INDUSTRY GLOBALIZED: THE AUTOMOTIVE SECTOR

Sakkarin Niyomsilpa

IN the mid-2000s, the automotive industry was the single largest sector of Thailand's manufacturing by almost any method of measurement. It employed over one hundred thousand workers. It contributed a trillion baht to annual GDP. Alone among Thai industries, it could claim a place on international league tables. Thailand figured fifth in the world for production of commercial vehicles, and tenth among automobile exporters (1.8 percent of world total in 2005). One Japanese manufacturer had located a worldwide research facility in Thailand, and three of them had launched a new model for the first time in this market. The auto industry was also among the largest exporters, contributing 8 percent of the total, roughly the same as the total exports of the agrarian sector. The sector was also almost totally dominated by multinationals (MNCs). In 2005, 98 percent of the car market in Thailand was controlled by five multinationals, four Japanese and one American. Among the two hundred first-tier suppliers of parts to the assemblers, only around twenty were Thai firms. The policy framework for this industry was highly liberalized, and policymaking in the sector was largely the outcome of bargaining between multinationals, technocrats, and elected politicians.

Ten years earlier, on the eve of the 1997 crisis, the position had been very different. Thailand's automotive sector was already large, but not distinctly ahead of several other industries, and certainly not a factor in world rankings. It was still mainly oriented to the home market and only a minor contributor to exports. Several hundred domestic firms had a major role in the sector, both as partners of the multinational manufacturers, and producers of a wide range of parts and components. The industry was still hedged around by controls on importing, local content, and foreign investment. In policymaking, government bureaucrats and the domestic part-makers association were the most important players.

The transformation of Thailand's automotive industry over the crisis and its aftermath was very sudden. To a large extent it was inevitable. Over the prior two decades, the world's automotive industry had been at the forefront of globalization. A huge sprawl of nationally based firms had been condensed into seven world-spanning groups. Decisions within the industry were now made with a global perspective. Thailand had been protected from these trends by a policy regime based on the vision of a "national industry" which had become irrelevant. By transforming so rapidly in the crisis, Thailand took on a new role as a small but significant segment of transnational chains of production.

Yet this transformation still raises questions over the fate of domestic capital and domestic enterprise within this process of globalization. This chapter starts by sketching the growth of Thailand's automotive industry in the postwar era. It then looks at the rapid changes that took place during the crisis, and finally examines the way that policy is now being made in the sector.

AN INFANT INDUSTRY

Until the 1960s, all vehicles in Thailand were imported. From the 1940s onwards, some Western and Japanese manufacturers linked up with local business families, mostly Thai-Chinese, who acted as importers. From 1960, the government set out policies to develop a local automotive industry under the import substitution industrialization framework of the era. Import restrictions and high tariffs raised the prices of imported cars, while investment incentives and lower tariffs on parts encouraged foreign firms to establish assembly plants. Government laid down rules for the proportion of parts that had to be locally made, and gradually raised the figure to stimulate local investment and technology transfer. In the hope of cultivating local enterprise, foreign firms (other than US firms, privileged under the Amity Law) were limited to a 49 percent stake.

Under this policy, thirteen assembly plants were established. Western firms either judged the scale of the market as too small, or withdrew after the American defeat in the Indochina War. Japanese auto-makers targeted Southeast Asia, even though the small size and fragmentation of the markets made poor commercial sense, because they could hope to dominate this region. Most of the assembly plants were joint ventures between Japanese manufacturers and local business families, many of those who had earlier been their dealers, including Phornprapha, Sukosol, Yip In Tsoi, Boonsoong, Lee-Issaranukul, Lee-Nuttapong, Sitthi-Amnuai, and Sarasin.

Although the domestic partners had the majority share in these ventures, in practice the multinational partner had effective management control because of command over technology and expertise. Yet the protection offered by the import-substitution policy generated a large rent income for these families. Some of this income was used for lateral investment into other sectors, typical of the proto-conglomerates of this era. But a significant part was plowed back into the auto industry. Some families invested in increasing their share in the assembly venture. In the Bangchan assembly plant, local business raised their share from 40 percent in 1972 to 66 percent in 1983. Sitthiphon raised their share in the Mitsubishi venture from 40 to 60 percent in the same period. Even at the Toyota plant, the share of local capital rose from nothing to 35 percent. As for Isuzu and Mazda, local business partners raised their stake in this period also. The Nissan factory of Siam Motors, the plant of the Thonburi group, and YMC of Yontrakit were all wholly owned by local Thai business families in the 1970s.

Some of this rent income was invested to expand into motorcycle production, and to produce the increasing range of auto parts needed under the local-content policy. For more sophisticated parts, the local partners of the assemblers formed joint ventures with Japanese firms to import the technology. However, simpler items were made by many independent small and medium enterprises (SMEs) using standard equipment, low technology, and funding raised locally through techniques like chit funds. All these firms formed a "club" within the Federation of Thai Industries to press their interests on the policymakers. In the late

1970s, they founded a separate Thai Auto Parts Manufacturers Association (TAPMA) in order to lobby for policies which were often against the interest of the assemblers, with some success. In 1978, they persuaded government to totally ban completely-built-up (CBU) imports to help ease the trade deficit. Subsequently, they persuaded government to limit the number of models each assembler could produce, in order to reduce the number of variants of each part, and pressed for a rise in the local content ratio from 25 percent in the late 1970s to 43 percent in 1983.[1] Under this policy, the number of Thai family firms involved in manufacture of auto parts rose to around a thousand. Japanese assemblers began to encourage their parts suppliers from Japan to move to Thailand to meet the rising local content requirements.

THE BOOM ERA

When the Thai economy boomed in the late 1980s, automotive sales grew even faster than GDP. In Bangkok, a rapidly expanding middle class moved out from the city center to new residential suburbs, and bought cars as commuter vehicles and symbols of new prosperity. Commercial vehicle sales boomed as the economy shifted towards industrialization. Wealth that trickled out to the provinces in the remittances of migrant workers was often invested in motorcycles and pickup trucks.

A similar trend was found across Southeast Asia. For the multinational auto producers, the region was no longer a sideshow, but one of the fastest growing markets in the world. American and European firms returned to Thailand after a thirty-year intermission. Korean firms arrived. Japanese firms geared up to defend their command of the market by designing cars specifically geared to the conditions and tastes of Southeast Asian buyers, rather than just selling models developed for Japan or the West. Under pressure from this broadened phalanx of multinationals, Thai government policy towards the sector changed.

---

1. True value-added was considerably less than the official local content figure because the system did not track the import content back up the production chain (Veloso et al. 1998: 17)

Industry relocated

The rapid rise in the value of the yen from 1985 prompted many Japanese firms to relocate overseas. The shift of auto parts producers into Southeast Asia, which had begun over the previous decade, now became a stampede. Japanese parts producers started fifty-one projects in Thailand over 1986–1990, and another sixty-one over 1991–1995.[2] Thailand was a favorite location for several reasons. Domestic demand was projected to grow to more than eight hundred thousand vehicles a year by 2000. The industry was less fragmented than in Indonesia and Philippines, which both had many small assemblers, but more varied than in Malaysia, where a government-backed national car project dominated.

Clusters of (mainly Japanese) auto-parts producers appeared on the outskirts of Bangkok, and in the Eastern Seaboard industrial zone. Government hurried to provide the supporting infrastructure, including an expanded road network and the Laem Chabang container port. Support industries appeared. Property developers built housing for the expanding work force, and for a new expatriate community of managers and technicians.

The increase in investment and in the size of the industry brought a rise in political bargaining power. Ever since the 1970s, Japanese auto makers had hoped that the idea of an ASEAN Free Trade Area (AFTA) would enable them to spread production networks across Asia, locating different functions in different countries in order to exploit local competitive advantages as well as keeping all the host countries happy. But progress towards AFTA was hindered by economic-nationalist concerns, and the simple fact that the various regional economies were often more competitive than complementary. But after the big shift in investment in the mid-1980s, the Japanese auto industry pressed harder. In the late 1980s Mitsubishi proposed to ASEAN a regional cooperation project under a brand-to-brand complementarity scheme (BBC), which reduced tariffs on auto parts produced and sold within the ASEAN countries by 50 percent. Mitsubishi executives lured the

2. In the same period, the total of projects in Indonesia, Malaysia and Philippines was ninety-five.

Thai government to support the scheme by promising in return to invest in the production of auto engines in Thailand. ASEAN approved the scheme. Later in the mid-1990s, Japanese car manufacturers proposed an Asian Industrial Cooperation Scheme (AICO) under which auto parts exchanged between countries would be subject to specially reduced tariffs in advance of the general AFTA tariff-reduction scheme scheduled for 2003. ASEAN agreed to the AICO scheme, which reduced tariffs on auto parts to a range of 0 to 5 percent.

Under these new trading conditions, auto producers began moving towards more specialized production spread across the region, with car bodies made in Thailand and Malaysia, batteries in Indonesia, brakes and axles in the Philippines, and electronics and transmission mechanisms still exported from Japan. Still more parts producers migrated out from Japan when the yen again inflated in 1994–1995. By 1997, Japanese auto parts producers had four hundred production sites scattered throughout the ASEAN countries. With the Americans preparing to reenter the market, the Japanese assemblers hoped that their well-established cross-country production networks would guarantee their competitive advantage and continued market domination for the long term.

Easing towards liberalization

The multinational auto firms also exerted more pressure on the Thai government to ease the regulatory regime. The Chatichai government (1988–1991) lifted a ban on CBU imports of cars under 2300cc, and removed restrictions on the number of models each assembler could make. The Anand governments (1991–1992) completely lifted the import ban, restructured tariffs to reduce the price differential between imported and locally made models, lowered the annual registration tax, and lifted controls on the number of taxis in Bangkok. These moves lowered car prices and further stimulated sales, leading to virtual gridlock in the capital, and hundred-kilometer queues on some provincial routes on national holidays.

A limit on new licenses for assembly plants was lifted in 1994. Government also encouraged assemblers and parts makers to orient more towards export, by providing promotional incentives, including permission for 100 percent foreign ownership in export-oriented ventures. Export regulations were also streamlined.

The liberalization of trade and production attracted Korean, American, and European firms. In 1995, Ford and GM decided to reenter the Thai market. GM first went into a venture with the Volvo assembler, Swedish Motors, to produce a sports utility vehicle, and then built a plant to produce Chevrolet pickups. Ford and its worldwide partner Mazda built a new assembly plant for pickups. BMW decided to locate its production for ASEAN markets in Thailand. Hyundai, Kia, and Ssangyong vehicles from Korea were imported by local agents. Several parts producers from the US and Europe established Thai subsidiaries to supply these ventures.

Through the 1990s, local auto-parts producers were still protected by the local-content policy and by some high tariffs on certain auto parts such as car bodies and engines. But assemblers became more skilled in evading the local content rules, and the Thai Auto Parts Manufacturers Association had less and less political clout with policymakers. The US firms Ford and GM pressed the Thai government to abandon the local-content policy, which the government agreed to do as part of its commitment to the WTO.[3] Domestically owned parts firms were also under greater pressure to compete against relocated Japanese firms, and against imports from within the region. A few were able to make strategic partnerships and joint venture agreements with the Japanese assemblers and their associated Japanese parts producers, and thus get the technology and connections to continue as first-tier suppliers.[4] Many more domestic firms slipped into the second and third tiers, producing sub-assemblies or replacement parts, and experiencing lower margins as competition in these sectors increased.

As cars had become more sophisticated over recent decades, closer coordination was required between assemblers and parts suppliers. As

3. The US auto firms had probably been behind the TRIMS (Trade Related Investment Measures) section of the WTO protocols under which Thailand agreed to abandon the local-content policy.

4. First-tier suppliers manufacture parts used directly in the assembly of new cars.

the market had become increasingly global, there had been an intense phase of consolidation among car makers, leaving only seven transnational groups. These car makers captured profit by concentrating on the downstream end of the production chain, and outsourcing more of the manufacture of parts and sub-assembly. This trend in turn put pressure on parts makers to have the required capability, and led to consolidation among parts makers, with a handful of mainly Japanese, American, and European firms spreading across the globe. In this process, local firms everywhere were increasingly downgraded to the second-tier—supplying the first-tier parts makers with inputs, materials, tooling, sub-assemblies—or further down the chain (Doner et al. 2005).

Crisis eve

On the eve of the crisis, Thailand's auto industry consisted of fifteen assembly plants, most of which were joint ventures between Japanese auto firms and domestic business groups, and some 1,200 parts producers which ranged from wholly Japanese-owned firms through joint ventures to domestic firms, and from sophisticated manufacturers to backyard workshops.

The industry was still very much focused on the domestic market. Mitsubishi had begun to think of Thailand not just as a market but as a production base for pickups exported back to Japan and other markets, but Mitsubishi was alone in such thinking. The strategies of the assemblers were based on projections that continued market growth. AFTA liberalization would bring greater scale and efficiency. Against the background of the Asian boom, the Japanese assemblers for the first time designed new passenger-car models specifically for the new urban middle-class Asian consumer. Honda launched its City model in 1996, and Toyota followed with the Soluna a year later. The US firms planned their market entries with similar models designed by Asian partners.

The industry was viewed as inefficient due to the limited scale of the market, and the overhang of protective policies from the import substitution era. The dream of cultivating a "Thai" auto industry through technology transfer was generally seen as a failure and a thing of the part. However, the accumulated investment in plant, skill development, cluster building, business networks, and relations with government was a significant foundation. As part of its promotion of agriculture, government had levied a lower excise duty on pickup trucks, with the result that sales of the 1-ton version had achieved a significant scale—as the second largest market for this model in the world after the US.

Government had begun to shift away from regulation and protection towards greater facilitation for exports within the AFTA framework. Export of vehicle parts, mostly within ASEAN, had grown from 3 billion baht a year in the late 1980s to 19 billion in 1996. But this volume was small, and half of it came from two Japanese electronics firms, Denso and Thai Arrow (Nipon and Wangdee 2000: 7).

CRISIS AND ADJUSTMENT

The transformation of Thailand's auto sector was the result of two decisions taken in the teeth of the crisis. The first decision was to liberalize ownership laws. The second was to abandon the vestiges of the old import-substitution framework, and to integrate Thailand as deeply as possible into the global production chains of the multinationals.

Liberalizing ownership

By late 1997, thousands of Thai firms were technically bankrupt because of the impact of the currency depreciation on their balance sheets, and starved of cash because of the sudden fall in consumption.

Among the auto assemblers, Sukosol Mazda closed its factory permanently (relocating the production to the Ford-Mazda joint venture, Auto-Alliance). Several other assemblers stopped production temporarily to lower stock and reduce labor costs. In some joint ventures, the foreign partner was able to arrange loans to keep the venture afloat, or to find opportunities for exporting to other subsidiaries within the group. Parts producers were affected in the same way, with many closing down, laying off workers, and searching desperately for new sources of capital.

In August 1997, the Thai parts producers asked the Board of Investment to allow foreign firms to inject more capital to keep firms afloat.

Government decided that one way to prevent firms from going out of business was to relax limitations on foreign ownership. In effect, the government decided to maintain the production base and thus limit the impact of the crisis by setting up a fire sale. The policy was applied to the export-oriented manufacturing sector as a whole. Some foreign partners were initially nervous about sinking more capital in a country where the extent of the economic wreckage was still unclear. But finally the Japanese assemblers and parts producers did not wish to see their Thai ventures crippled, and often welcomed the chance to gain the full ownership denied them in the past.

In December 1997, the Board of Investment (BOI) announced that foreign firms were now allowed to hold majority shares in ventures receiving investment privileges in zones 1 and 2. As these zones were the location for most of the assemblers and parts firms, and as most had BOI promotion, this announcement effectively liberalized investment for the automotive sector. In December 1998, BOI allowed 100 percent foreign ownership in new projects as long as they were approved for BOI promotion. Under this rule, foreign partners in existing joint ventures could apply to inject more capital, which would make them into full or majority owners. Over the following year, 180 firms applied to BOI under this provision, including most of the auto assemblers and major foreign firms in auto parts production. The total capital injected was around 20 billion baht.

Also in August 1999, government amended the Alien Business Law, allowing majority-owned foreign firms to operate in several service sectors with permission from the Ministry of Commerce. Although this did not directly affect the assemblers of parts producers, it indirectly enabled them to work with service companies (accountants, lawyers, finance, etc.) who were their global partners.

All the Japanese assemblers were converted to majority foreign ownership (see table 2.1). In the case of Mitsubishi, Mazda, and Honda, the remaining domestic share was insignificant. Only in Siam Motors (Nissan), did the Phornprapha family retain a modest stake of 25 percent.

TABLE 2.1 Structure of share ownership in auto assembly, 1972–2004

		THAI SHARE OWNERSHIP				
COMPANY	BRANDS	1972	1983	1990	2004	THAI PARTNERS
JAPANESE						
Toyota Thailand	Toyota	0	35	41	13.6	Bangkok Bank, Book Club Finance, Chiwamongkon
Siam Motors	Nissan	100	100	100	25	Phornprapha
Isuzu Motors	Isuzu	50	53	53	3.6	Sarasin, Chansue, Boonsoong
Sukosol Mazda	Mazda	30	35	36	7	Sukosol, Patchimsawat, Thienprasit
Thai Honda	Honda		51	n.a.	3	Sarasin, CPB
MMC Sitthiphon	Mitsubishi	40	60	n.a.	2	Lee-Issaranukul, Phenchat
Thai Hino	Hino	30	30	n.a.	20	Kowintha
EUROPEAN						
Yontrakit-YMC	BMW, Peugeot, Citroen, VW	100	100	100	n.a.	Lee-nutaphong
Bangchan	Opel, Daihatsu, Honda	40	66	66	n.a.	YipInTsoi, Boonsoong, Sarasin, Chutakun, Tansakun
Thonburi	Mercedes	100	100	100	n.a.	Viriyabhan
Thai-Swedish	Volvo	40	40	30	n.a.	Sitthi-amnuai
AMERICAN						
Auto Alliance	Ford, Mazda				7	Phornprapha (2)/Swedish Motors (5)
GM	Chevrolet				0	

SOURCE: *Doner (1992), JAMA (2004), and data from the Ministry of Industry*

Among the minor assemblers specializing in European models, the arrangements were more mixed. The European parent firms had less commitment and stake in the Thai market. Generally, they injected

TABLE 2.2 Domestic automotive sales, 1996–2006

	TOTAL	PASSENGER CAR	COMMERCIAL VEHICLE, TOTAL	BUS/MINIBUS, <30 PERSONS	PICK-UP, 1-TON	TRUCK, 1.5 TON	TRUCK, 2–4 TONS	TRUCK, >4 TON	TRUCK, UNDER 1 TON	4-WHEEL DRIVE VEHICLE
1990	304,062	68,864	238,198	6,980	167,613		15,920	32,126	11,960	3,599
1991	268,560	66,779	201,781	7,670	155,366		10,312	15,895	10,200	2,338
1992	362,987	121,441	241,546	9,924	182,958		12,465	17,549	14,490	4,160
1993	456,468	174,169	282,299	11,727	224,388		12,717	15,573	14,207	3,687
1994	485,678	155,670	330,008	12,672	258,091		14,139	22,312	19,564	3,230
1995	571,580	163,371	408,209	12,425	323,813		16,383	31,766	16,402	7,420
1996	589,126	172,730	416,396	12,633	327,663		16,683	31,814	15,018	12,585
1997	363,156	132,060	231,096	8,353	188,324		9,021	11,275	5,642	8,481
1998	144,065	46,300	97,765	2,792	81,263		2,838	3,756	2,841	4,275
1999	218,330	66,858	151,472	4,167	129,904		3,750	3,434	3,018	7,199
2000	262,189	83,106	179,083	6,492	151,703		4,655	4,804	3,780	7,649
2001	296,985	104,502	192,483	6,582	168,639		3,807	4,398	2,686	6,371
2002	409,362	126,353	283,009	8,335	241,266		4,564	5,560	1,664	21,620
2003	533,176	179,005	354,171	8,489	309,144	16	7,366	11,216	1,478	16,492
2004	626,026	209,110	416,916	9,585	368,911	1,949	9,189	14,439	878	11,970
2005	703,261	193,617	509,644	12,891	469,657	2,638	9,616	14,406	580	5,406
2006	682,693	194,263	488,424	12,682	424,784	N.A.	10,375	13,023	608	N.A.

enough capital to help the venture survive, but not enough to acquire a majority. The Yontrakit company entered into agreements to produce Volkswagen, Peugeot, and Citroen, besides BMW. The Thonburi assembler continued to produce Mercedes on contract for Daimler-Chrysler. All agents of Korean cars stopped importing in 1997. Kia subsequently made an agreement with Yontrakit, and the first locally assembled Kia models appeared in 2003.[5]

Among parts makers, there was an estimated 1,200 firms operating before the crisis. Around 600 firms with some domestic stake were either closed down or sold to foreign owners (EEPC 2000). Estimates of the number of survivors differ. According to one study (Praphad 2002), there were 1,100 parts firms left in 2001. Of these, 709 were first-tier, capable of producing original parts. Among these, 287 were foreign-owned, 354 Thai-owned, and in 68 the foreign partner had a minority share. According to another study (Kriengkrai and Takahashi 2002), by 2002 there were only 700 firms still operating. Of these, some 200 produced original equipment and were mainly owned by Japanese, while the remaining 500 were domestically owned and mostly produced replacement parts. By and large, the Thai parts producers that did survive were relegated to production of replacement parts. Possibly less than twenty Thai-owned firms were now involved in producing original equipment. The assembly of automobiles, and most first-tier parts suppliers, were now virtually wholly under foreign ownership.

The Thai parts producers that managed to survive this shake-out used a mix of strategies. First, they sold off other businesses in order to maintain their stake in auto parts. The Somboon group sold their major stakes in nine companies to Japanese partners in order to remain a first-tier producer of axles and suspension. Sitthiphon and Siam Motors sold off their majority stakes in assembly plants in order to concentrate on parts.

Second, they tightened their relationships with the auto producers, often through shareholdings, in order to produce parts not only for the domestic market but for assembly elsewhere within the group. Thai

5. Hyundai began considering local assembly in 2007.

Rung, which had specialized in conversion jobs on pickups, went in with a multinational to produce ambulances and other specialty vehicles. Thai Summit strengthened its close relationship with Toyota, not only expanding its parts production in Thailand, but also laying plans to invest in India, Indonesia, and China to supply its patron.

Third, firms such as Summit and Sitthiphon invested in technology, management systems, and gaining certification (ISO 9000, QS9000 and ISO 14000) in order to qualify as first-tier producers. Fourth, they listed on the stock exchange to raise the capital for this upgrading. In the usual pattern, a family firm with several parts factories restructured as a group under a holding company listed on the exchange. The number of listed parts firms rose from ten before the crisis to eighteen.

Reorientation to export

Apart from liberalizing ownership during the crisis, government also abandoned the last vestiges of the import-substitution policy, and began to promote Thailand as a base for the international auto industry in Asia

The decision to abandon the local-content policy was taken in 1998 and implemented in 2000. In 2002, the auto industry was identified as one of the thirteen priority sectors in manufacturing. Government established a Thailand Automotive Institute as an independent foundation. The main roles of the institute were to coordinate standardization, quality control, R&D and training, and to propose policy changes to government. The institute produced a master plan for 2002–2006, and a vision for the state of the industry by 2011. Under these plans, Thailand would produce a million vehicles by 2006 (the target was passed a year early), and 2 million by 2010, by which time it would be the tenth largest producer in the world, employing 130,000 workers and contributing 9 percent of GDP. The industry would also be significantly reoriented to export at least 40 percent of the production, while retaining the proportion of local content at 60 percent.

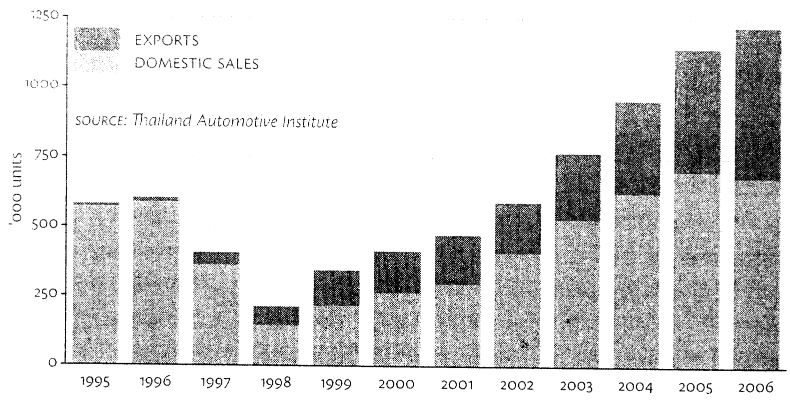
Prior to the crisis, only Mitsubishi among the assemblers had seriously considered exporting as part of its strategic planning. In the eye of the crisis, almost all assemblers looked to exports for a short-term counterbalance to the decline in demand. Total automotive exports quadrupled from 18 billion to 75 billion baht between 1998 and 1999. With this momentum, and the changes in government policy, the principal assemblers all reconceived their operations in Thailand as part of regional or global networks, rather than principally as production facilities for the Thai market. Both the Japanese and the incoming American firms abandoned the idea of developing cars specifically for an Asian market, and instead took a global perspective. GM, for example, dropped the plan to pioneer its reentry into Thailand with a car targeted at Asian middle class consumers, and instead produced all-purpose models which could be exported anywhere in the world. Ford became the second firm after Mitsubishi to export vehicles from Thailand on any scale.

Among the auto firms, the most aggressive in this strategic reorientation was Toyota. It designated Thailand as a worldwide base for export of pickup trucks. Along with other pickup firms, it transferred more engineering processes from Japan to Thailand so that the local content of pickups rose from 60/70 to 90 percent. It invested 30 billion baht to build a new generation of pickups at an entirely new assembly plant in Chachoengsao. It also made Thailand a major base for its Camry and Altis passenger cars, supplying completely-knocked-down (CKD) kits to other Toyota plants in ASEAN. It redesigned its sourcing policy to maximize the benefit from AFTA. Finally, it located a technical center for the Asia-Pacific region in Thailand. By the mid-2000s, Toyota was not only the leader in the domestic auto market, but also the leading exporter.

Mitsubishi also invested 22 billion baht to develop new pickups and sports utility vehicles for export to all countries except the US. In 2005, it relocated pickup production from Japan to Thailand, increased the capacity, and increased the local content. Isuzu, which formerly had the largest share of the Thai pickup market, reacted more slowly but was obliged to follow suit. It designated Thailand as an international production center, reorganized its parts sourcing within ASEAN, and entered into a joint venture with GM for making additional pickup models.

For political reasons, Honda was against designating any specific country as a base, and maintained production sites around the ASEAN region. But in practice, production growth was most rapid in Thailand,

FIGURE 2.1 Automotive domestic sales and exports, 1995–2006

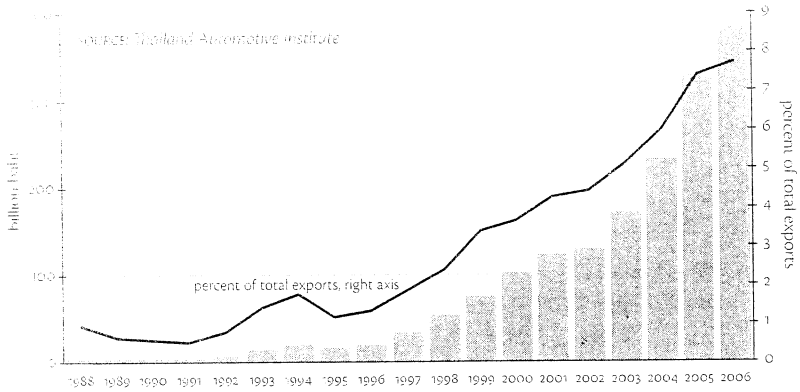


and exports increased. In 1997, the Thai plant exported small cars to Singapore and Brunei, and a year later sent middle-sized models to Australia and New Zealand. In 2005 Honda produced an entirely new model (in two forms, City and Jazz) in its Thai plant both for sale in the local market and for export to Japan and ASEAN. Subsequently, it designated Thailand as a regional center for the engineering research and design work on new models.

In 1996, less than 3 percent of vehicle production was exported. By 2006, the figure had grown to 44 percent (see figures 2.1, 2.2, and table 2.3). Over this decade, the value of exports multiplied twenty times, and grew from 1 to 8 percent of total Thai exports. By 2010, exports were estimated to surpass production for the domestic market.

The fall in the value of the baht in 1997–8 made it more expensive to import parts from Japan, and hence encouraged the assemblers to increase the local content. The rising usage of Thailand as a center of production for export increased the demand for parts of world standard. Both Japanese and American assemblers pressured their key suppliers to set up operations in Thailand. In the early 2000s there was another wave of investment by parts firms, sometimes buying up formerly Thai-owned companies, but more usually establishing anew. In 2002, for example, twenty leading parts suppliers from Europe and the

FIGURE 2.2 Automotive exports, 1988–2006



US invested in Thailand including Delphi Automotive system (a supplier of GM), Visteon and Hella Climate Control (Ford), and DANA Spicer. Moreover, this wave penetrated down to the second tier and beyond. The major US parts firm Delphi, for example, bought components locally from twenty suppliers that were all foreign-owned or joint ventures. In response, several firms from Taiwan, Singapore, Hong Kong, and Korea set up in Thailand to provide support services for the auto industry. Despite the ending of the local-content policy, the level of local content increased, and imports of auto parts and components declined after the crisis.

Policymaking

With the changes in the structure of the industry, the context of policymaking also shifted. Before the crisis, the major players in policymaking had been domestic investors in assembly and parts, and bureaucrats, especially from the ministries of industry and finance. With deregulation, the role of bureaucrats was substantially reduced (though not completely effaced). With the transfers of ownership, the voice of domestic investors largely disappeared. The principal players became the multinational firms that now owned much of the industry, as well as the politicians who influenced decisions on excise taxes and government budgets to support the auto industry through infrastructure development and technical training. In the development of policy, both internal and external, Thai government ministers and industry leaders now fell captive to the multinational assemblers. This was evident in the wrangling over the eco-car.

TABLE 2.3 Export of vehicles and parts, 1996–2006

		CBU				CAST AND DIE		ORIGINAL EQUIPMENT	
YEAR	TOTAL VALUE	UNIT	VALUE	ENGINE (VALUE)	SPARE PARTS (VALUE)	UNIT	VALUE	BODY (VALUE)	CKD (VALUE)
1996	6,296	14,020	4,253	802	215		44	374	602
1997	20,723	42,218	16,227	2,024	505	17	56	1,038	845
1998	34,110	67,857	28,126	1,537	723	6,013	64	1,347	2,288
1999	60,106	125,702	50,187	3,732	883	177	141	1,424	3,679
2000	83,245	152,835	63,349	7,106	1,246		120	1,556	9,531
2001	107,110	175,299	83,895	7,481	1,759	5	141	1,989	11,749
2002	107,730	181,471	82,475	6,087	1,796	18	145	2,880	14,196
2003	138,161	235,122	102,208	5,291	2,182	2	172	4,220	23,500
2004	202,080	332,053	149,233	4,316	2,909		797	5,385	36,489
2005	294,244	440,705	203,025	7,901	4,101		683	6,462	70,329
2006	342,980	539,206	240,919	8,448	5,026	135	690	6,647	80,489

NOTE: *Values in million baht*

Source: Thailand Automotive Institute (June, 2007)

In 2003, the Ministry of Industry's auto strategy committee proposed that government should support a project to make Thailand a base for production of small, economical, and eco-friendly cars suitable for Asian cities. Thailand was already a worldwide leader in pickup production, and this eco-car could become a second area of specialization. Government would lay out certain specifications, extend promotional privileges, and offer reduced excise tax rates (as with pickups) to ensure it would be commercially attractive.

The idea did not originate from the Thailand Automotive Institute, and was not part of the master plan. Rather, the idea came from Vachara Panchet, who had been appointed as vice minister of industry under the Thaksin government and deputed to propose ideas for developing the sector. The project generated intense debate. Mitsubishi and Honda supported the proposal since they already produced models elsewhere in the world that could be adapted for the Thailand project. Perhaps not coincidentally, Vachara belonged to the family that had long been Mitsubishi's partner in Thailand. The family had lost much of its stake in the assembler during the crisis but remained an important producer of parts. By contrast, Toyota perceived the project as a threat. Toyota had a leading share in Thailand's passenger car market, and no appropriate model available in its worldwide network, so it feared the project would result in either high investment or a fall in market share. The minister of industry at the time, Suriya Jungrungruangkit, belonged to the family of Thai Summit, a large auto parts group very closely associated with Toyota. The project wallowed between these conflicting pressures. In October 2002, Suriya was reshuffled from the industry portfolio to communications, and the prospects for the project increased. Government set up a committee to examine the project, and the NESDB came out in its favor. However, in 2005 Wachara ceased to be vice minister, and soon after Suriya returned to the industry portfolio. He announced that the project was not urgent, and that the use of excise tax to promote the idea would distort the market structure.

When Suriya then fell from power with Thaksin in 2006, the project revived. With Suriya no longer in a position to influence matters, the head of Toyota Thailand came out to oppose the project in person, using the prospect of future Toyota investments in the country as his bargaining chip. However, in June 2007, the Surayud Cabinet endorsed the eco-car project by agreeing to reduce the excise tax from 30 percent to 17 percent, and the BOI agreed to provide investment incentives. Honda promptly announced plans to build a new plant with a capacity of 120,000 eco-cars. Toyota (more reluctantly) said it would build an eco-car in Thailand by 2009.

In 2004, the government restructured excise taxes to promote energy saving, raising the rate on cars of 3000cc from 48 to 50 percent, and dropping that on cars under 2000cc from 35 to 30 percent. In addition it offered special rates to encourage innovations. Cars powered by electricity, fuel cells, or hybrids would pay only 10 percent, and those using at least 20 percent ethanol only 20 percent. Ford decided to bring in technology it had already developed in Brazil for ethanol cars, and to make Thailand a base for manufacturing an ethanol-using Ford Focus for Asia. Toyota looked to follow the same pattern. However, in 2005 the government postponed the scheme on grounds that local production of ethanol was insufficient. Ford showed its annoyance by muttering about future investment plans in Thailand.

Under AFTA, tariffs on cars within ASEAN countries dropped to a range of zero to 5 percent. Exports of vehicles from Thailand to the other ASEAN countries promptly increased sharply. Both government and the auto industry became supporters of concluding more free trade agreements (FTAs).

Thailand negotiated an FTA with Australia with the aim of increasing automotive and textile exports. In 2005, when the FTA came on stream, Thai automotive exports to Australia rose 15 percent. In the following year, total Thai exports to Australia increased 30 percent, led by commercial vehicles, automobiles, and components (*Bangkok Post*, 6 March 2007). In negotiation for an FTA with the US, the Thai side pressed for a reduction in the 25 percent tariff on pickups, but the US side refused to agree. The negotiation of the FTA was never concluded. Automotive issues were also a key factor in negotiations for an FTA with Japan, completed in 2006 and finally signed in 2007. Japan pushed strongly for reductions in Thai tariffs on auto parts and steel on grounds that these changes would improve the competitiveness of Thailand as an export producer of vehicles. The Japan Automobile Manufacturers Association met with the prime minister in April 2005 to lobby for these reductions, implying that failure to make these changes would tempt Japanese manufacturers to prefer locations in India and China.

The Federation of Thai Industries objected on grounds that the reduced tariffs on parts would place up to five hundred firms and three hundred thousand jobs at risk. Japanese parts makers already established in Thailand also opposed the reduction on parts tariffs. Meanwhile, Thai steel makers fought hard against reduction of the steel tariff on grounds that the steel industry still deserved protection. Eventually these two areas were compromised by allowing some phasing of the tariff reduction over a ten-year period, but essentially the auto makers got what they wanted with only a short delay. The FTA was finally signed in April 2007.

CONCLUSION

In 2006, Thailand had fourteen auto assembly plants, of which six were involved in exporting. These were supplied by some 386 parts firms, among which there were twenty-four major groups, with another thousand or so indirect suppliers of leather products, plastic, rubber, steel, electronics, glass, paints and petrochemicals; and numerous related industries including after-sales service, credit, leasing, logistics, financial services, insurance, education, R&D, and repair. Japanese firms held 80 percent of the market, with half of that in the hands of Toyota.[6]

The transformation of the auto industry over the crisis and aftermath exemplifies what happened to manufacturing industry in general over this period. Prior to the crisis, the industry was oriented to the home market; policy regulation still carried the legacy of the import substitution era; domestic capital still had a major stake within a joint venture

6. In addition, there were four motorcycle manufacturers, three of which exported, and two major groups of motorcycle parts suppliers.

format, and policy was made by negotiation between domestic capital groups and government bureaucrats. Ten years later, all this had changed. The proportion of capacity devoted to exports had reached almost half and was still rising. The old protectionist format had been abandoned in favor of a bid to make Thailand an integral part of global production chains. Multinationals totally dominated, with domestic capital relegated to a minor role. Policy was made by negotiation between the Japanese firms and Thai elected politicians, with a subsidiary role for trade negotiators.

The auto industry had been promoted since the 1960s on an infant-industry development model in which protection nurtured local entrepreneurship, technology transfer, and skill accumulation. But over the subsequent four decades, the global context had totally changed. The auto industry was a leading example of a global industry within which ownership had become highly concentrated through mergers. Production chains snaked across the world, and key decisions were taken within a global perspective. Any prospect that the Thai auto industry would grow from an infant into an independent adult had long since passed.

The pressures to abandon the old policy framework had been building for some time. But this framework nurtured interests that wanted it sustained. Domestic capital enjoyed the rents. Bureaucrats enjoyed the power. Even the Japanese firms that had sunk their roots in the country were two-minded about liberalization that might reduce their advantages over global competitors. The key political decisions to liberalize the industry were all taken in unusual circumstances. The Anand government made the first tentative steps after the 1991 coup. The Chuan government completed the job in the aftermath of the 1997 crisis.

For all its faults, the protectionist era had created the foundations on which Thailand could bid for a place in the global industry. The Japanese assemblers had invested not only in plant, but in skill training, in understanding how to do business in Thailand, and in political connections. Several levels of support industry clustered around the assemblers. As a result of tax policies conceived as support for agriculture, production of the one-ton pickup had achieved sufficient scale for Thailand to become a global production center.

[illegible] 1997, when their domestic partners were crippled, some Japanese [illegible] were initially reluctant to stump up the extra capital, particularly once the crisis had shattered optimistic projections of the domestic market's ability to continue growing at boom rates. Ultimately, though, they had little choice, and ultimately too they benefited from a relatively cheap acquisition. To make this investment pay, however, they had to convert their Thai operations from suppliers of the domestic market into more integral parts of their global networks. They did so by relocating production, changing sourcing, and becoming players in the politics of trade negotiation.

Among over a thousand Thai family firms that had lived off the auto industry in the 1980s and early 1990s, only a handful were able to keep up with the pace of this transition to a globalized industry. They did so by using the strategies outlined in chapter 1. They modernized their structure, took on more professional management, and invested in technology. They also worked closely with the multinationals and the politicians who now dictated the policy framework. It was no coincidence that the most successful Thai parts group in the post-crisis era, the Summit group, went into partnership with Toyota, and through Suriya into partnership with Thaksin.

BIBLIOGRAPHIC NOTE

On the boom era, see Doner 1991, 1992; Muramatsu 1997; Edith 2002; Nipon and Wangdee 2000; Veloso et al. 1998. *On crisis and adjustment*, see Doner and Ramsay 2003; Vallop 2002; Samart 2004; Higashi 2002; I[illegible] 2000; Kriengkrai and Yoshi 2004; Masuyama 2000; Mori 2002; Minako 2002; Praphad 2000; Brooker Group 2002; Deunden et al. [illegible]. *On policymaking*, see Phatchari 1997; Thailand Automotive Institute et al. 2006; Chaiyuth and Nipon [illegible]; Doner et al. 2005; JAMA 2004; Nimart 2004.