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ASIA BECKONS AMERICA: THE CASE OF THE AUTOMOBILE INDUSTRY

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SECTION I: INTRODUCTION

The decade of 1985-1995 was an important watershed in the history of the international automobile industry. World demand for automobiles had stagnated. Declining international competitiveness had thrown North American and European automobile manufacturers into labor turmoil. Overcapacity threatened home markets which had already achieved predictable and mature growth rates, resulting in a glut of excess manufacturing capacity, now estimated at about 40 unneeded assembly plants world-wide. Japanese-U.S. and Japanese-European Union trade relations were increasingly strained, as Japanese automobile manufacturers penetrated western markets, while carefully protecting their home turf.

While these problems festered, the Asian auto market was exploding. Economic growth rates were high throughout the region; a middle class with a significant disposable income was emerging; and few people owned cars. But European and American firms faced formidable Japanese competition; Japanese manufacturers had built an important presence in Asia through decades of market penetration in sales and the location of manufacturing facilities. Indeed, by 1996, Japanese firms dominated the Asian market, with significant and growing European penetration of these markets, especially in China and Taiwan.¹

¹ The Chinese market, the jewel in the crown because of its possibilities for rapid and huge growth, is owned in excess of 30% by Volkswagen, with the Japanese firms controlling 20% and the rest of the market controlled by state-owned Chinese firms. In Malaysia, Proton and Peruda, both Malaysian firms, increased their market share from 15% of all automobiles sold in 1987 to over 30 % by 1996, with the Japanese manufacturers still maintaining their hold over the rest of the sales market. The Filipino vehicle market is dominated by Japanese manufacturers to the tune of 80%, with Korean manufacturers controlling 15% of the remainder. In the Indian market, Suzuki, through its joint venture with the state-owned Maruti holding company, has been able to increase its market share from 33% in 1987 to over 43% by 1996, with the rest being divided between European, Indian and other Japanese automobile manufacturers. The Indonesian market between 1991 and 1996 is still controlled in excess of over 90% by Japanese and Korean manufacturers respectively, although the import share in the Japanese market has

American automobile manufacturers, however, had failed to crack the Japanese and European stronghold on the Asian market. The market's close geographical proximity to Japan, the relative unsuitability of American products in Asia (larger car sizes, greater fuel inefficiencies, and higher average retail prices), the need to focus on protecting its share of the North American market from Japanese and European penetration, and rampant protectionism in most Asian countries worked together to weaken the American position. Even in terms of traditional firm competencies, US firms were at a disadvantage. Their strengths in consumerdriven production, purchase financing, product marketing and product servicing were thwarted by the Asian markets' structural characteristics. Production, both in terms of levels and of variety of products, was often state-determined. Financing tools were heavily influenced by host state credit decisions. Dealer networks were strictly controlled, and service networks could not be easily created. Overall, the 1985-1997 Asian market experience for the American automobile manufacturers was one of disappointment.

Ironically, then, it was the Asian financial crisis that provided the opening in Asia for American auto firms. At first glance, this is surprising because at the height of the crisis, sales fell by over 50% in Thailand, Indonesia, the Philippines, Malaysia and China, and though less dramatic, sales also fell in Korea and Japan. More importantly, however, the crisis put a break on rapid expansion of the automobile sector. Nonetheless, it provided producers with the political bargaining power to push for economic liberalization throughout the region. As we will demonstrate below, American firms were able to use their considerable bargaining expertise in multilateral institutions to press for an acceleration and a deepening of the liberalization process

increased from 1% in 1980 to over 5% by 1994. The only market that U.S. firms have successfully penetrated is the Taiwanese market where Ford increased its market share from 19% in 1991 to over 23% in 1996, but the Japanese manufacturers still control over 50% of the market. For more specific statistics observe the attached graphs at the end of the paper. They are based on data collected for the World Motor Vehicle Data (various issues).

as a wedge to open markets. More directly, US firms used their increased asset valuation at home as a springboard for the acquisition of significant stakes in struggling Japanese and Korea automobile firms. The traditional comparative advantage that American firms enjoyed in the field of corporate finance was also put to good use. This adept use of non-market and market strategies permitted the US to overcome its previous failure in the region.

This paper analyzes those strategies in terms of Hirschman's model of exit, voice and loyalty. It argues that since, the option of exit (leaving the market) was not a realistic one because of its growth potential, American firms were left with the options of voice and loyalty. Where they could not effectively use voice (bargaining strategies in political arenas), they bought loyalty through major acquisitions. Where loyalty could be not be used effectively, they used voice, through the use of the supranational institutions such as APEC and the WTO.

We begin with an overview of national, regional, and global setting within which auto firms operate. In this overview we focus on a description of changing threats and opportunities, both before and after the financial crisis, with an emphasis on firm competencies, and the nonmarket environment in the most important Asian countries. We then turn to a discussion of firm market and non-market strategies and tactics. We conclude by summarizing the ways in which American firms have responded to regional pressures and international competitive dynamics in Asia and the conditions for success of the market and nonmarket strategies that they have employed to increase their market share in the region.

SECTION II: POSITIONAL ANALYSIS OF THE INDUSTRY IN ASIA

Although sectoral statistics rarely speak for themselves, the growth potential of the Asian markets for automobiles could hardly have been lost on any of the interested parties, whether they were international automobile manufacturers, host national governments, or trade unions in the advanced industrial markets. In the 1980s, auto registration skyrocketed and Asia's share of the global auto production tripled.² As the 1990s opened, forecasts for increased sales were bright, and, after an initial slump, sales continued to increase even after the financial crisis.³ As Vaughn Koshkarian, the president of Ford China, optimistically stated at the onset of the 1997 financial crisis, "by 2010 China will have four vehicles per 100 people and a market volume of between 5 and 6 million vehicles, the fourth largest market in the world after North America, Europe and Japan. [Additionally,] by 2010, after substantial consolidation, this automotive industry will have a highly educated, skilled and industrious workforce. In essence, China will have everything necessary to become a primary, manufacturing nation in Asia." Robert Buscelhofer, a member of the VW's car management board, underlined this prediction: "in the next five years, the world's total car market will increase by about five millions cars to about 42 million cars. Almost two million of them will originate in the Asia-Pacific market, a third in China and two-thirds in the remaining emerging markets."⁴ Within this context, Auto firms recognized first-to-market benefits both in terms of brand awareness and loyalty and in terms of

² In terms of auto registration, Asia witnessed an average rise of 46.3% between 1981 and 1988, with rates rising by 31.8% in Japan and 204.6% in Taiwan, 210.8% in South Korea and 343.3% in China. Even if the important Korean and Japanese industries are excluded, Asia's share of global auto production increased from 1% to 3% The increases in registration and production continued well into the 1988-1991 period, with auto production increasing by a factor of 4 in Korea, a factor of 1.5 in Taiwan and a factor of 2.6 in Thailand. Similarly, auto registration increased by a factor of 4.3 in Korea, a factor of 3.2 in Taiwan and a factor of 3.5 in Thailand. See Karmokolias (1990), p. 4, 7.

³ In the 1992-2000 period, the forecasts for annual compound growth rates for new car sales were between 21.9% for China, 10% for Malaysia, and 4.8% for Indonesia, significantly higher than the world average of 2.4% Although dampened by the Asian financial crisis of 1997, growth rates continue to exceed those of most other developing countries. See Maxton and Wormland (1995), p. 155, and Financial Times, 6/25/1997.

⁴ Financial Express, 7/23/1997.

capturing the greatest proportion of market share and establishing a distribution, service and production network.

But the Asian market continues to be a difficult one to penetrate: high growth rates, low labor rates and a rapidly growing and consuming middle class came with a high level of state intervention, trade protectionism and a rigid institutional structure. State intervention takes a number of forms, but its most important parameters are two: 1. the host state's need to support the growth of the localization of content, in order to increase the positive net externalities for increasing automobile production, and 2. the host state's desire to increase the rationalization of the automobile industry's components and parts suppliers. In both cases, the host state is aiming to increase the local value-added of automobile production and to facilitate corollary industry growth. As Abdulsomad has shown, in the Asian area, "no industry has become as politicized as the automobile industry, which is now regarded as vital to their national economic development strategies" (Abdulsomad 1999, 1). What follows is a list of country-specific reviews of automobile industry state intervention practices.

China

The Chinese case represents quite possibly the greatest amount of state intervention: In July 1994 China published its first sectoral industrial policy, for the automobile sector (cars, buses, trucks, motorcycles, engines, parts). Four more sectors have been targeted for similar policies so far: petrochemicals, machinery, electronics and construction. Publication of the latter has been held back, in part in reaction to the vociferous criticism to which the auto policy gave rise, which was intended as a blueprint for other sectoral policies. The stated objective is to turn these five sectors into "pillars" of the Chinese economy. Guiding parameters are self-sufficiency,

export capacity and high-tech production (through the import of foreign technology) by firms whose decision making power is in Chinese hands. The motor vehicle policy requires the maintenance of discretionary import restrictions (an objective is to ensure that local car production satisfies 90% of domestic demand by the year 2000; at present nearly 40% of cars are imported). These would come on top of the 65% proposed import duty. Moreover, stringent disciplines apply for would be investors seeking to circumvent the import restrictions to benefit from the next century's largest growth market for cars. Production must meet a certain capacity and be preceded by the establishment of a technology institute and car part production in China at least two years prior to setting up the car plant. Furthermore, an investment must be made in the form of a joint-venture, where a majority of capital is of Chinese origin, thus ensuring decision-making power by Chinese nationals. On February 1994, the State planning Commission adopted its document outlining the Chinese industrial automotive strategy. The policy aims are to develop the Chinese automotive industry in order to meet 90% of domestic demand by 2000 and to become an internationally competitive, export oriented, large scale industry by 2010. Since 1997, China is increasingly interested in reducing the number of manufacturers and creating larger companies in order to achieve economies of scale. However, the cost structure of car production in China still is less than favorable due to the small sale of operations and the lack of trained workforce. This is particularly difficult for the new generation of "electronic" cars that need high tech equipment for manufacturing and after sales services.

Japan

The Japanese case is one of market access, especially through dealer networks. Progress has been made in improving access for EU and Japanese exporters to the Japanese car market.

Deregulation in Japan has played a central role in this. The EU believes that greater international harmonization of automobile regulations is in the fundamental interest of all producing nations. In this respect, the EU believes Japan's accession in 1998 to the UN-ECE 1958 Agreement will lay the basis for further progress. The EU expects that all the understandings reached with Japan on 5-8 June 1995 regarding automobiles and components will be fully implemented in accordance with the timetable for implementation as set out in a letter of Ministry of Transport to the European Commission of 21 June 1995. Among the specific outstanding problems that remain in the field of automobiles are Japanese regulations (or proposals for regulations) in the fields of frontal crash testing, emissions tests results and inspections. These and other Japanese regulations impose (or will impose) significant and unnecessary additional costs for car manufacturers selling in the Japanese market.

Korea

The Korean case resembles the Japanese case, in the sense that they are both developed markets that have begun processes of liberalization and of market access, but where these processes are countered by non-tariff barriers such as customs inspection. Customs approval for imports in this sector can still prove to be problematic for importers as vehicles are held up for customs inspections and there is little transparency and consistency in procedures. Physical inspection procedures require 10-15 days provided that due notice has been given by the importer. The initial confirmation test should be valid until a modification or model change takes place. At this moment, no clear difference exists between the confirmation and the completion test carried out on every single vehicle and, recently, vehicles which have been on the market for a considerable length of time have been refused completion certificates due to minor deviations.

Indonesia

Indonesia, much like Malaysia, stressed the importance of actively supporting a national car project, even if meant the appearance of undue state influence and charges of corruption. Under a ministerial decree, companies could be granted "pioneer status" if their products (1) were branded under their own, Indonesian-owned mark; (2) were produced domestically; and (3) used domestically made components. In particular they had to achieve a minimum of 20%, 40% and 60% local content by the end of, respectively the first, second and third year of operation. The production facilities used for the manufacturing of these automobiles had to be fully owned by Indonesian interests and the eventual co-operation agreements with foreign auto makers must not include commitments limiting the possibility to export. "Pioneer" companies were exempted from duties on imported components (at 65%) and their products were exempted from luxury tax (35% for sedan vehicles) for a period of four years. The "Pioneer" status had been granted to PT Timor Putra National, a company controlled by former President Soeharto's youngest son, which worked in joint venture with Kia Motors of South Korea. The "National Car program" violated the WTO Agreement on Subsidies and Countervailing Duties, because the exemption from taxes is a subsidy contingent upon the use of domestic goods. The Program was declared incompatible with WTO rules by a WTO panel in 1998. Presidential Decree No 54 of 10 June 1993 lists the automotive sector among those sectors that are closed for capital regarding the list of sectors that are closed for capital investment. However, an investment authorization may be granted provided certain conditions are met, in particular local content conditions. These rules are currently reviewed in order to comply with the full application of the TRIMs Agreement.

The Philippines

Much like Thailand, The Philippines stressed the importance of taxation and local content development. The Philippines applies an ad valorem excise tax on all CBU passenger cars, whether imports or domestics. The base is the "dealer's selling price." The tax rate ranges from 15 to 100 percent and is based on engine displacement. Commercial vehicles and SUVs are not subject to the tax. A Value Added Tax of 10% is applied to all vehicles. It is applied "in cascade" i.e. on "dealer's selling price" plus excise tax. The Philippines also imposes an import processing fee of 250 pesos per shipment. All minimum import prices in this sector were discontinued in 1992. The Philippines apply local content requirements to participants in the Car Development Program (CDP), the Commercial Vehicle Development Program (CVDP) and the Motorcycle Development Program (MDP). The Philippines imposes local content requirements on motor vehicle assemblers based on a point system. Requirements vary depending on the program to which the participant belongs. Passenger car (CDP) makers must attain local content of at least 40 percent. Under the BOI's proposed changes to the MVDP, the local content requirements for vehicles would rise to 42 percent in 1997, 45 percent in 1998, 48 percent in 1999, and 50 percent by 2000. (Of course, doing so would violate the TRIMs Agreement.) The BOI may award an amount equal to 50 percent of the net foreign exchange earnings generated during the prior year by any Category I and II participant that has achieved a weighted local content average of 50 percent or more for all its participating makes and models. There are no mandatory deletion items under the CDP. While there is no local content requirement for Category III cars (2190 ccs and above), as discussed, participants must invest \$10 million in parts and component manufacturing for the export and domestic market. Generally, Category I and II participants must earn between 5 percent and 55 percent of their foreign exchange

requirements for CKD imports through the generation of export earnings, while Category III participants must earn 75 percent of their foreign exchange requirements in this manner. For commercial vehicles the local content requirement is generally 45 percent, but ranges down to 14 percent for heavy industrial and special purpose vehicles. The BOI may award an amount equal to 50 percent of the foreign exchange generated during the prior year by any CVDP firm that has achieved a weighted local content average of 55 percent or more for its participants must achieve a local content of 35 to 45 percent. The BOI may award an amount equal to 50 percent of the foreign exchange generated during the prior year by any CVDP firm that has achieve a local content of 35 to 45 percent. The BOI may award an amount equal to 50 percent of the foreign exchange generated during the prior year by any MDP participants must achieve a weighted local content average of 55 percent or more for all its participating makes and models.

Taiwan

Taiwan utilized both a taxation and a local content regime. The following automotive products, both of imported and domestic origin, are subject to a Commodity Tax, at the rates indicated: Sedans with cylinder volume below 2,000 cm – 25%. Sedans with cylinder volume above 2,001 cm and below 3,600 cm – 35% . Sedans with cylinder volume above 3,601 cm – 60%. Trucks, buses and other vehicles – 15%. Motorcycles – 17% . Rubber tires for buses and trucks – 10% . Various other rubber tires – 15%. There is also a 5% business tax applicable to all goods. Although the duty is normally levied at the time of sale to domestic buyers, in the case of imported passenger cars –among other products- the duty is levied at the moment of importation. Its amount calculated by applying the rate (5%) on the addition of the taxable value (as prescribed by Customs Import Tariff), the customs duties, the harbor construction dues and

the commodity tax. In Taiwan, there are no simplified type approval procedures for vehicles supplied in small volume. Even if only one single special vehicle is brought on the market, the full homologation and type approval procedure is applied. Local content requirements apply for automobile and motorcycling manufacturing in Taiwan. These appear to be explained by the Government's concern for employment problems in the automobile and motorcycle industry and the potential economic and social disruption. These local contents rules apply equally to foreign and domestic enterprises. Local content requirements for the automotive industry are as follows: Small and middle-size cars: 50% of total value of component parts of each vehicle must be supplied locally and at least four items from a list of fifteen designated major items have to be manufactured domestically. Large automobiles and heavy trucks weighting between 3.5 tons and 10 tons: 37% of total value of component parts of each vehicle must be supplied locally and at least three of fifteen critical component parts have to be manufactured domestically. Heavy trucks weighting above 10 tons: 31% of total value of component parts of each vehicle must be supplied locally and at least two of fifteen critical component parts have to be manufactured domestically. Motorcycles: 90% of total value of component parts of each vehicle must be supplied locally and has to be manufactured domestically. Taiwan had expressed readiness to abolish the local content requirements within five years following its accession to the WTO as a derogation of the relevant provisions of the TRIMs agreement (which foresees the phase out of these requirements within two years from the entry into force of the WTO for developed parties). They have lately given up this request and are prepared to abolish these requirements within two years.

Thailand

Thailand has used both local content and taxation, but with lesser ferocity than Taiwan. Thai authorities place most automotive parts and components on one of two lists. The points attributed each item have no necessary correlation to value added, but rather simply reflect those parts for which authorities have chosen to encourage domestic production. List A contains items that must be sourced in Thailand. These items total 27.07 points. The list includes such items as paint and thinners (4.5 points) and tires and tubes (3.0 points), as well as such minutiae as battery ground cables (0.08 points). List B provides a listing of other parts and labor operations that manufacturers may choose to employ in Thailand to attain the required point level. The list totals 43.18 points and ranges from engine assembly (4.0 points) to fuel filter (0.04 points) and sound proofing materials (0.01 points). If for technical or other reasons, a mandatory deletion item cannot be sourced locally, a vehicle manufacturer may source an item from the selective deletion list of equal or greater point value.

Engines must be locally sourced.- for gasoline- and diesel-powered pick-up trucks, the minimum local content is 60 and 72 points respectively. Diesel engines for pickup trucks must effectively be sourced locally.- for heavy trucks, vans, and buses, the minimum local content is 40-50 points, including the List A items, depending on whether the chassis, engine, cab, and windscreen are imported. To obtain an assembly license, a vehicle manufacturer must submit a localization plan showing which parts will be sourced in Thailand. Failure to abide by this plan may result in revocation of assembly permits. As with all Thai requirements, these local content rules are negotiable. According to published reports, as part of its deal to attract a \$750-million investment from General Motors, the Thai authorities have agreed to accelerate the complete elimination of local content requirement for Thai-assembled vehicles. The Thai Government

does unofficially control domestic prices. Manufacturers must file prices of new cars three weeks before they go on sale. According to published reports, Thai officials forced for example Honda to reduce the sales price of the Honda City because the price contained too much overhead. Automotive firms doing business in Thailand enjoy significant benefits from the government. The principal schemes affecting this sector as announced by the Board of Investment (BOI) in Thailand are summarized below. It should be noted that firms contemplating significant investment are reportedly able to negotiate significantly greater concessions from Thai authorities.

The BOI offers significant tax breaks on inward investment, with the level of the benefit depending on the location of the facility. With respect to corporate income taxes, benefits range from exemptions for three years on investments in the Bangkok region (so-called zone 1), to exemptions for up to seven years in the promoted region surrounding Bangkok (zone 2), to exemptions for eight years plus a 50% reduction for the following five years for the least developed regions, including those areas on Thailand's eastern seaboard in which automotive activity is increasingly located (so-called zone 3). Duties on imported machinery are reduced by 50% (zone 1 and zone 2) or eliminated (zone 3). Annual losses, if any, can be carried forward for up to five years to be offset against net profits. Dividends derived from promoted activities are exempt from tax. Also, firms in zone 3 enjoy double deduction from taxable income for costs of water, electricity, and transport costs for 10 years from the date of first sales, as well as deduction from net profit of 25% of the costs of installation or construction of a projects infrastructure facilities.

The BOI will provide investors in priority industries assurance that (i) their projects will not be nationalized; (ii) they will not face competition from new state enterprises; (iii) the state

will not monopolize the sale of products similar to those produced by the promoted project; (iv) their products will not be subject to price controls; (v) they will not be denied the right to export; and (vi) the state will not exempt from taxes, levies, or other charges similar products imported by government agencies or state enterprises.

The BOI may require certain performance requirements in exchange for negotiated investment incentives. These requirements are reported to link financial incentives to minimum export levels. They also reportedly include agreement to provide certain levels of shareholdings to Thai investors and to restrict investment to certain sectors or locations within Thailand. Export Promotion. The BOI also offers attractive incentives to export enterprises. These include (i) exemption of duties on imported raw materials and components; (ii) exemption of import duties on re-exported items; (iii) exemption of export levies, should any apply; and (iv) allowance to deduct from taxable corporate income an amount equal to 5% of an increase in income derived from exports on a year-to-year basis, excluding the cost of insurance and transportation. Permission. Priority investors are guaranteed the right to bring in foreign nationals to undertake investment feasibility studies and to work on their projects. They are also allowed to own land to conduct the promoted activity. The taxation pattern is similar to Taiwan's: Thai customs procedures require the submission of an export entry form or an import entry form along with other conventional customs documents, such as the invoice, packing list, bill of lading, and letter of credit. The country employs a simplified advance entry system, allowing all documents to be submitted and processed prior to the arrival of goods in Thailand. Under this advance clearance system, imports clear customs upon payment of port charges and assessed duty, if any

Hence, in terms of geographic orientation, the American firms were pressed with an increasingly puzzling dilemma: the Asian markets were fastest growing consumption in the

world while their production capabilities were rapidly increasing. In effect, the American firms were being left out of the most vibrant regional market of the global automobile market in favor of their Japanese competitors, the same Japanese competitors which were using their sales strongholds in order to increase their production capabilities in the region and beyond. Additionally, attempts to penetrate these markets are hampered by deep state intervention and have thus required the extensive use of non-market strategies for market penetration. On top of these impediments, the American firms had to deal with a series of market forces that posed overwhelming challenges.

A. Market Forces

In analyzing the market forces at work in the Asian auto sector, we follow Porter's "five forces model": 1) the bargaining power of suppliers, 2) the bargaining power of buyers, 3) the threat of substitutes, 4) the degree of rivalry, and 5) the threat of new entry.

Local suppliers have little bargaining power vis-a-vis the major auto firms, because Asia lacks a network of suppliers capable of bargaining with long established and technically savvy Western firms. In fact, the relative absence of local suppliers provided a barrier to entry into these markets. Because local content requirements were mandated throughout Asia, firms wishing to locate production facilities in the region had to provide years of technical training, certification processes and technology transfer. Nonetheless the relative absence of local suppliers provided a long-term bargaining advantage for western firms. As individual firms provided firm-specific training, certification, and technology to local suppliers, their dependence on those firms was assured.

In terms of the bargaining power of suppliers, the American firms were initially at a disadvantage because their Japanese competitors had locked up most of the local firms and had even brought over most of their Japan-based suppliers. However, the American firms, having learned the importance of keiretsu arrangements in terms of an automobile manufacturer's international expansion, were bringing their suppliers too as well as negotiating local arrangements. Hence, in GM's expansion into China, Delphi Automotive followed in order to build a reliable network of parts and components suppliers. Similarly, Ford's Visteon unit was increasing its presence in the Asian region in lockstep with its parent firm.

The growing demand for automobiles in these markets means comparatively weak bargaining power for consumers. In the mature North American and European markets, consumers can choose among hundreds of models, forcing manufacturers to move rapidly through product cycles, thus contributing to the increase in production costs. High demand gave local buyers in Asian markets little say over the level of product differentiation required; Western firms were therefore in a good position to slow product cycles and reduce manufacturing costs.

As in other parts of Asia, auto manufacturers in China do not face a "threat of substitutes." Public transportation is underdeveloped, even in the cities. Four factors are responsible for reducing the threat of public transport as a substitute for automobiles: First, public transport is not efficient in serving areas with low population or employment densities. Low usage means infrequent service, and infrequent service, in turn, deters users. The kind of demographic fragmentation that characterizes most of Asia is an almost insurmountable challenge for public-transport systems. Second, the rapid growth of Asian economies has changed travel patterns as new growth areas have sprung up. Fixed transport systems, such as

rail lines, quickly become obsolete under conditions of rapid growth. The sunk costs that characterize mass transit systems are simply too high in areas where the shift from rural to urban demographics is rapid, and also too high when growth in developing economies is low. Third, many types of public transport have high opportunity costs. Flashy rail systems can consume resources that could serve far more people if devoted to improving bus travel. And finally, the preference for public transit decreases as income level rises; at the same time, consumers increasingly prefer autos to motorbikes.

Equally unproblematic was the threat of new entry. Since the Japanese firms were already well-established in these markets, the American firms viewed themselves as the new entrants. Hence, the Asian markets did not resemble the newly liberalized Eastern European markers where there was a free-for-all competition for market entry and competition among all the major automobile manufacturers. Nor did the Asian markets resemble the newly resurgent Latin American markets where product fragmentation allowed for the entry of new competitors like the Japanese and the Europeans. In terms of European competition, the American automobile manufacturers did not perceive as threatening competitors for two reasons: 1. the European firms were value producers rather than volume producers, like the Japanese and the American firms and, 2. the European firms, apart from some inroads in Japan, China and Taiwan were not particularly successful in gaining market share in the majority of Asian markets. In terms of the expanding Korean manufacturers, the American firms perceived them as over-expanding firms, particularly susceptible to any serious economic downturn, as it happened in the case of the Asian financial crisis.

The issue of competition in Porter's model has been complicated by transnational mergers and acquisitions. In the 1980s and 1990s, the auto industry was slow to respond to

pressures for mergers despite excess capacity. Consolidation, automakers felt, would undermine brand recognition and loyalty, considered in the industry to be a key weapon in the fight for market share. And as the Japanese auto industry grew stronger, international competition among national firms intensified.

The least problematic of all was the rivalry among Detroit's Big Three. The American firms pursued the issue of Asian market penetration not in terms of competition among them, but in terms of competition among them and their Japanese competitors. However, this should not imply that they cooperated in their attempts for entry and growth. In Thailand GM and Ford competed for the attraction of incentives from the host government. Similarly, their late entry in China was highlighted by their competition for the minivan and upscale sedan projects. With the exception of Japan, the American automobile manufacturers were attempting to enter these markets without aiding their compatriot firms.

While the auto industry as a whole tried to fend off consolidation, Japanese firms came to dominate Asian markets, with significant and growing European market penetration, especially in China and Taiwan. Local Asian manufacturers also increased market share from the 1980s. In Malaysia, for example, Proton and Peruda, both Malaysian firms, increased their market share from 15% of all automobiles sold in 1987 to over 30% by 1996, with Japanese manufacturers still maintaining their hold over 60% of the sales market. The vehicle market in the Philippines was divided between Japanese and Korean manufacturers; Japanese firms had an 80 percent market share, while Korean firms controlled 15 percent. In the Indian market, Suzuki, through its joint venture with the state-owned Maruti holding company, had been able to increase its market share from 33% in 1987 to over 43% by 1996; the remainder was divided between European, Indian and other Japanese manufacturers. More than 90 per cent of the Indonesian market

between 1991 and 1996 was controlled by Japanese manufacturers. Japanese and Korean manufacturers each control 95 per cent of their domestic markets, although the import share in the Japanese market increased from 1% in 1980 to over 5% by 1994. The only market that U.S. firms had successfully penetrated was the Taiwanese market where Ford increased its market share from 19% in 1991 to over 23% in 1996. Nonetheless, the Japanese manufacturers still controlled over 50% of the market. ⁵

China was the only market that Japanese firms had not conquered. The Chinese regime had raised a number of barriers to entry for Japanese firms, and by 1985, Japan controlled only 20 percent of the market, with the remainder held by state-owned Chinese firms. Thus, both because of its potential for rapid growth and the small Japanese presence, American and European automakers have considered China to be the last market frontier.

Driven both by continued overcapacity in the 1990s and by intense competition in the Asian market, cross-national consolidation began to eclipse cross-national competition. Indeed, the problem of overcapacity had grown worse: in 1999, the average worldwide plant utilization was only 69%, compared with 80% in 1990. By the end of the decade, most national firms were pushed by lower profit margins to merge. A few examples illustrate the changed structure of the industry at the turn of the century: Ford held a controlling 33 per cent interest in Mazda, and GM had acquired 49 per cent of Isuzu and almost 10 per cent of Suzuki Motors. In 1999, GM bought 20% of the Subaru car business of Fuji Heavy Industries. And DaimlerChrysler's purchase of a one-third interest in Mitsubishi Motors merged German, American, and Japanese firms into the fourth largest auto company in the world.

⁵ For more country-specific statistics observe the attached graphs at the end of the paper. They are based on data collected for the World Motor Vehicle Data (various issues). What is important for our analysis, is the fact that the Japanese firms have remained the dominant firms in this regional market.

As the new century opened, the structure of the industry had changed dramatically.

Global competition was no longer between national firms but between consolidated firms, often acquired for their competitiveness in specific market niches. It is too soon to tell whether these mammoth firms will simply be holding companies for the smaller manufacturers, but it is likely that the mergers will diversify production profiles so that firms can position themselves more competitively worldwide. Daimler, for example, which holds a significant share of the world market for trucks and large cars, needed Mitsubishi's smaller models to fend off growing competitive assaults on its overall market share from Ford, Volkswagen and Opel. And a controlling stake in Mitsubishi with its strong position in Asia would give Daimler an immediate presence in Asian markets. Indeed, Daimler's CEO, Jurgen Schrempp, made it clear that he wanted the surging Asian market to provide a quarter of sales by 2010, compared with 3.2% in 1999. Similarly, when GM acquired Subaru, it held only 1 per cent of the Asian market, anticipating that Subaru would create a wedge that would permit GM more access there.

In addition to this cross-national consolidation to position European and American firms more strongly in Asian markets, increased globalization of the automobile industry further changed the nature of competition. As Asian governments began to liberalize their economies, lowering tariff barriers and phasing out local content requirements, local producers could realize economies of scale by producing parts for a number of companies rather than just one or two. And auto firms could buy parts from the most efficient producers and ship them to their factories worldwide, rather than attempt to acquire all parts for each factory from small suppliers in each country. Indeed, increasing trade liberalization permitted Renault-Nissan and DaimlerChrysler to pursue strategies of volume production across at least two regional markets.

Even more radical strategies have been envisioned. The large manufacturers have begun to sub-contract the design and production of entire sub-assemblies, such as brakes, steering, and suspension. For example, companies such as Valmet, a Finnish engineering company with roots in paper-making machinery, Magna, a Canadian parts company, and Steyr-Daimler-Puch in Austria are outsiders who have begun to make sub-assemblies for established companies like Porsche and DaimlerChrysler. Some analysts predict that the large consolidated companies might even begin to shed some of their assets to parts suppliers. The process of globalization is still in its infancy.

These changes are connected to changes in the nature of automobile production. The Fordist model of mass standardization, vertical integration of supply networks and product homogenization had been increasingly replaced by the Japanese-led model of lean production by the early 1990s (Womack et al 1991). Lean production stressed the importance of just-in-time production techniques that relied upon smaller inventories, increased production automation, assembly line teamwork and flexible manufacturing outputs. Indeed Womack et al (1990) had argued that the lean production system, pioneered by the Japanese, was characterized by the systematic flushing out of waste and placed a relentless emphasis upon cost-competitive quality. However, by the mid-1990s the advent of modular production with its reliance upon information technology and interchangeable parts meant that an increasing emphasis was being placed upon the creation of supplier networks that were integrated and globally-based as well as the development of a global production network (Sako and Murray 2000).

American Strengths

Given these market forces, American were at a disadvantage to their already existing and well-established Japanese competitors, but that these obstacles were not insurmountable. American firms have traditionally been more adept at financing and marketing their products than their Japanese, and thus, although Japanese firms have a competitive edge in price and quality, American firms can more easily enable potential customers to buy their product. The Asian financial crisis was particularly instrumental in highlighting the critical role of finance in the global competitive arena. More importantly, however, their limited exposure in Asia sheltered them from the worst effects of the crisis, positioning them to strike when their competitors' firms. Ford increased its stake in Mazda and provided Mazda with the resources to increase its stake in Kia Motors of Korea. General Motors increased its stake in Suzuki and bid competitively for Hyundai Motors of Korea. Chrysler merged with Daimler Benz and attempted to acquire a controlling interest in Mitsubishi Motors.⁶

Their healthy financial position and stake in Japanese and Korean forms also positioned them to start up new operations in the Asian market. Ford is operating plants in China, Thailand and Taiwan, while increasing the presence of its financing unit in from Taiwan and Thailand to China, Japan, Indonesia and Malaysia. General Motors has established plants in China, Japan, and Indonesia and is expecting to begin production in its plant in Thailand. In short, American firms have leveraged their financial well-being to acquire new positions in Asian-based automobile manufacturers while increasing their investment presence in the area.

⁶ These acquisitions have not been limited to Asia. Ford has acquired Jaguar, Rover and Volvo in Europe, whereas General Motors has acquired Saab and entered into a significant equity position in Fiat.

B. Non-Market Competencies

With the exception of Japan, Korea and China, i.e., the two developed Asian markets and the most promising emerging Asian market, American firms have been able to use their superior expertise in lobbying at the national, regional and international level in order to gain market access. They utilized the APEC and the ASEAN regional organizations in order to accelerate external voluntary sector liberalization in Malaysia, Taiwan, and Thailand and in the Philippines. They participated in the Steering and Advisory Committee meetings in order to accelerate automotive sector liberalization, especially in terms of tariffs, taxation and local content provisions.⁷ What this meant for the American firms was that they could overrun the existing Japanese localized production advantages, because they could sell their automobiles without the threat of punitive forms of state intervention. At the international level, American firms were instrumental in bringing the case of the Indonesian national car project to the World Trade Organization Dispute Settlement branch and were successful in forcing the elimination of Indonesian restrictions in 1999. At the national level, American firms pressured the Clinton Administration for bilateral talks aimed at increasing American firm sales and increasing their investment stakes in local automobile manufacturers. In China, American firms used both the home country administration to open up doors as well as the possibility of WTO membership for China in order to achieve arrangements that were beneficial.

⁷ They successfully lobbied to accelerate the relaxation of restrictions and lower tariff barriers from the established date of 2006 to 2002.

In sum, American automobile manufacturers were faced with a powerful challenge in the Asian markets. Asia, like other regions, suffered from overcapacity in the auto sector. Japanese firms had cornered a large market share, even in countries like Malaysia and Indonesia where host governments actively supported the creation of national automobile firms. But American firms could not avoid the Asian market; it was the most rapidly growing regional segment, both in terms of production and consumption, of the global automobile market. If American firms were to grow beyond their regional pre-eminence in the North American market, which had been solidified through the conclusion of NAFTA, and beyond their stable holdings in the European market, they had to find a way to compete in Asia. And to compete, they had to invest significant capital in an area that was increasingly overwhelmed with production capabilities. It is to the story of American strategies in increasing its competitive position that the discussion now turns.

SECTION III : STRATEGIC AND TACTICAL ANALYSIS

Market Strategies

This confrontation among the American and Japanese automobile manufacturers, and to a lesser extent with their Korean and European manufacturers, in the Asian markets was part of an overall struggle within the global automobile industry.⁸ It was part of the struggle for global expansion with internal rationalization. It was an attempt to build effective scale by playing the

⁸ The Korean manufacturers created production facilities in Thailand, Malaysia, the Philippines and Indonesia, but these production facilities had small capacities (Chung 1997). Similarly, the Europeans were particularly competitive only in China, because of the "first-mover" advantage of VW, and maintained significant import market shares in Japan (Freussenet and Lung 1997).

regional platform game, i.e., sharing numerous components across models and different regional markets in order to achieve economies of scale and reduce complexity and manufacturing costs.

The American firms were thus engaged in a powerful struggle with the Japanese, primarily, and their European and Korean competitors, to a lesser extent, for the penetration of the Asian markets. Hence, they had to decide on which of their firm competencies they could best rely on in order to compete successfully. The American firms were less competitive than their Japanese competitors in terms of strongholds, because the Japanese had the first-to-market advantage, and they were behind in terms of cost and quality. However, they were able to utilize timing and the deep pockets to their advantage.

In terms of strongholds, the Japanese had a powerful advantage. Between 1985 and 2000, they controlled 90 per cent of their home market, while European and American firms controlled only 5%.⁹ They controlled over 90% of the Indonesian market, over 80% of the Malaysian market, over 70% of the Thai market, over 60% of the Taiwan market, and over 80% of the Philippi no market. Even in the Chinese market, where the state had excluded Japanese auto firms until the mid-1990s, Japan was rapidly advancing. In addition, they controlled the auto parts industry in these markets, allowing them to control the supply chain of these markets. With the exception of Taiwan, American firms were not able to develop similar strongholds, given the Japanese first-to-market advantage.

With regard to cost and quality, the Japanese had an advantage over their American competitors because of their greater labor productivity. In 1990, the American firms produced just 14.4 factory unit sales for each employee of the corporate payroll, while their Japanese competitors produced 30.3, yielding a 53% differential in their favor. Additionally, Japanese firms' early penetration of the Asian market had allowed them to increase their content

localization rates to such an extent, that they were not subject to the equivalent price markups that the American and European firms faced because of import taxes and tariffs. However, by the mid-1990s, American firms had increased labor productivity, reducing disparities between themselves and their Japanese competitors. By 1997, the Japanese firms had dropped to 23.5 units per employee, while the American firms had increased their output per employee to 18.4 units, thus dropping the labor productivity differential to 22% (Miller 1999, 15).

With regard to timing and know-how, American firms were more competitive. They had learned a powerful lesson by watching the Japanese penetrate their own domestic markets.¹⁰ The Japanese had imported just-in-time production techniques, and built long-term relationships with parts suppliers.¹¹ American firms were successful at imitating their Japanese competitors, especially in their initial forays in the Asian markets, but they even went a step further: they decreased the number of their parts suppliers and they integrated their suppliers within their global production networks (Shimokawa 1998). They were also moving towards the implementation of modular production techniques in which the emphasis was passing sub-assembly responsibilities to a limited number of "tier 1" vendors. These vendors would produce modules (such as a 4-corner suspension set) that could then be attached to a vehicle chassis as it passes particular stations on the assembly line.

The implementation of advanced production techniques began at the same time that the Asian financial crisis occurred. The crisis allowed the American latecomers the opportunity to

⁹ The same holds for the auto parts market of the Japanese home market.

¹⁰ The 1980's automobile trade friction between the U.S. and Japan resulted in the implementation of voluntary export restraints on the Japanese automotive firms. However, as Berry et. al have shown (1995), the end-result of this form of non-market intervention was the trans-plantation of Japanese production facilities in the U.S. as well as the increased segmentation of the Japanese automotive products towards higher-value offerings.

¹¹ The long-term and close spatial proximity of parts suppliers became increasingly apparent to American automobile manufacturers as one of the most important sources of Japanese firm success in penetrating foreign markets (Levinsohn 1995).

attack the Japanese firms by stressing the critical role that key acquisitions could play in the creation of market share. What the Japanese had created in the 1965-1995 era through gradual flows of cross-national production channels and first-to-market advantages, the American firms could now acquire both from cash-strapped and over-extended Korean and Japanese competitors as well as host governments eager to maintain direct foreign investment levels in the aftermath of the crisis.

This emphasis on timing was rendered possible by the most competitive of the American firms' competitive edges, i.e. their deep pockets. Three factors played an important role: the uninterrupted growth of the North American automobile market in the 1990-1999 era, the increased rationalization and extensive internal firm restructuring leading to even greater profitability, and the increased premium that the equities markets placed on American firms. Hence, by 1998 they had achieved cash at hand levels of \$42.4 billion while the Japanese had approximately \$24.2 billion (Miller 1999, 2). The importance of this disparity became apparent not only in the allocation of resources for acquisition purposes, but for also for the American firms' organizational strategies.

Organizational Strategies

When the American firms first established their trade positions in the Asian markets, in terms of imported sales, they followed the European counterparts' organizational strategies, and they established joint ventures with host state trading firms. The benefits from these arrangements lay in the increased informational advantages that they would acquire in this way as well as increased participation in the non-market environment of the host states. However, the

American firms increased their equity participation in these joint ventures once they began production in these countries. Hence, GM, with the exception of the Chinese markets, has established wholly-owned subsidiaries in Taiwan, Thailand and Indonesia. Similarly, Ford increased its participation in the joint venture in Taiwan and established a fully-owned subsidiary in Thailand. And the increased cash positions that the American firms had in the late 1990s allowed them to increase their holdings of local supplier firms in Thailand, Indonesia and Malaysia. Overall, the American firms moved more quickly than their Japanese counterparts to increase holdings in their local affiliations, even in the face of increased political and economic volatility in the area.

And this strategy of organizational adaptation in a changing market environment was the key to the recent success of American auto firms in Asia. If they could not overcome the historical advantages of their Japanese competitors, then they could attempt to control their competition through acquisitions. Ford's increase of its Mazda's holdings from 10% to 34% (a controlling interest under Japanese law) in April 1996 signaled the beginning of the consolidation of the global automobile industry. General Motors followed by increasing its position in Suzuki to 10% in late 1998, and it also raised its share in Isuzu to 49% by early 1999. Hyundai successfully outbid Ford for control of Kia Motors in late 1998, even though both Mazda and Ford retained their interests in Kia of 8 and 17 percent respectively. Recently, both General Motors and Ford were bidding for control of the heavily indebted Daewoo Motors, with Ford being the most likely candidate. What the 1998-2000 era shows is the ability of the American firms to radically alter their presence in the home market shares of both their Japanese and Korean competitors through acquisition and equity participation rather than the more traditional forms of market share penetration.

Nonmarket Strategies

As it has already been mentioned, the non-market environment in the Asian markets was not only formidable, but it was always changing. Even Thailand, which had long been considered the most liberal market, there was heavy state intervention in terms of import duties, local content regulations and subsidization from the government. And this heavy amount of state intervention had already been used by the Japanese firms, with the possible exceptions of China, and to a lesser extent Indonesia, Malaysia to their advantage. Yoshimata (1999) and Doner (1997) have shown how the Japanese state has aided the Japanese automobile manufacturers in their market penetration of the Asian markets by strengthening corporate linkages and supporting ancillary sector expansion, such as the parts suppliers. To cope with the changing and highly protectionist environment, American firms followed a two-tier approach: in the more developed markets of Asia, Korea and Japan, they actively used bilateral negotiations at the state level in order to reach agreements for increased market access and overall market liberalization. In the less developed, and more rapidly growing markets of Indonesia, Thailand, Malaysia, Taiwan and of the Philippines, they used supranational institutions such as APEC and the WTO in order to achieve a more level playing field, thus increasing their chances for greater market shares. What follows is a country analysis of this two-tier approach.

In Korea, the American firms petitioned the American government for increased market access in a host market where imported cars, either from Japan, the U.S. or the European Union never exceeded 1%. In 1995, Korea and the United States signed a Memorandum of Understanding that committed the Korean market to a series of deregulatory measures whose

end-result would be increased American shares. However, the slow nature of the implementation of this agreement led the U.S. automobile manufacturers to demand that increased pressure be placed upon the Korean government. This increased pressure came in the form of the threat of immediate Super 301 regulations upon Korean imports in the fall of 1998. At this point, the Korean government re-capitulated and committed to a new Memorandum of Understanding that increased the automobile market's deregulation. It committed to a process of self-certification for American imports and it committed to allowing the financing of automobile products through non-bank based credit organizations. It further reduced import taxes on U.S.-type vehicles and narrowed tax differentials among different automobile products (USTR 1998).

This same approach was used in Japan as well. The 1992 visit by Bush led to a series of Japanese firms' commitment to increased American firm participation both in the automobile and auto parts markets. However, by 1995 the United States was still running significant and growing deficits in both areas, thus prompting the Clinton Administration to engage in a dangerous game of brinkmanship when it threatened the imposition of 100 percent of punitive tariffs upon a number of luxury Japanese imports immediately. The Japanese state made a series compromises and engaged in a series of deregulations with the aim of increasing American firm market share both in the automobile and auto part industries.

These compromises unfolded over the 1995-1999 period. There was increased participation of American cars in sales outlets because of increased Japanese state deregulation of dealer networks. Hence, by 1999, Ford, GM and Chrysler had reached 5 percent of all Japanese sales outlets. Additionally, the Japanese state created a new car of automobile repair garages where American auto parts firms could compete in the placement and utilization of their products. The car mechanic certification process was changed, thus allowing for the increased

servicing of American automobiles. An increased number of automobile parts were removed from the "critical list," including brake parts in 1999, thus allowing American parts makers to avoid rigid certification processes that had previously prevented them from entering the Japanese home parts market. (Interagency Enforcement Team Report 1997-1999). Furthermore, on January 11, 1999, following a U.S. complaint at the WTO, the Japanese government modified its law concerning the rational use of energy, thus changing its methodology of calculating fuel economy standards for imported vehicles. Again, American firms had one less non-tariff barrier to deal with. In both the Korean and Japanese cases, the American firms had increased their market share through the use of the American state as a bargaining tool in their negotiations with the host states.

However, in the case of the smaller, but more rapidly growing Asian markets, they used supranational institutions. In the case of the Indonesian national car project, they advocated and got the American government's decision to take the case to the WTO Dispute Settlement Mechanism where Indonesia was found to be guilty. Even though the Suharto regime terminated the project as a result of the increasing political crisis that it was experiencing in Indonesia in 1998, the case does indicate how pressure from a supranational institution could bring about change in domestic policy-setting. In the case of Malaysia, Philippines and Thailand, the American firms used APEC's Automotive Dialogue forum to push for an acceleration of the sectoral liberalization process. Working under the auspices of the Transportation Working Group, industry representatives from American firms engaged in a process of agenda-setting where the emphasis was placed on increasing the rate of sectoral liberalization, even in the aftermath of the Asian financial crisis.¹² At the Bali 1999 meeting, the APEC leaders

¹² Indeed, in the automotive parts supplier sector, the Report of the 1st APEC Automotive Dialogue states that "the U.S. will lead a group to conduct ongoing discussions to produce a report devoted to rescue and improvement" of

"recognized the importance of the auto sector by including it under the Early Voluntary Sectoral Liberalization Initiative," and agreed that although "liberalization will inevitably involve pain, in the form of costs of adjustments, these costs are likely to be smaller when governments commit to an explicit liberalization timetable that contributes to greater confidence among investors" (APEC Automotive Dialogue 1999). Not only did countries like Malaysia and Indonesia, which had previously supported active protectionist policies, argue for liberalization, they also agreed that "liberalization programs should also include reference to non-tariff measures and that foreign investment can help reduce the costs of adjustment and promote trade" (APEC Automotive Dialogue 1999).

The American firms were particularly successful in institutionalizing industry representation at the supranational level as well as being particularly successful at pushing vehicle standardization projects whose aim was to reduce the heterogeneity of the Asian local content markets. The Supplier Group of the APEC Automotive Dialogue Group recommended in the December 1999 report that the APEC countries, and especially the ASEAN countries, "must eliminate their restrictive trade regimes...[because] local content measures simply do not drive local purchases" (APEC Supplier Group Report 1999). It also added that high tariffs must be also eliminated, both internally and externally, and that ASEAN governments also need to pursue "the adoption of internationally harmonized standards and work through the UN/ECE to develop these standards in accordance with the work plan of the APEC Road Transportation Harmonization Project" (APEC Supplier Group Report 1999).¹³

the ASEAN supplier industry. This Report has stressed the need not only for product harmonization, but also the need for extensive sectoral liberalization.

¹³ The APEC Road Transportation Harmonization Project included a large number of automotive industry representatives, especially from American firms.

CONCLUSION

The American firms were latecomers in the Asian markets. With the exception of Taiwan, where Ford maintained a healthy position, because of the ban of Japanese imports, the American firms had to re-enter markets that they had abandoned in the early 1980s, like Malaysia and the Philippines, compete anew for increased market access in mature markets like Japan and Korea, and they had to compete aggressively to establish trade and production positions in Thailand, Indonesia and China. Until the 1998 Asian financial crisis their record of success appeared to be a very limited one.

However, they were able to use an integrated set of market and non-market strategies in order to penetrate the protected and state-directed Asian markets. They utilized their financial "deep pockets" to acquire significant stakes in Japanese and Korean automobile manufacturers and Indonesian, Thai and Malaysian parts makers. They utilized their market-entry timing in combination with the afore-mentioned deep pockets to be the only new firms in markets like the Philippines and Thailand when there was limited foreign direct investment in the area, thus increasing their bargaining power vis-à-vis host states. And they utilized their recent advances in labor productivity and production techniques to better integrate these markets in their global production platforms.

Additionally, they used a variety of non-market strategies to increase their chances for success. They aggressively lobbied the U.S. state for the granting of permanent normal trade relations status with China, even arguing for a delinking of trade issues with human rights violations. They continued their lobbying for increased market access in Japan and Korea

through bilateral trade negotiations that begun with the VER non-tariff trade barriers of the early 1980s. They succeeded in achieving a series of agreements that changed Japanese and Korean import regulations. They lobbied the U.S. state for bringing a WTO dispute against the Indonesian state for its "national car" project, which was eventually scraped by the Indonesians. They used their membership at the APEC Automotive Dialogue supranational setting push for an acceleration of sectoral and regional trade liberalization and for product harmonization. Both measures, which have been already implemented, have decreased their Japanese competitor production localization advantages and the host states' ability to actively intervene in the automobile sector. And all this has happened in the midst of an international automobile industry consolidation that will set the stage for subsequent developments. Future research questions should investigate whether the American firms' strategies will prove to be successful in the longrun.

APPENDIX

COUNTRY PROFILES:

China

The original six major passenger-car producers in China - Shanghai Volkswagen, First Autoworks, Second Autoworks, Beijing Jeep, Tianjin Daihatsu, and Guangzhou Peugeot, together with the truck producers Shenyang Jinbei Automotive Corp., Janjing IVECO, and Jinan Heavy Truck Corp., account for 75% of China's total vehicle output in 1992. This figure illustrates the high degree of concentration achieved since 1980, when the top 20% assemblers only produced 50% of total output. Prior to 1979, China produced only about 160,000 vehicles each year and trucks and buses accounted for over 90% of total vehicle output. The country currently has 123 producing companies with more than 200 assembly plants with annual production capacity ranging from 100 units, in small garage factories, to 150,000 units, in modern joint-venture facilities. The component sector is even more scattered; industry analysts estimate that of the thousands of auto-parts' makers in China only a tiny percentage has the ability to manufacture quality products. One major problem for local producers and joint ventures is the fact that the total production capacity reaches 750,000 cars and 2.4 million vehicles including buses and trucks. Industry is using only about 40% of its capacity and holds currently a stock of more than 110,000 vehicles despite falling prices. Moreover, expansion in the sector is ongoing since three years. The announcement by the Chinese government of a plan to develop their automotive industry has prompted the main world producers to attempt an early

entry into the Chinese market in order to ensure a piece of the, potentially, world fastest growing market. Notably the three main US producers are heavily lobbying. GM, which recently opened an office in Shanghai, has established four joint ventures in China and plans substantial new investments in an auto parts venture with Jinbei Auto Co. Ford has currently two joint ventures in Shanghai producing glass and molded plastics and in December 1994 signed an agreement for a USD 30 million electronics joint venture. Chrysler is the only US producer currently assembling vehicles in China. Several joint ventures encountered difficulties in 1996 and 1997: Mercedes Benz stopped its engagements with the Chinese partners Sanxing Motor Corp. and Hainan Automotive Factory. Dongfeng Citroen, which had plans to build a new factory in Wuhan with a projected capacity of 150,000 passenger cars by the year 2000, is confronted with a dramatic decrease of production down to a mere 6,000 cars in 1996. Peugeot pulled out of its joint venture in Guangzhou; instead Honda started a new venture there in 1998. Further there are some new car jv like yaxing-benz (Daimler-Chrysler). Volvo is expected to start truck-production joint venture in 1999.

Also Volkswagen, the largest car maker in China at the moment, faced serious problems. VW suffered of bad quality of local components and non-performing distribution networks for its new plant in Changchun with a capacity of 150,000 cars. In 1997, the production there will stagnate on an extremely low level of about 25,000 Jetta. However, VW still held 52% of the market in 1996, but it is building rather outdated models like the Santana, Jetta and Audi 100. VW sold about 200,000 cars in 1996 after 149,059 cars in 1994, six percent more than in 1993. (In 1994 it built 115,288 Santanas at its Shanghai plant while in Changchun it built 20,308 Audi 100s, 7,630 Jettas and 1,190 Seat Cordobas which are badged as the Golf City.) Cordoba production will be transferred to another plant in southern China and expanded. Another problem

for VW was the competition by its Chinese partner Shanghai Automotive Industry Group who used an old license for Audi 100 and started a production of Chrysler motorized version called "Little red flag". This example shows the cleverness of Chinese producers who are good negotiators and try to conclude with different foreign partners in a way to reach a maximum level of independence. Total output of China's twelve car manufacturers for 1996 reached 1.490.000 after 1.430.000 in 1995 (1994 : 1.380.000), of which private cars accounted for 420.000 after 400.000 in 1995 (1994 : 250.000). Sales increased by an average annual growth of 28% during the last five years. Domestic output was planned to reach 2 million vehicles, but due to major difficulties in several companies production stagnated in 1996. Production of cars, buses and trucks is expected to increase by 7% for 1997. The government plans to support domestic manufacturers and their foreign partners with a total of 12 bn \$ over the next five to eight years. This compares to a total spending of 34 bn RMB (some 4.1 bn \$) over the last 40 years. The "big eight" producers include First Automotive Works, Shangai Volkswagen, Wuhan Shendong, Beijing Jeep Cherokee, Tianjin Daihatsu, Guangzhou Peugeot, Chongqing Chang'an and Guizhou Yunque. Imported motor vehicles took only 8% of the domestic market, compared with 19% in 1994. In 1996 imports of vehicles fell dramatically by 50%, but still reached 74,000 units. Imports of parts and components accounted for 83% of total imports. Both illegal assembly of cars with imported components as well as distribution by unauthorized dealers is rampant.

The American firm presence in China was the result of extensive pressure by the home country government as well as intense regional arrangements within China General Motors operates through both Opel and a GM joint venture. Opel China is a wholly owned subsidiary registered in Germany and established to facilitate potential Opel investment in China. It has a representative office in Guangzhou, Guangdong, PRC. The Guangzhou office is responsible for

the development of potential Opel engine and vehicle projects in China. Jinbei GM Automotive Company Limited is a joint venture company to produce light commercial vehicles in Shenyang, PRC. The GM China-Shanghai Operations includes a Representative Office that supports a joint venture company, which will consist of vehicle, engine, and transmission assembly operations, as well as a marketing and administration headquarters. The new company represents 50/50 percent ownership for GM and the Shanghai Automotive Industry Company (SAIC). The new vehicle for assembly as part of this joint venture will be a mid-to-high luxury sedan. Ford presently has five joint ventures in China for the manufacture of automotive components and has 20 percent equity participation in Jiangling Motors Corporation, a Chinese vehicle manufacturer that soon will be producing a 9-12 seater bus and commercial van for the Chinese market.

Indonesia

The Indonesian motor vehicle industry is highly fragmented with 11 assemblers assembling over 20 brands on a sub-contract basis. Local assembly is dominated by Japanese companies. A small number of very low volume European passenger cars brands which are assembled on a SKD basis are also present. There is a high level of substitution of passenger cars by light commercial vehicles (LCVs) which enjoy a considerable price advantage due to government policy. The automotive industry, a strategic sector, and the motorcycle business grew out of assembly work by private-sector enterprises which received considerable State aids. Since the early 1970's the Government has sought to attract foreign firms to develop assembly work in Indonesia to the largest possible degree and to boost the use of locally-produced parts. To attain those objectives it has prohibited imports of fully assembled card and motorcycles while permitting imports of kits of parts. The Government also applies an exclusion policy as a means of gradually reducing

the imported content of vehicles assembled in Indonesia. These arrangements were modified by deregulatory measures adopted in June 1993. They replace the exclusion program (for parts imports) by a local-content plan based on tariff incentives. The ban on importing completely built-up vehicles and motorcycles was also replaced by a system of high import duties and surcharges, combined with licensing for certain models. Before the Asian crisis, the Indonesian market reached domestic sales of cars between 330,000 units (1996) and 380,000 units (1995 and 1997). The sharp fall of demand after the beginning of the crisis led to a de facto halt in imports of cars and auto parts. Moreover, many companies were operating at extremely low levels of production. The situation is worsened by very high interest rates (above 30% in 1999)and by a cash stripped leasing sector.

The national car project proved to be the most important of American firm involvement in Indonesia. In 1996, the main feature of Indonesia's car policy was the so-called "National Car Program". At that time, the Indonesian authorities adopted Decree No 31/96 including a number of provisions aimed at developing the local automotive manufacturing industry, notably through exemption from customs duty on parts and components and exemption from sales tax. Companies could be granted "Pioneer status" if their products (1) were branded under their own, Indonesian-owned mark; (2) were produced domestically; and (3) used domestically made components. The European Union challenged the "Pioneer" scheme in the WTO. The findings of the WTO panel condemned the Indonesian practice and therefore, Indonesia had to end all tax privileges for the national car program in 1998, but it was not until 1999 when Suharto finally abolished the project. The American manufacturers were instrumental in getting the matter into the WTO's dispute settlement mechanism. The Asian financial crisis and the subsequent collapse of the Suharto regime were key in the national car program's elimination.

GM Indonesia was formed September 13, 1993, as a joint venture between General Motors and PT Garmak Motor. Since November 1997, GM Indonesia became a wholly owned subsidiary of GM Corporation. The company introduced its first Opel passenger car, the Opel Vectra in 1994, the Opel Optima (Astra) in March 1995 and the world's first right-hand drive Opel Blazer in December 1995. Within only two years, Opel Blazer has become the leader in Indonesia's sport utility vehicle segment. At the present time, Blazer is the only model produced by GM Indonesia. Assembly and distribution of Opel Blazer LT, DOHC and Montera Service and parts distribution Assembly and distribution of Opel Blazer LT, DOHC and Montera Service and parts distribution. GMAC LIPPO Finance is positioned strategically to immediately address the need to provide financing/leasing support for General Motors Buana Indonesia and its dealers with the marketing of their new line of GM cars and sport utility vehicles, including the Opel Vectra, Optima, and Blazer. GMAC LIPPO Finance also has targeted services that address the burgeoning, broad-based consumer demand for efficient automotive financial services for all vehicles. Ford has not expanded its production facilities in Indonesia, but it is radically altering its strategy for acquisitions within the Indonesian automobile sector because of depressed asset valuations.

Philippines

The political and economic upheavals of the mid-1980s created a climate of uncertainty which led to a fall in investment and fluctuations in car production. Domestic production is largely based on the importation of vehicles completely knocked-down (CKD). Government policy towards the automotive industry is intended to promote the assembly and parts - manufacture sectors. Because of the numerous models and variants available in the market, the

Filipino consumer has a wide choice of cars, and this has a positive impact on car prices. Throughout the 1990s, the Philippines has taken significant steps to liberalize its trade, foreign exchange, and investment regimes, including a reduction in its applicable tariffs on automotive products. The automotive industry, however, remains one of the few specifically protected sectors of the Philippine economy. The Philippine automotive sector is dominated by local vehicle assemblers and parts and component manufacturers. Passenger cars account for approximately 55 percent of total sales, with utility vehicles and vans comprising the largest remaining shares of the market. The market is highly fragmented, with 18 licensed assemblers. They are led by Japanese firms, which hold approximately 80 percent of the vehicle market and 70 percent of the parts and components market. European assemblers active locally include Fiat, Mercedes-Benz, BMW, and MAN. Total vehicle production was 129,000 units in 1996 and had been expected to reach 200,000 units by the year 2000. However, the sharp depreciation in the Philippine peso has left local assemblers questioning those assessments. From 1988 to 1995, automotive sales grew about 45 percent annually. In the first half of 1997, more than 200 vehicles were sold each day -- 1,000 percent higher than just a decade ago. Due to the Asian financial crisis, these results will not be repeated and sales were hit hard both for commercial vehicles and passenger cars in 1998. Sales in 1998 dropped to 80,231 units and it will not be until 2001 that sales will reach the 1997 levels. In 1999, monthly car sales reached a level of about 2,000 cars, which is three to four times less than in the first half of 1997.

In 1996, the President approved Memorandum Order No 346, amending the guidelines of the Car Development Program (CDP), the Commercial Vehicle Development Program (CVDP), and the Motorcycle Development Program (MDP). The Philippine government imposes restrictions on automotive firms through these programs and related local content and foreign

exchange restrictions. The MVDP is composed of three main initiatives: (i) the Car Development Program (CDP), including a small-car People's Car Development Program (PCDP); (ii) the Commercial Vehicle Development Program (CVDP); and (iii) the Motorcycle Development Program (MDP). As recently as the late 1980's, there were only three MVDP program participants: Toyota, Mitsubishi, and Nissan. As a result of the creation of the PCDP, Mazda, Honda, Daewoo, Daihatsu, Fiat, and Kia entered the market in 1990. Creation of a luxury car category within the CDP brought Mercedes Benz, BMW, and Volvo into the program in 1992, and in December 1994, the CDP was expanded to include car assembly plants under the ASEAN Industrial Joint Venture (AIJV) scheme. Proton of Malaysia entered the market at that stage. On 26 February 1996, President Ramos signed Memorandum Order No. 346, which substantially reshaped and liberalized the MVDP. Spurred on by these government policies, the parts manufacturing and car assembly industries have grown impressively. The Philippines is home to more than 170 parts makers. The principal assemblers are Nissan, Vehicle Assemblers of New Zealand (Ford and Mazda), Toyota, Mitsubishi, and Honda.

The American presence in Philippines is mainly through Ford. Ford broke ground on its assembly plant after a long and torturous fight that highlighted the importance of non-market strategies in the Asian markets. Its traditional suppliers have followed it there.

General Motors explored the opportunity of establishing new manufacturing facilities in the Philippines. However, during 1996 it decided to set up its regional operations hub in Thailand.

Chrysler has a joint venture in the Philippines with Transfarm, producing a limited number of Chrysler-badged Jeep Cherokees.

South Korea

Korea's automotive industry has been designated a "strategic industry" since 1962 when the Auto Industry Law was passed to promote the development of domestic industry. Korean manufacturers initially limited themselves to low volume, CKD (Complete Knock-Down) vehicle assembly, based on overseas technology. Since then, the Korean automotive industry has developed, behind high import barriers, into the world's fifth largest motor vehicle manufacturer. In 1993, production volumes for the first time exceeded 2 million vehicles, having increased from just over 1 million in 1990. The three major manufacturers (Hyundai, Kia, Daewoo) intended to double capacity by the end of the decade. In addition, capacity further increased due to the market entry of Ssangyong and Samsung. As domestic sales grew only slowly most of the expanded production was absorbed by export markets. In the first months of 1996, Korea's car imports amounted to only 8,913 units, thereof 5,488 units from Europe. In Korea, only 0.4% of the registered vehicles are brands from outside Korea. As per end of October 1996, vehicle imports took a 0,3% share of the total import trade value to Korea (from Jan. to Oct. 1996, the value of imported vehicles is U\$383,97 mil. compared to the overall import value U\$123,3 bil.). Although vehicle imports account only for 0.27% of the total import value, anti-import campaigns focussed on imported cars. Widely communicated tax inspections turned the late 1996 sales again down to the low levels of 1995. While pursuing an export-oriented strategy the Korean automobile manufacturers continue to benefit from a high degree of (non-tariff) protection of their domestic market which results in an import penetration of the market for passenger cars and LCVs of less than 0.3 per cent in 1994 and 0.6 per cent in 1995, half of which

are accounted for by EU exports. This compares with a foreign penetration of the EU 12 market of 16.4 % (Korean market share: just under 2% in 1996) and of the Japanese market of 3.1%. All car producing OECD countries have signaled that this situation is highly unsatisfactory. The antiimport campaign in Korea caused increasing problems in the automobile sector. The Korean Government sought to create a bias against the purchase of foreign cars. Through media communications channels, imports were portrayed as luxury items and were strongly discouraged by government action. Major leasing companies were contacted to provide names and addresses of import car buyers. Purchasers of imported cars were the subject of scrutiny by the authorities. There have been indications that foreign cars are subject to tax audits more often than Korean ones. These measures had a severe impact on the sales of foreign vehicles. The number of registrations of foreign cars dropped to 618 units in November 1996 which represents just half of the peak figure of August 1996. All European manufacturers (notably Mercedes-Benz, BMW, and Volvo) were severely hit and have not yet recovered from this sharp decrease in their sales. In 1998 European carmakers sold only 800 cars, while Korean car sales amounted to over 400.000 vehicles.

This issue was addressed during the 15th EC/Korea ministerial meeting which took place in Seoul on 20 July 2000. The Commission insisted that the Korean market for cars should not be influenced in any way by hints that the purchase of a foreign car is unpatriotic or gives the impression that the purchaser has evaded taxes. The Korean side acknowledged the striking trade imbalance in cars but ensured that considerable action has been and will continue to be taken such as the Import Auto Show 2000. As a result of bilateral consultations, Korea agreed to take certain steps to improve access for imported motor vehicles whereby the applied tariffs on passenger cars were reduced to 8 percent beginning January 1, 1995, following a prior reduction

of 15 to 10 percent in 1994. However, this tariff had been bound at 80 percent with no reduction foreseen following conclusion of the Uruguay Round. However, after pressure from the Commission and the US, Korea bound its tariffs at 8% in a letter sent to the WTO on 19 November 1998 saying all of tariff position 8703 was to be bound at 8% from that date (i.e. buses, commercial vehicles and special vehicles were not to benefit from the lower tariff binding). Tariffs on vehicles for the transport of goods will remain unbound.

A Memorandum of Understanding between the US and Korea was concluded in September 1995 which includes a series of market opening measures. The possibility for EU manufactures to also benefit from the self certification procedure applying to US manufacturers in accordance with this US-Korea agreement has not been accepted.

As part of the Memorandum of Understanding between the US and Korea which was concluded in 1995, the annual vehicle registration tax as well as the special excise tax will be lowered by 20% to 40% for vehicles with engine displacement over 2000ccm. This point was of major concern to the US automobile manufacturers who claim that, although the same tax rates are applied on imported and domestic vehicles, the tax burden on US cars is greater as they tend to have larger engines. These concessions should be of some benefit to EU manufacturers whose sales are concentrated in the upper market segment (Mercedes-Benz, BMW, Volvo). The tax differential between passenger vehicles with engines below and above 2000cc has been reduced to 1.7 cents per cc.

In South Korea, the American firms have reacted with increased pressure for market access. More importantly, they have engaged in active acquisitions, such as Ford's equity participation in Kia Motors and General Motors stake in Hyundai.

Taiwan

The Taiwanese authorities do not consider their automobile industry to be competitive because of the reduced size of the market, which does not allow for economies of scale and therefore results in high production costs. The total value of local production in 1992 amounted to USD 8.2 billion, representing 5% of the whole manufacturing sector. The industry directly employs some 120,000 workers. The Government plans to restructure the industry and therefore is seeking to control car imports until, at least, 2000 in order to assist the restructuring effort. During this period imports will be subject to annually increasing quotas. The situation will be reassessed at the end of this period, but the indications are that Taiwan will seek the maintenance of some form of protection for some years thereafter. The Automotive Industry Development Policy (a document of the Ministry of Economic Affairs) is the blueprint for the restructuring plan. Its main aim is to establish an internationally competitive automotive industry by the year 2000. Its goals are ambitious: annual production should rise from 590,000 units in 1990 to 1,670,000 units by the end of the century. Exports should increase from 4,000 units to 200,000 units during the same period. In order to achieve these goals, Taiwan's strategy includes trade protection, local content requirements, technology transfers as a condition for establishment of joint ventures, encouraging collaboration for component development, tax benefits to encourage the development of new models and encouragement of research and development. Anyhow, up to now, the government could not reach its goals.

Taiwan has been Ford's most successful market penetration story. Its early participation in the market, especially in an era when Japanese participation was prohibited by the Taiwanese state, has paid with a market share over 20%. General Motors has been in Taiwan with a wholly owned subsidiary since 1989 and has used Taiwan as a spring-board for its Saturn model.

Thailand

Before the financial crisis, Thailand was Asia's third-largest auto maker, the ASEAN regions largest passenger car market, and the worlds second largest market for both motorcycles and pickup trucks (after the United States). It had the worlds fastest expanding automotive industry (between 1990 and 1994, Thailand's domestic market expanded at an average annual rate of about 20%). Unit sales had tripled since 1989, reaching 570,000 units in 1996, more than 90% assembled in country. Unit sales were projected to reach 1 million by 2000. The 1997 financial crisis has had a strong impact on the automotive sector, with increases in customs duties (on 15 October 1997) and in excise taxes (on 5 November 1997). Thailand has seen the domestic market shrink dramatically with a huge 38% drop in vehicle sales in 1997 to 360,000 units (passenger cars and other vehicles). In 1998 domestic production and sales were sharply decreasing by up to 60%, with sales falling to 144,000 vehicles. As far as exports are concerned, Thai deliveries of completely built-up cars surged by far over 100% in value and units in 1998. In the first quarter 1999 a further 84% increase led to exports of more than 20,000 units worth more than 200 million US\$. Almost all exported vehicles are pickups of Japanese and American manufacturers. In 1999, a recovery of car sales seems to be realistic. Thailand's new vehicle sales jumped from a monthly average of 10.000 vehicles in the second half of 1998 to about 15.000 per month and finally to more than 20.000 in November 1999. Passenger cars and commercial vehicles show increasing sales volumes.

The basis for the development of a local automotive industry has been a combination of sound economic policy and liberal investment and trade practices. There are approximately 1.200 automotive and industry-related manufacturers operating in the country, including 12 firms assembling trucks and cars. These firms produce goods and services worth 13,000 million ECU annually, a figure approaching 10% of Thailand's gross domestic product. About 600 auto parts producers have collapsed due to the financial crisis. Approximately 55% of vehicles sold in Thailand are pickup trucks. Passenger cars account for approximately 30% of vehicles sold; passenger cars with engines of between 1,300cc and 1,600cc are the most popular. Toyotas Corolla is the best-selling model. The remaining 15% of the market is comprised of medium and heavy trucks (Hino, Isuzu, Mitsubishi) and buses (Hino, Mercedes-Benz, and Mitsubishi).For 1999 (eleven months), Toyota accounted for 34% of total sales of 180.000 units, followed by Isuzu with 23% and Honda with 11%.

The Thai market is dominated by Japanese capital-affiliated firms through direct investments, joint ventures with Thai companies, and technical licensing arrangements. Seven Japanese firms -- led by Toyota, Isuzu, Mitsubishi, Honda, and Nissan -- hold 91% of the market including approximately 83% of the passenger car market and 98% of the commercial vehicle market. These firms have also developed right-hand drive subcompacts specially designed for the ASEAN market. The auto components sector has grown strong as a result, in part, of local content rules designed to aid Thai parts manufacturers. The Thai automotive parts market has grown to nearly 6,000 million ECU annually, making it the largest in the ASEAN region. The market is dominated by Japanese keiretsu companies. The vast bulk of the 150 original equipment and 200 after-market parts manufacturers in Thailand are Japanese affiliated, and the vast bulk of auto parts imports come from Japanese capital-affiliated firms. These firms have

been particularly aggressive in taking advantage of trade and investment liberalization and are targeting export-oriented assembly and component manufacturing operations. This sector has been aided considerably by the requirement of vehicle inspections, which the government imposed in 1995. Production and sales are also likely to be aided by expected reductions in import duties on raw materials, which have to date restricted domestic component manufacturing operations.

A number of EU and US firms compete in the Thai market against the Japanese firms. YMC Assembly (BMW and Peugeot) and Sukosol (Ford/Mazda) assemble and produce both passenger cars and pick-up trucks. Thai Swedish Assembly Co. (Volvo and Renault), Thonburi Assembly Co. (Mercedes-Benz), and Bangchan General Assembly Co. (General Motors/Opel) assemble cars only. EU and US firms have been given a market opening by Japanese firms reluctance to transfer design and engineering expertise to their Thai production partners, many of which are now planning their own vehicle models with non-Japanese (including Italian) assistance.

Thailand has been the centerpiece of American firm market penetration in Asia. It has offered a more liberal trading regime than Malaysia, more growth potential than Taiwan, less corruption than Indonesia and less uncertainty than the Philippines. General Motors has had a major plant in operation since the fall of 1999. It made significant changes to its initial investment plans: it cut back its capital investment from \$750 million to \$500 million, it reduced its annual plant capacity from 100,000 units to 40,000 units. However it did not scrap its plans because of the crisis and has accompanied its plant investment with a \$250 million commitment from its parts suppliers.

Ford expects to begin production in its own facility in 2000. Its joint venture (50/50 split) with Mazda cost \$500 million and it has a capacity of 130,000 Mazda-designed light trucks. Much like GM, Ford has brought with it a significant number of its parts suppliers and it has engaged in building a product infrastructure that allows it to compete for the long run. More importantly, both firms have brought their financing firms with them.

BIBLIOGRAPHY

Abdulsomad, Kamaruding. 1999, "Promoting Industrial and Technological Development under Contrasting Industrial Policies: The Automobile Industries in Malaysia and Indonesia," Paper presented at the Second International Malaysian Studies Conference.

APEC Automotive Group. 1999. <u>Report of the First Automotive Dialogue Meeting (Bali,</u> Indonesia: APEC Automotive Group).

APEC Supplier Group. 1999. APEC Supplier Group Report (Singapore: APEC Supplier Group).

Berry, Steven, James Levinsohn and Ariel Pakes. 1995. "Voluntary Export Restraints on Automobiles: Evaluating a Strategic Trade Policy," NBER Working Paper No. 5235, (Cambridge: National Bureau of Economic Research).

Chung, Myeong-Kee. 1997, "Globalization Strategies of the Korean Motor Industry," Actes of the Gerpisa, No. 22.

Doner, Richard. 1991. <u>Driving a Bargain: Automobile Industrialization and Japanese Firms in</u> <u>Southeast Asia</u> (Berkeley: University of California Press).

-----. 1997, "Japan in East Asia: Institutions and Regional Leadership," in Peter J. Katzenstein and Takashi Shiraishi, eds., Network Power: Japan and Asia, (Ithaca: Cornell University Press).

Financial Times. Various issues.

Freyssent, Michel and Yannick Lung. 1996, "Between Globalization and Regionalization: What is the future of the Automobile Industry?," *Actes du Gerpisa*, No. 18.

Interagency Encorcement Team. 1997-1999. <u>Report to President William Jefferson Clinton of the Interagency Enforcement Team Regarding the U.S.-Japan Agreement on Autos and Autos Parts</u> (Washington, D.C.: U.S. Department of Commerce and the Office of the U.S. Trade Representative).

Karmokolias. 1994. <u>Radical reform in the automotive industry : policies in emerging</u> <u>markets</u> (Washington, D.C. : World Bank).

Levinsohn. John. 1995, "Carwars: Trying to Make Sense of U.S.-Japan Trade Frictions in the Automobile and Automobile Parts Markets," NBER Working Paper 5349, (Cambridge: National Bureau of Economic Research).

Maxton and Wormland. 1995.

Miller, Randall. 1999. <u>The Road Ahead for the U.S. Auto Industry</u> (Washington, D.C.: Office of Automotive Affairs, International Trade Administration).

Sako, Mari and Fiona Murray. 2000, "Modules in Design, Production and Use: Implications for the Global Automotive Industry," Paper presented at the International Motor Vehicle Program (IMVP) Annual Sponsors Meeting.

Shimokawa, Koichi. 1997, "Global Strategy and Global Sourcing in the World Auto Industry and the Japanese Presence, with some case strudy of Mitsibushi Motors and Nippon Denso," *Actes of the Gerpisa*, No. 22.

United States Trade Representative, Office of. 1998. <u>U.S.-Korea Memorandum of Understanding</u> in Market Access for Foreign Motor Vehicles (Washington, D.C.: USTR).

Womack, James, Dennis Roos and Daniel Jones. 1991. The machine that changed the world (New York, N.Y. : HarperPerennial).

Yoshimatsu, Hidetaka. 1999, "The State, MNCs, and the Car Industry in Asia, "Journal of

Contemporary Asia, Vol. 29, No. 4, pp. 495-510.