve difficult judgements about political as well as economic forces. The next sections of the study try to pin down some of the more important considerations by examining in detail the current situation.

B. A Factual Survey of the Automotive Industry in Asean

(1) Vehicle Demand

Table 1 shows vehicle registrations in Asean countries for the period 1976-1982. During that phase the predominance of Indonesia and Malaysia as consuming centers became quite marked with growth rates in both countries much in excess of Thailand. Both Singapore and Philippines had far lower rates of expansion, and this has been highlighted still more by changes within the past two years. Sales in the Philippines, in particular, have fallen catastrophically as a result of the severe political and economic crisis now ravaging the country; figures for the first half of 1984 suggest that total vehicle sales may be down to no more than 15,000, a drop of about 2/3 as compared to averages in earlier years. The split between PC and CV seems to have remained fairly constant as is shown by the data in Table 2. That table illustrates in stark form the differences in consumption patterns between the countries. Malaysia and Singapore are overwhelmingly users of PC, in the Philippines the division is roughly half/half, while in Thailand the emphasis on pickups and in Indonesia on both pickups and heavier lorries pushes the CV percentage to the forefront. This demand pattern clearly influences the kinds of production programs which could be advanced. It is no surprise, for instance, when Thai producers speculate on the possibilities for establishing a national truck along the lines of the Malaysian national car; a glance at the relative proportions of PC and CV in overall vehicle demand in the two countries is enough to explain the interest.

The differences in type of vehicle purchased reflect in part the varying weights of different groups in the local economy. The heavy use of CV in Indonesia and Thailand relates to the role of both government agencies and large economic entities (agricultural as well as industrial) in overall purchases, whereas in Malaysia and Singapore families and individuals are far more important as vehicle purchasers. This point needs to be kept in mind when we look a little later at the effects of changing macro-economic conditions on vehicle demand; to the extent that the public sector is forced to cut back on its own purchases, this is likely to make a bigger dent in CV expenditures in Indonesia than elsewhere. A common feature of tariffs and taxes in all the countries is that charges are consistently lower for CV than for PC. This situation has prevailed long enough for the 1982 figures of the split between the two kinds of vehicle to be regarded as a fairly accurate depiction of relative demand. Reductions in tariffs and taxes would by now have more effect on raising PC use since, in most cases, the duties on CV have been reduced to zero.

(2) Sources of Supply

The expansion of local assembly industries during the 1970s led to pronounced alterations in the structure of automotive imports; those changes are summarized in Table 3. In every case the proportion of CBU imports in total has either fallen or remained constant while the share of completely knocked down (CKD) kits has been very much on the rise. Only in Thailand have parts imports reached a high proportion of the total, a figure which on its own might suggest that Thailand was better placed in relation to building its own industry than are the other Asean members. Whether or not this conclusion is valid will be considered in more detail at a later stage. For the moment, then, the important point to underline is that all countries have been trying to reduce their reliance on CBU and to develop local assembly and production as the major source of supply.

So far the trend just described has still not been sufficient to reduce the import bill at all. Indeed Japan, the major supplier of vehicles to Asean, continues to expand its sales in the region. Table 4 examines Japanese exports to Asean as a proportion of global exports and shows that, notwithstanding the role of OECD countries as trading partners, nearly 8% of total vehicle exports from Japan in 1983 were destined for the Asean region.

In terms of market shares in the individual countries, the patterns seem quite stable and are clearly indicative of the dominant role played by Toyota and Nissan. In most cases these two firms together account for at least one half of all vehicle sales and they are particularly strong in the categories of PC of less than 1600 cc, lighter trucks, and pickups of up to one ton. The European specialist and smaller producers are the ones who hold most of the market in the larger PC (2 to 3 liter range) as well as in the heavier lorries; US firms generally have fairly small market shares with the exception of Philippines (now of lesser importance given the crisis). This supply pattern should not be treated as simple description. It is the contention of this report that the Toyota/Nissan hold on the market is central to an understanding of many of the difficulties in implimenting individual country policies as well as schemes at the Asean-wide level.

The fact that the two leading Japanese firms within Japan itself are also those which dominate sales in the Asean countries, and that these firms are reluctant to expand local production in the region, for reasons described in the first chapter, severely circumscribes the possibilities for individual governments to encourage investments in assembly and manufacture by other Japanese companies. The top two will of course not overtly oppose such investments. However, they certainly do have an interest in ensuring that current market shares are not

disturbed in any major way by the establishment of local facilities. Consequently, the line they would be expected to follow in any given case would be to try and discourage further domestic assembly; where this was impossible, to try and liberalize trade among Asean countries to allow bigger market shares; and where investments by Japanese competitors do take place, to keep a watchful eye on whether or not this leads to any sharp change in market power. If that looks like happening, then it seems plausible to suppose that Toyota and Nissan would then try to join in with such projects themselves.

In summary, therefore, over the past decade and a half there has been significant cutback in CBU imports as a source of vehicle supply in Asean, yet so far this has not altered the Japanese grip over sales nor have the relative market positions of the leading companies altered very much. It seems that the control power, in the sense of the ability to block radical changes as well as to influence just what kinds of vehicles will be supplied, remains clearly in the hands of the two leading Japanese firms.

(3) Character of Local Production

The Asean countries contrast strongly with the Latin American in this respect. In no country of the region has any large assembly plant every been established or even seriously contemplated. Existing assembly operations remain very small scale and extremely diverse with regard to models and variations produced. To illustrate these two contentions, Table 5 summarizes the numbers of makes, models and variants in the different assembly plants in Malaysia in the present decade, while Tables 6 and 7 show the maximum production capacity for the assembly plants in Malaysia and Thailand, respectively. The figures in Table 5 demonstrate that, notwithstanding the efforts of the Malaysian government to streamline the assembly industry in recent years, the reductions in production

diversity have not been particularly great. There has been a fall of about 12% in the number of models and about 9% in the range of variants; even so, the total figures remain high. In terms of plant capacity the numbers are also extremely small, reaching at best some 15% of the rates to be found in OECD countries.

Of course other countries in the developing world have preoccupations concerning this aspect of industrial structure and indeed the 1983 Mexican program for rationalization of the automotive industry drew attention to this, complaining that the problem was getting worse in that whereas in 1977 the producing firms had 36 different models, in 1981 the figure was back up to 47. However, a major difference between Asean and Mexico is that at least part of industry production in that country is on the large scale aimed at the world market. This type of component production simply does not exist within Asean. The component industry has been almost entirely developed from replacement market (RM) production and the underlying philosophy, if there has been one, seems to have supposed that small firms would develop from RM output towards competitive performance in the original equipment market (OEM). In practice, it has not turned out that way.

The reasons for the limitations in the component sector are several. First, as mentioned earlier, there has been no consistent government support for ancillary industry output in any country of the region. Second, RM items cover a much narrower range than do OEM and therefore the prospects for moving from one to the other are confined to a small range of products; to go beyond that means a qualitative jump into new areas. Third, and of vital importance, the fact that quality standards in RM are by no means the same as those in OEM. In the latter case, it is the TNC producers who are the buyers and thus the quality arbitors. They impose requirements which are very different from the RM business and usually successful sale in OEM require very close contacts with the TNC. Fourth, to enter

the OEM market almost certainly means establishing technology transfer arrangements with either the TNC itself or with established component suppliers. To be effective, such accords must be supported by a technological absorption strategy, something which has been notably absent from most manufacturing activities in Asean. Even if such a strategy exists, there are still high risks due to the fact that the technology supplier might himself use the contract as a way of establishing a market foothold and then move in himself. Fifth, the OEM field is nowadays one of considerable technological innovation, closely integrated with changes in design engineering. The disadvantages of a local Asean firm in that kind of setting are only too apparent. Indeed, a local firm is likely to feel that it is on a technological escalator in which, as it takes one step upwards, the target moves two steps away.

Subsequent sections of this report dealing with the situation in the various Asean countries will examine the component market in greater detail. For the moment, however, it is worth keeping in mind that the market does require considerable differentiation. To begin with there are parts based on locally available raw materials; these are often produced by affiliates of TNC, and a classic example is tires and other rubber based components. Following that, there are the technically simple parts which are produceable on a large scale and are often also in the hands of TNC affiliates; the outstanding example here would be batteries. Then come those parts which are produceable from materials used in other industries, where some relatively large local groups have been making progress in Asean; the best example here is the safety glass market. The parts prodution which draws mainly on local supplies of cheap labor, and is not of great technical difficulty, covers only a few OEM, of which a good example is wire harness manufacture, as well as some RM, eg oil filters. These four categories can be separated in the Asean context. That done, however, we are still left with the

vast majority of electrical and mechanical parts which probably account for roughly 2/3 of the value added in component production within a vehicle; almost all of this is imported in the member countries.

The differentiation is useful in that it points to the limitations on local parts development stemming from technical and other production characteristics. In particular the first two groups, based on local raw materials and fairly standard technology, are throughout the region the domain of TNC affiliates. They will presumably stay in production and keep up to date technologically; whether they generate much technical progress locally is a moot question. The most promising category for local progress does not seem to be the cheap labor based parts. These are vulnerable to technical developments occurring elsewhere, as will be shown in the wire harness case, and much of their production is of a subcontracting kind. Instead, in our judgement the better prospects lie with those industries which have been developing strong local groups in areas where production for AI accounts for only part of total output. Instances of this kind of development will be discussed in later sections.

The main contours of the production terrain in the Asean AI can now be summarized. First, in the assembly field, the original influx of plants goes back to the late 1960s in Philippines and Malaysia, and then to the 1970s in Thailand and Indonesia; the assembly industry in Singapore was effectively closed in 1980. These plants have been characterized by the predominance of JV and/or licensing arrangements and only in a few cases has there been 100% foreign ownership. A wide range of TNC have entered the market and only recently has a process of streamlining begun. The Asean countries remain with substantial trade deficits due to the import of CKD and SKD sets necessary for the assembly production. Second, the component sector is badly underdeveloped, though Philippines during the 1970s

and Thailand more recently have made some progress. Up till now, no country in the region has succeeded in obtaining long term involvement from important component producers who would be ready to promote local technological development on a substantial scale. Third, both corporate and government behavior with regard to assembly and component activities have manifested a concern with juggling policies in the face of short run changes in circumstances, rather than devoting themselves to the buildup of a strong industrial framework. Despite the appearance of constant controversy surrounding AI in Asean, the hallmark of policies has been their lack of depth. Fourth, there now seems to be some concern with developing larger scale activities. This at least is the preoccupation of some governments as well as a few of the interested local groups, though, as was emphasized in the first part of this study, there are no good reasons for supposing that TNC share that concern. But it is doubtful to what extent the interest of local groups is succeeding in translating itself into specific actions. Apart from the major changes in Malaysia, there are no strong indications that firm projects are underway in other countries. The impression is that awareness of broader developments in the sector is still limited, that experience in negotiating complex agreements is likewise scanty, and that in any case governments are still some distance away from elaborating genuine policies. These summary points lead to one general finding: it is not evident that the industry is on the way to charting a new course. Despite the numerous frustrations in the past and the repeated declarations regarding the need for fresh efforts, the existing panorama is gloomy. To see what this means at the level of individual countries, the following section analyzes their circumstances on a case by case basis.

C. Developments in Individual Asean Countries

(1) Malaysia

Table 8 presents in summary form data describing the position of AI in the Malaysian economy in 1975 and 1983. On any macro-economic basis, the industry in 1983 was not especially large; even comparisons confined to the manufacturing sector do not put its share above 3.5% in any category. Certainly the industry was a substantial importer, and indeed its 1983 figure of 4% of total national imports hides the fact that the sector expanded its purchases abroad by some 280% from the mid-70s up to the early 80s. The components industry grew much faster than the assembly branch over the period shown in the table, with the former registering an 8-fold increase while the latter did not quite double. Even so, these figures too do not tell the whole story since the sector is now in the early stages of what seems to be a major policy change, viz the beginning of the national car project. This is so important both in Malaysia itself and in Asean as a whole that it warrants a detailed examination.

(a) The National Car Project

The present Malaysian government has been developing an economic policy which is unique in the region. In the late 1970s the government initiated a series of programs to try and redistribute wealth and power in the multi-racial society which is Malaysia towards the indigenous Malay community (the Bumiputras). The measures included requirements that representatives of this community should hold minimum proportions of shares in enterprises, that their training should be promoted through state channels and institutions as well as numerous other detailed schemes. However, a crucial element in the government's approach during the past five years has been its determination to develop and implement a strategy of planned economic growth whose central economic feature

would be the buildup of certain poles of heavy industry, and whose central political/social feature would be the attempt to instill self confidence in the Malay community by involving it in the management of such an economy.

The thinking behind this approach, which we stress again intertwines political, social and economic considerations, seems to come from a reexamination of the industrialization experience in some other DC and the conviction that Malaysia can only benefit fully from its enormous natural resources if it uses them within an industrial context. Since Malaysia is firmly established in the Asian context however, the government has also recognized that a political-economic thrust cannot be separated from geopolitics and geoeconomics. It is that dimension which has been behind the elaboration of Malaysia's 'Look East' policy, which in practice has meant the signing of a wide ranging bilateral agreement with Japan (an agreement which is unique for both countries) and seeks to obtain major technological benefits for Malaysia in return for the favorable consideration of Japanese interests in terms of Malaysia's international economic policy.

We therefore have two vital strands in recent Malaysian policy: one is the New Economic Policy and the other is the Look East Policy. Both are aimed very consciously at changing attitudes as well as changing economics and both form an indispensible background for understanding and evaluating the fresh moves in the automotive field. For the fact is that Malaysia has adopted an economic stance which picks some classic industries, especially AI and iron and steel, as the poles for heavy industry expansion, and has decided that the technical and to some extent financial wherewithal for promoting those endeavors must come from Japan. The magnetude and significance of this choice cannot be understated. For an Asean member country to enter into a special relationship with the most powerful economic unit in the region, Japan, clearly has dimensions that reach beyond economic

factors. Moreover, the choice also implies that Malaysia is confident of being able to achieve its goals through a close link with one country rather than via numerous ties with a wide range of partners. Furthermore, the thrust comes from the government and it is the government which, via public sector participation in major schemes, is taking an active role in day to day economic decision making as well as in longer term strategic orientations. Clearly Malaysia wishes to change an economic history which has been sculpted by successive commodity booms (tin, cocoa, rubber, timber, and more recently petroleum) yet to use those enormous natural resources to bargain for industrial assets. Since Japan, more than any other highly industrialized country, is perpetually in need of secure access to abundant natural resources, the partnership appears very promising.

It is difficult to know how much initial investigation was undertaken by Malaysian authorities prior to agreement on the current Proton project (the acronym Proton stands for Perusahaan Otomobil Nasional, which is the name of the public sector enterprise in charge of producing the national car). Almost certainly, given the Look East policy, the initial options were restricted to Japanese enterprises and in view of their dominance of the market this would hardly be surprising. It is known that serious negotiations were undertaken with at least one other firm before the choice was made to enter into arrangements with Mitsubishi Motor Company (MMC). The agreements were signed in 1982 and thereby established Proton, a public enterprise with 70% equity held by Hicom, the state iron and steel company, 15% by MMC, and the remaining 15% by Mitsubishi Corporation. The arrangements provided for technical assistance contracts with MMC and more particularly for the production of a model, the Saga, based on a MNC saloon vehicle in the 1200-1600 cc category. Output was to begin in mid-1985 with production rising to reach a maximum output of 120,000 units by 1994. Local production of components was to rise such that, by the same date, LC levels would

be around 36% stemming primarily from manufacture of OEM to fit the Saga model.

The choice of MMC is an intriguing one from several points of view. First, MMC is part of the Mitsubishi group, one of the world's most powerful economic entities and notable both for its historical association with Japanese national programs overseas and its extensive involvement in natural resource processing and trade. Of all Japanese corporate groupings, there is little question that Mitsubishi is the best placed to satisfy both the development of Japanese interests in the natural resource field as well as meet some of Malaysia's needs in AI. Indeed, Mitsubishi Corporation is also the partner with Hicom in the iron and steel projects that form another crucial building block in the New Economic Policy as well as taking key responsibilities in various aspects of natural resource arrangements. Lest there should be any misunderstanding on this point, the argument is not that the Mitsubishi choice was inevitable but that it does correspond quite closely to both Japanese and Malaysian aims. Second, and to underline the comment in the last sentence, it is known that MMC involvement in the Proton project was bitterly debated both within that company and within the Mitsubishi group. Of course, now that the decision is made, every effort will be forthcoming to ensure its success; yet there are some signs of a protective policy being employed by MMC to ensure that it does not lose from the deal. Third, MMC is not only a firm in the second category of Japanese auto TNC (behind Honda and Mazda) but it also is a company which has not been faring too well in recent years. Indeed MMC cars have failed to capture either increased market shares or the public imagination in the main selling areas. The company has received only a small share of the total Japanese quota in the US market, and its association with Chrysler has not served as a platform for expanding sales in the US. In Japan itself the company is definitely under severe pressure not only from Toyota and Nissan but also from Honda and Mazda on the one hand, and Suzuki and Isuzu on the

other, both of these benefitting from their corporate connections with GM. These observations suggest that the Malaysia involvement may represent the crucial decision by MMC, on which its future as an international auto firm may depend. Fourth, the selection of a firm which is vulnerable in Japan, has up till now been only fourth or fifth in the sales ranking within Malaysia itself, and whose recent technological achievements have not been outstanding, raises obvious questions regarding the sustainability of the project as now formulated as well as the attitude of other Japanese producers. It is perhaps a sign of things to come that the training in Japan which is now underway as part of the Proton scheme is not confined to on the job learning in MMC factories, but also includes experience in some of the other Japanese auto firms. It may be that these firms will acquire a more direct involvement with the project as time goes on.

To launch a program of this kind in current regional and international circumstances brings to the fore a wide range of issues which, sooner or later, will require resolution. At the level of national decision making key issues are: the organization of tariff and tax schedules to ensure that the Proton model captures a major share of the market; procedures for allocating the franchise for Saga distribution; measures to encourage the growth of local component production; and constant monitoring and evaluation to ensure that technological learning really is taking place in Malaysia. At the regional level the Proton program has obviously had, and will continue to have, strong impacts on the operation of Asean schemes. Indeed the Malaysian government has not tried to hide its view that Asean AI policy was failing to make progress and that individual country initiatives were therefore warranted. On the other hand, however, the government has also been at pains to say that components produced in other member countries suitable for incorporation in the Saga model will be treated as part of LC. Internationally, the program pinpoints not only the queries concerning MMC strength which were noted

above but also the general position of a large scale manufacturing facility, aimed at local demand, given the rapid changes in AI technologically, financially and in terms of markets. In the next paragraphs we comment on some of these points.

The creation of a market for Proton implies changes in the tariff structure in order to ensure that the initially higher cost domestic production will be competitive at local prices. Table 9 summarizes the import and excise duties on vehicles currently in force in Malaysia. The key feature is the difference between import duties on CBU as against CKD purchases abroad. In the former case the rates applied to PC imports escalate from 100% for lower value cars up to 260% for the more luxurious items; this schedule is to be compared against the flat rate of 25% levied on CKD imports. This differential effectively prices out of the market those PC which will compete with the national car in its 1200-1600 cc range. At the present time this category accounts for some 80% of all PC sales so that the firms currently holding a major share of that market will be forced to move elsewhere, eg into less powerful or more powerful PC, or into other branches of CV markets. Of course the impacts of the duty differentials will alter over time, partly because it will be a few years before Proton production is up to maximum capacity and partly because there may be changes in the relative cost of productin for local as compared to foreign manufactured vehicles. Table 9 also shows that there are various other taxes applied to vehicle sales. These have the overall effect of restricting demand and to that extent affect all sales, whether stemminmg from local or foreign output. The figures as given in the table seem to reflect the levels which the Malaysian government believes adequate to protect the new venture in its early years.

How is aggregate demand for PC likely to develop over the next decade in Malaysia? Table 10 summarizes the results of projections made by Malaysian

producers themselves and based on assumptions concerning varying rates of income growth and price change; in each of the scenarios summarized Proton production is assumed to keep to the existing schedule. Even on the most conservative set of assumptions shown in Table 10, aggregate purchases are forecast to rise by over 60% during the next decade while on the most optimistic forecasts, the total rise would be over 260%. Clearly the national car share of the market bears an inverse relation to aggregate market size--the lower is aggregate demand, the higher will be the Proton share. The Table indicates that under the most favorable possible scenario for Proton (and it should not be forgotten that the figures assume the project will keep to schedule, always a dangerous assumption for any project) the cut of the national market does not get beyond 72%. This figure gives a strong hint that, should demand rise more rapidly, then it is most unlikely that local supplies will be enough to meet aggregate demand. Table 11 brings together some calculations regarding the supply-demand situation on the assumption that both local assembly and imports are kept at their 1983 level. These numbers show that there should be no difficulties during the next five years but that, come the next decade, there could be substantial shortfalls in meeting local demand. The implication is that either local assembly would have to be increased, through an expansion of Proton and/or other firms, or a relaxation of import controls would be necessary. These figures are a salutary warning that even the launching of a major project of this nature, given its lengthy development period and growth in the local market, should not be confused with the elimination of imports and/or other forms of local production. The most optimistic assumptions of the Malaysian groups concerning the evolution of the market certainly do not suggest that other producers will be anything like squeezed out.

The important point behind the aggregate figures is that they imply some sharp changes in relative market shares for the different firms. As things now stand,

the leading sales are Toyota and Nissan with Honda also an important supplier in the relevant category (1200-1600 cc). The Mitsubishi model would, at maximum, achieve total dominance in this range and thus acquire around 70% of the national PC market. It does indeed seem doubtful that the leading Japanese producers would accept a shift of anything like this degree. Perhaps in the initial years, say for the rest of this decade, they may be ready to allow some inroads on their share--but it is hard to imagine them allowing the complete disappearance of their role in the most important PC range. Consequently we already have some pointers to what may actually develop. It may be that one or more of the Japanese firms becomes a partner in the Proton project, either via equity sharing or through more extensive participation in technological arrangements. It may also be that the price rises are not absorbed by Malaysian purchasers and the government is forced to reduce tariffs on CBU, thereby cutting into the Proton market share. It may further turn out that the predictions for both volume and cost of production of Proton are not fulfilled, and that the government is forced to inject further cash resources into the project. That would mean not an immediate alteration in market shares but rather a growing pressure on the public purse which might lead to a longer term shift in policy. In any event, each or all of these possibilities must always be viewed with the special relationship between Japan and Malaysia in mind. Interviews with Japanese authorities have stressed the extent to which this project must be seen as part of the total package such that decisions on it would be influenced by trends in overall arrangements.

The discussion on market size and the allocation of sales among various producers is only one aspect of profit generation and distribution. An important dimension is who will obtain the benefits from rights to sell Saga? With the history of AI in Malaysia so closely linked to distribution firms, it is little surprise to find that there has been a fierce battle to obtain distribution rights

for this new vehicle. Since MMC itself has not previously established a strong sales network, the main contenders for these rights have in fact been firms whose business up till now has been with the assembly and distribution of other car makes. The government has apparently decided that the bulk of the franchise rights will go to United Motor Works (UMW), which is in fact linked to Toyota. The implication is that this firm will be able to collect the more or less fixed percentage commissions associated with the franchise business. In part this will serve as a cushion against possible losses of market share for Toyota models but it may also be a spearhead with which UMW gets to enter the Proton deal in a more substantial way. This decision by the government is a good illustration of the complex mechanisms involved in launching major projects in the AI sector where acquired interests, at various levels, have an established weight. One thing is to aim at domestic production, but another is to make sure that profits are still spread around among the more influential groups. It could be that decisions in the franchise area are a sign of the kinds of steps the government will be compelled to take in the future.

The third area in addition to demand for the final goods and control of the distribution is the component sector. Malaysia is currently in a much weaker position regarding component production than are some Asean neighbors, especially Thailand and Philippines. In the past (late 1960s) the government did introduce measures regarding LC but the oil price rises and other shocks led the administration to quietly play down those schemes, presumably because of the judgement that cost rises for PC stemming from greater local inputs would have been unpalatable. So it is that the Proton scheme is launched at a time when local component production covers only a very small number of OEM items. In fact the government has some 13 items on its mandatory deletion list and on current estimatess this list will only be expanded by another 4 items in the near future.

The quality level of existing production appears to be quite varied. Table 12 summarizes a recent evaluation of the component industry in Malaysia as made by Japanese manufacturers. It is readily seen that those producers which receive good ratings in both quality and reliability of supply are either those which have technical cooperation agreements with Japanese producers, as in the cases of wire harnesses, batteries, glass, alternators, starters and leaf springs, or those which are affiliates of TNC, as in the case of tires and paint. The remaining firms are poorly rated either in terms of quality or reliability, sometimes on both criteria. What this suggests is that the road to developing a local component industry will be slow and arduous. The approach taken by the government of course has begun with detailed contacts with MMC concerning possibilities. The company has submitted a list of 282 OEM items which could be produced in Malaysia provided quality, price and delivery conditions were met. The government has established a coordinating committee for handling the component industry and this committee is now examining the MMC list with a view to developing the more promising areas. It seems that the aim is to establish several new companies, as opposed to expanding ones which already exist, which would be JV in nature (majority holding being Malaysian), and would conclude technical assistance arrangements with their Japanese counterparts, presumably the equity holders. Up till now the number of entities actually established seems to be very few and there is certainly considerable reluctance on the part of Japanese component firms to become involved in these ventures. Part of the problem is that these firms have little experience of foreign production and in any case little wish to engage in it, part stems from what Japanese observers and institutions believe to be the rather poor performance of Malaysian firms in sectors where Japanese JV have already been set up, and part also is to do with reservations which Japan has about controls on foreign investment in Malaysia. Although it is recognized that substantial incentives are given by the government, nevertheless Japan wishes to see a relaxation on that

familiar point of limitations regarding the size of foreign equity shares. In fact recent developments indicate that the US government has been putting heavy pressure on Malaysia to change its laws, or at least loosen its administrative practices, in this field. Though the Japanese government has apparently not taken the same overt stance, it would certainly be pleased if US pressures produced the desired results.

The manifold difficulties in the component field are rendered still more sensitive by an important historical and social fact viz that the Chinese community has traditionally been the stronghold for skill development. Under the Bumiputra policy, there is a pronounced tendency to relegate the role of non-Malay producers to the background. Not only is this disturbing to the Chinese community but it also seems to be a curb on the willingness of Japanese enterprises to become more heavily involved. To put the point bluntly, the government may find it progressively more difficult to simultaneously encourage the development of the component industry and retain existing preferences for Bumiputra control of the sector. In the longer term, then, the Proton project may be driven to tackling two social goals rather than one, ie. instead of being only an instrument for encouraging greater industrial confidence on the part of the indigenous Malay community, it may also have to be an experiment in encouraging the various social groups to work together on industry rather than operating as separate layers.

In each of the areas of national policy described above the administration will have to develop procedures for monitoring and evaluating progress. This is an area in which experience up till now has inevitably been sparse. Indeed, it can be cogently argued that Proton will be a major learning experience for the administration since it will be forced to build up skills which have hitherto been lacking. Earlier on reference was made to the contemporary history of some other

DC as forming part of the framework in which the Malaysian government took the Proton decision. It seems a reasonable conjecture that Brazil was one country in mind, and that Republic of Korea was another. Both of them have tried to combine the expansion of heavy industry predicated upon collaboration of the public sector and TNC with an export oriented manufacturing sector largely in private hands, whether local or foreign. In both instances a strong institutional apparatus has been built and the administration has become permanently involved in corporate decision making and project bargaining. Thus far Malaysia has concentrated on training and learning aimed at starting the project on schedule, so its arrangements have focused on training of engineers capable of handling the day to day business. What is suggested here is that the administration may have to undertake a similar exercise for the purpose of building up its own monitoring skills.

Turning now from the national issues to those at the Asean level, the obvious and central point to consider is the effect of this major national initiative on the coherence of Asean in AI. Several matters will be analyzed further in the section dealing directly with Asean policy yet a couple of points need to be highlighted at this stage. Within Asean there seem to have been two broad methods of action: in some countries, particularly Philippines and Thailand, initiatives have been left primarily to private sector associations, while in others, particularly Malaysia, direct government moves have been the order of the day. Since Asean is first and foremost a grouping of governments there is little doubt that the Malaysian route allows initial steps to be taken rapidly; the extent to which they can be carried through, however, will depend to a considerable degree on the cooperation forthcoming from the private sector. It may be that the Malaysian program in fact provides a better umbrella for private sector groups to work with than they had in the past, particularly as the Asean Industrial Joint Venture

(AIJV) program is now in place. Indeed interviews in some member countries hinted that private groups had a reasonably optimistic view of the opportunities that might come from Proton. At a different level is the point that what has happened in Malaysia demonstrates an impatience with attempts to improve arrangements within the pre-existing industrial and trade structure. Certainly other governments will now examine the extent to which they may be able to inject further dynamism into their programs via the launching of major sectoral projects.

The international implications revolve primarily around two axes. First, the clear demonstration that what can be attempted in AI may no longer be a function of conditions pertaining to that industry alone. Although outside reports of this kind inevitably do not have access to all the information which would be necessary to reach clear cut conclusions, there is surely a strong probability that Malaysia would have found the negotiation of the Proton project noticeably more difficult had it not been for the Look East setting and the interest of Japan in developing stable political and economic arrangements in the area. In this particular case the decisive assets seem to have been in the natural resource field but in the future they could also straddle other areas, eg a country's commitment to new technologies. The point is that judicious bargaining in AI may have to draw on national assets in quite different sectors. The second point is that this is a deal which drives home the extent to which what is happening in Asean countries in AI is very much a question of relations with Japan and among Japanese firms. Although European companies, in particular, have long had ties in Malaysia, none of them seems to have seriously been in the market for this kind of project. In turn, the concentration on Japan means that developments in the Malaysian auto market will increasingly be molded by changes in that sector within Japan itself. This is certainly not a new phenomenon given the international character of the industry. What it says is that good choices locally are a function of understanding what is

happening to the TNC in its home base and other markets. As hinted earlier, future developments in Malaysia will be determined to some extent by the relative performance of MMC in Japan.

(b)Other Branches of the Industry

The changes introduced by the Proton project have ramifications for other parts of the industry in Malaysia. In particular, the automotive manufacturing groups are now coming together for the first time as they are compelled to identify common interests in meeting the threat of new competition. It seems that their position in negotiations with the government hinges on the ways in which the shift from a trader mentality to a manufacturing mentality can be smoothed through government support. Conversations with representatives of these groups suggest that for them the crucial points are: no further taxes on auto sales; preferential treatment for existing firms in the component business; and support for these supplier firms. Put another way, their position is that, now the State has entered automotive production, its involvement cannot stop there. It shoukld do everything possible to encourage those firms which have already invested in the component and franchise operations and make sure that the legislation both now and in the next few years creates the maximum breathing space for them.

The mere expression of these concerns is an indicator of the serious dialogue now underway between the government and local groups. Since the administration is committed to this project, but at the same time is committed to supporting local industry especially where there is heavy Bumiputra involvement, it really has little alternative except to try and find bridging points with these local associations. It may be that the actors involved in this type of dialogue will become more numerous, as would be the case if AIJV became important. In that instance the concerns of local component producers would run over to the interests

of foreign component groups, where foreign refers to other Asean firms. Hence, the way in which these conversations take place and the outcomes which they yield will in fact be a reflection of the interest the government has in supporting Asean based ventures. One group did express its view that this kind of cooperation would in fact be a test case for the government. What would happen if an AIJV was set up in another Asean country, but with participation of local Malaysian firms, to produce parts for the Saga? Would the Malaysian government treat the output of that enterprise on an equal basis with firms set up under the MMC wing?

Some of the experience gained by local firms cannot be, and should not be, easily jettisoned. Examination of the parts industry shows that some enterprises have in fact learned quite considerably in the component field and even if that does not take them to the quality level set by MMC, this does not mean that their capabilities are inadequate. Up till now it appears that MMC has rejected all samples of OEM parts which have been submitted to it. Though it is true that much of the output of parts firms has been RM and thus not necessarily of the standards required, there is the danger that the MMC monopoly on quality control could lead to the eradication of some firms which have potential and their replacement by entirely Japanese controlled entities. The government can scarcely ignore this possibility and may be compelled to enter the component area in a more thoroughgoing fashion. These comments as well as others made earlier show that the very structure and content of component sector operations is becoming evermore a question of government decisions. In launching the Proton project, the government is thus throwing itself into the center of decision making regarding industrial structure.

Past practice in Malaysia, as well as the pronounced policy of the government, has been to place heavy emphasis on private sector operations. Most contacts with

the outside have been in the nature of promotional activities, designed to attract what were originally called 'pioneer industries' with substantial foreign capital holdings and aimed at relatively simple subcontracting activities destined for export markets. Within that optic, the administration has been organized with a Ministry of Industry responsible for the broad framework and MIDA responsible for the actual execution of the measures. Now that kind of organizational system seems relatively inadequate. The monitoring activities of the Proton project itself, as well as the actions in the component sector which have just been described, imply that the government will have to develop new instruments and procedures. A serious start on these changes has yet to be made.

(c) Concluding Comment

Events of the past two or three years have thrust Malaysia, or more precisely it has thrust itself, into the limelight within AI in Asean. For several years the country had been at the top of the list as far as purchasing of PC was concerned, yet the local assembly industry had remained highly fragmented. The government was, by the beginning of the decade, moving towards its fresh view of the mechanisms through which to bring about social as well as economic change, and to do this it embarked upon the New Economic Policy and the Look East Policy. AI has been selected as a pivot for these new approaches.

The Malaysian decisions constitute a sharp departure from familiar practice in the region. The focus has not been on manipulating existing regulations nor indeed has it sought a direct attack on the chronic problem of the proliferation of makes, models and assembly firms. Instead, it has set up an entirely new enterprise with government backing both directly, since Proton is a public enterprise, and indirectly through changes in tariff regulations. What happens to industrial structure will thus be the product of the reverberations from these decisions and

their detailed implementation. The outcome of this process is by no means clear. Not only will the government be required to fashion new procedures of its own but the reactions of both Japanese and local producers still remain to be seen in their full force. It has sometimes been suggested that the project may have a demonstration effect as far as other Asean member countries are concerned, ie. they may be tempted to launch similar ventures of their own. This suggestion does not seem to carry any weight, and that for two reasons. For the countries, their styles of policy making are substantially different from that of Malaysia. Even in Indonesia the planning system, though it does pay attention to the possibility of setting up major component plants, has not yet envisaged any major manufacture of PC. For the TNC, the MMC commitment to Malaysia plus its involvement in the Indonesian discussions suggests that they would be overextending themselves were they to try and enter big projects in other countries. During the next few years, therefore, the Malaysia project is likely to stand on its own not only within Asean but compared to almost all other DC. The Malaysian government has consciously decided to enter this high risk program and will have to carry it out with rather little comparitive experience to go on.

(2) Philippines

Until very recently the Philippines had been the pioneer country in AI within the region. The development of the jeepney industry, based on the skillful use of vehicles left by the US Army following the first Asian war, provided the platform on which substantial mechanical skills could be developed in relatively small enterprises. Subsequently, the establishment of assembly plants by the major manufacturers, (GM, Ford, Toyota, Nissan and Mitsubishi) to meet vehicle demand from a relatively wealthy elite group seemed to offer ample opportunities for expanding local component production. It was this setting which provided part of the background for the launching of the PCMP in 1973 followed by

the CVMP in 1974. Although vehicle sales never reached the annual levels which have been recorded recently in Malaysia and Thailand, nevertheless by the middle to late 1970s annual purchases were around the 50,000 unit mark of which a fair proportion was supplied from local assembly plants.

Yet in the Philippines, as in Malaysia, changes in AI cannot be separated from the larger dimensions of political economy. The country was functioning for a long period on a relatively fragile structure whose shakiness was exposed when substantial foreign loans were contracted at the end of the 1970s, the repayment costs of which have risen dramatically in the past couple of years. Had those loans been used to try and alter the existing framework, then it is possible that the economy would have been better placed to meet the foreign exchange demands. However, they were not so employed and the possibilities for repayment were ever more closely tied to the attraction of fresh foreign investment. The political events of mid-1983, however, effectively terminated this source of capital and thereby left the economy totally exposed to foreign exchange demands which it could not meet. Recourse to the IMF as a potential provider of short term funds and an implicit guarantor to other lenders had severe costs. The government has, during the past 12 months, used extremely restrictive measures which have led to profound cuts in real income and very widespread and massive reductions in industrial output. Hence, AI is now feeling the full brunt of the macro-economic measures. Consumption has fallen to levels which, on most recent estimates, seem to be no more than 30% of the levels regularly recorded in the past, while local production has been extremely severely hit by the foreign exchange shortage.

The crisis now engulfing the industry is not one of an unfortunate set of circumstances but is rather intimately related to the whole setting in which the Philippines now finds itself. During the 1970s the country launched an LC program

which did make use of skills locally available but was unable to break through in terms of major component production and vehicle design. Consequently it remained within an import dependent structure and as such was always vulnerable to a foreign exchange shortage. That shortage was postponed for some time through the expansion of loans and some inflows of investment finance, but it could not be shelved indefinitely. The events of the past year have set the government into the adoption of short term measures requiring AI to match all imports by earning equivalent foreign exchange and have put the industry near the bottom of the priority list, which is now headed by agro-industrial activities. The government did attempt, just prior to the wave of foreign exchange shortage, to try and streamline the industry by requiring the five firms to merge into two groups. But those measures, like the PCMP itself, have now been overrun by circumstances.

The crisis has affected not merely the aggregate volume of activities in AI but also the positions, including political positions, of some major companies. Toyota had established its Delta company in close association with a Philippine businessman known to have good connections in the government. Those connections allowed, among other things, the extension of substantial credit facilities to Delta from Philippine institutions, especially the Philippine National Bank. The massive fall in Delta's sales consequent on the general crisis was matched by a severe problem in relations between the Philippine partner and the government, which led to calling in the loans. Delta was of course in no position to pay and working capital could only have been provided by constant injection of funds from Toyota, something the company was not ready to do. The outcome has been a closure of the company for the past few months along with protracted legal and other negotiations in which Toyota has thus far maintained that it wishes to remain involved in the Philippine market but with a new partner. Ford, meanwhile, decided that the long run difficulties which it had been experiencing in Asia, where it

seems to focus now on its Australian activities, along with the proposals for streamlining put forward by the government and then the onset of the major crisis, were more than enough to justify the complete shutdown of its Philippine subsidiary. That decision finally took effect in August 1984.

Hence, on the assembly side the industry is now going through a sea change. GM, Nissan and MMC remain very much involved and Toyota seems to want to stay in. However, it is unlikely that industrial structure in the near future will be the same as in the recent past. The component industry is certainly suffering severely from this crisis. In the late 1970s the Philippines had tried hard to encourage Asean arrangements, from which it could have benefitted given the relatively more advanced state of its ancillary industries. The failure of those initiatives has meant that the country has had no escape valve in face of its own crisis. Though it is hard to judge how long the various parts of the component sector can withstand the present problems, opinions in the industry seem to converge towards about mid-1985 as the limit date. Beyond that point it would be difficult for even strong component producers to stay in business. The government has, perhaps inevitably, frozen LC schedules in face of the crisis, and this measure too does not augur well for local parts producers. In short, the signs are that the industry which had been most developed in the Asean region may be along the road to being dismantled.

A common feature of auto parts firms is their diversification, ie. they do not usually rely on sales to AI for more than a portion of total receipts. In normal times the product mix would be a protection against downswings in AI; but a generalized crisis of the kind now existing in Philippines hits all industrial sectors severely and thus destroys protection via diversification. It seems, therefore, that none of the standard ways of sustaining the sector is currently

available in the Philippines and thus it is difficult to escape the conclusion that, short of a rapid and dramatic shift in the politico-economic situation, the industry will not survive in its present form. What are the chances of an industry forming around new investments? The striking feature of all recent changes in Asean has been the focus of investment discussions on other countries: Malaysia and to a lesser extent Indonesia for some larger scale operations, and Thailand for some small ones. Despite the technical expertise accumulated in the Philippines, and its past record as the initiator in the region of both LC schemes and Asean arrangements, the country is now marginalized from developments in the industry. It is conceivable that, given political change and a stabilization of some key economic variables, ie. the exchange rate and inflation, inherent technical strengths could be a sufficient attraction for foreign producers. Yet, as emphasized on various occasions in this report, the reshaping of AI internationally has considerably weakened the incentives for TNC to engage in DC based production. Consequently the medium term as well as longer term prospects in the Philippines are not good. It seems that an increase in domestic demand for vehicles may be the best that can be hoped for, though even in this case the prospects are not good. Opinions within the country suggest that even by the end of the decade vehicle sales will not be more than one half the number of units they were at the beginning of the decade. Substitution towards jeepneys and two-wheelers will most probably take place yet even there existing price levels may be beyond the reach of those consumers who could conceivably be in the market.

The conclusion must be that Philippines has lost the strong role in Asean AI which it had developed through the past decade primarily because of the contradictions stemming from the political economy fashioned by the government. The collapse of that kind of economy at a time when the international AI has undergone such profound transformation suggests that it will be quite some time

before the country could return to a relatively strong position in the region. The major asset of acquired technical skill is still there but is in serious danger of erosion both from the unemployment in the component industry as well as the technical changes taking place outside. It may unfortunately be true that in retrospect this period for the AI in Philippines will come to be regarded as a textbook example of what can happen when the slow process of technological accumulation within standard process in a standard industry is overtaken by both macro-economic events at home and technological change abroad.

(3) Thailand

Whereas in the case of both Malaysia and Philippines the main features of the current landscape are easily visible, in Thailand the situation is less clear. The assembly industry in the country was mainly established in the 1960s and early 1970s with a relatively heavy involvement on the part of European producers noted for their production of larger models and heavy trucks. The proliferation of makes and models has probably reached a much greater level in Thailand than elsewhere and the corresponding volumes have been very small. Yet for a long time the government did not seek to enforce strong policies either with regard to industrial structure or LC. Instead, as has been characteristic of the Thai administration, firms were allowed to proceed in their own way and the government did not take a strong stance either in term of production involvement or in changing the parameters for the industry. Towards the end of the 1970s, however, the government for the first time took a strong position in relation to developing local production and introduced a ban on the import of CBU vehicles. This policy was of course aimed at augmenting volumes in the local assembly industry and, to acquire a meaning, had to be supported by a program for raising LC. The scheme put forward called for a progressive increase up to a level of some 45% by 1982. Firms were left free to choose which parts they would source

locally and whether that sourcing would take place within the assembly unit itself or would draw on outside suppliers.

The results of that policy have come in for strong criticism. In particular, two lines of disagreement have been expressed. One of them concentrates on the technical angle, arguing that the loose nature of the provisions plus the relatively weak monitoring of the scheme has meant that real LC is not too much abovewhat it would have been even in the absence of any compulsion from the government. Moreover, it is noted that the freedom to select the parts to be produced in Thailand has led most assembly firms to choose the same items, these being ones of a very simple technical content. Consequently it cannot be claimed that the skill-raising aspects of the policy have been particularly successful. The second line of criticism has been the more traditional, macro-economic based one viz that the foreign exchange outflow, as well as the rise in vehicle prices, are unacceptable. The foreign exchange problem stems from two roots. First, the fact that to import CKD sets instead of CBU vehicles often does not lead to proportinate reductions in foreign exchange expenditures, for the well known reason that external suppliers do not reduce the costs of a set by very much when they take out some of the parts. Second, the local component firms themselves often make use of foreign items in their production processes, so that an increase in volume of production may require them to expand their own purchases abroad. The other facet of the critique, that directed towards vehicle prices, has concentrated on a standard finding, which is that as the LC in a vehicle rises, so does the cost of production. In practice, and given the LC levels achieved in Thailand, the cost increases are probably of the order of some 30% as compared to CBU prices (of course it would be possible for distributors to alter their margins when dealing with locally supplied vehicles and thus to mitigate the impact of production cost rises on final product prices but this has not happened in Thailand). The

additional cost of vehicles in turn acts as a dampening influence on final demand, and this in turn holds back volume and so again drives up unit prices.

Ever since it was promulgated, this policy has been surrounded by controversy. Those who criticize it from the freer trade perspective have used the arguments just outlined. But the policy has also been arraigned by those advocating a stronger line in terms of domestic production: their position has been that the policy is too moderate and should try to achieve much more ambitious aims. From the early part of the 1980s the debate has acquired an additional dimension in that the government has, with the support of some international agencies, undertaken a program of industrial restructuring in which AI has been one of the key target sectors. Though Thailand has traditionally adopted a prudent stance with regard to foreign borrowing, and even now has a relatively very low level of foreign debt, there have been concerns expressed about the country's foreign exchange position and the need to reexamine activities (especially industrial ones) which are net users of funds. This fresh dimension has pushed the government into protracted discussions with interested groups in the industry to see whether and in what ways policy can be improved. It is noteworthy that these discussions, unlike those in other Asean countries, have not seen TNC or their affiliates in the forefront of debate. Rather, the prime movers seem to have been local groups in the component as well as assembly branches who are looking for wider market opportunities.

In the recent debates the administration has continued to adopt a low profile, seeking to balance the interests of the various groups without ever wanting to become too heavily involved itself. Given that perspective of the government, it is not surprising that most discussion has focused on ways of adjusting LC regulations so as to keep them within standard levels (ie. not obliging any

producer to go beyond the 45% figure) and yet offer incentives of LC reduction to those firms willing to generate exports. A recently approved policy change has crystalized these debates by allowing for a rebate system on LC in return for exports, while at the same time insisting on a reduction in the number of models sold in the Thai market.

During the past few years there is some evidence to suggest that at least a certain number of local parts firms have strengthened their technical capabilities and are now in a position to supply effectively in the local market as well as compete abroad. This is particularly true of areas such as safety glass and foundry work where Thai firms are now extending their operations abroad. These operations, however, are in fields where supply to AI is only one aspect of total business activity. The issue for Thailand in the component field is to see whether a specialized parts firm can be launched. The parts producers associations indicate that the trade-off of LC and exports embodied in the most recent legislation is not likely to provide much of an incentive in a market as small as Thailand. These groups believe that what is now required is a qualitative jump into a technically more difficult area; they suggest that transmission systems may be the most promising, with a production volume of around 100,000 per year being the threshhold figure--following that, it is suggested that manufacture chassis could be undertaken.

If those ideas were to be followed, then two groups would have to become involved. On the one hand, a TNC would certainly be required both because of its technical command and because of the need to secure markets for the output. On the other, the Thai government would surely have to provide strong support facilities and perhaps even take a small stake in the project itself. In other words, there is an underlying feeling in Thailand that the parts industry has progressed about

as far as can be expected within the existing framework. Though the government has steadfastly refrained from making any long term commitments to support of parts production, several local firms have advanced quite far. The time has now come to make some substantial changes which can hardly be effected by local entrepreneurship alone. The question is therefore whether or not the government will be ready to make this kind of shift. At this time of writing there is no indication that such a change would be made. All the same, with Philippines in the stranglehold outlined in the previous subsection, no country in the region is as well placed as Thailand to contemplate a shift.

It has been proposed by some observers that Japanese firms might be more ready to respond to overtures from Thailand than from other countries in the region. Partly this is because of the existing technical level and partly because Japan may find it easier, for historical and geopolitical reasons, to cooperate with Thailand rather than other countries. Assessments by Japanese groups of the prospects for the industry in Thailand do seem to accept the possibility that the country could become a regional export base in the component field yet they are not so sanguine on the chances for exports on a larger scale. Should Thailand decide to explore this area more thoroughly, it may be necessary to discuss options with parts producers outside of Japan as well as in that country.

The streamlining of the assembly sector has now become a key aim of the Thai government. As such, it seems unlikely that encouragement will be given to efforts aimed at setting up new assembly ventures. There has been considerable comment recently on the possibility that Peugeot would be interested in establishing a plant in a JV with a Thai group. As far as we can tell, these comments are mainly founded on the expansion in sales of that company's vehicles over the last two years, due mostly to the sharp devaluation of the French franc in relation to the

baht. However, and despite the fact that the Thai group concerned has been active in discussions with Peugeot, the position of the French company on an international basis is not promising and will surely lead it to caution in undertaking any other ventures. At best, therefore, it may be possible to obtain some additional investment though this would hardly be substantial and certainly would not have much effect either on the Thai market or beyond. This report therefore argues that the real decisions required in Thailand are those relating to the component sector rather than the assembly field.

(4)Indonesia

Most analyses of AI prospects in Asean concur in treating Indonesia as the country with the greatest potential, primarily because of the size of its market and the abundant resources on which the country can draw. Yet the development of AI is only a recent phenomenon. As of now the level of LC is quite low, not going beyond some 20%. The country has a consumption pattern which is heavily geared towards CV and in fact users regularly employ their trucks as passenger as well as commercial vehicles. A considerable part of consumption is tied up with the public sector, including the military. Indeed in Indonesia it is felt that one reason for developing AI should be the potential to build military vehicles within the country as well as to improve national capabilities for producing engines that themselves may serve defense purposes. This reference alone shows the kind of perspective in which AI is treated: it is unequivocally part of the long term planning framework which, as in the case of Malaysia, looks towards the creation of a heavy industry structure in a country where natural resources abound.

As things now stand, the principal objectives of the industry look towards local production of diesel and petroleum engines, as well as a large scale production of some key parts, particularly transmissions and chassis. This move into key component areas clearly depends on the conclusion of arrangements with TNC and in this respect Indonesia, like Malaysia, has been heavily in negotiations with MMC. The aim for that company to become involved in transmissions and then perhaps use other firms to handle the remaining components mentioned. From an administrative angle, Indonesia uses a system of authorizations which designate certain companies as being those permitted to invest in the particular item concerned, and then leaves it to these companies to put forward proposals of their own.

(5)Singapore

Throughout this report little reference is made to the situation in the smallest of the member countries. This is not because the country is unimportant as a consumer -- in fact, the number of vehicles per 1000 population is much higher there than elsewhere and indeed income levels are also higher and more evenly distributed. Rather, the reason for less discussion is that in 1980 the government removed tariffs on CBU imports, a decision which effectively meant an end to the local assembly industry.

It seems this step was motivated by three considerations. One of them was of a general kind relating to the inherent limitations on vehicle population in a small country with no possibilities for expanding its land. The government, shortly after removing tariffs, increased by a big margin the taxes on vehicle use as a measiure to reduce expansion of the car population. Thus the elimination of the

assembly industry should not be equated in the Singapore case with a reduction in prices to vehicle buyers. Instead, what the government has done is to simultaneously limit aggregate consumption and make sure the market is satisfied by imports. The second, and much more specific, reason why the assembly industry was disbanded is just the same argument which has remained a bone of contention in other Asean countries viz. the foreign exchange costs of the activity. Despite the high productivity levels in the Singapore manufacturing sector, the government clearly came to the conclusion that the impossibility of realizing economies of scale in AI was too big a handicap to overcome. But at the same time, the third consideration, that of the possible place of Singapore in the vehicle component industry, came into play. Given the advances made in the country regarding electrical and electronic production, plus the excellent transport facilities available in Singapore, there is clearly the chance that the country could find a place as an export location for some of these products. In short, the government has opted out of assembly while retaining the option to enter the component business at the higher technology end and through arrangements aimed at world markets.

Conversations with authorities in the country indicate that so far, no major investments of this kind have been made. From the Singapore side, it is very probable that a favorable response would be given to proposals which fitted the higher technology profile which the country has set as its industrial goal. The stumbling block at the moment is almost certainly the reticence of the TNC to use any of the Asean countries as an export platform -- the reasons have been set out earlier in the report. Consequently, the present phase is a a kind of limbo period in which Singapore keeps open the possibility of entering the component business, especially on the electronics side, and the companies continue to reorganize their activities in the main OECD countries while deferring consideration of larger

investments in DC to a later date.

Whatever the future may hold as far as component production is concerned, events in AI have underlined the rather singular position which Singapore has within Asean. It is the only member country which has given up assembly and thus withdrawn from participation in any schemes for industrial complementation in the sector. Moreover, its free trade attitude towards vehicle imports likewise means that landed prices (though not prices to consumers) are considerably lower there than elsewhere. Partly for this reason, and partly also because of the country's infrastructure, it is a major centre for entrepot trade in vehicles. Should any of the other Asean members adopt more open policies in the future, Singapore would almost certainly benefit from them because of this trading bridgehead. For the momennt, however, the debates on AI policy in the region make but little reference to Singapore while the country, for its part, has shown no wish during the present decade to again become involved in the discussions of which it formed an important element during tne second half of the 1970's.

IV. Automotive Policies in Asean

A. Actors and Mechanisms

Comments in the last chapter have hinted at the range of policy measures used in the individual countries. Foremost among them have been trade controls, involving tariffs, quotas and occasionally outright prohibition of vehicle imports; schemes to reduce the number of manufacturers and models produced within a country; schedules for raising LC; as well as broader approaches directed at relations with foreign firms, especially investment regulations. A quick glance at the way these instruments have been used at the country level suggests the following generalizations. First, with the recent and partial exceptions of policies announced in Malaysia and Indonesia, AI schemes have not been placed within a comprehensive framework for industrial expansion. Hence despite the objectives enunciated for and assigned to the sector, it has never really been clear what it is supposed to accomplish. Second, relations with foreign partners, particualarly via investment and technology transfer, have rarely carried much weight. This is partly due to the fact that Asean countries have not been prepared (with perhaps the limited exception of the Phillipines at a point in mid/late 1970's) to formulate and use strong policies of this type in any sector, and partly because TNC have not been ready to stake too much in this field. Though governments continue to offer plenty of incentives to foreign investment, the corporations continue to complain over controls in equity participation. Third, even though LC regulations have been set out in early stages of the assembly industry in each country, those timetables have rarely been adhered to, have been modified on numerous occasions (both up and down), and in any case have been subject to varying interpretations, particularly regarding weight as aganist value measures and differences between mandatory and free deletion. Now the LC schedules seem to be

firmly constrained and are probably on the retreat; in any event, the possibility of trading off the strictness of application of LC against performance in other areas, especially exports, has increased rapidly. Fourth, the accent now seems to be on policies that were of lesser interest in the past, particularly streamlining the structure of the assembly industry. It seems ironic that proclaimations of a committment to competition are given practical application through schemes to reduce the number of firms in what is already a sector where only a limited number operate. This is, nevertheless, the trend in all DC; moreover, government regulations on this issue are fast being overtaken by corporate decisions as the companies themselves seek to rationalise their global operations.

These features of the policy area thus seem to be common to all member countries. The position is slightly more differentiated at the level of groups involved in decision-making, yet even here the Asean countries share several characteristics. To begin with, the most important and still enduring links have been those between local distributors and TNC. In most instances, the local franchise holders were synonymous with the most influential business and political groups, thus ensuring a liason between the strongest entities at home and the strongest abroad. Associations of local assemblers have not, up till very recently, operated as a particularly significant actor since on the one hand they have only had to raise their voices at specific times, mostly when LC legislation has been under consideration, and on the other, the competition among the TNC behind these assembly firms makes the members cautious in exchanging much information among themselves. The groups of component producers have, not surprisingly, been still weaker. Observations in a preceding chapter underlined the diverse character of such firms and are sufficient to explain their problems in developing a coherent perspective. This situation may be changing, above all in Thailand where the component industry, it was argued earlier, is now entering a

crucial phase. All in all, however, the 1980's are witnessing only the first halting steps of component producer associations to elaborate positions that can influence policy-making both in individual countries and at the Asean level.

The enumeration of local groups given above is nowadays inadequate to describe the full range of actors in AI. The stakes in the industry have increased, and groups not directly concerned with the business are now beginning to exercise, directly and indirectly, an influence on policy. For the sake of simplicity, the discussion focuses on two such actors, the IMF and World Bank on one side, and Japan on the other. The international funding agencies have entered the picture because of the growing concern throughout the region over foreign exchange and the orientation of macroeconomic policy. To put the argument briefly, the short-term preoccupations are to reduce both the trade deficits and the public sector deficits, while the longer-term aims are to shift production towards sectors which are net earners of foreign exchange. Why does this affect AI? The reasons are not hard to find. Balancing the budget hits at vehicle consumption, since higher taxes are necessary (those tax increases could be general, thereby reducing purchasing power, or specific to the sector, thereby raising vehicle costs), while balancing the trade account requires, according to conventional wisdom (not accepted by this report), regular currency devaluations and thus increases in the local price of vehicles. Local vehicle production is affected because the industry is a net user of foreign exchange and thus should be squeezed. The force of these measures has, of course, been greatest in the Phillipines, where the World Bank has been active for many years (indeed, the country was that organization's favourite Asian son for a long time) while more recently the chronic debt has brought the IMF into the forefront. However, the influence has also been clearly discernable in policy-making in Thailand and Indonesia; the Malaysian case remains somewhat apart. In the longer term, it seems probable that pressures on the industry from the international financial organizations will augment, rather than decline.

Japan is involved in AI policymaking in the obvious sense that the sector in Asean is dominated by Japanese firms. The point being made here, however, is a little different and refers to the interests of Japan as a country, both in securing stable access to natural resources and in improving political relations with its neighbours. Given that the enormous strengths of Japanese AI are by now universally recognised, and given also the spell which the sector continues to cast over industrial development thinking, it is no surprise to find the provision of AI assets by Japanese firms being used as a bargaining device for improving access to the ample natural resources to be found in most member countries. The directions which might be given to the industry though the influence of Japan are not as clear-cut as in the case of the financial agencies discussed above. Undoubtedly, Japan would welcome measures designed to encourage vehicle consumption, e.g. tariff and tax reductions; in this sense, Japanese preferences would run against those of the financial agencies. On the production side, Japan certainly would like most manufacturing to take place on its territory, since the industry operates most efficently in its home base. However, from this it would be incorrect to suppose that all production in Asean would be the object of blocking manueuvres by Japan. Since the aim for that country is to stabilise natural resource supplies, local production may have to be accepted as part of the price. Instead, it may be expected that Japanese policy would try to shape the content of that production so that it fits as closely as possible with the longer-term developments with Japanese AI, as well as with the strategies of individual firms. To this extent, and though the absence of information necessarily renders the comment speculative in nature, it may be that negotiations between particular Japanese auto producers and Asean member countries are preceeded by strategic discussions in Japan itself, designed to ensure that broader national interests, as well as narrower corporate interests, are kept in mind.

B. The Nature of Policy Formulation in Asean

Three kinds of 'balance' must always be considered when commenting on industrial policies in Asean. These are: the relative weight of internal initiatives as against external control; the extent of public as against private sector participation in policy formulation and implementation; and the committent to multi-lateralism in its widest sense as against bilateral or trilateral schemes operating under a multi-lateral umbrella. It is argued here that these balances have been shifting over the past few years, and that policy formulation in AI represents, in a major sense, a battleground among the conflicting interpretations. Before examining that argument in greater detail, however, a couple of obvious, yet nonetheless basic points should be made clear.

Asean was formed in the first instance for political reasons. Politics remain at the centre of the stage and, as such, government to government accords have usually been regarded as the sine qua non for proceeding in any direction, including economic deals. While it was felt that the political benefits to Asean membership were readily apparent and could be shared by all, the impetus to finding economic cooperation schemes as of the middle to late 1970's was of a much more circumspect kind. Reciprocity and a fairly strict balancing of benefits was the criterion which, almost from the beginning, dominated the evaluation of proposals. AI was one of the very first industries to come under discussion, and it was in fact assigned a pioneer position as an industry already in operation in all member countries and susceptible to harmonisation among them. It was thought that the appropriate focus for AI policy formulation was to create a network of specialisation and preferential trade among member countries. That focus, nevertheless, carried within it the seeds of major controversy. To obtain reciprocity in trade is a notoriously difficuly undertaking. The major stumbling

blocks are usually that the introduction of trade preferences will make a much bigger difference in some countries than others (for Asean, Thailand has till now maintained much higher tariffs than others, and so would have to reduce them by more) and that each participating country wants to be confident that the products manufactured on its territory will enter the arrangements. In practise, these criteria meant that the assembly industry in Asean was not tackled in the early stages, and that discussions centred on the limited branches producing auto parts.

Deliberations through one of the intergovernmental committees of Asean, viz. the one dealing with industry and minerals (COIME), over a two to three year period led to the elaboration of an initial list of 22 products which would qualify to recieve trade preferences under the Asean Industrial Complementation Scheme. Yet, as is shown graphically in Table 13, the actual extent of trade has been minimal. Thailand, as of 1983, received some 20% of just one of the products from Singapore, while its imports of the rest from Asean partners were very small or nonexistent. As time has passed, dissatisfaction with agreements involving just government actors and aimed at trade preferences alone, has surfaced more and more. The balance between public and private initiative in formulating policies has altered, as the private sector has insisted upon a greater voice in order to shift regional arrangements out of the trade impasse. It is for this reason that industry associations have argued the importance of linking the creation of new projects to the preferential trade arrangements. Hence the AIJV mentioned earlier in the report have rapidly moved to the centre of the stage. Their aim is to allow partial agreements, i.e. among firms from just two or more Asean countries, where there would be capital sharing although production would be limited to just one of the member countries. In these schemes, non-Asean firms are allowed to participate as technology suppliers and minority equity holders. The key provision linking the formation of AIJV to past Asean concerns has been that any AIJV approved by member

governments automatically qualifies for preferential trade treatment. The upshot is that governments retain a veto power in that they can refuse to accept an AIJV, but the private sector now has power of initiative, in that it can look for arrangements with the most suitable partners elsewhere in the region.

The shift towards both greater private participation and the acceptance of arrangements whose scope is less than fully multilateral has certainly been the most important change in automotive policy formulation within the past three years. It has not, however, been the only one. The increasing preoccupation with the state of assembly industries in member countries, and the desire to integrate them more fully with component production, has driven governments to look for better methods of industrial complementation. The basic shift of perspective has been to recognise that, as long as production allocation decisions among countries were confined to universal parts, then the likelihood of progressing very far was slim. Thus, Asean has in the past two years switched attention to brand-to-brand complementation, meaning that each TNC should make its own proposals for allocation of major parts within the region. Trade is therefore recognised as being, to a large extent, an intra-firm matter with, as in the AIJV case, power of proposition given to the firms and power of opposition kept by governments. Here there has been no shortage of schemes, yet none of them has so far proved acceptable to governments. MMC is the company whose ideas seem to be of most potential to governments, but the biggest companies have repeatedly emphasised the need for governments to act first by harmonising their policies. When that is done, the TNC assert, they will then come forward with production allocation schemes suitable for the region.

The general tenor of the shifts is by now clear. Governments, which started in the driving seat, have now been relegated to the role of passengers or perhaps

even pedestrians. The private sector, both local and transnational, has taken over policy formulation. Faced with that emerging picture, it is understandable that the Malaysian government decided to 'go it alone'. The PROTON program of course derives its substance primarily from the new policies set by Malaysia at the national level, yet the spill-overs for regional policy formulation are only too apparent. It will now be a question of other countries choosing schemes that can benefit from the new situation in Malaysia, rather than all countries working together to establish an ASEAN-wide network. It follows that Malaysia's initiative, though it breaks away from the framework of joint arrangements, may, in fact, provide a much-needed impulse to regional efforts. There is already evidence of the establishment of at least one important AIJV whose focus is to provide steering columns for the Saga car, making use of assets in Malaysia itself, Thailand and the Phillipines, and drawing on technical assistance from a firm in FRG.

A summary view of policy formation at the regional level would therefore conclude by underlining the following points. First, neither companies nor governments are showing any interest in establishing assembly industries on an ASEAN-wide level. The governments remain, in this period of constant worry about foreign exchange, unwilling to sacrifice trade reciprocity. The TNC are committed to their massive reorganisation within the OECD and therefore stay away from new moves in the region; should any one firm try to break ranks (as MMC may be attempting) it will almost certainly be called to order by the others before things go too far. Second, local component producers are now splitting into two groups, i.e. those with the capacity to expand beyond national borders, and those who are being overtaken by developments in the international industry. It is the former set which has pressed for the AIJV mechanism and which has some prospect of withstanding increasingly fierce competition. As emphasised earlier, however, the

examples currently available suggest that firms will function best in those areas which are not specific to AI. Where that condition does not hold, both auto TNC and internationally powerful component firms will probably command the field. Third, there is no reason to suppose that fresh ASEAN initiatives are likely to be made in the near future. Rather, the impression is that governments are now to some extent shifting attention away from the sector, and will confine their role to reaction rather than action.

C. ASEAN Policy and Industry Structure

From its inception, AI has been strongly outward-oriented. The attempt to build the industry through the import substitution route has meant that the industrial linkage effects, which for so long have been the very core of the strength of the sector in OECD countries, have been external, rather than internal for ASEAN. Table 14 summarises those impacts under three headings, the first part of the table quantifies the change in foreign production consequent of an expansion of AI within the region. It illustrates the extent to which Japan, rather than the ASEAN countries themselves, benefit from rising auto output. Even in the smallest case, there is a one-unit increase of industrial output in Japan for every three units of additional vehicle production in an ASEAN country. The second section of the table looks directly at impacts within the countries and sets out the share of intermediate imports used by the industry, which are purchased at home. In no case does this domestic share reach 60% and in Indonesia it is only half that. When a comparison is made between this kind of inter-industry effect in ASEAN countries as compared to the standard setup in Japan and the U.S., it is again all too apparent that ASEAN is a very open system. Finally, the third section of the table pulls together total impacts on local output of a rise in vehicle production. For none of the countries do the numbers reach even half of the Japanese figure. Thus, the

statistics conclusively demonstrate that the familiar justification for AI as a sector capable of providing strong inter-industry linkages simply does not hold for ASEAN countries. In fact, Japanese firms reap greater benefits from output increases than do local enterprises.

In the light of the open nature of the sector, the countries of the region have all devoted much attention to schemes for raising LC. The present status of those measures is summarised in Table 14, where information is divided into the specific policies used and a summary of the situation. Before commenting on this material, a recapitulation of a few basic points is necessary. First, LC is always defined with relation to firms established within the country concerned; regulations say nothing about equity ownership of or technological control over these companies, and thus do not differentiate cases where output comes from local entrepreneurship, as against instances where business is handled by foreign groups. Second, the monitoring of the rules has not been especially stringent in any country, and the penalties for failures to comply have not been harsh. Third, the table spotlights existing regulations and these have been the outcome of a fair number of alterations over the years. Fourth, in the Phillipines and Thailand, companies have been left free to choose which items they will source from local companies; though this is ostensibly very different from Malaysian and Indonesian practice, where mandatory deletion is the rule, in fact both approaches are strongly influenced by corporate pressures dictating what is or is not feasable.

Most industry analyses in the region recognise that actual, as opposed to declared, LC levels in no case reach the 45% level. Indeed, the countries split clearly into two subsets: Phillipines and Thailand around the 40% mark (were up-to-date figures available for Phillipines, they might well indicate a lower figure), and Malaysia and Indonesia, where current levels are, at best, hovering

near the 20% figure. It is the contention of this report that these numbers give the lie to many comments regularly made about the industry. In the first place, they show that nowhere has local manufacture moved into fabrication of major parts. While this can certainly be interpreted as one of the failures of the industry, it cannot simultaneously be argued that firms have moved into the range where LC cost penalties are high. Estimates of such penalties generally agree that the curve only becomes really steep beyond the 45-50% LC mark. Although the Phillipines had targetted to go some way beyond that, this has never happened. Hence, to argue that LC regulations have imposed exorbitant cost rises on vehicles is an exaggeration. Second, they show that the countries where LC is currently highest are the ones where a cautious attitude towards increases is apparent. Even for Malaysia and Indonesia, on present plans LC levels would not approach the 45% frontier zone over the next decade. Hence, the plans for expansion of domestic output in some countries of the region do not envisage taking them into areas where costs might become prohibitively high. It follows that it would be misleading to confuse strongly-worded public policy declarations regarding the development of AI with the facts. It is simply not the case that any country of ASEAN, now or in the past, has in practice tried to push the sector into a full-fledged manufacturing branch. Instead, the regular diet has been dramatic declarations followed by cautious actions. Third, the time dimensions covered by present as well as past LC schedules do seem to make quite a large allowance for the slow pace at which domestic manufacture can increase. It is, of course, an open question as to how long is long enough, yet in no instance does any country seem to have contemplated crash programs. Even under the recent Malaysian initiatives, it has been observed that they may err on the side of caution, in the sense that they do not seek to make a qualitative leap into the production of difficult components within the current program period (which, after all, runs through to the mid-1990's). All in all, it is difficult to escape the conclusion that LC policies in the region have been quite mild, compared to those attempted elsewhere, e.g. Latin America.

This adds substance to the earlier argument that the sector has remained and looks like remaining in a kind of nether region, where countries insist on some kind of local manufacture, yet are unwilling to push that program very far.

D. Japanese Perspectives on ASEAN Future

A constant theme of the argument has been that developments in ASEAN, both in policy formulation and implementation, cannot be separated from the dominant tendencies in the global system in general, and of the Japanese AI in particular. Table 15 presents an overview of foreign participation, through equity and licensing arrangements, in the assembly industry within the region. It shows the following key features. First, Japanese companies are overwhelmingly the ones with the strongest interests. Second, and as a qualifying comment on the first feature, we find that, within the Japanese set, Toyota, Nissan and MMC are by far the most active groups; each of them is present in local firms in all four countries, whereas Honda and Mazda have far more limited contacts (Honda has made a recent entry into the market in Thailand, but this remains on a small scale). Third, the concentration of GM and Ford on the Phillipines comes out sharply. Since the earlier sections have shown that the industry there is in a crisis which is likely to continue for quite some time, the Japanese presence is still stronger than the table would suggest. Fourth, the pattern of Japanese participation is one of avoiding, in most instances, 100% equity participation, and instead operating via JV and/or licensing arrangements. This approach both cuts risks and increases the chances of profit, without sacrificing an effective presence in the market.

The presence of Japanese firms thus makes it imperative to take account of the perspective which they may have regarding the future evolution of the industry. One thing is for governments and local firms to state their objectives, but quite another is to understand the strategic orientation of the TNC involved. Enough

has been said in this study to show that, at no stage, have the countries been able to proceed except within the confines explicitly or implicitly laid down by the companies. Hence, the view of the latter is of paramount importance in assessing future developments. Before starting that discussion, an obvious caveat must be made. Corporate assessments are not directly or readily available, so to make statements about them is partly a matter of piecing together those bits of the jigsaw puzzle which are at hand, and partly a matter of reflecting on the inherent strengths and weaknesses of companies and countries. The comments presented in the next few paragraphs draw on documentation produced by Japanese AI groups, as well as information from interviews and other sources.

The Japanese perspective on AI is in essence that of stages of development. They consider that a country should move from an initial phase which concentrates on building up the simplest sections of the component part industry towarde more complex forms of parts production and then into the manufacture of major components and full assembly. In that perspective it is therefore crucial for a country to focus policy on its ancillary industries and to wirk up from that basis. The process actually followed in the ASEAN countries has been quite the opposite, beginning with assembly production when the parts industry were still at a very low level. In this sense there has always been, and continues to be, a strong divergence of view between the Japanese Corporations on the one hand and governments in the region on the other. The broad framework of Japanese assessment goes considerably further, however, than mere commentaries on the nature of parts production. For them it is essential that a country should possess other resources and bargaining assets, among which the potential size of the domestic market plays a major role and the availability of capital and technology from domestic sources is also significant. Table 16 synthesizes assessments made by the Japanese automotive manufacturers of potentials of the 4 ASEAN countries heavily involved th the sector.

A reading of the table suggests that the Japenese evaluation concentrates mainly on two aspects of parts production (items 5 & 6 in the table), three elements of production resources and organization (items 2, 3 & 7), plus the allowance for market size contained in the first row and a consideration of petroleum production in line 4. Though no explicit weighting is given to the factors mentioned, there seems every reason to suppose that in the long run market size is perhaps the most significant element. Partly this may come from the export potential that a large market will have for Japanese producers, but most probably the main concern is the possibility of realizing within the national market substantial economies of scale. On this criterion Indonesia clearly fares better than the others and it is the only country which is held to have potential for vehicle purchases in excess 0.5 million units per annum. Since future assessments are never closely specified in the sense of indicating whether forcasts are likely to be realized in 5, 10, or 15 years, it is quite possible that some other countries could reach medium size before Indonesia has expanded still further. The most important consideration for the Japanese, however, is where long term production facilities could be established if demand were the decisive factor. It is on that interpretation that Indonesia is the long term leader.

Resource imputs from abroad focus on capital and technology and here the Japenese perspectives are clear cut. Whereas each of the countries is currently supplying some of the capital used from local sources, the longer term outlook is very strongly towards total supplies from abroad. All 4 countries are judged to remain dependent on foreign technology and only Indonesia is thought to have prospects of suppling it's future capital needs. This is a scenario pointing towards increasing external dependence in two crucial areas, ie: even those bits of local participation at present found in the sector are expected to disappear everywhere except Indonesia. The implication of that evaluation is indeed powerful.

Japanese producers are in effect asserting that the ASEAN members will, if they go ahead with their assembly activities, provide an even richer market in the future than they have done up till now. This does not necessarily mean that all capital and technology supplies will come from Japan, but the strong probability must be that by far the majority will do so. Once more the assessment brings us back to a key point in the debate. Whether significant production of vehicles takes place in the region or not, there will be a big market for Japanese firms; the difference between the two cases is the effeciency with which production takes place. From the Japanese viewpoint, costs will be much lower if manufacture remains in Japan. Yet even if it does not, profits can still be collected by Japanese firms.

The focus on production systems which is implkicit in the emphasis placed by Japanese groups on the growth of a strong component sector means that a country would be rated higher the mor integrated is it's domestic production system. Along this dimension the predictions shown in the table are suprising. Whilst the optimism with respect to Indonesia is maintained, the Japanese clearly must assume that the current crisis in the Philippines will not have longer term consequences for production orgainzation. If this were not so, then it would be hard to justify the medium/high rating given to that country. Curiously enough, the lowest ranking is assigned to Malaysia which is not only the country whose policy has made the strongest moves towards building an industrial network centered around AI, but is also the country with which Japan has developed a special relation. Taken as it stands, this view of Malaysia's possibilities should serve as a warning to the policy makers in that country regarding the difficulties which Japanes producers clearly expect it to encounter.

Previous sections have had much to say on the LC issue and the related opportunites for parts exports. Once more the Japanese view is unequivocal: no

country is expected to move into the area where domestic production of the most difficult components is possible. Undoubtedly the medium range (from 25-75%) covers many possibilities and the assessments shown in the table do not differentiate among them. This may reflect genuine uncertainities on the Japanese side as to actual performance as well likely shifts in government policies. However, the fact that moves from lower to higher levels of LC are not usually possible along a smooth curve but instead occur in discrete jumps, suggest that ASEAN countries would not be near the upper end of the range. If this vies is correct, then the genuine level of local production may not in the future be that much higher than in the past. The preceding subsection emphasized that nowadays Philippines and Thailand are around the 40-45% level; the point being made here is that they may not in fact progress too far beyond that. This finding, coupled with the earlier comments on capital and technology supplies, once again points to the existence of substantial markets for Japanese and other origin component supplies. Whichever way we look at things, therefore, the indicators all point towards substantial foreign imports. AI is thus not likely to change it's character as a net user of foreign exchange.

The final factor considered in Japanese views is one of a different nature to the rest, ie: the availability of petroleum reserves. Here the position is straight forward in that Malaysia and Indonesia have substantial assets while Philippines and Thailand are without them. The presumption in considering this element must be that vehicle running costs will be an important consideration in future decisions regarding vehicle purchases. While that is certainly the case in Japan itself, the market characteristics in ASEAN countries are such that it is doubtful whether much importance should be attached to this factor.

The imformation of table 16 presents only part of the story, since it says nothing about either policy decisions or the possibility of using the resources available elsewhere in the economy to support decisions regarding AI. In this respect the field work for this report suggests that Japanese firms do accept, and indeed emphasize, the need for a strong government support in the earlier stages of creating the industry. Where protection is used, then this should be done on a selective basis, ie: aimed specifically at those activities which the industry needs to develop in each phase, and should be placed within a clear timeframe, ie: where producers realize that support will only be forthcoming for a limited period. Yet the observations on protection fall short of a description of the total policy frame. It seems that the crux of the issue is whether or not domestic industry is judged to be in a position to benefit from protection. According to the information obtained for this study, the picture seems to be that Japanese firms consider Brazil, Mexico, and perhaps to a lesser extent Republic of Korea, Taiwan, and Argentina, to be the only DC in a position to turn protectionist policies to their advantage. In other words, even under the best of circumstances, the prognosis for ASEAN countries is not promising. For them, the Japanese perspective argues that the protectionist schemes cannot work, however astutley they may be applied, since the basic industrial conditions for them to have a good chance of success do not exist.

In the light of the picture just sketched, it is now possible to place an assessment of the future prospects for AI in ASEAN in it's full context. The points can be summarized as follows:

- o The practical chances for any policies encompassing all ASEAN countries are minimal.
- o No new projects for assembly and manufacture are likely to be set up in the region in the forseeable future.

- The possibility of any of the countries expanding existing operations into the advanced stage of manufacture is likewise minimal.
- The most probable setting is one where the industry in Philippines and Thailand does not move very far beyond it's present stage, while the improvements in Indonesia and Malaysia will not take those countries beyond the middle level of production capability.
- Technical advances in AI from outside the region, as well the consolidation of trans-national capital, suggest that all countries will continut to be heavy importers of capital, technology and component parts.
- AI will therefore continue to be a net user of foreign exchange.
- Even if any of the member governments launched initiatives to attract foreign capital for component production, and there are no signs to suggest that will happen, it is most unlikely that these initiatives would meet with much response from TNC.
- Consequently ASEAN countries remain on the edge of the world production system in AI and it is hard to believe that this situation could be altered in the next few years.
- The interests, both national and foreign, already established in the sector suggest that any drastic changes towards reducing AI would be very hard to push through. To the extent the sector is weakened, that may come more from macro-economic restrictions in the country concerned rather than from policy measures specific to AI.

V. A Summary View

This study has centered on the interplay between changes in AI internationally and their impacts, actual and probable, on the prospects of the sector in ASEAN countries. The study has emphasized the contrast between the uncertainty affecting assessments of prospects in individual OECD countries and the fairly clear panorama which describes the ASEAN countries. Although the recent past as well as the next few years is a period of dramatic change in the industry, the perspectives for ASEAN countries remain somber.

The depth and extent of structural re-organization in AI among the OECD countries and their corporations is indeed substantial. The mid 1980's see the beginning of the end of AI as a pivot of industrial structure in the high income countries, the end of it's role as by far the greatest employer of industrial labor (especially semi-skilled and un-skilled labor), and the casting of significant shadows on it's place as a financially strong industry. At the same time, however, the industry is undergoing major regeneration in various ways, most particularly through it's role as an innovator, and to a greater extent incorporator, of new technologies and materials. These changes simultaneously destroy the paradigm on which establishment of the industry in many DC was predicated, and widened the gap between the nature of AI in the core countries as compared to activities undertaken in DC. This development, with it's attendant shift in perception of the kinds of vehicles to be produced and the resources necessary to make them, is one key reason why internationalization of the industry is nowadays concentrating on just a handful of OECD countries and only one or two DC.

The period of dramatic change in which most of the old technical and analytical parameters have been altered, is also one of a marked intensification of

oligopolistic competition. The unification of important segments of the global market (particularly small cars), the sharp shifts in LC levels within OECD countries as a consequence of growing inter-penetration of production, the growth of collaboration among TNC as a defensive reaction to the competition, the growing diversification of TNC as they seek to use their base in AI as a platform for moving into higher growth industries, and the sharp swings in the relative position of countries, are all symptomatic of the high risk area which is the automotive field today. Within the corporate struggle, the broad impression is that Toyota, Nissan, GM and (but less certainly) Ford are now widening their edge over most other TNC. Some firms, particularly VW and Honda, may be sufficiently strong to sustain their positions in the mass production market, while specialist producers such as Volvo and Mercedes-Benz continue to flourish. On the whole, however, and recognizing the continuing uncertainty in the industry, the trends seem to suggest that the strongest are becoming still stronger.

Despite forecasts often made to the contrary, this report argues that prospects for increased demand in DC are not particularly good. The problems of moving from a situation where vehicle purchases are essentially made by an elite to one where consumption covers a significantly wider range of the population are acute. Most DC are now in a period of economic retrenchment, where income growth and the demand for new vehicles are both likely to be lower than in the recent past. Consequently TNC will remain in those markets but not because the short-term profits are particularly good; rather, the hope is to keep hold of any profit prospects for the long-term. To the extent that those markets can be served by direct export from traditional production locations, profits will be higher; but where this is prevented because of government policy, then TNC will maintain local assembly bases while trying to increase the scope for direct export.

DC are now subject to an offensive which combines arguments about overall macro-economic policy with pressures to alter AI policy. At the broad level most schemes suggest restraints both on public expenditures as well as private, and emphasize the control over foreign exchange outlays. In terms of AI policy stress is repeatedly made on the need to cut costs by reducing LC. The convergence of the two kinds of pressure in this sector makes it a powerful example of the kind of transformations now taking place in the international system. The traumatic breakdown in the power of organized labor which has been at the center of the reorganizational process in OECD countries is mirrored at the international level by the effective elimination of most DC from the realm of possible cheap labor production sites. The new techniques of design, organization of processes and linkages between component and vehicle producing firms, have greatly weakened labor demand throughout the world. At the same time, these changes have enormously improved product quality in OECD countries. From the perspective of assets as well as vehicle types, DC are marginalized even more than in the past.

The ASEAN countries are now in situations which bear eloquent testimony to the force of these changes. Their efforts to operate as a single entity have been thwarted both by their own difficulties in reaching agreement on a division of activities and benefits, and more fundamentally, by the ability of auto-producing firms to block changes in the system. The period when these countries could contemplate undertaking strong steps on a communal basis is now effectively over. The Malaysian decision to move ahead on it's own was in part a recognition that an impass had been reached. In a crude sense the choices have seemed to be those of going it alone or quite simply of going backwards. Yet in either case the illusion that considerable power is in the hands of the countries must be a continual concern. The Malaysian case seems to show that the bargaining which could be done

was more the product of the country's possession of valuable assets outside AI rather than within it. To put the point differently, progress in AI may, in the future, only be to a limited extent a function of AI assets and policies; the decisive bargaining cards may well come from completely unrelated areas.

Though the description of scenarios is always a hazardous matter, the pointers are firmly in the direction of severely constrained options for moving out of the present realm. While adjustments may be made to strenghthen some activities and even to organize a few more favorable arrangements with foreign producers, the probability is that the structure of the industry will not be altered significantly from it's present status. But the passage of time is not neutral, and if the picture just sketched were to approximate future developments, then time would indeed take it's toll of the industry in ASEAN. Constant improvements abroad would widen the gap in production processes and products; governments would have to continue financing foreign exchange deficits; local producers of a genuinely imaginative kind would certainly experience increasing frustration about their inability to break into th global network. Five, perhaps ten years from now, even if industrial structure had not changed much, the situation would be different. The problem facing ASEAN countries is to find a way out of the dilemma. The unpalatable truth is that their prospects of doing so are very slim.

ASEAN Automobile Registrations ('000 Units), 1976 - 1982

Country	1976			1982			Total Growth Rate 1976-1982 (%)
	P.C.	C.V.	Total	P.C.	C.V.	Total	
Indonesia	383	231	614	722	702	1,424	15.0
Malaysia	519	134	653	1,051	244	1,295	12.1
Philippines	400	272	672	500	400	900	5.0
Singapore	147	46	195	175	98	273	5.8
Thailand	296	234	530	420	480	900	9.2

Source: World Automotive Market, various issues.

ASEAN: Vehicle Sales 1978 and 1982

	1978		1982	
Country	Total Sales	PC Share (%)	Total Sales	PC Share (%)
Indonesia	103,282	15.0	188,780	15.9
Malaysia	71,659	84.5	102,448	84.8
Philippines	67,845	52.8	53,000	53.9
Thailand	88,519	26.0	91,186	30.0
Singapore	26,532	75.9	41,399[a]	76.2[a]

[a] 1980 data.

Trends in the Structure of ASEAN Automotive Imports, 1970 - 1980 (%)

Country	1970			1975			1980		
	CBU	CKD	Parts	CBU	CKD	Parts	CBU	CKD	Parts
Indonesia	84	1	15	55	41	4	53	42	5
Malaysia	24	56	20	69	19	12	24	67	9
Philippines	46	27	27	41	34	25	42	27	31
Thailand	54	6	30	46	14	40	13	19	68

Japanese Motor Vehicle Exports 1983: World and ASEAN Countries

	Cars	Trucks	Buses	Total
World	3,806,396	1,822,429	40,685	5,669,510
Indonesia	22,342	97,861	738	120,761
Malaysia	97,432	25,210	616	123,258
Philippines	25,096	7,463	652	33,211
Singapore	31,629	10,203	505	42,337
Thailand	28,485	87,660	335	116,480
Total ASEAN	204,974	228,217	2,846	435,037
ASEAN as % World	5.4	12.5	7.0	7.7

Source: JAMA, Motor Vehicle Statistics of Japan 1984.

Malaysia: Number of Makes, Models and Variants of PC and CV

per Assembly Plant, 1980 and 1983

Plant Name	Total Makes		Total Models		Total Variants	
	1980	1983	1980	1983	1980	1983
Asia Automobiles Industry	2	2	7	4	12	13
Associated Motor Industries	6	4	24	15	34	26
Assembly Services	8	7	33	26	60	53
Cycle and Carriage Bintang	1	1	6	7	15	11
Kelang Pembena Kereta-Kereta	2	2	9	7	16	12
Oriental Assemblers	2	2	8	7	18	13
Tan Chong Motor Assemblies	1	1	16	17	24	25
Tatab Industries	1	2	2	3	6	5
Swedish Motor Industries	2	4	6	7	9	10
Kinchalu Motor Assembly	-	1	-	5	-	6
Sarowok Motor Industries	4	4	12	7	20	13
TOTAL	25	22	122	105	212	183

Source: Malaysian Motor Vehicle Assemblies Association.

Malaysia: Automobile Plant Capacity and Utilisation 1983

Plant Name	Daily Capacity (Units)	Utilisation Rate (%)	Daily Capacity (Units)	Utilisation Rate (%)
Asia Automobiles Industry	42.5	69.6	2.5	100
Associated Motor Industries	65.0	64.4	15.0	78.5
Assembly Services	150.0	79.0	23.0	70.2
Cycle and Carriage Bintang	-	-	10.0	57.2
Kelang Pembena Kereta-Kereta	40.0	94.9	-	-
Oriental Assemblers	50.0	79.3	5.0	53.2
Tan Chong Motor Assemblies	125.0	97.0	50.0	52.3
Tatab Industries	-	-	6.0	10.2
Swedish Motor Industries	21.0	98.5	8.0	4.8
Kinchalu Motor Assembly	-	-	8.0	16.2
Sarowok Motor Industries	4.0	73.1	8.5	88.9
TOTAL	497.5	82.9	136.0	55.2

Thailand: Assembly Plants and Capacity, 1983

Company Name	Vehicles (Marques)	Vehicle Breakdown (%) PC	CV	Maximum Monthly Capacity
Isuzu Motors	Isuzu		100	1,500-1,800
Siam Automotive	Datsun Truck		100	1,500
Toyota Motor Thailand	Toyota	50	50	2,000
United Development Motor Industry	Mitsubishi	50	50	1,200
Thai Hiro Industry	Hiro-Toyota		100	800
Sukosol and Mazda Motor Industry	Mazda	60	40	800
Siam Motors and Nissen	Nissen-Datsun	100		600
Banochar General Assembly	Opel, Geniri, Honda, Daihutsu, Suzuki	80	20	400-500
Kornesuta General Assembly	Fiat, Ford, Fuso, Polnet	80	20	400-500
YMC Assembly	Bronco, Peugot, Citroen, Lancia	90	10	300-400
Thomburi Automotive Assembly	Benz	50	50	300
Prince Motors	Nissan, Subaru, Alfa Romeo	70	30	250
Thai Swedish Assembly	Volvo	80	20	250
Siam General	Nissan, Suzuki		100	150-200

Malaysia: The Automotive Industry in the Economy, 1975-1983

	1975	1983
Total AI Sales (M $ nr)	160.1	418.3
- Assembly	138.3	244.2
- Parts, Accessories and Bodies	21.8	174.1
Contribution AI to Manufacturing Sector	2.0	1.6
Contribution AI to GDP	0.8	0.6
Contribution AI to Manufacturing Employment	2.9	3.2
Contribution AI to Total National Employment	0.2	0.2
Total Imports AI (M $ nr)	484.4	1,241.7
Contribution AI to Total National Imports (%)	5.7	4.0

Malaysia: Import and Excise Duties on Vehicles

For both Passenger Car (PC) and Commercial Vehicle (CV) imports, the initial value on which duties are levied is the Custom Open Market Value (COMV). All cash figures are in M$, and duties in percentages.

I. PC Imports

a. CBU

(i) Import Duty (M)

COMV	Rate
≤ 20,000	100
Plus on next 5,000	120
"	145
"	170
Value Above 35,000	260

(ii) Surtax (S)
Flat rate of 5% of (COMV + M + S)

(iii) Sales Tax
Flat rate of 10% of (COMV + M + S)

b. CKD

(i) Import Duty (M)
Flat rate of 25% of COMV

(ii) Surtax (S)
Flat rate of 5% of COMV

(iii) Excise Tax (E)
This is levied on the Excise Open Market Value: (EOMV) = COMV + M + S.

The schedule is:

EOMV	Rate
≤ 7,000	25
Plus on next 3,000	30
"	35
"	40
Plus on next 4,000	45
Plus on next 6,000	50
From 29-35,000	55
Above 35,000	60

(iv) Sales Tax
Flat rate of 10% levied on (EOMV + E)

II. CV Imports (Taxable bases as for PC)

a. CBU
Flat rates: M = 30, S = 5, E = 0, Sales = 10

b. CKD
Flat rates: M = 0, S = 5, E = 15, Sales = 10

Malaysia: Demand Projections 1983 - 1984 and National & Shape of Market

Income Growth	1983	1985	1990	1994
A. 4%				
Total Units	104,600	105,289	136,447	167,447
National Car Share (%)	-	19	71	72
B. 6%				
Total Units	104,600	112,802	173,422	244,641
National Car Share (%)	-	18	56	49
C. 8%				
Total Units	104,600	116,312	193,042	289,516
National Car Share (%)	-	17	50	41

Note: Forecasts A and B assume a 5% annual increase in PC prices. Forecast C assumes a 10% annual price rise. All forecasts assume Proton production reaches 20,000 by end 1985 and thereafter keeps to the schedule set in the project plan, achieving maximum output of 120,000 units in 1994.

Malaysia: Market Balance Forecasts 1983 - 1994

Actual and Forecast Excess New Supply

Demand Projections	1983	1985	1990	1994
Case A		28,411	74,053	66,253
Case B		20,897	36,878	-10,941
Case C		17,388	17,258	-55,816

Note: Cases A, B and C as in the preceding table. The excess new supply figures are the difference between estimated supply and demand in each year. The supply estimates are based on: (i) Proton production on schedule; (ii) local assembly of its 1983 figure of 100,200; and (iii) imports at 1983 level of 13,500. As of end 1982 the unsold stock of cars was in excess of 25,000; hence, by end 1983 unsold cars were more than 34,000.

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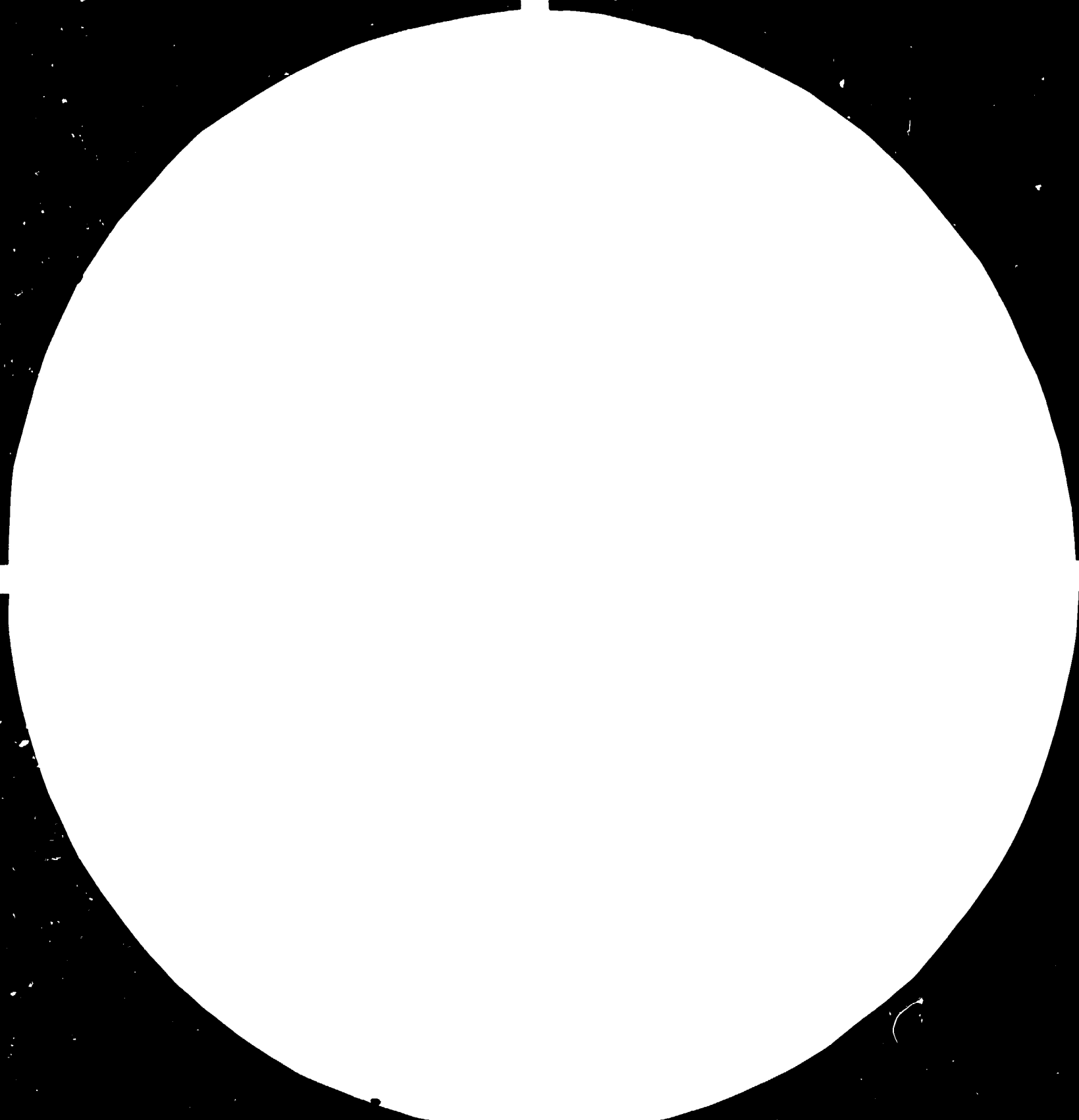

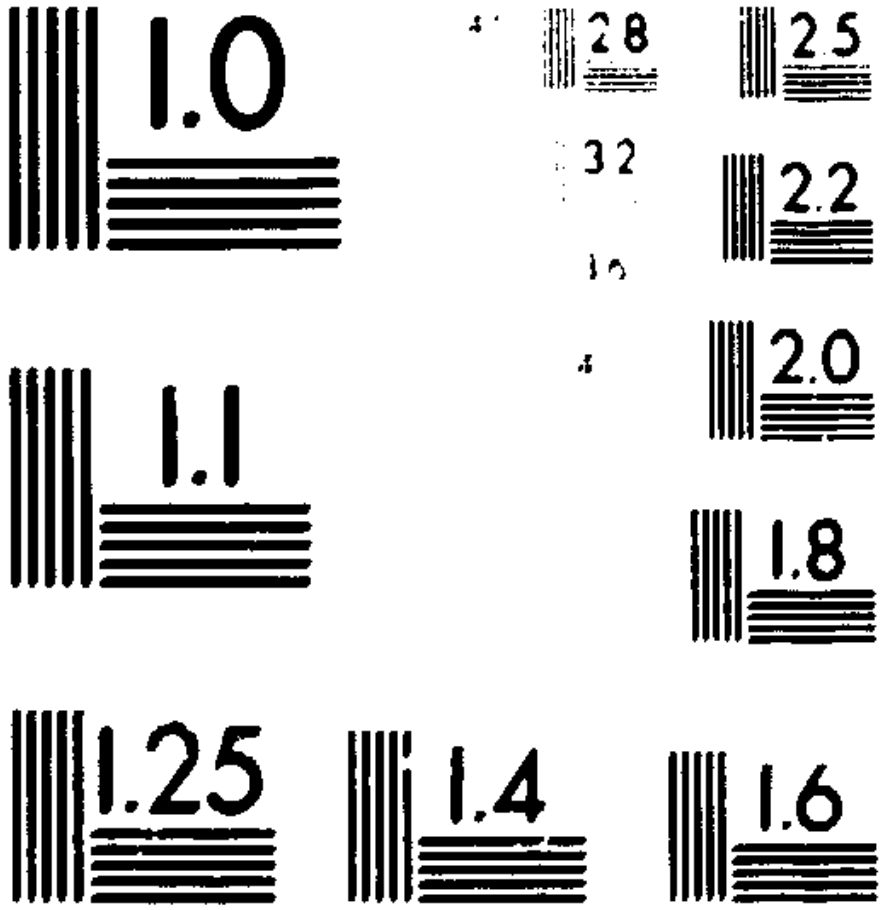

Malaysia: Situation of Component Parts Industry as Evaluated by Japanese Manufacturers

Part	Malaysian Firm	Technical Cooperation	Quality	Reliability of Supply
Wire Harness (PC)	Amalgamated Parts Manufacturer	Shinagawa Jidera Densen	Good	Occasional Short Supply
Exhaust (PC and CV)	United Industries	No Technical Backing	Average to Poor	Occasional Short Supply
	Automotive Industries	No Technical Backing	Good	Constant
Battery (PC and CV)	Yuasa Battery	Yuasa Japan	Good	Constant
	Choloride	Australia	Good	Constant
	Fujiya	No Technical Backing	Average	Constant
Belt (PC)	Brimel	No Technical Backing	Average	Constant
Glass (PC and CV)	Malaysian Sheet Glass	Nippon Sheet Glass Japan	Good	Constant
Pad-Cushion (PC and CV)	Coco Industry	Ikeda Busen Japan	Average	Occasional Short Supply
Mud-Guard (PC and CV)	Golden Masinco	No Technical Backing	Average	Consant
Protector - Side (PC)	We Li	No Technical Backing	Average	Constant
Mat - Floor (PC)	Carpets International	No Technical Backing	Average	Occasional Short Supply

Malaysia: Situation of Component Parts Industry as Evaluated by Japanese Manufacturers (cont.)

Part	Malaysian Firm	Technical Cooperation	Quality	Reliability of Supply
Tyres (PC and CV)	Dunlop	Dunlop England	Good	Constant
	Goodyear	Goodyear USA	Good	Constant
Paint (PC and CV)	ICI	ICI England	Good	Constant
	Nippon Paint	Nippon Paint Japan	Good	Constant
Hose Water (PC and CV)	Lion Hwa	No Technical Backing	Poor	Constant
Altenator (PC)	Nippon - Denso	Nippon - Denso Japan	Good	Constant
Starter (PC)	Nippon - Denso	Nippon - Denso Japan	Good	Constant
Leaf Spring (CV)	Auto Parts Manufacturing	Horikiri Spring Japan	Good	Constant
Shackle Ass. Bolt-Lock Pin-Ass. Spring (CV)	Belton	No Technical Backing	Average	Constant
Damper (CV)	Auto Parts Manufacturing	Tokico Japan	Good	Constant

Source: "Investigations on Automotive Industry Policy and Trends in the Market Abroad," Tokyo, February, 1984.

Thailand: Preferential Trade in Automotive Products under the Asean Industrial Complementation (AIC) Scheme

Product (Assigned Country)	1979	1980	1981	1982	1983
A. Imports					
1. V-Belts (Singapore)					
Value Total Imports (nr. Boht)	42.8	37.6	53.8	43.6	51.5
% from ASEAN	1.4	2.2	20.9	10.5	14.9
2. Timing Chains (Malaysia)					
Value Total Imports (nr. Boht)	33.0	25.3	39.2	22.2	29.6
% from ASEAN	3.0	0	0.5	0.7	2.1
3. Oil Seals (Singapore)					
Value Total Imports (nr. Boht)	44.1	48.5	40.1	51.2	49.5
% from ASEAN	19.5	0.1	24.6	19.9	20.3
4. Crown Wheels and Pinions, Seat Belts, Transmissions, Rear Axles, Universal Joints (Malaysia, Philippines, Singapore)					
Value Total Imports (nr. Boht)	913.3	914.4	1,293.4	1,166.7	1,366.9
% from ASEAN	0.4	0.2	0.5	0.5	0.7
B. Exports					
(Brake Drums for Trucks, Heavy Duty Shock Absorbers)					
Value (nr. Boht)	14.88	161.4	152.9	171.5	166.7
% to ASEAN	72.9	68.5	65.5	53.4	45.9

Inter-Industry Effects of Automative Industry in ASEAN

A. Effects on Industry in Supplier Countries

The Overseas Production Inducement Coefficient (OPIC) is defined as the % increase in foreign production generated by a 100% increase in auto production in a given country.

AI in ASEAN	OPIC in Japan
Indonesia	55
Malaysia	35
Philippines	32
Thailand	47

B. Direct Effects on Industry in ASEAN Countries of Automative Production

The following table shows first the proportion of intermediate inputs required for a unit increase in AI; second, the share of those inputs purchased domestically; and finally, the ratio of this 'domestic share' to the average domestic shares observed in Japan and USA. All figures are percentages.

ASEAN Country	Intermediate Share	Domestic Inputs as Share of Intermediates	ASEAN Domestic Shares as Proportion of Japan/US Average
Indonesia	64.4	30.7	32.4
Malaysia	71.2	53.5	56.6
Philippines	73.4	55.9	59.1
Thailand	73.0	56.7	60.0

C. Total Effect on Domestic Industry

The following table indicates the total (direct and indirect) impacts on local industry in each of the ASEAN countries of a unit increase in AI production. The second column gives the ratio of the country's coefficient to that of Japan - the lower this ratio, the weaker the inter-industry effects as compared to those found in Japan.

ASEAN Country	Production Generated	Domestic Coeffecient as % of Japanese Coefficient
Indonesia	1.31	20.1
Malaysia	1.64	41.1
Philippines	1.71	45.8
Thailand	1.64	41.1

Local Content in the Automotive Industry in ASEAN Countries: Current Situation and Policies

I. Malaysia

(a) Policies

- Mandatory Deletion Principle
  - LC percentage to rise from existing 18% to 36% by 1990; calculation to be based on value
  - No specification of penalties for failure to comply
  - Domestic production to be encouraged by establishment of Joint Ventures

(b) Situation

- 14 items approved for Mandatory Deletion and for Local Production (date of deletion in brackets):

Tyres (1967)	Seat Paddings (1981)
Batteries (1967)	Wire Horners (1982)
Paints and Chemicals (1969)	Spokes and Nipples (1982)
Safety Seat Belts (1978)	U-Bolts, Spring Pins, Shake Pins (1983)
Safety Glass (1980)	Radiator Hoses (1983)
Leaf Springs for CV (1980)	Suspension Shock Absorbers (1983)
Carpets and Underlays (1981)	
Seat Paddings (1981)	

- Items which could be Deleted in the near future:

Wheel Rims	Internal trims, Upholstery
Radiators	V Belt
Alternators	Clutch Assembly
Coil Springs	Water Reserve Tank

II. Philippines

(a) Policies

- For PC the LC percentages officially remain at the level set for 1980 under the Progressive Car Manufacturing Programme, namely 62.5%
- For CV the LC percentages officially in force run from 70 - 80% for vehicles 2.5 tons to 30 - 40% for vehicles from 13 to 18 tons. These figures correspond to the amendments made at the end 1970s to the schedule first set in 1974 under the Progressive Truck Manufacturing Programme.

(b) Situation

- Precise estimates of LC cannot be made given the present circumstances of the industry (withdrawal of Ford, effective close date of Delta Motor Corporation). As of end 1982, however, LC actually attained was 43.2% for PC, well below the prescribed level.

Local Content in the Automotive Industry in ASEAN Countries: Current Situation and Policies (cont.)

III. Thailand

(a) Policies

- o LC levels have now been frozen at 45% for PC and 40% for CV.
- o The percentages are calculated on a point system assigned to each part with assemblers free to choose which parts they will procure locally
- o Assemblers are now to be offered duty restrictions on imports of CKD if they increase LC beyond the 45% figure. The schedule is:

LC Increase (Base 45%)	Import Duty Reduction (Base 80%)
45 -- 50%	20%
50 -- 60%	30%
60 -- 70%	40%
70 -- 80%	50%

- o Export credits are to be offered in exchange for export of parts, thus allowing LC reduction to the exporting firms

(b) Situation

- o Industry sources indicate tht actual LC was at 35 - 40% for PC
- o Policy appears to be switching away from the late 1970s - early 1980s emphasis on LC towards some encouragement for parts exports

IV. Indonesia

(a) Policies

- o Monetary Deletion Priciple
- o Some major projects for local production of important parts are likely to go ahead, leading to mandatory deletion increases

(b) Situation

- o Given existing local production, especially for CV parts, it seems likely that current LC levels are of the order of 20%

ASEAN Automotive Prospects:
Japanese Evolution of the Current Situation and Future Prospects

	Malaysia		Indonesia		Philippines		Thailand	
	Current	Future	Current	Future	Current	Future	Current	Future
1. Domestic Market B 500,000 M=100-500,000 S 100,000	S	M	M	B	S	M	S	M
2. Supply of Capitol D=Dependent O=Own	D,O	D	D,O	O	D,O	D	D,O	D
3. Supply of Technology D=Dependent O=Own	D	D	D	D	D	d	D	D
4. Petrolem Reserves H=High L=Low	H	H	H	H	L	L	L	L
5. Parts Exports I=International R=Regional N=Nil	N	R	N	R	N	R,I	N	R
6. Local Content H 75% M=25-75% L=25%	L	M	L	M	M	M	M	M
7. Long Term Integration of Domestic Output MH=Medium High ML=Medium Low L=Low	ML, risk of L		MH		MH		MH, risk of ML	

Source: JAMA, "Automotive Industry in Developing Countries and Their Policies," March, 1983

Note: 'Future' refers to mid 1990's or later.

Japan: Production and Exports of Vehicles and Non-Countable KD Sets, 1979 and 1983

Year	Production Total (mn. units)	Vehicles[a] PC%	Export Total (mn. units)	Vehicles[a] PC%	Production Total ('000)	KD[b] PC%	Exports Total ('000)	KD[b] PC%	KD as % of Total Vehicle Production	Exports
1979	9.64	64.1	4.56	68.0	402	74.8	403	70.0	4.1	9.0
1983	11.11	64.4	5.67	66.9	784	73.5	788	71.7	7.1	13.7

Notes: a) Vehicles include CBU and CKD.

b) KD sets are defined as having contents less than 60% of the complete vehicle by factory sales value.

c) All KD sets are exported: the export figure is marginally higher then the production figure due to running down of stocks existing prior to 1979, the first year in which KD were shown separately in Japanese statistics. The overwhelming majority of all KD exports go to South Africa, Australia, Taiwan, Republic of Korea, USA, Mexico, UK and Italy.

Source: JAMA, Motor Vehicle Statistics of Japan 1984, Tokyo 1984, and own calculations.

ASEAN Automative Assembly Industry: Foreign Participation through Equity and License Arrangements[a]

ASEAN Country/ Company	Total Foreign Equity	Toyota	Nissan	Honda	Mazda	Mitsubishi Motor Company	GM	Ford	Volvo	Others
1. Malaysia										
Asia Automobile Industry	80				31.8					Peugot 36.4
Assembly Services	15.6	L[c]								Mercedes-Benz L; Daihatsu L
Associated Motor Industries										Mercedes-Benz L; Subaru L; British Leyland L
Kelang Pembera Kereta-Kereta										
Oriental Assemblies				L						
Tan Chong			L							
Swedish Motor Assemblies	50								50	Daihatsu L; Subaru L
Kindsalu Motor										Isuzu L
Sarawok Motor		L								
Proton	30[d]					15				

ASEAN Automative Assembly Industry: Foreign Participation through Equity and License Arrangements[a] (con't)

ASEAN Country/ Company	Total Foreign Equity	Toyota	Nissan	Honda	Mazda	Mitsubishi Motor Company	GM	Ford	Volvo	Others
2. Philippines										
Delta Motor[e] Corporation	100	100								
Ford Philippines[f]	100							100		
General Motors Philippines	100						60			Isuzu 40%
Philippines Nissan	30		30							
Carlubarg Automative Resources	35					15				

ASEAN Automative Assembly Industry: Foreign Participation through Equity and License Arrangements[a] (con't)

ASEAN Country/ Company	Total Foreign Equity	Toyota	Nissan	Honda	Mazda	Mitsubishi Motor Company	GM	Ford	Volvo	Others
3. Thailand										
Toyota Motor	82	82								
Isuzu Motors	47.4									Isuzu L Isuzu 47.4%
Siam Automative			L							
United Development Motor Industry						L				
Thai Hino	35									Hino 35%
Sukosoland Mazda	Majority				Majority					
Siam Motors and Nissan			L							
Bargchar Gereral Assembly	42						42			VCO L Isuzu Motors has 34%
Prince Motor	20		20							

ASEAN Automative Assembly Industry: Foreign Participation through Equity and License Arrangements[a] (con't)

ASEAN Country/ Company	Total Foreign Equity	Toyota	Nissan	Honda	Mazda	Mitsubishi Motor Company	GM	Ford	Volvo	Others
3. Thailand (con't)										
Thai-Swedish Assembly	Majority								Majority	
Kourasuta General Assembly								L		
YMC Assembly Thorburi										Peugot L Mercedes Benz L

ASEAN Automative Assembly Industry: Foreign Participation through Equity and License Arrangements[a] (con't)

ASEAN Country/ Company	Total Foreign Equity	Toyota	Nissan	Honda	Mazda	Mitsubishi Motor Company	GM	Ford	Volvo	Others
4. Indonesia										
PT Toyota Astra	49	49								
PT German Motor Mfg.	66.6									VCO 33.3% Mercedes Benz 33.3%
PT Mitsubishi Krama Yudha	50[d]					25				
PT Wahana Wirowar			L							
PT Prospect				L						

Notes: a) Data as of mid 1984. Some additional licensing certainly exists, covering smaller and more specialized automative producers; but production under such arrangements is small. The table thus captures the key aspects of foreign participation in the industry in ASEAN.

b) Toyo Kogyo officially changed it name to Mazda as of 1 May 1984.

c) L=License

d) The total foreign equity is divided between Mitsubishi Heavy Industry and Mitsubishi Motor Company.

e) Production in 1984 has been nil due to the effective withdrawal of Toyota consequent on a financial dispute with the Filipino partner.

f) The chart was scheduled for closure as of end August 1984.