Two Roads toward Export-led Industrialization: A Comparative Analysis of Government Policies and Corporate Strategies in South Korea and Mexico

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I. An explanation of car export in South Korea and Mexico

In the mid-1970s, some Third World countries selected the automobile industry as a candidate that would contribute not only to the rapid industrialization but also to the national balance-of-payments. Third World countries usually have suffered trade deficits and heavy external debts.

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(1) "Cars" usually means passenger cars, while "motor vehicles" include all types of motor-driven vehicles. Considering the absolute portion of passenger cars in the production and export of motor vehicles, "cars" in this paper corresponds with "motor vehicles." "South Korea" or "Korea" means The Republic of Korea.
They want that car export would help them to reduce overall trade deficits and heavy external debts. South Korea, Mexico and Brazil have shown an impressive growth of car exports. Until the early 1970s, they hardly exported motor vehicles. However, after the strenuous efforts of export-led industrialization, most of them become net exporters of cars and auto parts since the mid-1970s. Brazil exported 207,640 cars and $857.3 million of auto parts in 1985. Mexico exported 163,073 cars and $737.6 million of auto parts in 1987, showing the trade balance of $1.9 billions. The speed and volume of Korea's automobile export growth have been among the most outstanding in the history of the world's automobile industry. Until the early 1970s, Korea assembled only tens of thousands cars and was a net importer of motor vehicles. In 1987, however, Korea produced about 1 million motor vehicles and exported 538,086 motor vehicles. Korea's trade balance of motor vehicles and parts in 1987 recorded $2.7 billions.

There have been different roads toward export-led automobile industrialization, which create different export patterns. The comparison between Korea and Mexico is meaningful in the study of car export because both countries have shown markedly different export patterns even though they began their automobile manufacturing in similar period, pursued a similar goal, and confronted a similar international environment. While Mexico developed a balanced trade of vehicles and parts, Korea has developed the export of vehicles rather than parts. As a result, Korea imports parts and exports vehicles. Following from their respective emphases upon the trading of parts and finished goods, the total volume and amount of trade surplus are getting larger in Korea than Mexico. However, the most critical difference between them is that the car export of Korea has been managed by Korean auto firms but that of Mexico by multinational auto firms.

The purpose of this paper is to provide a historical-structural explanation about the causes of the differences. Recent studies of the automobile industries in both countries—whether the dependency or statist perspectives
—agree to the role of state policies and the strategies of the multinational corporations (Ku and Back, 1990, pp.7-50). This study will pay more attention to the historical structure of the domestic factors which influence these patterns, such as the development strategies of a ruling coalition—a coalition of government and local capitals—in both countries. There are two roads of automobile exports: “independent” and “dependent” roads. The visual difference of these roads is the existence of national champion firms, which were the outcomes of development strategies in the introductory stage of automobile industrialization.\(^{(2)}\) This study analyzes the causal relationship between these factors.

II. Government policies and export promotion

Government policies for car export in both countries did not begin until the mid-1970s. “Export policies” can be read in Korea’s automobile decrees even before that period. However, any bureaucrats and businessmen believed in the possibility of car export no more than one of Park’s political slogans. After the 1961 military coup d’etat, Park’s military junta set up a five-year automobile development plan as a part of the First Five-Year Development Plan in 1962. Since the Plan, the major purpose of Korean government policies was to set up a few national champion firms which could substitute home-made cars for imported cars (Kim and Lee, 1983, p.289).

The very nationalist Long-Term Automobile Promotion Plan in 1973 set up the export of $150 million cars and auto parts in 1981 as one of two major goals (Ministry of Commerce and Industry, 1974, p.1). However, this goal was usually treated as a by-product of the other goal—the production of “national cars” until 1975. In 1977, only with the success of

\(^{(2)}\) For the establishment of national champions in Mexico and South Korea in the stage of introduction, see Jong Gook Yoon, “Han’ guguei jihaegeon-haegwa sanyobhwaonryag,” in Chung Si Ahn, (ed.), *Hyundai han’ guguei jaengchigwaonjiggwa sanjeobhwa*, Seoul: Bommunsa, 1990.
Hyundai's Pony not only in the domestic market but also in some overseas markets, the government declared the automobile industry as a major strategic industry for export.

The Mexican motor vehicle industry has received special public policy attention from the 1962 decree. At the beginning, Mexican policymakers recognized the reality that the assembly of motor vehicles in Mexico would remain under the ownership control of transnational corporations for a long time into the future. Thus, the primary purpose of the presidential decrees was to develop a strong, locally owned auto parts company and then a terminal firm (Bennett, 1986, p. 27; Comercio Exterior, July, 1977, pp. 771-775).

It was the second decree in October 1972 that addressed the issue of export (Comercio Exterior, Nov., 1972, pp. 1022-1023). The initial percentage compensation of exports for imports was set at 30% in 1972 and rose to 100% in 1979. Existing firms not in compliance with this requirement were prohibited from undertaking domestic market expansion and were ineligible for investment or export incentive programs. Fiscal incentive (up to 100% in import rights and indirect tax) was given to exporters of automobiles and parts. It also required that assembly firms match auto parts imports with auto-related exports. This decree required 60 percent local content in terminal firms and all new auto parts manufacturers. This local content could be lowered to 40% only for automobiles for exports.

The 1977 decree revised the local content requirements to provide incentives for export; the requirement was lowered to 50 percent for passenger cars and 65 percent for commercial vehicles, allowing some changes in its application (Comercio Exterior, July, 1977, pp. 771-775). The terminal firms, according to the decree, must arrange exports for the parts firms in an amount at least equal to their own exports. Then, the terminal firms would receive compensatory export credit for the total of their own exports and for the exports arranged for the parts industries. Moreover, only the firms that meet all the provisions of the decree would
receive an exemption from import tariffs on machinery and equipment not produced in Mexico.

The policy means are various but purposeful. From indirect incentives in tax and tariff to direct intervention of the market share and ownership, the Mexican and Korean governments have long used various means to implement their goals in their automobile industrialization process. These state policies involve protectionist measures that use either high tariffs or an outright ban on imports of items competitive with local motor vehicle production, a requirement of local content over a significant period, and preferential tariffs for parts and components as well as imported capital goods. In addition to controlling trade measures, both Mexico and Korea provide direct subsidies and tax exemptions for their local automobile companies. Contrary to the general perception about the two countries' development strategies, the Mexican government launched its export promotion policies earlier than the Korean government in the automobile sector.

A common phenomenon in the two countries' automobile policies is their frequent "policy failures." The goals of both countries were largely too ambitious to be implemented in their given situation. Major goals of the Mexican and Korean automobile policies between 1960 and 1985 could not be fully implemented and even policies that were adopted had to be cancelled before implementation in some instances because of various internal and external problems.

Moreover, governmental policies are hardly specific to the performance of each auto firm in Mexico and South Korea, while industrial patterns are directly linked to the performance of each firm in Mexico and Korea. In most cases, the real source of competitiveness of each firm is its technological, managerial, and financial superiority over other firms. For example, the rapid growth of export in the Korean automobile industry is largely due to the superior performance of Hyundai over other firms, even though the Korean government also supported the other firms. While the overall
effects of those policies should still be emphasized, therefore, there is perhaps not such a strong causal relation between the governmental policies and the patterns of automobile industrialization as some statistists argue.\(^3\)

III. An export boom in the Korean automobile industry

1. The success of the Korean automobile export in the U.S. market

The export of motor vehicles in Korea coincides with the entry of Korean passenger cars into the North American market. Since 1983, Korea has begun to export cars to Canada and, later, to the United States. The volume of the Korean exports in following years set a new record through the sale of a single model in those markets. Achieving the export of over 300,000 cars in 1986, Korea became the sixth exporter of cars in the world.\(^4\)

Hyundai contributed the most to the rapid growth of vehicle export in the Korean automobile industry. Since 1981, Hyundai has assumed over 70% of total Korean automobile exports even though the relative share of other firms has recently increased. With the help of American multinational corporations such as Ford and GM, Kia and Daewoo has recently increased vehicle export. However, their share still is far behind that of Hyundai. This rapid expansion of Hyundai’s vehicle export can be explained largely by the development of Pony and Pony Excel—national designs—which are competitive in the international market (HMC, 1987, Part 3.).

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\(^3\) For example, Stephen Haggard and Chung-in Moon assert, “Indeed, much of their economic success (Brazil, Mexico, Taiwan, and Singapore, as well as South Korea) appears attributable to such state strength.” See their “The South Korean State in the International Economy: Economic Dependence and Corporatist Politics,” in John G. Ruggie (ed.), The Antinomies of Interdependence, New York: Columbia University Press, 1983, p.140.

With *Pony*, which was designed to meet the conditions of the domestic market, Hyundai swept the domestic market. However, *Pony* did not pass the emission and safety tests necessary for export into the U.S. market. It was *Pony Excel* that guaranteed Hyundai's success in international market. *Pony Excel*, as a front-engine front-wheel-drive (FF) car, appeared in 1985. This car was equipped with a very advanced emission control device and a modern design for safety that qualified for the U.S. market. *Pony Excel* was introduced in the U.S. market in 1986. In spite of various obstacles, the export of *Pony Excel* has turned out to be the most spectacular success in the history of import cars in the U.S. market. One hundred and sixty-eight thousand *Excels* were sold in 1986, 263,000 in 1987, and 264,000 in 1988 (*Jung'ang Ilbo*, Thu., March 2, 1989). As a single model, *Excel* set the record as the best selling import car in the history of the U.S. automobile market.

The international trade situation, especially the condition of the U.S. market, produced mixed incentives for the entry of Hyundai *Excel*. One of the positive factors for the entry of Hyundai *Excel* into the U.S. market was the voluntary restraint of the Japanese automobile exporters. Since 1979, acknowledging the trade friction caused by the massive trade imbalances between the United States and Japan, Japanese car exporters imposed “voluntary” restraints of car exports to the United States (Cole and Yakushiji, 1984). The share of U.S. car imports from Japan has declined since 1981, while the volume of total imported Japanese cars has increased. It is not clear whether the Japanese auto makers would have set up barriers to the entry of Hyundai *Excel* as a compact car if there was no restriction on the import of compact Japanese cars. In fact, however, Japanese car companies chose to introduce mid-size cars rather than to increase the market share of small cars after the three years of voluntary restrictions. Obviously, the restraint of Japanese car exporters in the compact car market paved the way for the entry of Hyundai *Excel*.

However, there were some negative factors against the entry of Hyundai
Excel. First, there already existed a serious excess capacity problem in the world automobile industry. For example, according to the U.S. Department of Transportation, the world auto industry had facilities which could produce 12 million cars more than the actual demand in 1981, because the world auto market was already saturated (U.S. Department of Transportation, 1983). That meant that 21 percent of world auto factories were idle. Despite the economic recovery in major Western countries, and the production of 9 million units, 17 percent of automobile manufacturing facilities were still not utilized in 1985. As long as there is a heavy under-utilization of manufacturing facilities, competition among major Western auto manufacturers in Western countries is expected to be strongly intensified. The increasing competition would work negatively in regard to the entry of new-comers like Hyundai.

Second, the U.S. trade policy has become increasingly protectionist. Even though the U.S. economy has enjoyed a substantial annual GDP growth of 2.5 percent with its relatively low average annual rate of inflation of 5.3 percent in the period of 1980-85, the U.S. auto market in general has not been in good shape. Since the early 1970s, the new registration of motor vehicles in the United States has been stuck in the range of 10 million to 15 million cars. During the early 1980s, there was a clear recession in the U.S. auto industry (National Research Council, 1982, p. 1). The recession in the auto industry influenced the U.S. Government to increase the barriers to foreign cars entering the U.S. auto market.

Whether factors were positive or negative, however, the international environment is not adequate to explain the successful entry of Hyundai Excel. The international environment was hardly discriminatory towards Hyundai Excel. Any latecoming compact car manufacturer could exploit the opportunity created by the trade agreement between the U.S. and Japan. Not only Hyundai Excel but also a number of Third World cars such as Yugoslavia's Yugo sought to enter into the international auto market. However, Hyundai Excel is the only one among Third World cars that
It is interesting to observe that while three Korean car manufacturers entered the U.S. market in the early 1980s, the results were different. Kia and Daewoo depended upon multinationals such as Ford and G.M. for the sales of their cars in the U.S. market, while Hyundai established its own dealer network. In both cases of Kia and Daewoo, their dependency upon the multinational corporations’ dealer network resulted in the increase of prices. For example, the producer’ prices for Festiva (Kia), Excel (Hyundai), and Lemans (Daewoo) are 3.3 million Won, 4.0 million Won, and 4.6 million Won, respectively (KAICA, 1986, p.429). However, Hyundai could sell its car at the lowest price in the U.S. market, suggesting the possibility of dumping prices. Not only in their basic prices, but also in the advertisement of their products, the aggressive attitude of their dealers, and the management of the dealer networks, there are substantial differences between Hyundai and the others. For example, Hyundai could choose the “single” dealers in strategically important areas, while the sales of the others’ products became a part of the U.S. auto markers’ national sales programs.

The low price and “average quality” in international auto market, as both neoclassical economists and neo-Marxists argue, could hardly have been achieved by independent late-coming manufacturers such as Hyundai without their dependence upon the multinational corporations. The other Korean automobile manufacturers—Kia and Daewoo—have followed their advice and exported their cars only with the help of the multinationals. It is important, therefore, to examine how the Korean automobile manufacturers—especially, Hyundai—obtained “the critical know-how regarding emission control, safety devices, and gas conservation” that may not have been easily accessible (Kim and Lee, 1983).

(5) In fact, Hyundai was accused of “dumping activities” in Canada in 1987.
2. The political economy of the new *Pony Excel*

The plan for *Pony Excel* in Hyundai began in 1978, according to Hyundai's reports (HMC, 1987, p. 429). The purpose of this plan was to build an assembly plant that could assemble 300,000 FF cars by 1985 from an investment of W396.9 billion (current US $582.79 million). Hyundai officially announced this plan in October 1981. Mitsubishi Motor Corporation provided the main source of technology for a new car. This project would be financed in part by foreign loans (US $393.96 million) and in part by all of Hyundai's credit. The first *Pony Excel* rolled out from its plant in February 1985.

This brief description of *Pony Excel*, however, does not help us to understand the issues that influenced the production of *Pony Excel*. For example, the economic recession in the late 1970s and the early 1980s, the struggle within governmental institutions around the reorganization of the heavy-chemical industries in 1979 and 1980, and the negotiation between Hyundai and the multinational automobile corporations heavily influenced the course of the production of *Pony Excel*. The most important question as in the case of *Pony* is who initiated the plan of *Pony Excel* and why? How has the initiator of the plan managed various factors such as economic recession, financial crises, intra-coalitional struggles, the bottlenecks of advanced technologies, and the attacks from the emergent anti-ruling coalition forces?

The economic recession in the late 1970s and the early 1980s was serious enough to produce the first real recession to Korean economic growth since 1962. The average rate of GNP growth showed 9.0 percent for the three

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(6) From 1982 to 1985, Hyundai borrowed from BA Asha, Ltd. (US $30 million) and Lloyds Bank PLC (US $30 million) in Hong Kong through its own credits. It also borrowed from Manufacturers Hanover, Ltd. in Great Britain (US $50 million) and the Mitsubishi Bank LTD in Japan (¥10 billion) through the guarantee of the Bank of Korea. However, Hyundai changed the governmental guarantee of Manufacturers Hanover Bank to its own credit in 1986. *Ibid.*, p. 435.
Five-Year Plan periods (1962~1970). The rate was 10.7 percent in 1977 and 11.0 percent in 1978. However, it fell to 7 percent in 1979 and −4.8 percent in 1980. As economic demands were decreasing, the overall operation ratio in the machinery sectors and the rate of profit in all manufacturing sector also declined from 74 percent to 35 percent, and from 3.5 percent to −0.2 percent in the period from 1977 to 1980, respectively (Korea Exchange Bank, Dec. 1980).

As the economic recession hit the Korean economy in general, the old struggle between the neoclassical economists in Economic Planning Board and the nationalists in the Ministry of Commerce and Industry emerged again in the late 1970s and in the 1980s. This struggle between two ministries also heavily influenced the structure of the automobile industry. As Haggard points out, from the outset, neoclassical economists in the Economic Planning Board disliked the heavy-chemical industrialization plan based on “strategic sectors” or “targets” with inflationary measures.

With the help of the neoclassical economists in the international lending organizations such as the IMF and the World Bank and economists in the Ministry of Finance, the Economic Planning Board argued that the heavy-chemical industry was one of the major sources of economic problems in South Korea. For example, Economic Planning Board argued that the strong bias towards manufacturing investment in the industry, the lack of comparative advantages in the industry, and the reversing effects of import-

Data used in this section come from this source, unless otherwise noted.

(8) The neoclassical coalition in the case of the automobile policy includes the Economic Planning Board, the Ministry of Finance, the Bank of Korea, and the Korean Development Institute. The nationalist coalition includes the Ministry of Commerce and Industry, the Presidential Secretariat, and the Korean Institute for Economics & Technology.


(10) Over 75 percent of all manufacturing investment was towards the heavy-chemical industry from 1975 to 1980. *Ibid.*, p.198.
substitution policies in the industry, had caused growing inflation, while increasing imports and decreasing exports.

In 1978, as the economic situation was getting worse, Park reluctantly accepted these arguments and replaced the Keynesian expansionist Nam Deok Woo with the so-called “stabilizationist” Shin Hyun Hwak as the head of the Economic Planning Board. As both the head of powerful Economic Planning Board and the deputy Prime Minister, Shin tried to reshuffle the industrial structure according to his neoclassical principles. He organized an interministerial committee to reorganize the heavy-chemical industry. It was called the Committee for the Adjustment of Industrial Investment. The Ministers of Finance, Commerce and Industry, and Energy were members of the committee and Shin was the chair of the committee. However, this Committee was in disarray for a period of time because of the differences in viewpoints between the Economic Planning Board and the Ministry of Commerce and Industry. Because the results of the adjustment would influence the existence of major industrial firms and the range of each ministry, no one party would not allow the others to dominate the Committee.

A more dramatic breakthrough came from the activities of the anti-ruling coalition that rapidly increased following Park’s Yusin Coup in 1972. Park’s legitimacy crisis, according to Han Sung-Joo, came not from the regime’s economic failure but from the regime’s political failure (Han, 1989, p. 276). Park’s authoritarian regime barely tolerated even mild criticism of his rule. Year by year starting in 1972, a considerable number of students, intellectuals, and workers were arrested and, accordingly, added to the increasing opposition that was already institutionalized as a broad coalition of Minjuhoebag gugminhoeueui (the National Committee for the Restoration of Democracy) against Park’s regime. In 1978, even his loyal opposition, the New Democratic Party (NDP), came under the control of “hardliners” led by Kim Young Sam with the help of Kim Dae Jung—a persona non grata to the ruling coalition—after a heated struggle between hardliners supported
by the anti-ruling coalition and doves supported by Park's ruling coalition. Park planned to oust Kim from the leadership of the New Democratic Party and the National Assembly. Park's scheme resulted in mass riots in the strongholds of Kim such as Busan and Masan and the shake-up of his already weakening regime. Recognizing the instability of Park's regime, an opportunist KCIA chief shot Park to death in December 1979, in an attempt to start a new era for himself.

Despite the survival of Park's ruling coalition through the successful veto coup in 1980, there was a significant change in the direction of the economic policies under the Chun regime. Neoclassical economists associated with the Economic Planning Board controlled the Korean economy. After a brief intermission of reflationary packages such as the devaluation of the Korean Won against U.S. dollar in the early 1980s (Haggard, 1983, p. 205), neoclassical economists and bureaucrats cooperated with Chun's military junta to set out several policy changes including the liberalization of the banking sector, the tighter control over wages and subsidies, and the emphasis on the light manufacturing sector.

The major environmental factors, therefore, were hardly favorable to the development of Pony Excel. The economic recession in the late 1970s and the early 1980s decreased available capital and the demand for cars. Governmental policies discouraged the development of a new model, as the "anti-Keynesian coalition" hostile to the new project increased its strength within the ruling elite. Political turmoil and increasing labor disputes also made it difficult for auto firms to set up a plan for a new model for export. As far as the environmental factors were not favorable, the planners of the Pony Excel were exceedingly cautious in developing their idea.

As shown in the case of Pony, the risk-taking entrepreneurship of the Chung brothers—Chung Joo Young and Chung Se Young—operated as one of the most important factors in the development of Pony Excel. Interestingly, the Chung brothers regarded the then current economic recession as another opportunity for Hyundai. They recognized the difficulties of the current
economic recession. However, they argued, "the vitality of an enterprise is proved by showing its courage and wisdom in crises. Our company can exploit the economic recession because we can make factories at much lower prices in economic recession than in economic boom" (Haggard, 1983, p. 429). This episode partly reflects Schumpeter's concept of innovative entrepreneurship which refers to the "opening up a new outlet for products." (11) However, Hyundai's type of entrepreneurship hardly fits into Schumpeter's entrepreneurial capitalism or bureaucratic capitalism. It is far less organized to be related to bureaucratic capitalism and too much dependent upon political power to be linked to entrepreneurial capitalism (Lim, 1985, p. 106).

The attitude of the Chung brothers is clearly risk-taking but hardly Confucian although Pye combines the two as "risk-taking Confucianism" in Korea (Pye, 1985, p.58). Even though there is no substantial study about Chung's ideology, Chung seems to be more pragmatic than Confucian (Chung, 1986). Chung has emphasized national interests, the role of the state, Confucian ethics, liberalization, independent entrepreneurship, and even democratization according to his audience. Just like the other members of Park's ruling coalition, the Chung brothers did not uphold their ethical principles but tried to mobilize every possible resource to accomplish their goals.

The most dramatic episode of Chung Joo Young's risk-taking attitude involved his decision in selecting the automobile industry in the 8.20 Heavy-Chemical Industry Investment Adjustment Plan. In August 1980, the military junta summoned major industrialists and asked them to adjust their business domain. The adjustment to the business domain meant that Hyundai and

(11) Joseph A. Schumpeter argues, "The function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on." Joseph A. Schumpeter, Capitalism, Socialism, and Democracy, with a new introduction by Tom Bottomore, New York: Harper, 1976, p.132.
Daewoo had to choose either electric machinery or the automobile industry. Because Chung Joo Young, as a head of Hyundai, was older than Kim Woo Joong, as a head of Daewoo, Chung was allowed to choose one of them first. The general opinion then was that Chung preferred the electric machinery sector to the automobile sector because Hyundai had long heavily invested in the former, the profit size of the former was bigger than the latter, and the latter was in recession. However, Chung chose the automobile sector, saying that he already bet his business on this sector (HMC, 1987, pp. 380-382).

The risk-taking entrepreneurship of the Chung brothers should not be overemphasized. The success of Pony also helped Hyundai to make sure of its rosy future. The financial and technological success of Hyundai's domestic design provided it not only with substantial profits but also its confidence regarding the Koreanization of a new export model. With the success of Pony, Hyundai increased its domestic market share up to 49% in 1979, boosted its accumulated net profits from 1976 to 1979 by about W30 billion, and its capital increased 6.4 times during the same period. Therefore, Hyundai Motor Corporation was already equipped with the financial buffer to tolerate the possible failure of a new export model.

The existence of free international automobile regime was also helpful to Hyundai's export project. Hyundai could buy advanced technologies at the price which it was willing to pay. In the summer of 1978, Hyundai began to look for the supplier of technology for a new export model. The supplier was required to provide the most advanced technologies of emission,

(12) This episode is quite Confucian. However, the priority given to Chung also reflected Chung's industrial and political power over that of Kim. In fact, either choice of electric machinery or automobile is good for Kim because Daewoo's business in both sectors was inferior to Hyundai's business.

fuel economy, and design sufficient to produce a new model for export into the U.S. market. The negotiation between Hyundai and the multinational corporations began with Hyundai's contact with Volkswagen in January 1978. Volkswagen was a very attractive candidate for Hyundai's new export model. Volkswagen had already developed a successful FF model, proposed the lowest royalty—$26.5 per car—and an export guarantee of 100,000 cars from Hyundai. This export guarantee of a high volume in the late 1970s was particularly attractive to the Korean state that was bent on exploiting the export volume as one of the signs of the regime's high economic performance.

However, Volkswagen asked for an equity share of 25 percent of Hyundai Motor Corporation or 33.3% of the new motor company. As in the negotiation between Hyundai and Ford in the early 1970s, the issue of management had been the most critical for Hyundai. Even though Volkswagen seemed to be the best option in major ways, Hyundai began to search for alternative suppliers of the necessary technologies. Subsequent negotiations with Renault ($62 royalty per car until 2,16 million cars) and Ford ($53 royalty per car until 1,8 million cars) were in vain because the multinationals required managerial participation in Hyundai. As in the case of Pony, the Chung brothers argued that the managerial autonomy is the most important factor of successful new venture. Moreover, Hyundai's overall situation in the negotiation for Pony Excel was far better than in the case of Pony in the 1960s.

The proposal by Mitsubishi was clearly the best option for Hyundai. Mitsubishi was willing to provide advanced technologies such as technologies for emission controls and fuel economy for Hyundai's new project. In fact, since the development of Pony, Mitsubishi has closely cooperated with Hyundai to introduce domestic designs for Korea's domestic and international markets. The royalty payment for Mitsubishi also was modest by inter-

(14) Mitsubishi's strategy, unlike that of GM's, supports Chung H. Lee's thesis that American corporations were oriented towards the domestic market in
national standards. Mitsubishi asked the royalty of $42 per car until the production of 600,000 cars or for 7 years. In return, Hyundai offered 10 percent of equity as a bonus to Mitsubishi and invited two Japanese members into the Board of Control according to Mitsubishi's proportion of equity. The final contract was signed in October 1981. The result of negotiation between Hyundai and Mitsubishi seems to have met the satisfaction of both the parties. On the one hand, Mitsubishi gained a considerable royalty from Hyundai plus export of its auto parts—especially engines and auto transmissions. As a minor firm in Japan, Mitsubishi achieved better economies of scale through its cooperation with Hyundai. On the other hand, Hyundai benefitted from the most desired technologies for a new export model without the concession of its management.

Our discussion of the various factors, therefore, shows that the domestic economic recession and the intra-ruling coalition conflicts over automobile policies served as unfavorable factors for Hyundai's negotiations with the multinational corporations. The success of Pony, Chung's risk-taking entrepreneurship, and the existence of free international automobile regime kept the plan of a new FF model for export alive. In sum, Korea's successful car export was possible by a national champion firm which was independent and competitive.

IV. The emergence of export promotion policy in Mexico

1. The change of the Mexican development strategy: from import substitution to export promotion

The development of the Mexican auto industry since the early 1920s


(15) It means that Hyundai would pay the royalty of $42 per car for the production of 600,000 cars or for 7 years. HMC, Hyundai Jadoongcha iripwyeonta, p. 440.
shows that the revolutionary coalition chose capitalist development by encouraging Mexican capitalists to set up private auto firms and locating them in the center of automobile industrialization. However, the process of denationalization and market fragmentation in the late 1960s, which was exemplified by the collapse of Automex, resulted in the virtual absence of the domestic bourgeoisie from the Mexican auto industry and its domination by foreign subsidiaries. Once the structure of the market and ownership was set up at this introductory stage of the automobile industry, thereafter even Mexico’s strong government hardly attempted to restructure the auto industry.

When Guillermo Becker was named as director of industries in SIC under the new Echeverria administration in 1970, Becker and his team chose to push ahead the export-oriented automobile policy even though they were skeptical about the result of the policy (Bennett and Sharpe, 1985, p. 176). They believed that the Mexican auto industry was not sufficiently developed to commence export-promotion and that an export-promotion policy would not serve the Mexicanization of the industry. However, they found that it was politically unfeasible to change the 1969 acuerdos. Therefore, a second auto decree, which was promulgated in October 1972, was aimed at promoting the export of cars and auto parts in order to alleviate the balance-of-payment problem.

Indeed, not only the 1972 decree, but also the 1977 decree of the López Portillo government, and the 1983 decree of the de la Madrid government, hardly sought any major structural changes in the Mexican auto industry. Since the late 1960s, the low economies of scale caused by the large number of firms, the domination of the local market by foreign subsidiaries, and the complete reliance upon foreign technology have been maintained. Rather than structural changes, the 1972, 1977 and 1983 decrees were promulgated to improve the balance-of-payment situation through mandatory export and higher local content (Rocha, 1988, pp. 979–987).

The new direction of the development strategy toward export promotion,
however, achieved mixed results in the balance-of-payment situation while the denationalization process was further accelerated. For example, the new strategy of export promotion partly contributed to the rapid increase of exports in the auto industry after 1984. However, the timing of the export increase does not support the argument that new governmental policies have mainly influenced the results. Moreover, the unintended consequence of the export policy was the further denationalization in the Mexican auto industry. The Mexican case exemplifies how the issues of localization and effective export promotion are interrelated with each other. A detailed analysis of the new development strategy is thus useful for understanding how the failures in the stage of introduction had profound effects on the industrial structure in latecomer economies.

The balance-of-payments in the Mexican auto industry accumulated deficits until 1982, while the governmental policies emphasized the positive role of automobile exports in the balance-of-payment. These large deficits in the auto trade were caused by the massive import of auto parts. For example, the trade deficits in auto parts were $1.2 billion in 1980 and $1.6 billion in 1981 while those of vehicles were $225.0 million and $211.6 million, respectively. Until 1982, therefore, the emphasis upon the export of automobiles contributed only to the increase in auto parts import.

From 1983 onwards, the trade structure of the Mexican auto industry was rapidly changed. The Mexican auto industry showed the first trade surplus of $342.2 million in 1983. In 1987, the trade surplus increased up to $1.94 billion, showing an annual average growth rate of 117.1 percent from 1983 to 1987. This rapid export growth was accelerated by the rapid growth in engine exports. During the late 1970s, most multinational automobile corporations announced that their Mexican subsidiaries would build engine plants for export (Ford and Morlock, 1982, pp. 22-23). The massive export of engines by multinational terminal firms materialized in 1983. In 1982, engine exports led by Chrysler and GM were 320,301 units and assumed 47.6 percent of total auto parts export (AMIA, 1988, p. 168).
Soon thereafter, other firms joined in engine export. Engine exports grew rapidly from 320,301 units in 1982 to 1,367,380 units in 1987. Their share of total auto parts export also increased from 47.6 percent in 1982 to 73.5 percent in 1987.

The export of vehicles also substantially increased from 1987. Until 1986, the Mexican auto industry showed a slow increase in its automobile export. But it suddenly doubled in 1987 in contrast to the previous year. The sudden increase in Mexican automobile export can be explained by Ford’s engagement in export promotion starting in 1987. While Volkswagen, as a long-time exporter of automobiles, gradually decreased its export efforts, Ford began to export over 50,000 vehicles beginning in 1987. As a result, the Mexican subsidiaries of the three American auto firms assumed 87.7 percent of total vehicle export.

It is interesting to observe that the increase in motor vehicles export in the Mexican auto industry is not accompanied by an increase in automobile production. Mexican automobile production was at its peak in 1981 and decreased thereafter. Mexico produced 597,118 cars and trucks in 1981. With some fluctuations, automobile production dropped to 339,168 units in 1988. Despite the tendency of decreasing production in the Mexican auto industry, the production shares of foreign subsidiaries are hardly changed. The production share of each foreign subsidiary is more or less 20 percent of total production for the 1980s. In contrast to this balanced production of foreign subsidiaries, there was a loser in that period: DINAPA, the only domestic terminal firm that survived in the 1970s.110

The mixed performance of export promotion policies, the rapid growth of engine export, the balanced domination by foreign subsidiaries, and the virtual elimination of a strong public firm from the industry are the major features of the Mexican auto industry in the stage of consolidation. These features raise the questions regarding how these results occurred and how

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110 Another domestic firm—VAM—was sold to Renault in 1983.
they are interrelated. In fact, the denationalization of the Mexican auto
industry in the stage of introduction was one of the most important factors
that influenced the pattern of the industry in the stage of consolidation.
Most Mexican specialists have argued that Mexico had little room to choose
its own development path because her economy was dominated by multi-
national corporations.\(^{(17)}\) For example, Bennett and Sharpe argue, "Conse-
sequently, whether Mexico could capture a significant share of world automotive
trade would depend on the dynamics of the world automobile industry and
on the place that Mexico occupied in the global strategies of the TNCs.
These conditions make it possible to understand why the export promotion
policy in the Mexican automobile industry failed to live up to expectations,
particularly in 1974~1975" (Bennett and Sharpe, 1985, p.185).

2. The strategies of multinational corporations and export
promotion in the Mexican automobile industry

The denationalization in the terminal industry meant that the locus of
key decisions concerning the industry was shifted outside of Mexico to a
greater extent. For example, major decisions about production specifications
were made by multinational managers in Detroit, Wolfsburg, Tokyo and
Paris. The dynamics of the world automobile industry, therefore, directly
influence the strategies of multinational corporations and, thus, the Mexican
auto industry. However, it does not necessarily mean that the interests of
multinational corporations are always different from the interests of the
Mexican ruling coalition. The interests of multinational corporations have
been largely modified and adjusted according to each country's situation.
Richard L. Sklar calls it "a corporate doctrine of domicile."\(^{(18)}\) As the

\(^{(17)}\) Jenkins (1987), Roxborough (1984), Bennett and Sharpe (1985), Aguilar
Kronish and Kenneth S. Mericle, eds., The Political Economy of the Latin

\(^{(18)}\) It means "individual subsidiaries of an international business group may
operate in accordance with the requirements of divergent and conflicting
policies pursued by the governments of their respective host states." David
Mexican auto industry is totally dominated by foreign subsidiaries, it is necessary to understand the dynamics of the international automobile industry and the corporate doctrine of domicile that conditioned the interests of foreign subsidiaries in Mexico.

There are several factors comprising the dynamics of the international automobile industry in the late 1980s: the oligopoly of the world automobile industry, the intense competition among major producers under rising protectionism, and the rapid development of technology.

First, it should be noted that the world automobile industry is an oligopoly comprising eight to ten multinational firms. Ten major multinational automobile firms produced 80.9 percent of total world production in 1965, 70.6 percent in 1975, and 68.3 percent in 1985 (MVMA, various years). Even though their share of total world automobile production is decreasing, they have long controlled the networks of most subsidiaries in foreign countries and transnational suppliers. In many cases, international auto trade is intrafirm trade among the multinationals' subsidiaries and there is only a single buyer for many automotive products (Bennett and Sharpe, 1979, pp. 177–201).

If new firms from latecomer economies lack economies of scale in their domestic markets and integrated networks of domestic auto parts suppliers, they can hardly survive in such a highly competitive international market. Therefore, Automex and DINA, small firms by international standards, unintentionally collapsed or declined when they had to meet with export promotion policies without any large scale domestic production (Bennett and Sharpe, 1979, pp. 176–179). The emphasis upon integration under export promotion policies naturally provided the advantage to foreign subsidiaries and, thus, denationalized the auto parts industry that was once highly localized.

Second, even though the international market has evolved into a carefully

balanced oligopoly, there is intense competition among multinational corporations. This international competition has been intensified by the rapid growth of Japanese automobile corporations, the saturation of automobile markets, and the rising Third World protectionism. Japanese automobile manufacturers produced only 2.9 percent of total world automobile production in 1960. However, with their substantial increase in labor productivity and aggressive entrepreneurship, they accounted for 27.5 percent of total world automobile production in 1985. Japan’s share of world vehicle exports in units also increased from 24 percent in 1971 to 45 percent in 1983. (International Automotive News, 1984, p.85).

The competition among multinational corporations was intensified not only by the rapid growth of Japanese exports but also by the saturation of automobile markets in developed countries. Over 80 percent of all households in the United States already owned at least one passenger vehicle by 1970. Western Europe and Japan were rapidly approaching the same situation in the 1980s. The demand for vehicles became increasingly a replacement demand and the market tended to be more vulnerable to fluctuations in the business cycle.

The intense competition among multinational corporations that is fueled by the Japanese challenge and market saturation has given a new significance to the automobile market in developing countries. Automobile markets in major NICs such as South Korea, Mexico and Brazil are far underdeveloped in comparison with the markets of the developed countries. With the latent demand for cars, the production share in Third World countries of total world production increased from 0.3 percent in 1950 to 5.4 percent in 1985. One projection argues that 44 percent of the increase in car stock and 48 percent of the increase in the number of commercial vehicles will be in developing countries (Jenkins, 1987, p.185).

The intense competition among major multinationals sometimes provides nationalist negotiators in the Third World governments with a chance to change the terms regarding the contributions of multinational firms towards
their industrialization (Jenkins, 1987, p. 186). While virtually prohibiting all imports of finished vehicles, Mexican technocrats in the early 1960s as well as their Korean counterparts, exploited the rivalry between multinational corporations to induce manufacturing activities in Mexico and Korea, respectively, rather than simple assembly. The major international auto firms responded to the demands of the host governments regarding local manufacturing and local content requirements as best they could so as not to cede the emerging markets to their competitors (Bennett and Sharpe, 1985, p. 192). This strategy of defensive investment by the international auto firms in Mexico is evident when non-American multinationals such as Nissan and Volkswagen advanced into the Mexican auto industry. While production shares of foreign subsidiaries have maintained their balance, Nissan and Volkswagen have long contributed to Mexican automobile exports as shown in Table 11. When the Mexican government urged exports, therefore, the American subsidiaries had to respond to some degree in order to safeguard their import credits and domestic market quotas.

Third, rapid technological development in the international automobile industry provides automobile manufacturers with the basis for their strategy of world sourcing. Technological development in the world economy gets rid of geographical and technical obstacles to bring about a worldwide integrated global production. The means to draw on worldwide resources to design and build new cars at relatively low cost have been made available through the development of telecommunications, computers, robots, and transportation.

In fact, automobile manufacturing since its birth has required considerable production technologies and managerial skills which seemed neither to be found in developing countries nor easily transplanted there. However,

(19) Robert Crandall of the Brookings Institution argues, “If low wages were the principal requisite for success in this industry, you and I would already be driving cars produced in Tanzania or Bangladesh, our government permitting.” Robert W. Crandall, “Relative Labor Costs, the New Industrializing Countries, and Competition in the U.S. Automobile Market,” speech
with the rapid development of automation technology, even some highly complex tasks in automobile production such as engine manufacturing can be carried out in low-skilled or mixed-skilled areas such as Mexico by using highly automated hardware such as well developed engine transfer machines. For example, Harley Shaiken and Stephen Herzenberg find that the recently established Mexican engine plant achieved machine efficiency, labor productivity, and quality significantly comparable to the U.S. plant within its first two and one-half years of operation.\(^{(20)}\)

Another technological factor which influences the engine production of automobile plants in developed countries is the problem of “sunken capital,” especially in the United States. Old automobile plants in the United States are too expensive to be converted into new automated plants. For example, the conversion cost of an old U.S. plant into a semi-automated plant is about $150 million while a similar plant operated with most the advanced technologies in Mexico costs about $250 million. After its conversion, however, there are still serious problems for the full automation in the U.S. plant.\(^{(21)}\) Despite the “debugging” costs of a new plant, therefore, major world manufacturers find that automobile manufacturing for export in Mexico is possible and profitable.

Not only the engine manufacturing but also the automobile assembly for export are increasing. Chrysler began to ship 404 K-cars to U.S. dealers in 1982 but significantly increased its export of vehicles up to 62,811 in 1987.

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\(^{(21)}\) For example, the Mexican plant shows 89 percent of the machine efficiency and 75 percent of the labor productivity of the U.S. plant. Shaiken and Herzenberg, *Automation and Global Production*, p. 10.

\(^{(21)}\) For example, the U.S. assembly plant has to use iron J-hooks to carry engines while the Mexican plant is equipped with compact flat pallets. Even though iron J-hooks are highly versatile for engine assembly, it is difficult to automate the whole production because the engine is not located precisely in a fixed position. *Ibid.*, p. 23.
including the new Chrysler Le Baron (AMIA, 1988). In 1988 Chrysler began to build the new Dodge Shadows and Plymouth Sundances in Mexico, which boosted its export to the United States to over 50,000 cars. In 1984, General Motors exported 7,897 Caminosand Caballeros for the first time from its northeastern production complex in Ramos Arizpe. Concentrating on a mid-size A body car, Chevrolet Celebrity, General Motors increased its export to 36,505 cars in 1988. In order to incorporate Mexican components not only into U.S. production but also into Canadian production, GM has transferred the management of its Mexican subsidiary to the Chevrolet-Pontiac-Canada group (Automotive News, April 13, 1987).

Ford showed the most dramatic change in its strategy for its automobile manufacturing in Mexico. Despite considerable pressure from the Mexican government, Ford was not committed to export activities until 1986. However, in 1986, Ford invested $500 million for the most advanced new assembly plant in Hermosillo. According to Ford chairman, Donald E. Peterson, "The Hermosillo stamping and assembly plant is not only our newest, it is our most modern, with the best technology and world-class talent embedded in its organization and function." (Automotive News, Nov. 24, 1986). For example, this plant uses 91 robots in the welding area alone and has the capacity to build 130,000 Mercury Tracers a year. With this modern facility, Ford exported 51,773 Tracers in 1987 and 66,361 Tracers in 1988. (22)

A general contour of Mexico's car export seems to confirm many propositions of the dependency perspective. The Mexican case, as a single case, shows the predominant power of MNCs over the Mexican automobile industrialization. However, as Bennett and Sharpe point out, Mexico's domestic forces—for example, the Mexican state—showed the power to alter

(22) Ford's Mercury Tracer is a good example of the world sourcing strategy. The Tracer, based on the Mazda 323 model of Mazda with which Ford has an equity relationship, relies on about 60 percent of the car's content from Japan. Another 10 percent comes from the United States and Europe. Only 30 percent of its components are produced in Mexico. Ibid.
the effects of external factors and structures (Bennett and Sharpe, 1985, p. 252). Moreover, the strategy of defensive investment and the doctrine of domicile of MNCs imply the substantial power of domestic actors in late industrialization. The Mexican problem shown in this study was the absence of national champion firms which were independent and competitive.

V. Conclusion

A historical-structural analysis of export-led industrialization shows that the existence of national champions claims a clear causal relationship between export patterns and development strategies. The Mexican and Korean governments were concerned about their balance-of-payment problems and tried to reduce their trade deficits. Since the mid-1970s, the automobile industry has been selected as a candidate that would contribute not only to the sector itself but also to the national balance-of-payment. Such expectations for the trade surplus in the industry was largely fulfilled in the 1980s. After a long history of trade deficits, the automobile sector in both countries began to show considerable trade surplus beginning in the early 1980s.

In detail, however, the two countries show different patterns in the trade of vehicles and parts. First, Mexico developed a more balanced trade of vehicles and parts than Korea. Second, the export of vehicles in Mexico began only recently, while Korea has the longer record of motor vehicle exports. The sudden increase of automobiles from Mexico in the late 1980s is due to Ford’s newfound commitment to automobile export after its long reluctance to comply with the export promotion policies of the Mexican government. Third, the export of motor vehicles in Mexico was equally shared by major foreign subsidiaries while that of Korea was dominated by Hyundai. (*23*)

(*23*) Until 1986, Hyundai had produced from 75 percent to 97 percent of the exported vehicles.
This detailed analysis again confirms that the establishment of national champion firms in the stage of introduction is one of the most important factors that influenced the pattern of car export in the stage of consolidation. The mixed performance of export promotion policies in Mexico's auto industry indicates the successes and limits of a latecomer's development strategy where the latecomer go along with a dependent road. In the case of Korea where an independent road of automobile industrialization succeeds, the factors affecting automobile export were not the change in the multinational corporations strategy but the competence of a national champion's ability to adapt to the international market conditions.

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