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**From National Champions to Global Partnerships:  
The Korean Auto Industry, Financial Crisis and Globalization**

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## Introduction

Of the five Asian economies most severely affected by the financial crises of 1997-98, the Republic of Korea has experienced the most fundamental institutional transformation. For some observers, the Korean response to the crises was all the more surprising because its economic record over the previous three decades had been far superior to that of the other crisis economies—Indonesia, Malaysia, the Philippines and Thailand. Korea had sustained a higher rate of economic growth (an average of close to 8 percent) for longer (more than three decades) than the Southeast Asian crisis economies.<sup>1</sup> Korean corporations had become household names in the West in consumer electronics, automobiles, and domestic appliances. A Korean company, Daewoo, was the only corporation not based in Europe, Japan or the United States that ranked in the mid 1990s in the top 50 of the world's multinationals.<sup>2</sup> Korean companies had logged an impressive number of patents in industrialized economies (see Linsu Kim's chapter in this volume). Korea alone of the "Gang of Four" East Asian newly-industrialising economies had gained admission to the "rich man's club," the Organization for Economic Cooperation and Development.

The crisis that afflicted the Korean economy in 1997-98, however, was more than just a financial crisis. It was a systemic crisis—the direct consequence of a developmental strategy that had encouraged corporations to rely excessively on bank lending, to diversify outside their areas of core competence, and to seek market share rather than profitability. Specialization in sectors in which worldwide surplus capacity was growing, difficulties in penetrating the markets of industrialized economies, and excessive debt burdens severely depressed the profitability of Korean corporations in the 1990s. Even during the boom years of 1994 and 1995, the peak of the business cycle, *chaebol* (family-owned corporate groupings) ranked between eleventh and thirtieth earned a negative return on assets. For the largest corporations, the rapid growth in semiconductor exports in the mid 1990s partly masked the fragile state of finances. In 1995, the top three semiconductor companies (Samsung Electronics, Hyundai Electronics, and LG Semiconductors) reportedly contributed 70 percent of the total net profits of all the top thirty *chaebol* (International Monetary Fund, 1998, pp. 5-6).<sup>3</sup> With the collapse of semiconductor prices in 1996, these companies too became vulnerable. Ever-increasing levels of investment had sustained high rates of economic growth but these were accompanied by declining productivity of capital and "almost vanishing corporate profitability" (Borensztein and Lee, 1999, p. 7). Several prominent *chaebol* had filed for bankruptcy before the full force of the financial crisis hit Korea in November 1997.

The automobile industry reflected the accomplishments and weaknesses of Korea's overall economic performance and of its mode of development. On the eve of the crisis, Korea had

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<sup>1</sup> Of the four Southeast Asian countries, Malaysia and Thailand grew most rapidly after 1960, averaging growth of 4.2 percent annually between 1960 and 1985.

<sup>2</sup> Ranked by value of foreign assets (UNCTAD, 1998).

<sup>3</sup> The poor performance of Korean corporations stands in marked contrast to that of the manufacturing sector in Taiwan where profitability improved from already higher levels through the 1990s. See Noble and Ravenhill (2000 pp. 90-91) on which this paragraph is based.

become the world's fourth largest producer of automobiles, having overtaken European giants such as France and the United Kingdom. Production had grown by a factor of more than 20 from 120,000 units in 1980 to 2.85 millions in 1996 (see Figure 1 at end of paper). This rapid growth of output was generated by domestically-owned firms — a significant achievement given the barriers to entry into an industry characterized by economies of scale and by rapidly changing product and process technologies. Faced with these barriers, less developed economies typically have depended substantially on subsidiaries of multinational corporations for entry into automobile production.<sup>4</sup> Moreover, Korea alone among the industrializing economies had established itself by the late 1980s as a major exporter of autos, with close to half of total domestic production destined for export markets. Again, and many would assert not coincidentally, this success had been achieved by Korean companies exporting for the most part under their own brand names. The Hyundai Excel became the best selling import model in the U.S. market in 1987. Korean companies also assembled annually more than three quarters of a million cars in foreign plants: cars produced overseas by Korean companies, for instance, had the largest share of the auto markets in India and Poland.

Yet, even before the financial crisis, the weaknesses of the Korean auto industry were apparent. Auto companies had achieved export success primarily through competing on price. Korean companies specialized in small, inexpensive cars where profit margins were razor thin or negative.<sup>5</sup> They experienced great difficulties in penetrating and sustaining their shares of the car markets of Western Europe and the United States. Protectionist barriers played a role, especially in Western Europe. But more important was the negative brand image that Korean cars acquired when exporting began in earnest in the late 1980s and early 1990s.<sup>6</sup> Consumers frequently perceived Korean cars as cheap, technologically backward and (judging by the poor performance of some models in crash tests) nasty. Although quality control improved significantly in the mid-1990s, the legacy of the negative brand image lived on. Korean cars were comparable to the Honda Civics of the 1970s. Korean companies had yet to make the transition that the Japanese companies achieved in the 1980s to reap success based on a reputation for quality rather than on price alone.

Moreover, the rapid expansion of production capacity in the 1990s created enormous structural problems for the Korean assemblers. As in the semiconductor industry, Korean companies had become such large players that their decisions not only affected local but global markets. In particular, they contributed to a growing problem of surplus capacity in the global automobile industry.<sup>7</sup> At home, bringing more production online led to a fall in the capacity utilization rate

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<sup>4</sup> On Southeast Asia, see Doner (1991); on Mexico see Bennett and Sharpe (1985).

<sup>5</sup> Daewoo, for instance, was estimated to be losing \$30 millions annually in India (*Business Week* 30 August 1999).

<sup>6</sup> Exports to the US surged in 1986-88 but fell by more than a half by 1990. Concerns over quality (reflected in the rapid depreciation of cars imported from Korea) were a significant factor. In 1987, when Japanese imports averaged 0.6 defects per vehicle, Hyundai Excels averaged 3.1 (Womack, Jones and Roos, 1991, p. 262). Quality concerns were not ameliorated by the problems with cars produced at Hyundai's Bromont, Quebec plant, which opened in 1989 (a plant that turned into an economic as well as a public relations disaster for Hyundai, the company eventually closing it after incurring losses of more than a billion dollars). Also acting against Korean exports at the end of the 1980s was the appreciation of the won against the yen and the dollar.

<sup>7</sup> Korean companies not only substantially increased their domestic production capacity but also invested in massive new capacity overseas. Daewoo, for instance, built a plant capable of producing 200,000 vehicles a year in Uzbekistan, and a plant with a similar capacity in Poland.

to 70 percent. The scramble to create new capacity came at a high price—in terms both of increasing indebtedness and the actual price paid for new plants. The debt burden of Korean auto companies escalated rapidly in the 1990s as they took advantage of the easy access to loans afforded by financial liberalization. To cite an extreme example: at the end of 1996 the debt to equity ratio of Ssangyong Motors, a company that specializes mainly in four-wheel drive vehicles, stood at 10,496 percent.<sup>8</sup> Meanwhile, Samsung motors was widely believed to have paid substantially above a “fair” market price for the \$2.5 billion plant that it created with technology licensed from Nissan.<sup>9</sup>

Even before the financial crisis caused a collapse in domestic demand in 1998, Korean auto companies were in trouble. Ssangyong and Kia were reported to have made no profits in their auto operations throughout the 1990s. Some analysts suggested that Daewoo Motors has never made a profit. The lack of financial transparency within the *chaebol* pre-crisis and the practice of cross-subsidization of subsidiaries make an accurate judgement on such issues impossible. The government’s Financial Supervisory Committee in its investigation of Daewoo uncovered some evidence of the scale of the *chaebols’* economic problems and unorthodox financial management. It found 23 trillion won (US\$18 billion) in accounting errors on Daewoo’s books (*Korea Times* 21 July 2000). Auditors estimated the company’s debts to be nearly double those anticipated when it first went into receivership.

A leaked report from Samsung in June 1997 suggested that Kia and Ssangyong would not be able to continue as independent auto producers.<sup>10</sup> Within a month, Kia had to seek a bailout from creditors. The motor industry, alone responsible for close to five percent of Korea’s GDP and six percent of exports, subsequently figured prominently in Korea’s financial crisis. Government indecision over what to do with Kia—first refusing to intervene, then nationalizing it in October 1997, and then conducting two unsuccessful auctions to dispose of its assets—did much to weaken confidence in the country’s economic management at a critical moment when the contagion effect of the Southeast Asian financial crisis first hit Korea.<sup>11</sup> Two years later, the bankruptcy of Daewoo cast an enormous shadow over efforts to restructure Korea’s financial system.

At the same time that the Korean economy was experiencing convulsions, the global auto industry was undergoing its most fundamental consolidation since the 1920s. Former national champions such as Saab, Volvo, Jaguar, Rolls Royce, Land Rover, Audi, Skoda and Seat were taken over in the 1990s by General Motors, Ford or VW. The merger between Daimler Benz and

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The problem of global surplus capacity has remained relatively unexplored since the pioneering work of Strange and Tooze (1981).

<sup>8</sup> Ssangyong had invested more than \$2.5 billions in new production lines and component plants following the initialization of its alliance with Mercedes-Benz in 1992. Ssangyong had anticipated that it would become a significant exporter of luxury vehicles based on Mercedes-Benz technologies. The average debt ratio for auto producers increased from 416 percent in 1995 to 530 percent in the following year, substantially above the average of 300 percent for all manufacturing companies (*Korea Herald* 10 May 1997).

<sup>9</sup> In addition, the licensing agreement provided that Samsung would pay Nissan up to 1.9 percent of the factory price of each car produced in the plant’s first five years of operation (*Wall Street Journal* 25 August 1997).

<sup>10</sup> The report was widely viewed as a cynical attempt by Samsung to stake a claim for acquiring Kia. Three years earlier, it had launched a hostile takeover bid for Kia, an almost unprecedented move in the Korean corporate world.

<sup>11</sup> The government decision in October 1997 to bail out Kia caused Standard and Poor’s to downgrade Korea’s credit rating, a move that in turn precipitated the run on the Korean won.

Chrysler was at the time the world's largest industrial merger. Renault acquired a one third stake in Nissan, DaimlerChrysler a similar stake in Mitsubishi. General Motors meanwhile bought 20 percent of Fiat. Several factors have driven this rush to consolidate. Global overcapacity—production capacity is over 70 million units in an industry where demand is under 52 million units a year (and capacity is expected to be double world demand by 2002)—has produced intense downward pressure on prices. Companies are racing to attempt to realize synergies especially in component sourcing through global supply chains, through sharing production platforms, and through joint research and development ventures. Industry analysts estimate that only producers with a capacity to manufacture more than four million cars annually will survive in the new competitive environment.<sup>12</sup>

Imperatives of market and product diversification also drove the flurry of merger activity. With little expansion anticipated in the mature markets of North America and Western Europe, companies sought to create a global presence and especially to penetrate markets in Asia where most of the increase in world demand in the first part of the 21<sup>st</sup> century is expected to occur.<sup>13</sup> They are also under pressure, particularly from the new fleet emission standards in the European Union, to provide a full range of vehicles across all market segments within the one company grouping. Daimler Benz, for instance, required a smaller vehicle with low emissions to offset the emissions from the larger cars in which it had traditionally specialized.

Disentangling the medium-term effects of the problems of the Korean industry from the pressures emanating from the globalization of auto production is difficult. In the absence of the financial crisis, it is debateable whether a rapid expansion of domestic capacity could have been sustained at a time of global overproduction. The domestic car market was already saturated, and the government under increasing international pressure to open it to imports.<sup>14</sup> Any sustained expansion of domestic output would have depended upon winning new export markets. The car companies were already in financial difficulties pre-crisis. It is possible but unlikely that they could have muddled through in an environment where they could turn to the state to bail them out of financial difficulties.<sup>15</sup> The onset of the financial crisis removed this possibility, however.

As economic conditions deteriorated and debt-servicing became impossible, first Kia, then Ssangyong, then Samsung Motors, and then finally Korea's third largest *chaebol*, Daewoo, sought protection from creditors. The Korean government faced an unenviable choice. The options boiled down to two nationalist and one globalist approach. The first nationalist approach would be to attempt to bail out the companies. But this was problematic at a time when the financial system was in need of substantial re-capitalization, and the government under international pressure to reduce its role in the economy. The second would be to allow the bankrupt firms to be taken over by another Korean company. This was the preference of economic nationalists but an option opposed by liberal economists because of the potential for

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<sup>12</sup> None of the Korean producers—even after the crisis-induced mergers—comes close to this figure. Hyundai-Kia has the largest annual production capacity—2.8 million vehicles.

<sup>13</sup> Standard and Poor's (2000) projects total demand in Asia (excluding Japan) to reach 14.8 million units in 2010, or 20 percent of global demand (in contrast to 11 percent in 1999).

<sup>14</sup> In the two full years before the onset of the crisis, the domestic car market grew by 1.7 percent (1995) and 8% (1996); from 1990 to 1994 the average annual growth rate had been 12 percent.

<sup>15</sup> Kia, it should be remembered, went bankrupt before the onset of the crisis; in the mid-1990s informed observers (see, for instance, Noble (1996)) were questioning Daewoo's viability.

creating a monopolistic domestic industry. The globalist option was to permit foreign auto producers to purchase the assets of the bankrupt Korean national champions.

The eventual outcome appeared a clear victory for the economic rationalists over the economic nationalists, for technoglobalism over technonationalism. By the middle of 2001, the expectation is that foreign corporations will control three of the Korean producers (Daewoo, Samsung, and Ssangyong). Meanwhile DaimlerChrysler has taken a 10 percent shareholding in Hyundai Motors, the only former national champion that will not be under foreign control (see Figure 1 at end of paper). In some instances, the new foreign owner appeared to obtain a particularly favorable deal. Renault acquired 70 percent of Samsung Motors, on which the Samsung *chaebol* had lavished more than \$5 billions since 1994 to create production and research facilities and dealerships for a cash payment of only \$100 million.<sup>16</sup>

The recent history of the Korean auto industry thus appears to be a simple story: the transition from an industry created by a developmental state following a strategy of techno-nationalism to an industry incorporated into global production networks and substantially foreign owned. With the financial crisis, technoglobalism supplanted technonationalism. The golden era of the developmental state in Korea had long since passed. A strategy of promoting technological autonomy no longer appeared viable where access to the latest technologies, access to markets, and to economies of scale and scope had become defining characteristics of viable competitors in a globalized industry. The reality of the matter is somewhat more complex. The success of the technonationalist approach is more questionable than some accounts of the Korean auto industry suggest; the triumph of technoglobalism involved a significant struggle between agencies of the state and may yet be incomplete (especially if a foreign buyer for Daewoo's assets fails to materialize).

The Development of the Korean Auto Industry: How Statist? How Autonomous?

The initiative to enter new manufacturing branches has come primarily from the public sphere...every major shift in industrial diversification in the decade of the 1960s and 1970s was instigated by the state (Amsden, 1989, p. 80).

The centrality of the state in the establishment and nurturing of the automobile industry in Korea is beyond dispute. The Automotive Industry Promotion Law, promulgated in 1962, part of the First Five Year Development Plan, marked the birth of the modern automobile industry in Korea (Kim, 1997, p. 107). The Ministry of Trade and Industry was given discretion to determine which companies could participate in the industry. The Plan brought the full panoply of industrial policy instruments to bear in support of auto production. Imports of cars were prohibited—a ban that was not to be lifted for a quarter of a century. The government provided subsidized loans and tax incentives for investments, and export subsidies including export promotion loans that enabled Korean cars to be sold in foreign markets at less than half the domestic market price. Imported components were exempted from tariffs. The auto industry became a central part of the government's Heavy and Chemical Industries drive in 1973, nominated for its critical backward linkages to the steel and machine engineering industries, and

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<sup>16</sup> In addition Renault assumed \$250 millions of Samsung's debt, and agreed to pay a further \$270 millions out of the future profits of the plant. Because Samsung Motors depended on Nissan's technology, Renault (with its controlling interest in Nissan) was the only likely foreign purchaser of its assets.

for its potential strategic importance. When the government, under pressure from trading partners, finally lifted its ban on imports, it continued to discriminate against imported cars by levying differential rates of taxation dependent on engine size. And potential purchasers of imported cars were discouraged by the none-too-subtle threat that they would be subjected to a tax audit. Even at the end of the 1990s, more than a decade after the government lifted its ban on imports, Korean companies enjoyed the luxury of a *de facto* monopoly of the domestic market: imports contributed only 0.2 percent of total sales.

The apparent success in fostering an internationally competitive industry, however, masks decades of meandering policies, failed directives, and bureaucratic squabbling. Many of the issues that were to come to the fore during the crisis of 1997-98 are familiar to observers of the Korean auto industry: disputes between economic nationalists and economic rationalists over whether to promote national champions or to rely on market forces; failed state efforts to coerce companies into mergers; and indecision and frequent policy reversals by government.

The Automotive Industry Promotion Law of 1962 may have successfully launched the Korean industry but the context was one of rent-seeking and political corruption. The government's strategy in the early 1960s was the "unitarization" of the automobile industry, the creation of one producer with the objective of generating economies of scale. The original producer favored by the government was the Sammi Corporation, but the mantle was shifted to Saenara Motors after the latter allegedly made financial contributions to the political party that the military government had recently established.<sup>17</sup> Saenara, which was assembling a Nissan Bluebird kit, collapsed in the following year. In turn, it was replaced by Shinjin Motors as the designated producer, this company's bid to enter the industry again allegedly successful because of the political contributions that the company made (Lew, 1992, p. 138). Shinjin began by assembling kits provided by Mitsubishi, and then switched its foreign partnership a year later to Toyota. But this alliance was also short-lived; Toyota withdrew from Korea in 1972 following the announcement by the PRC that it would not permit any company that had connections with Taiwan or South Korea to operate in China. Shinjin then turned to General Motors, launching a new joint venture as General Motors Korea (GMK).<sup>18</sup>

The weakness of the strategy of having a single assembler soon became obvious. The monopolist was able to earn significant rents in the market—and the foreign partner, Toyota, appeared to be gaining the lion's share of these. In 1967 the government responded to complaints, emanating amongst others from domestic parts producers that were excluded from the Shinjin venture, by licensing two other producers for the motor vehicle industry: Hyundai and Asia Motors. Kia entered as a fourth producer in 1971.<sup>19</sup> A government attempt, meanwhile, to enhance local content through the establishment of a single engine plant through a partnership among all four assemblers failed. The 1960s thereby laid the foundations for problems that were continually to

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<sup>17</sup> Lew (1992, p. 135).

<sup>18</sup> The new partnership immediately encountered difficulties when the domestic market collapsed following the first round of oil price rises in 1973. Its losses led to GMK being placed under the management of the Industrial Bank; the name of the joint venture was changed to Saehan Motor Corporation. In 1978, Daewoo bought the Industrial Bank's shares in the venture, and in 1983 Saehan Motors was renamed the Daewoo Motor Corporation (which continued as a 50/50 joint venture with General Motors until 1992).

<sup>19</sup> Hyundai originally had a joint venture with Ford; Asia with Renault; and Kia with Mazda.



beset the Korean industry: fragmentation (and consequent low volume production runs) and excess capacity.

The government's next major effort to rationalize and promote the industry came as part of the Heavy and Chemical Industries Project, proclaimed in January 1973. The automobile industry, designated as strategic for the economy's future, was targeted to move from import substitution to export-led development. To realize economies of scale, producers would be required to submit plans for a "people's car," the specifications, timetable, and costing of which were laid down by the government. The government approved plans from three of the assemblers: Hyundai, GMK, and Kia, and excluded Asia Motors from car manufacturing. Hyundai had already developed plans for a Korean car before the government announced its directive (raising the question of where the initiative for the "people's car" actually originated). Both it and Kia thrived with the production of new small models as the Korean economy quickly bounced back from the recession. Hyundai's Pony model was the first indigenous Korean car; Kia's entry was the Mazda-designed "Brisa." Local content in both these cars reached 85 percent (Hyun and Lee, 1989, p. 520). In contrast, GMK continued to assemble unpopular larger cars, and went into receivership.

By July 1978 the government was sufficiently confident in the industry's future that it set a future annual production goal of two million units (Lew, 1992, p. 194). Its encouragement led the companies to engage in substantial new investment. The timing, however, was abysmal: the investments were made on the eve of the second round of oil price rises and another severe recession in the Korean economy. The domestic market collapsed in 1980, as well as Hyundai's nascent export business when Japanese competitors lowered export prices in an attempt to maintain market share (Womack, Jones and Roos, 1991, p. 261). Korea's auto assemblers were producing at only one quarter of their capacity.

The government's response was a familiar one: a call for the rationalization of the industry. But on this occasion, the voices making this call were louder and more persistent, a reflection of the growing power of economic rationalists in the Economic Planning Board (EPB). By the end of the 1970s, it was clear that many officials and several agencies shared the World Bank's skepticism about the government's promotion of the automobile industry. Earlier optimism that the global automobile industry would experience a similar life cycle to textiles and footwear, and be transferred to countries with low-cost labour appeared misplaced. Although the industry was in some senses mature, it was also one undergoing constant renewal. The advent of front wheel drive cars led to the development of radically different technologies for engines and transmissions. Meanwhile, the application of assembly-line robots had undermined much of the advantage of economies with low-cost labour. And innovations in the assembly process in Japan had generated marked improvements in product quality that were difficult for new entrants to the industry to attain. Skeptics suggested that the Korean industry's prospects inevitably would be poor because of the relatively small size of the domestic market and because of its inability to compete on price and especially on quality in export markets.

The debate over the future of the industry provides insights into the alternative approaches to development favoured within different branches of the government. A consensus existed that consolidation of the industry was imperative, preferably under the auspices of a single assembler

(a report commissioned for the Economic Planning Board and World Bank concluded that the domestic market could support only one producer). Rather than promoting a national champion, however, the Economic Planning Board favoured a joint venture in which substantial foreign participation would strengthen the technological base of the industry. In contrast, the Ministry of Trade and Industry preferred to promote a single domestically owned company. The EPB initially appeared to prevail: the original government proposal sought to exclude Hyundai from the industry altogether in favour of the Daewoo/GM joint venture.<sup>20</sup> The government gave Hyundai the choice of specializing in autos or in power generation equipment; the expectation was that its management would choose the power sector. Clearly, it underestimated the commitment of Hyundai's chairman to the auto industry for the company chose this rather than the power generation sector. The government then encouraged Hyundai and GM to enter into a joint venture but negotiations broke down over GM's insistence on a fifty percent stake in any new venture. Anxious not to offend its U.S. patron or to signal an apparently hostile attitude to foreign investors, the government backed down on rationalization and announced that it would revise its policy to license two producers in the industry.<sup>21</sup> Kia would be excluded from auto production but compensated by being given the principal responsibility for truck and bus manufacture (in 1976, Kia had acquired Asia Motors, which specialized in heavy vehicles).

The attempted consolidation of the industry in 1980-81 showed again the limits of state capacity to impose change when significant private sector resistance existed. The number of assemblers was reduced from three to two but even the elimination of Kia from the industry proved short-lived. In 1982, Kia began to plan for a new passenger car model; at the end of the following year it reached agreement with Mazda on the development of a new model, at which point Mazda took a ten percent equity holding in Kia.<sup>22</sup> In late 1984, the government decided to allow Kia to re-enter auto production, a decision announced in the following year.<sup>23</sup> Once again, the government appeared to be following rather than leading the private sector in the automotive industry (Lew, 1992, pp. 56-7).

On one issue, the government remained resolute through the 1980s: a determination to exclude the country's second largest *chaebol*, Samsung, from automobile production. Samsung originally proposed to enter the industry in 1984 in alliance with Chrysler, a proposal that prompted the government to announce its decision to re-admit Kia to auto production. In 1989, Samsung gained a foothold in the industry by being granted permission to produce heavy commercial vehicles in a joint venture with Nissan. The government, however, rejected its second application to manufacture cars in the following year. The subsequent debate over Samsung's efforts to enter the industry illustrates the contradictions faced by the Korean state in promoting economic liberalization in a market dominated by oligopolies.

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<sup>20</sup> As discussed in more detail below, Hyundai had been the company that had moved furthest in the local accumulation of technological capability.

<sup>21</sup> The policy reversal was announced just after an official visit by President Chun Doo Hwan to the United States in February 1981.

<sup>22</sup> The new model was the Kia Pride, re-badged as the Ford Festiva in the US. Ford took a ten percent stake in Kia in 1986 in return for marketing Kia's cars in North America.

<sup>23</sup> The government compensated Daewoo and Hyundai by permitting them to re-enter the production of small trucks and buses, thereby also encouraging overcapacity in that segment of the industry.

A longstanding goal of the government was to attempt to force the *chaebol* to specialize in only a few sectors to reduce the problem of overcapacity. Moreover, increased specialization was expected to realize not only economies of scale but also a more rapid acquisition of technological expertise through a concentration of research and development expenditures. In March 1991, the government adopted a new approach on this issue. It required the top thirty *chaebol* to nominate three of their subsidiaries as “core businesses,” and provided favoured access to bank loans for their activities in these sectors. But by the early 1990s, the largest *chaebol*, with their worldwide networks and their own financial institutions, no longer depended on privileged access to domestic bank loans.<sup>24</sup> Financial liberalization was to reduce further the significance of this policy instrument that had been so important in the state’s direction of industry in the 1960s and 1970s. Finance would certainly not be a factor preventing Samsung’s entry into auto production.

Samsung, ironically, was able to use the arguments of the economic rationalists to support its bid to enter the auto industry, a move that would further weaken efforts at rationalization. The government of Kim Young Sam, the country’s first civilian president for more than thirty years, adopted *seggyehwa* (globalization) as the guiding principle for its economic strategy. Samsung was quick to argue that the new state agenda of liberalization was incompatible with state directions that prohibited companies from entering the industries of their choice. Samsung’s renewed application for entry into car production in 1992 exposed continuing differences within the bureaucracy. The Ministry of Commerce and Industry announced its opposition to the proposal on the grounds that it would create overcapacity, excess competition, prevent the realization of economies of scale, and that exit from the industry for any participant would incur enormous costs. For others, however, three decades of government direction of the sector had produced unsatisfactory results. Their argument was that the market should be allowed to determine the viability of Samsung and its domestic competitors in the industry. Moreover, trade liberalization would also expose domestic producers to increased international competition. The market would eventually produce the desired rationalization.

Political factors eventually proved decisive. Samsung, with a good nose for politics, had proposed to locate its auto plant in Pusan, the hometown of President Kim Young Sam, an area badly affected by the offshore migration of the athletic footwear industry.<sup>25</sup> The Blue House (Korea’s Presidential residence) eventually sided with the Fair Trade Commission and the Economic Planning Board against the MCI, existing automobile producers, and public opinion, and in November 1994 announced its authorization of Samsung’s joint venture with Nissan.<sup>26</sup>

The inability of the state to force rationalization on the auto industry points both to the limits of state power in Korea and to some of the weaknesses of the technonationalist approach that prevailed in this sector.<sup>27</sup> A balanced perspective on the state’s role in the evolution of the Korean car is required. On the one hand, the considerable achievements of Korea’s auto industry, listed in the introduction to this chapter, should not be underestimated. The Korean success in

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<sup>24</sup> And, in any event, given the opaqueness of *chaebol* accounting practices, companies could switch bank lending for government-preferred purposes to non-core activities.

<sup>25</sup> It had located its commercial vehicle plant in the home area of the President at that time, Roh Tae Woo.

<sup>26</sup> For further details see Moon (1999, pp. 23-25) and Lew (1999, pp. 158-65).

<sup>27</sup> The Korean state, of course, was not alone in failing to rationalize its auto industry. MITI’s similar failure in Japan is often cited to contest the statist perspective on Japan’s rapid industrialization.

creating national champions in the auto industry that were able to conquer export markets stands in marked contrast to the experience of all other late industrializers, including the country with which Korea is often compared, Taiwan.<sup>28</sup> As with the development of the Japanese auto industry, state policies to direct capital to the sector, to encourage localization, to limit the entry of foreign producers, and to preserve the domestic market for local firms played a decisive role in providing a supportive environment for the local industry.<sup>29</sup> On the other hand, notwithstanding the capacity to provide a supportive environment for domestic producers, state policies towards the auto sector were inconsistent, subject to rent-seeking, and seemingly incapable of producing the rationalization required if Korean companies were to become profitable, internationally competitive producers. And with the weakening of state control that accompanied liberalization in the 1990s, the problem of fragmentation in the industry was intensified.<sup>30</sup> The failure of state policy to provide effective coordination in the industry laid the foundations for the crises of the second half of the 1990s.

### **No Big Deal**

The decision of the Kia group in July 1997 to seek bankruptcy protection vividly illustrated the vulnerabilities of the Korean auto sector. Kia was the seventh largest *chaebol*. Although it had diversified into eleven industrial sectors, vehicle manufacture remained its core business. It had the second largest production capacity after Hyundai Motors (1.2 million cars annually) and was a significant exporter (over 250,000 units each year). Together with its heavy vehicles subsidiary, Asia Motors, it had close to 7,500 subcontractors with a total of more than 600,000 employees (*Korea Herald* 22 July 1997). By most accounts, the Kia Group—unusual for a *chaebol* in that it was no longer under family control—had been comparatively well managed until the early 1990s. Its subsequent efforts to diversify into construction and steel, coupled with the overcapacity problems in the auto industry, became its undoing. By July 1997, the Kia group had accumulated debts in excess of \$10.7 billion. Kia Motors alone had debts of more than \$6 billion; it had to spend more than nine percent of its sales revenues on interest payments, a percentage the industry regarded as unsustainable.<sup>31</sup>

Contending views within the bureaucracy as to how to respond to Kia's bankruptcy and to that of several other *chaebol* outside the auto sector, produced paralysis. On the one hand, economic rationalists argued that the market should determine the outcome and be permitted to deliver its own restructuring of Korean industry. On the other, advocates of planning saw the problems of the corporate sector as at least temporarily reversing the secular shift in the balance of power between the government and the private sector. A new opportunity was available for the government to force rationalization in key industries and to promote stronger national champions. While the government dallied in its response to Kia's problems, Ssangyong Motors also went bankrupt. Here a swift (nationalist) solution was forthcoming: Daewoo took over its rival by assuming a 53.5 percent stake in the company. The price, however, was a further 2

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<sup>28</sup> On the failure of Taiwan's auto strategy see Noble (1996) and Arnold (1989).

<sup>29</sup> On the effectiveness of state policies to limit the role played by foreign capital in Korea see Mardon (1990).

<sup>30</sup> Chang, Park and Yoo (1998) attribute the problems of overcapacity and lack of co-ordination in Korea's leading industrial sectors to the weakening of state power in the 1980s and 1990s.

<sup>31</sup> "Car Crash", *AsiaWeek* (1 August 1997). Kia's CEO, Kim Sun Hong, was arrested in May 1998 and charged with embezzling \$37 million, which he had allegedly used to bribe politicians. In October that year, he was sentenced to seven years imprisonment.

trillion won (\$1.8 billion) in debt for Daewoo, which was to contribute to its own failure in the following year.

After several months of indecision, the Kim Young Sam government's initial approach to resolving Kia's problems was firmly in the technonationalist tradition. It announced in October 1997 that it would place Kia Motors and Asia Motors under court receivership, and that the state-run Korea Development Bank's loans to Kia would be converted to equity, making the Bank, with 30 percent of its total equity, Kia's largest shareholder (*Korea Herald* 23 October 1997). The Minister of Finance and Economy asserted that the government had no intention of allowing Kia to be taken over by a third party but would run the company as a successful state enterprise (*Korea Herald* 27 October 1997).

The deepening of the economic crisis (with the collapse of the won in the following month), however, and the election of the opposition leader, Kim Dae Jung, as President, led to a reversal of policy. The currency crisis strengthened the hands of the economic rationalists, and opened the way for the international financial institutions and bilateral creditors to exert significant external pressure for a reduced role for the state. The government eventually agreed to auction off Kia's assets. The manner in which the government conducted the auction, however, raised doubts about the new government's willingness to permit the takeover of Korean assets by foreign companies.

The initial auction attracted bids from the other three Korean auto producers, Hyundai, Daewoo, and Samsung, and from Kia's U.S. partner, Ford.<sup>32</sup> But two auction rounds were aborted because all bidders refused to take on the volume of Kia's debts that creditors required. Ford, which failed to participate in the second auction, alleged that the process was less than transparent.<sup>33</sup> Accusations flew that the government conspired with Kia to inflate the value of its assets and understate the size of its debts.<sup>34</sup> Foreign commentators saw delays in resolving the issue as a sign of the government's continuing reluctance to make the necessary painful decisions in economic restructuring.<sup>35</sup> Kia was eventually sold to the highest bidder, Hyundai, amidst allegations that economic nationalism had prevailed over a more rational solution of selling the troubled automaker to Ford.<sup>36</sup> This first consolidation among Korean auto manufacturers produced a new problem: market domination. The Hyundai-Kia conglomerate controlled 72 percent of the Korean market.

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<sup>32</sup> Besides its direct shareholding in Kia, other ties between Ford and the Korean company came through Mazda, which also held shares in Kia, and was the principal foreign source of its technology. Ford imported 75,000 Kia vehicles each year, re-badged as the Festiva.

<sup>33</sup> "Creditor to Postpone Auction of Kia Motor: Bids Seen Too Low as Ford Protests Process", *International Herald Tribune* (31 August 1998) citing Korea largest-circulation daily, *Chosun Ilbo*.

<sup>34</sup> The government was directly involved in the process through the state-owned Korea Development Bank, Kia's largest single creditor. After the first auction failed, creditors agreed to debt write-offs of more than \$2.1 billions.

<sup>35</sup> For instance, 'South Korean cars: Eureka', *The Economist* 24 October 1998.

<sup>36</sup> Kia's executives and workers reportedly favored a takeover by Ford, anticipating that Ford would use Kia as its principal agent for manufacturing and selling small cars in East Asia. They opposed a takeover by Hyundai, fearing that amalgamation would lead to job losses (which, indeed, it did for Kia's executives, most of whom were quickly replaced with Hyundai managers).

The Kim Dae Jung government, meanwhile, had pressed the *chaebol* to consolidate their operations by engaging in asset swaps (the “Big Deal” program) and to reduce their debt to equity ratios to below 200 percent by the end of 1999. For the automobile sector, the principal issue was what was to become of Samsung Motors. With the collapse of the domestic market in Korea following the onset of the financial crisis, Samsung could hardly have faced a less auspicious climate for the start of its operations.<sup>37</sup> The corporation acknowledged that the relatively small capacity of its Pusan plant (80,000 vehicles) would preclude the development of a viable enterprise, hence its interest in taking over the much larger Kia Motors. But corporate hubris eventually gave way under pressure from the government, and Samsung agreed in September 1998 to exchange its auto operations for Daewoo’s consumer electronics plants. Daewoo was supposed to take over the Samsung plant by mid-February 1999. The corporations, however, failed to reach agreement over the terms of the deal, particularly the insistence by Samsung that Daewoo continue to produce Samsung cars for at least two further years. Plant closure was not an option.<sup>38</sup> The deal was never consummated, overtaken by the financial difficulties of Daewoo that led to its being placed in receivership in July 1999 and the decision in the following month to dismantle the group.

The failure of the Big Deal restructuring in autos left the government with little alternative other than to sell the assets of the two bankrupt producers, Daewoo and Samsung. But to whom? Hyundai, following its absorption of Kia, already controlled close to three-quarters of the domestic market. To permit it to acquire Daewoo would have provided it with an almost complete monopoly. No other credible domestic purchaser existed. The car industry became a test of the government’s commitment to encourage foreign direct investment in the Korean economy.

The sale of Samsung Motors to Renault was relatively non-controversial in that no alternative bidder expressed an interest—although the bargain basement price that Renault paid for the Samsung plant did generate criticism from the Korean press. Daewoo was an altogether different story. In opening the way for possible foreign purchase of the flagship arm of Korea’s third largest corporation, the government faced opposition from a formidable nationalist coalition. A public opinion poll reported 87 percent of respondents opposed Daewoo’s sale to a foreign bidder (*Korea Herald* 12 June 2000). Public opinion was supported by some academics, the Federation of Korean Industries (the *chaebol*’s lobby group), the Korean Federation of Small Business, many civic groups, and the opposition Grand National Party. Daewoo’s unions, concerned about job security, opposed a sale to a foreign company, as did affiliates of the Korean Auto Industries Cooperation Association. Their fear was that a foreign company would confine Daewoo’s future operations to the domestic market (*Korea Herald* 27 June 2000).

On the other side, some of Daewoo’s parts makers came out in favour of its sale to a foreign producer, fearing that a Hyundai monopoly of the domestic industry would leave them

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<sup>37</sup> Samsung Motor operated for 11 months, during which it sold about 30,000 cars. Each car sold was estimated to have lost the company \$5,000. In 2000, Korean consumers voted Samsung’s only model, the SM5, the worst car in its class for quality and performance. The car was also named the most unsafe in collision tests conducted by the government. “Renault’s SM5 Named Worst Car of the Year”, *Korea Herald* (29 December 2000).

<sup>38</sup> The government, facing Parliamentary elections later in the year, was keen to ensure that Samsung’s Pusan operations continued in what was now the heart of opposition territory.

vulnerable (*Korea Herald* 29 June 2000).<sup>39</sup> So, too, did many economists. But of critical importance was the hostility to a Hyundai takeover within key agencies of the state. On record as opposing a Hyundai takeover of Daewoo were the Minister of Finance and Economy, the state-owned Korean Development Bank (Daewoo's largest creditor), the chairman of the Fair Trade Commission, and several research agencies including the Korea Development Institute and the Korea Institute for International Economic Policy. The government eventually kept its nerve on the sale. It offered Ford an exclusive opportunity to negotiate for the purchase of Daewoo Motors, following Ford's making the highest bid for its assets in an auction at the end of June 2000.<sup>40</sup> In September 2000, however, Ford announced that it would not proceed with the bid. The government turned to Daewoo's old partner, General Motors, which by the end of the year had still not determined the price it would offer for Daewoo's assets or, indeed, whether it would even proceed with a bid.

The financial crisis hastened what was probably inevitable—a consolidation of the Korean industry (the Hyundai-Kia merger) and the entrance of foreign companies (DaimlerChrysler through its acquisition of ten percent of Hyundai, as well as Renault and possibly GM). The crisis thereby achieved the rationalization the state had failed to accomplish in three decades. The inability of the government to consolidate the industry pointed to the limits of state power in Korea when faced with an obdurate (and increasingly autonomous) private sector. And government followership at critical junctures in policy development suggested that the relationship between the state and auto producers was characterized as much by reciprocal consent as by state direction.<sup>41</sup>

How well will the Korean companies, especially those that are now under majority foreign ownership, fare in the increasingly global auto industry? One part of the answer may well lie in the extent to which these companies have developed their own technological capacities. The following section reviews this issue and the question: to what extent did three decades of government sponsorship of the industry — through a variety of technonationalist policies — create technological autonomy?

### ***The State and Technological Development in the Auto Industry***

Linsu Kim (1997) has documented Korea's impressive record of technological learning. The rapid development of the Korean auto industry and especially the increase in local content point to the skill of Korean companies and their engineers in acquiring, absorbing, applying and improving on imported technologies. Technological capabilities varied substantially across companies, however. And the experience of Korean companies in their relations with foreign partners casts a worrying shadow over the future of the industry.

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<sup>39</sup> Hyundai, unlike Daewoo, followed the Japanese model of subcontracting, establishing close relationships with a relatively small number of suppliers (who often produced solely for Hyundai). For discussion of the contrasts between Hyundai and Daewoo in subcontracting, see Amsden and Kim (1989), and Amsden (1989, pp. 184-88).

<sup>40</sup> The previous sale of Samsung to Renault had been viewed as improving Hyundai's chances of acquiring Daewoo by reducing concerns over a future monopoly. Hyundai had also entered into an alliance with DaimlerChrysler to purchase Daewoo, with DaimlerChrysler reported to be willing to finance 80 percent of a bid for Daewoo. DaimlerChrysler publicly had shown little interest in Daewoo, however; it was particularly enthusiastic about an opportunity to purchase 50 percent of Hyundai's commercial vehicle operation.

<sup>41</sup> On reciprocal consent see Samuels (1987); on followership see Wade (1990).

Unlike the early development of the semiconductor industry, the state's role in the auto industry was confined to providing a supportive environment. As noted above, the state brought to bear the full panoply of industrial policies in support of auto producers. Even in the 1980s, it still provided subsidized loans and investment and tax incentives to car producers. By requiring production of a people's car and specifying local content requirements, it had played a directive role. Unlike the prominent role that the state played in the semiconductor industry,<sup>42</sup> however, state agencies did not themselves acquire and develop relevant technologies that were subsequently passed to the private sector. The state left the task of technology acquisition and development to the car companies.

The strategy for the acquisition of technology varied substantially across companies. Hyundai set out deliberately to avoid dependence on any one partner, to maintain its managerial autonomy, and eventually to achieve technological autonomy through its own research and development. In its early days, after the termination of an unhappy alliance with Ford, Hyundai rejected alliances with VW, Renault and Alfa Romeo because all sought participation in its management (Lew, 1992, fn. 25 p. 41). Although Mitsubishi became Hyundai's principal partner after taking a ten percent stake in the Korean company in 1981, Hyundai did not give up management control or its quest for alternative sources of technology. As Kim (1997) documents, Hyundai's success in technological development derived from its strategy of acquiring technologies in unpackaged form from multiple sources and integrating them in its own production. In the period to 1985, Hyundai licensed 54 foreign technologies from eight different countries (Hyun and Lee, 1989). And when no foreign supplier was willing to provide state-of-the-art engines, Hyundai eventually succeeded in developing its own. As a consequence of this strategy of fostering autonomy, Hyundai raised its local content more quickly than other Korean producers, and was free to elaborate its own export strategy.

The state may have encouraged Hyundai to avoid entangling alliances.<sup>43</sup> But whatever the state's rhetorical commitment to technonationalist strategies, it did nothing to prevent the other Korean companies from entering alliances that substantially impinged on their autonomy. Management participation by foreign partners were to impose severe constraints on other Korean assemblers. The most egregious example is Daewoo, in which GM had a fifty percent share from Daewoo's entry into the industry in 1978 until its termination of the partnership in 1992. Management control of GMK rested with GM until 1982. Consequently, GM determined technological sourcing, which, not surprisingly, came entirely from within its corporate empire. In comparison with Hyundai, Daewoo invested little in product and process improvements with the consequence that its overall performance was far inferior to that of its more independent competitor.<sup>44</sup>

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<sup>42</sup> See Mathews (1999) and the chapter by Keller and Pauly in this volume on the state role in the development of Korea's semiconductor industry.

<sup>43</sup> For discussion of this issue see Lew (1992, fn. 16, p. 86). Lew quotes a senior official who claims that the government convinced Hyundai not to enter into any agreements that would have impinged on its managerial autonomy. Other sources suggest, however, that Hyundai's management made an early decision not to enter into any alliance that constrained its freedom of action.

<sup>44</sup> For more details see Amsden and Kim (1989).



Even after 1982, when Daewoo took over management control of the joint venture, the affiliation still placed significant constraints on the Korean partner. Daewoo's principal products were derived from GM's Opel division; these were widely regarded in Korea as embodying obsolete technology. And decisions on export markets rested with GM. Its refusal to allow Daewoo to market in Eastern Europe was the catalyst for the termination of the partnership in 1992. Daewoo subsequently attempted to make up for lost time by adopting Hyundai's strategy of diversifying its sources of technology. It bought engines from GM's Australian subsidiary, General Motors Holden, and transmissions from Germany's ZF group and from Japan. It also established a product development centre in Worthing in the United Kingdom, which employed over 300 workers, in an attempt to tap into European technological expertise. Although it had substantially improved its technological capabilities by the time of its demise, Daewoo still depended heavily on foreign suppliers for critical components.

Kia's record was in between the extremes occupied by Hyundai and Daewoo. As a company with longstanding experience in producing motorcycles and then trucks and buses, Kia succeeded in raising its local content substantially in the 1980s. Nonetheless, its principal export model depended wholly on Mazda's technology and, like Daewoo, it found its operations subject to the marketing decisions of a partner—in this instance, Ford. Displeasure with what it regarded as Ford's failure to promote its products adequately in the United States led Kia to attempt to establish its own dealer network there after 1993.

Finally, the most recent entrant to the Korean industry, Samsung Motors, had little opportunity to advance its technological competencies in the short period between its establishment and closure. It relied exclusively on technology supplied by its Japanese partner, Nissan.

The government's role in fostering technological autonomy and development had been more significant in the auto parts industry, to which it had also given subsidized finance. The emphasis was on building up the local industry through licensing and other partnerships with overseas firms in lieu of foreign direct investment. Dependence on foreign partners for technology nonetheless remained high. Between 1980 and 1986, Korean auto parts firms entered into 21 joint ventures and 160 technology licensing agreements, of which 60 percent were with Japanese companies (OECD, 1992, p.53). The auto assemblers themselves had been more significant sources of knowledge for their component suppliers than had the government as they worked closely with subcontractors on quality improvement and control.

In short, while the pursuit of technonationalist strategies in the auto industry had the desired result of promoting several national champions in this complex industrial sector, the policies were of limited effectiveness in fostering technological autonomy. As Richard Samuels suggested at the conference at which this paper was first presented, the end product of three decades of government promotion of the auto industry in Korea was a "porous" technonationalism. The ongoing dependence on foreign firms for technology (and, in some cases, marketing channels) was far from the technonationalist ideal.

## Conclusion

The Korean auto industry has undergone profound change within the space of three years. The industry's structure has been transformed from five national companies to one in which only a single company is still under Korean control—and even this company, Hyundai, now has ten (possibly soon to be fifteen) percent foreign equity in its auto operations, and fifty percent in its commercial vehicle subsidiary. Whatever autonomy the Korean industry enjoyed before the financial crisis has largely disappeared. It is no longer a national industry.

What will be the future of Korean plants in an industry with substantial worldwide surplus capacity, an industry where intense competition occurs not only between firms but also within them as individual plants seek to consolidate their roles as preferred production locations? What can Korean companies bring to the new alliances? Is there an advantage in the auto industry to the label “made in Korea?”

Unlike their counterparts in the electronics sector, Korean companies in the automobile industry have few cutting edge technologies coveted by foreign partners. Hyundai may be a partial exception to this generalization but even its domestically-designed engines, a breakthrough in technological autonomy for a Korean auto producer, are unlikely to be of interest to DaimlerChrysler except for cars produced in Korea. Hyundai's research and development remain low by international standards: expenditures are less than one-third of the level of those of Toyota (*Korea Herald* 10 February 2000).

The rapid expansion of productive capacity in the 1990s, however, did furnish the Korean producers with state-of-the-art plants (some domestic and others located abroad) that are of interest to global companies seeking a low-cost production base for the Asian region (and a means of penetrating the Korean market itself, currently still the second largest Asian market after Japan).<sup>45</sup> Korea is strategically placed for producers to take advantage of the liberalization of the car market in China that is scheduled to occur following China's entry into the WTO.<sup>46</sup> Productivity and quality control in the Korean industry remain substantially below that of Japan, however; whether the new foreign owners will be able to bring their Korean plants up to world best practice remains to be seen.

For Samsung, the future appears clear cut. Renault will use the plant to produce Nissan cars for the Korean market—with some possibilities of export to other parts of Asia in the future, although this will depend on plans for Nissan plants within Japan. For Daewoo, the outlook is far less clear, not least because GM had not completed the negotiations for its acquisition at this writing. Daewoo's models have a particularly poor reputation for quality in the United States so

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<sup>45</sup> Cars produced within Korea are also likely to face increased competition in the domestic market following the lifting of the ban on imports from Japan with the ending in July 1999 of the government's import source diversification scheme (essentially a measure aimed at curtailing Japanese imports). Japanese companies previously could only export to Korea cars from their American transplants.

The entry of Ford and DaimlerChrysler into Korean production may facilitate imports from the US, and reduce the ongoing complaints from the USTR to the Korean government on the allegedly closed nature of the Korean market.

<sup>46</sup> China's auto tariffs are scheduled to drop from 100 percent to 25 percent over five years as part of the WTO accession deal. Korean cars are currently produced at lower cost than those by joint ventures in China (*Business Week* 24 January 2000).

it is unlikely that GM would continue to export them to that market, least of all under the Daewoo badge. And Daewoo's East European plants are likely to lose their linkage with Korea, becoming merely another cog in the GM empire. The concerns of the economic nationalists that a foreign-owned Daewoo may be confined by its new owners to producing for the domestic market may yet be realized. The name of the game in recent rationalizations has been cost-cutting through plant closures and downsizing (evident, for instance, in GM's actions in Europe, and especially in Renault's restructuring of Nissan's operations). Plant closures and job losses among the Korean auto assemblers have been politically unacceptable to date but will be an unavoidable if uncomfortable consequence of internationalising the domestic industry.

The most intriguing issue is the future of Hyundai in its partnership with DaimlerChrysler. Hyundai can fill a significant gap in the DaimlerChrysler product range as a producer of small cars. Besides provided an instrument for launching a joint bid for Daewoo, another intention behind the DaimlerChrysler alliance with Hyundai was the co-production of a subcompact "world car." Hyundai is scheduled to produce from the first half of 2002 from 300 to 350 thousand units domestically, and a further 100 to 150 thousand in a new Chinese plant in a total worldwide production of the vehicle of between 750 thousand to one million units. Production at these levels would still leave Hyundai with significant capacity to produce its own models; the partnership with DaimlerChrysler may provide new marketing possibilities through badge engineering arrangements.<sup>47</sup>

Joint ventures between Korean companies and foreign partners have an unhappy history, however. Foreign partners have refused to supply their Korean associates with state-of-the-art technologies, and have restricted their overseas marketing. The unwillingness of American and Japanese companies to supply contemporary technologies may have its roots in fears that they would lose control of them in ventures where they were minority partners, especially in a country with a notorious lack of respect for intellectual property rights. With Renault and Ford having majority control of Samsung and Daewoo respectively, this issue may be resolved for these companies. For Hyundai in its relationship with DaimlerChrysler, it may still prove problematic — as may marketing arrangements for the new world car.

A critical question for the long-term prosperity of the industry in Korea is the future of the parts industry. Worldwide, the auto components industry has experienced the same consolidation and restructuring as car assemblers—in part because suppliers are being squeezed in an increasingly oligopolistic industry. The emphasis has again been on economies of scope and economies of scale with companies expected to sell complete modules — on a global basis. The assemblers

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<sup>47</sup> For instance, in July 2000 Hyundai announced that its 'Atoz' model would be re-badged for sale under the Dodge label in Mexico, thereby opening up a new market to the Korean producer. The Mexican market had previously been closed to Korean companies because they had no local production facilities (*Korea Herald* 13 July 2000).

Contrary to the expectations of many foreign observers of the Korean industry, Hyundai has succeeded in turning around Kia's performance in a remarkably short period. Domestic sales in 1999 were up 125 percent on the previous year; for the first time in a decade, Kia Motors made a net profit. This was helped by creditors writing off or converting to equity most of its debts, so that the ratio of interest payments to sales revenue was slashed to 1.6 percent. Moreover, the company shed one third of its previous workforce of 44,000.

have moved to reduce the number of tier one suppliers, which has been cut in half in the last few years.<sup>48</sup>

The Korean components industry is not well prepared for competing in this new environment. Parts companies typically are small, and have traditionally been tied to one assembler.<sup>49</sup> Component manufacturers unlike the assemblers have had little success in exporting: imports of components exceed exports by a margin of more than 2.5 to 1.<sup>50</sup> It is at this level of the Korean auto industry that government initiatives to improve the national innovation system, analysed by Linsu Kim in his contribution to this volume, may be most effective.

What does the Korean experience in autos tell us about the pursuit of technonationalist strategies in a globalized economy? A fundamental point is that the technonationalist strategies adopted to promote the Korean industry were employed at a specific stage in the evolution of the postwar geopolitical and economic systems.<sup>51</sup> State policies that excluded imports and foreign firms from the domestic market, and which provided substantial funding to subsidize exports, were significant factors in the success of the industry. The capacity of the Korean state to pursue such strategies of aggressive economic nationalism was grounded in a particular geopolitical context, and in an international trading regime that at that time was invested with limited powers of monitoring and enforcement.

The contexts have changed dramatically. It was no coincidence that Korean auto companies were encountering severe difficulties in the 1990s even before the onset of the financial crisis. Korean companies faced a world in which the global industry was consolidating at an unprecedented rate. Economies of scale and scope were becoming ever more important. It was also a world in which the Korean government was under intense pressure from major trading partners and the international economic organizations to open up the closed domestic auto market. Their response was to embark on a scramble to achieve scale economies through a reckless program of expansion. This policy may have succeeded in an earlier era when the state had both the will and capacity to bail them out. The approach, however, was an unlikely one in the new environment where membership in the OECD and the WTO added to pressures from trading partners for liberalization. External factors placed unprecedented constraints on the autonomy of government policy-making.

More than the external context that had changed, however. The domestic environment was no longer conducive to the pursuit of technonationalist policies. Although the Korean public remained supportive, as did several major lobby groups including Korea's powerful trade unions, the agencies of the state were divided as never before. By the early 1990s, the economic rationalists had gained the upper hand—even though it took the financial crisis and the advent of

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<sup>48</sup> 'The Automotive Sector: Driving a Hard Bargain' *Acquisitions Monthly* (July 1998) [[http://www.acquisitions-monthly.co.uk/magazine/html/july\\_1998\\_cover\\_story.htm](http://www.acquisitions-monthly.co.uk/magazine/html/july_1998_cover_story.htm)].

<sup>49</sup> Samsung had to create a supplier network from scratch as Hyundai and Daewoo prohibited their subcontractors from supplying the new entrant to the industry. Renault has stated publicly that it has given no undertakings to support the existing Samsung components suppliers.

<sup>50</sup> In 1996, the last year before the onset of the financial crisis, Korean auto parts companies had exports less than half the value of those from their Taiwanese counterparts (Noble, 1996, fn. 103).

<sup>51</sup> For further consideration of the significance of context in the success of industrial policies in East Asia see Matthews and Ravenhill (1994).

a new administration, whose leader, President Kim Dae-Jung previously had enjoyed few ties to Korea's large companies, to make the decisive break with the economic nationalist past and open up the economy to foreign investment.

The internationalization of the Korean economy occurred prematurely for Korea's car companies. Korean auto companies, for all their progress over the previous quarter of a century, had not succeeded in becoming the leaders of the pack—unlike their counterparts in the semiconductor industry. Only Hyundai had developed a significant degree of technological independence—and even its products still bore the stigma of negative brand association in the markets of industrialized economies. Whether Hyundai or Daewoo, with its strategy of concentrating on emerging country markets, could have enhanced their technological autonomy in more favourable circumstances is a moot point. Not only did they face intricate technological challenges but the auto industry also—unlike electronics—remains a substantially imbalanced playing field, in which various formal and informal barriers, particularly in the markets of the EU and Japan, restrict the access of foreign producers. The Korean government may continue to reinforce with various official barriers the obstacles posed to foreign penetration of the domestic car market by the nationalist urge to “buy Korean.” But most of the technonationalist armory that it previously was able to deploy is now bare.

Table One: Partners in the Korean Auto Industry Pre and Post Crisis

	<u>Pre-Crisis</u>	<u>Post-Crisis</u>
Daewoo		GM?*
Hyundai	Mitsubishi 4.8% Mitsubishi 4.8%	DaimlerChrysler 10%**
Kia	Ford 9.4% Mazda 6.7% Hyundai Motor 5%	Hyundai Group 51% (of which Hyundai Motors 40%)
Samsung		Pan Pacific Investments 31% Renault 70.1% Samsung Group 19.9% Misc. creditors 10%
Ssangyong		Daimler-Benz 2.4% Daewoo 53.5%

\*At the time of writing (January 2001), GM was still investigating Daewoo's books and had yet to indicate whether it would proceed with a bid for some or all of Daewoo's assets

\*\* DaimlerChrysler was reported in January 2001 to be seeking to increase its shareholding in Hyundai Motors to 15 percent.

*Source:* compiled from various newspaper reports.

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