

Thoughts on Promoting the Vietnamese Cement Industry

1. Introduction

Cement is a basic support material for economic development, and shows growth in demand from the earliest stages of development. Of the heavy industries, cement is generally the first to take off, followed in sequence by the steel, electric equipment, and petrochemical industries. At present, cement is consumed in over 200 countries throughout the world, and produced in around 130 of these, with the 7 main cement companies producing around one third of the global output of cement. It is predicted that these 7 companies will expand their market share in producing over half of all cement produced throughout the world, by the end of the 21st century. As global demand for cement shifts from developed to developing countries, demand within the Asian-Pacific region accounts for over half of global demand, and shows no sign of abating. Herein, we detail proposals for future cement industry furtherance policy in Viet Nam, based around observation of shifting trends in the Asian arena and the aftermath of the Asian economic crisis.

2. Features of the cement industry

First, we review product, supply, and demand features of the cement industry, and then use these to outline general industry trends and developmental patterns.

Three key characteristics of cement as a product are: (1) it is not possible to store cement over the long term, as it degrades with time;¹¹⁸ (2) cement is bulky compared to other construction material types (cheap per unit volume); and (3) it is difficult to produce a markedly high-quality product. These characteristics make cement an unviable export item, and mean that consumption should ideally occur within 100 miles (around 160 km) of the cement plant. This has caused the big cement companies to expand operations overseas by way of establishing local production facilities.

Supply features of cement include: (1) the optimum plant capacity is 2 Mt/year, and plants are capital intensive, costing more than USD300M each; (2) it is difficult to dynamically adjust production capacity, as there is a long lead time from commencement of plant construction until the plant begins operating (3-4 years); and (3) the weighting of fixed costs in the overall production cost is high, such that there is a strong incentive to continue producing and selling cement even if the selling price is much lower than the total cost of production, as long as variable costs are covered.

Some features of demand are (1) demand skyrockets during the early stages of economic development; and (2) demand for cement closely emulates fluctuations in GDP.

The combination of the above product, supply and demand features mean that the cement industry is

¹¹⁸ In the case of (half-finished) clinker, storage for a limited time is possible.

susceptible to drastic price swings and is highly localized innature.

The tendency for drastic price swings is attributable to it being difficult to adjust supply through international trade and stockpiling, such that changes in the balance between supply and demand lead to drastic swings in price levels. As it is difficult to find substitute materials for cement, during times of high demand, the price of cement tends to soar. Consequently, the cement industry is generally lucrative at the beginning of periods of industrialization, when demand is high. On the other hand, if demand drops off due to an economic crisis for example, then over-competition generally arises as cement is sold off at prices well below the total cost of production, due to difficulty in adjusting supply levels and discriminating one's product. The following "cement cycle" has been observed in the industrialization process of ASEAN nations: cement iterates between periods of "cement fever" (domestic demand for cement increases rapidly at over 20% annually, due to a domestic construction boom → prices rise due to excessive demand → imports rise → domestic production levels are increased), and "price fall" (prices fall due to oversupply → imports are reduced). As the optimum capacity for a cement plant is large at 2 million tons/year, the emergence of a new plant in a still-developing market of restricted size has a considerable impact (for a 10 Mt/year market, for example, one new cement plant represents a 20% increase in the supply of cement), tending to push supply capacity up over demand.

The localized nature¹¹⁹ of the cement industry is a reference to international distribution rates being very low (at around 7%) due to shipment costs for cement being relatively expensive (particularly land transport costs), and the fact that the international cement market tends to have little impact on domestic markets. One could even say that comparatively high transportation costs act as a "natural protection mechanism" to guard domestic cement production from the effects of imports. That is, another feature of the cement industry is that, as it is highly localized, domestic cement companies can easily expand and make the most of local business opportunities. The Siam Cement Group of Thailand is a case in point here, where a former cement company diversified its business involvement to grow up into a conglomerate.

Due to the high cost of distribution of cement, higher profits are generally returned from not just making cement, but covering all aspects of its handling, including distribution and sales. Characteristically, coastal cement plants tend to be more competitive than plants based inland, due to the effects of lower land transportation costs on production and sales.

In the Asian experience, the cement industry can be seen to follow the following developmental pattern. Demand spirals during the industrialization period at the onset of economic development, and tends to continue growing until the per capita GDP reaches USD10,000. In NIES and ASEAN nations, the per capita GDP and per capita cement consumption have been observed to be directly proportional in the period that the per capita GDP grows from USD400 to USD10,000. Another trend is that, according to the level of economic

¹¹⁹ Traditionally, the cement industry has been described as a localized industry. However, following the currency/financial crisis in South East Asia, the amount of cement being traded internationally has increased. Further analysis of this aspect of the industry is required to determine its future impact on the industry.

development, the demand structure for cement shifts from predominantly small-scale private-sector demand to large-scale infrastructure and industrial demand, accompanying which, the form of distribution and consumption moves from pre-packaged shipments and on-site mixing, to bulk shipment and transportation of ready-to-pour concrete.

3. The current standing of the cement industry in South East Asia

Up until the currency crisis, the South East Asian cement industry had benefited from steady growth in local capital, but things changed (a state of emergency arose) with the onset of the currency crisis. As with other countries in the region, the Vietnamese cement industry was hard hit by the crisis. The government responded by imposing progressively more stringent regulations on imports from 1997, in order to protect local production, and in 1999, banned imports altogether.

From the 1980's, countries throughout South East Asia actively went about increasing cement production facilities in response to rapidly increasing demand, until the currency crisis when the cement industry suddenly found itself in a position of oversupply. Prior to the currency crisis, local capital in each country had reaped the profits of the cement industry, but post-crisis recession caused finances to take a turn for the worse, and cement companies were faced with over-production and unpayable debts. Cement companies were not able to keep their head above water, and forced into selling off shares as a last resort. European and Mexican cement companies seized upon this opportunity, and bought out an increasing number of South East Asian cement manufacturers from the autumn of 1997 onward. This resulted in the share of 5 European and Mexican cement companies (Holderbank, Lafarge, Blue Circle, Italcementi, and Cemex) in 4 South East Asia countries (Thailand, Indonesia, the Philippines, and Malaysia) leaping up to 63% in under a year (see Table 1). This sudden string of buyouts represents a facet of the corporate acquisition rush of these big cement companies starting around 1990. These companies have seized upon recession-induced devaluation in the asset value of local companies, in buying out a plethora of companies in former socialist countries, newly industrializing countries, and developing countries throughout the world. Throughout the first half of the 1990's, the acquisition rush careered through former Eastern bloc countries, Latin America, and Southern Europe, but shifted across to Asia when in October 1997, Cemex (Mexico) bought out a Philippines cement company languishing under the effects of the Asian currency crisis. As acquisitions have been targeted at leading cement companies in each country, and occurred at a time when the company's asset value is depleted, the acquiring company has not had to worry about establishing a new market for itself, and simply had to invest in economic rationalization, and sit back and wait for the local cement market to recover. That is, such acquisitions benefit from extremely high investment efficiency. This is in stark contrast to companies moving into new markets by way of establishing a new plant—such as Taiheiyo Cement's move into the Chinese cement market in the 1990's—which are at a distinct disadvantage in terms of both mobility and investment efficiency.¹²⁰ It is worth noting

that the Chinese cement market share in the overall Asian market is over 50%, but that the 7 main cement companies currently occupy a meager 6% of the Chinese market, although they are expected to pull out all stops in the future to expand their level of operations.

Table 1. Western investment in the East Asian cement concerns (current at July 1999)

(Unit: Mt)

	Total production capacity	Share of foreign companies (production capacity base)
China	140.0	6% (Ho:1.7, L:0.2, T:4.1, He:2.6)
S. Korea	61.3	11% (L:6.6)
ASEAN 4 countries:		
Thailand	40.8	49% (Ho:11.6, C:7.1, I:1.3)
Indonesia	39.6	68% (Ho:8.8, L:1.0, C:17.3)
The Philippines	18.4	94% (Ho:7.5, L:3.4, B:2.4, C:4.0)
Malaysia	14.7	52% (B:7.6)
Sub-total for ASEAN 4	113.5	63% (Total for the 5 companies: 72)
Total	314.8	28% (Total for all companies: 87.2)

Note: Ho = Holderbank (Switzerland), L = Lafarge (France), B = Blue Circle (UK), C = Cemex (Mexico),

I = Italcementi (Italy), He = Heidelberger (Germany), and T= Taiheiyo Cement (Japan)

Source: "Cement & Concrete" No. 632, 1999, Japanese Cement Association

Naturally, the arrival of the Western companies has not altered the state of oversupply. Thailand in particular has transformed into a large-scale exporter of cement, at cheap prices just above the level of variable costs. This has caused the international price of cement to plunge, forcing the Viet Nam government into imposing a total ban on cement imports in 1999.

In the long term, it is thought that the market will pick up, as demand recovers. That big Western cement companies have over the past 2 years bought out a whole series of Asian cement manufacturers paralyzed by debt, is indicative of the perceived future potential of the Asian market. While it is uncertain as to when the production overcapacity of the Asian cement market will be resolved, the 5 key Western cement companies purchasing companies in the area would appear to be operating under an ultra-long term vision of 20 to 30 years.¹²⁰ For companies like Taiheiyo Cement, on the other hand, which have made their entrance into the local market by starting up their own cement plant, it will be difficult to weather the storm of overcapacity over the long term, and the speed of recovery of the Asian market is a key factor in the success of their

¹²⁰ The cost of establishing a new cement plant is said to be around USD150-200 per ton of production capacity, a figure which is much higher than the relative cost of corporate acquisition. Holderbank's 25% share in Siam City Cement (Thailand), for example, cost USD153M, or the equivalent of USD50/t, whereas Cemex's 99.9% acquisition of Apo Cement (the Philippines) cost USD400M, or the equivalent of USD133/t. Note that the cost of expanding an existing cement facility is around USD90/t.

¹²¹ In the case of Blue Circle (U.K.), for example, which invested heavily in Malaysia during the currency crisis, no fresh investment is intended for the next 30 years, and return on investment is aimed at ultra-long term predictions of recovery in South East Asian cement demand.

operations. Currently, the local currencies in Thailand, Malaysia, the Philippines, and Indonesia have all stabilized, and the domestic cement market in each country is showing positive signs of recovery.

Since 1999, Thailand and Indonesia have been the leading cement exporters in the world, with Thailand posting exports of 16.2 Mt (no. 1 exporter globally; 68.8% increase over the previous year) and Indonesia 9.0 Mt (no. 2 exporter globally; 100% increase over the previous year) in 1999. One feature of the export records of these two countries is that the bulk of exports are to countries outside the Asian region (Thailand: 6.0 Mt to U.S., 4.0 Mt to Africa, and 4.5 Mt within Asia; Indonesia: 5.2 Mt within Asia).¹²² Factors contributing to this export bias include improvements to distribution facilities and enhancement of marketing prowess due to the recent acquisition of local cement firms by European and Mexican concerns, and also falling exchange rates since the currency crisis and a widening of the cement supply-demand gap in Asia. The purchase cost of local Thai and Indonesian cement companies to European and Mexican capitalists is said to be between 30% and 70% lower than the cost of establishing equivalent production facilities anew, when calculated on a per ton production capability basis. This implied a large cut-down on their fixed costs, which added to their competitiveness. As a result of the buying up of Asian cement manufacturers by European and Mexican concerns after the onset of the Asian currency crisis, regional rivals to Vietnamese cement producers gained both in size and cost competitiveness, making it even harder for Viet Nam to open up its cement market to free competition.

The Asian cement market plummeted with the arrival of the currency crisis, but according to some analysts, is starting to show signs of having bottomed out in 2000. In the future, all Asian cement markets other than Taiwan are expected to recover in potential demand.¹²³

4. The current standing of the cement industry in Viet Nam

4.1. An overview of supply and demand

Domestic demand for cement rose rapidly in Viet Nam in the 1990's, on the crest of a wave of domestic construction work (from 2.76 megatons in 1990 to 8.24 megatons in 1996). Cement fever (speculative price rises) set in 1995, and the black market price for cement jumped up to around twice the list price (USD80-90/t). The cement market boomed, with imports from South Korea, Thailand, China, and Singapore being used to cover shortfalls in domestic production, and moves being made toward increasing domestic production levels. From 1997, however, the tables were turned and the cement industry entered a period of oversupply. In 1998, large falls in the price of cement were observed due to the combined effects of FDI into Viet Nam falling off, international cement prices falling due to prolonged recession in other areas of Asia, competition between South Korea and Thailand heating up, and a state of over-

¹²² Cement Shinbun Editing Dept (ed.) *Cement Yearbook*, Vol. 52 (2000), Chapter 6 "Cement Trends in Asia"

¹²³ "Material Markets - Cement", *Nihon Keizai Shinbun*, August 22, 2000

production being reached domestically.

4.2. Domestic demand

Growth in demand was 29% in 1994, 16% in 1995, 15% in 1996, 12% in 1997, 8% in 1998, and 7% in 1999. There has been a progressive fall off in growth from year to year, and annual growth for the past two years has been at single figure levels. The Vietnamese government predicts that domestic demand for cement will continue to grow at the 10-13% level in the future, based on the observation that the annual increase in growth over the past 5 years (1995-2000) has been around 11%.¹²⁴ However, there is little hope of a markedly high growth rate being achieved in the near future. Assuming that growth in domestic demand is about 4% in 2000 and latter years, domestic manufacturers will be forced to drop operating rates in response to the effects of over-production. Ideally, any surplus in production could be exported, but given current international price levels, such a venture would not be profitable. Even if growth were to hit 8% from 2000 on, over-production would continue until 2003. The outlook for the cement industry as a whole is bleak (see Table 2).

Note that land transport routes in Viet Nam are still being developed, and pre-packed shipments and on-site mixing are the norm.

Table 2. The supply & demand balance in Viet Nam

	1994	1995	1996	1997	1998	1999	2000*	2001*	2002*	2003*
Supply	4.7	5.2	5.5	8.7	10.2	11.8	12.6	13.2	13.8	14.0
Demand*	6.2	7.2	8.3	9.3	10.1	10.8	11.2	11.6	12.1	12.6
Difference	-1.5	-2	-2.8	-0.6	0.1	1.0	1.4	1.6	1.7	1.4

*Figures for demand from 2000 onward are estimates, based on 4% growth

Notes: (1) "Supply" figures include output from existing plants (VNCC, joint ventures and locals), as well as domestic sales from Nghi Son Cement, scheduled to commence operations from 2000, and supplies from Hoang Mai Cement (Nghi An), scheduled to enter operation in 2002.

(2) Figures for 1999 are flash values.

Source: Industry estimates

4.3. Domestic supply capacity

As detailed in Table 3, local Vietnamese cement companies fall into the three categories of VNCC, foreign joint ventures ("JVs"), and small-scale producers run by regional governments or the military ("Locals"). The combined production capacity of local cement companies is 11.12 Mt, not including the 2.14 Mt production capacity of Nghi Son Cement (of which 0.50 Mt is destined for exports), which came on line in July 2000; this already satisfies local demand. There are also additional 10 facilities that have applied to expand production capacity in 2001 or later,¹²⁵ and assuming that all these are approved,

¹²⁴ Based on an interview with the Ministry of Construction (September 2000)

¹²⁵ Check as to how things are at present.

an additional 13 Mt or so of production capacity will be generated. For the present, all of these are struggling to find capital, and approval is running behind schedule, but given the current international market context, any approval of additional production expansion could harm the market further. Production expansion approvals may have to be staggered in the future, in order to keep growth in supply at the same pace as growth in demand.¹²⁶

Table 3. A list of Vietnamese cement companies

Plant	Location	Kiln capacity (Kt)	Remarks
VNCC	Hoang Tach	2,250	SP 1,000 Kt + NSP 1,250 Kt
	Hai Phong	400	Wet 95 Kt 4 kilns + Wet 20 Kt
	Bim Son	1,120	Wet 560 Kt 2 kilns (planned for expansion to 1,800 Kt)
	Ha Tien II	1,150	Wet 125 Kt 2 kilns + NSP 900 Kt (planned for refurbishment to 1,700 Kt)
	Ha Tien I	(1,000)	Crushing plant
	But Son	1,400	NSP
Total for VNCC		6,320	
Ching Phone*	Hai Phone	1,400	VNCC 30%, Chin Phong Global (Taiwan) 70%
Van Xa*	Hue	500	Thuathien-Hue province, Lucks Group (HK)
Sao Mai *Morning Star	Kien Giang	1,400	VNCC 30%Holderbank (Switzerland)70%
Nghi Son*	Thanh Hoa	2,140	VNCC 35%, Taiheiyo Cement 65%
Total for JVs		5,440	
Total for locals		1,500	Vertical kilns and crushing plants
Grand total		13,260	

*All JVs employ the latest NSP kilns

Source: Industry estimates

① VNCC (Viet Nam National Cement Corp.):

Under the control of the Construction Ministry, operating 9 energy-inefficient, pre-second generation wet kilns ("Wet") and 4 dry kilns (1 SP, and 3 latest-type NSP kilns). The respective combined production capacities of Wet, SP, and NSP kilns are 1.77, 1.00, and 3.55 Mt, making up a total production capacity of 6.32 Mt. The 1999 domestic share of VNCC was 51.2%, although this figure has been coming down each year as VNCC loses out to JVs.

② Foreign joint ventures ("JVs")

Latest-type dry kilns (NSP) in operation, at a current combined production capacity of 5.44 Mt. The domestic share for each of Ching Phone (Taiwan-Viet Nam JV), Morning Star (Switzerland-Viet Nam JV) and Van Xa (Hong Kong-Viet Nam JV) was 11.8%, 9.5%, and 2.0%, respectively. Nghi Son Cement, due to come on line in July, has the largest production capacity of 2.14 Mt.

¹²⁶ Need to re-evaluate the efficacy of government control of this sort.

- ③ Small-scale producers run by regional governments or the military ("Locals"):

Highly energy-inefficient early-type vertical kilns in operation. Cement quality is poor and high levels of cement dust are produced. However, the cement from Locals is priced lower than that from VNCC or JVs, and the domestic share for 1999 was as high as 25.5%. Production capacity is around 1.50 Mt.

4.4. Competition on the supply side and import prohibition

- ① *Domestic competition:* As much of the cement produced by VNCC is made with wet kilns, both energy efficiency and product quality are low. All JV plants, on the other hand, use latest-type dry kilns, minimizing cost and generating high-quality cement. This is not the last word on the cost competitiveness of the two company classifications, however. The production cost price calculation method for VNCC is not well defined, and all VNCC has to do to sell its cement is to put up a sign, alleviating the need for any special form of sales activities. Without the prestige of VNCC products, foreign-owned companies, on the other hand, must pull out all stops to steal away some of VNCC's market share and increase their own sales, by lowering their prices below those of VNCC, offering credit (taking payment for a sale 1 month after delivery, instead of demanding cash on delivery, for example), and generally working hard to sell their product, given that no new demand is being produced at present.

Comparison of retail prices reveals a disparity between different regions, with the price for pre-packaged cement in northern Viet Nam being 650,000-830,000 dong/t, that in central Viet Nam 725,000-830,000 dong/t, and that in southern Viet Nam 825,000-980,000 dong/t. Lower prices in northern Viet Nam are due to the congregation of cement plants in the area generating fierce competition. Additionally, whereas prices in the fiercely-competitive Ha Noi (northern Viet Nam) market are gradually coming down, those in the Da Nang (central Viet Nam) and Ho Chi Min City (southern Viet Nam) markets are relatively unchanged. Increasingly strong domestic competition has resulted in VNCC losing part of its market share, and companies are being financially weakened.

Note that VNCC is scheduled to open 8 new cement plants of 1.4 Mt/year capacity over the next 5 years (2001-2005), some in the form of foreign joint ventures. Construction is already underway on three of these, namely New Hai Phong (scheduled to come on line in 2002, with an annual production capacity of 1.4 Mt), Hoang Mai (scheduled to come on line in 2001, with an annual production capacity of 1.4 Mt), and Tam Diep (scheduled to come on line in 2003, with an annual production capacity of 1.4 Mt). The overall capital outlay to build each plant is estimated at around USD180-240 million. Of this, plant facilities account for around USD120 million, a sum which will be covered by supplier credits. In the meantime, it would appear that VNCC intends to progressively update the large numbers of energy inefficient, polluting small-capacity cement kilns at a cost of USD10-12

million per unit. At the same time, it plans to reduce its overall production capacity from its current level of 3 Mt/year to 2.5 Mt/year by 2005 and 2 Mt/year by 2010.¹²⁷

- ② *International competitiveness*: As a result of excessive international supply and a very weak international market in Asia, removal of the import ban into Viet Nam could realistically lead to cheap imports from countries such as Thailand flooding the market, and domestic companies being forced out of business. In Viet Nam's case, despite labor costs being relatively low as compared to other countries, they are not as low as those in Indonesia, in addition to which, any advantage in terms of labor costs is diluted by the small impact they have on the overall cost of cement production. Furthermore, one factor that more than outweighs this is the widespread use of inefficient old-style kilns and high prices of coal and electricity, pushing up production costs over those in other countries. It is easy to envisage domestic plants (including JVs) having difficulty in finding a buyer for their cement if the import ban were to be lifted.

5. Issues in the Vietnamese cement industry

5.1. Problems with the current industry policy

In the years 1997 to 1999, the Vietnamese government fashioned the following policies in an attempt to protect domestic producers. ① *Ban on imports*: A restriction on imports was first imposed in 1997 (by way of import quotas), which was then stepped up in 1998, before a full ban on imports was enforced for the full duration of 1999. ② *Freezing of new investment*: (a) New cement joint ventures were frozen for 5 years, and (b) 6 new plants planned for construction by VNCC were stalled until 2000. ③ *Price control*: In response to price hikes around 1995, a system was established for key products in the Ha Noi, Ho Chi Min City, and Da Nang markets, whereby a price ceiling was set and adjusted regularly.

These stipulations are considered to have been necessary as a stop-gap measure, but will be difficult to maintain over the medium or long term due to Viet Nam's affiliation with AFTA and the WTO. In reality, the Vietnamese government plans to lift the ban on clinker imports in 2001, and does not expect to be able to maintain cement import restrictions beyond 2003.¹²⁸ In addition, Viet Nam is obliged to reduce import duties on cement imports to below 5% by 2006, as part of AFTA requirements. Exactly what should be done about currently regulated cement prices at that time is currently under government consideration.¹²⁹

¹²⁷ Based on an interview with the Ministry of Construction (September 2000)

¹²⁸ Based on an interview with the Ministry of Construction (September 2000)

¹²⁹ VNCC prices are fixed and adjusted periodically according to market movements. At present, the price of VNCC cement in the Hanoi area is 0.77 million VND/t (around USD55/t). The current system of upper and lower price stipulations is due for revocation in 2003.

5.2. Low international competitiveness

Despite domestic cement prices in Viet Nam having fallen, they are still above international trading prices. The average domestic retail price for pre-packaged cement in 1998 was USD60/t, as compared to a price of USD41.50/t for official imports and around USD30/t for contraband cement. At around that time, the FOB export price from Singapore, South Korea, and Thailand was USD38.80/t (1998), USD29.20/t (1998) and USD25/t (March 1999), respectively, rumored to be below variable cost levels, even, for the Vietnamese product.¹³⁰ While these export prices are extraordinarily low, it is difficult to imagine that they have been set below variable costs in the various countries of origin, pointing to the lack of international price competitiveness of Vietnamese cement. VNCC, in particular, lacks price competitiveness due to its outdated production facilities.

5.3. Problems with the state-owned VNCC

VNCC has a lot of outdated, inefficient equipment that requires modernization, but reserves of retained earnings that should have been set aside for capital investment are thin on the ground, making capital investment difficult. In addition, it has a large staff of non-production workers.

Of the 6.70 Mt annual production capacity of VNCC (predicted for 2000), 2.00 Mt is produced with production- and energy-inefficient pre-second generation wet kilns. In stark comparison, JVs employ the latest-type dry kilns, with an annual production capacity of 5.50 Mt (estimated for 2000).

As it is difficult for VNCC to accumulate reserves of retained earnings for use in reinvestment, it is no simple matter to procure the relatively small-scale capital investment required to install advanced equipment even. VNCC was founded in 1994 under the umbrella of the Ministry of Construction, and is handicapped by the tax rule governing it that the greater proportion of any profits must be paid to the government (benevolence payment system).¹³¹

5.4. Problems faced by JVs

The Vietnamese government has to date actively worked to attract foreign capital, culminating in plants including Ching Phone (Taiwan capital), Sao Mai (Swiss capital), Van Xa (Hong Kong capital) and Nghi Son (Japanese capital: Taiheiyo Cement). Furtherance of the local cement industry is reliant on continuing influxes of foreign technology and capital. Despite this need for foreign capital, the way of foreign-owned joint ventures (JVs) is obstructed by a number of obstacles, financial and otherwise.

First is the problem of acquiring foreign currency. The dong (the Vietnamese currency) is effectively unconvertible into other currencies at present. JVs borrow most of their money in US dollars, causing difficulties in acquiring the foreign currency needed for repayment. As the government does not guarantee

¹³⁰ Needs checking.

¹³¹ Need to check as to how things are at present.

the convertibility of the dong, each company is basically left to its own devices in procuring foreign revenue. The scheme adopted by most companies to gain foreign earnings is to export a fixed amount of cement, often at a loss. However, this is highly problematic, as at current international price levels, exports cannot cover variable costs even. Hong Kong with its relatively strong market is about the only possible export destination at present, and prices in previously bright markets such as Singapore are too low for Vietnamese exports to sell. Even if the domestic market were to pick up in the future and cement started selling well locally, there is every likelihood that JVs would have to keep exporting at a loss in order to earn export dollars (due to domestic sales being in dong). This situation is eating away at the profitability of foreign investment, and obstructing further foreign investment.

JVs face a number of problems in addition to earning foreign currency. The following policies are possible ways of invigorating the cement industry through stimulating domestic demand and enhancing the international competitiveness of Vietnamese cement.

- ① *Reductions in VAT rates:* Lower the VAT rate from its current level of 10% to 5% (the level of Taiwan), thus stimulating domestic demand.
- ② *Cement plant infrastructure development on the part of the government:* In the past, almost all JVs have been involved in self-funded road, water supply, and electricity infrastructure development, producing no profit and posing a considerable burden to the company. Some form of government subsidization is needed in order to both encourage new investment and maintain existing levels of investment.
- ③ *Lowering the cost of electricity and coal:* As compared to tariffs paid by state-owned companies and in other countries, and also compared to income levels, electricity charges asked of foreign-owned joint ventures are high, and forcing up production costs. There have been instances, for example, of JVs paying USD0.066/kWh, as compared to the USD0.050/kWh paid by state-owned companies.¹³² Assuming an annual power consumption of 182GWh, JVs would end up paying USD1.8M/year more than the state-owned company.
- ④ *Stimulation of demand for cement:* There is scope for expansion of demand for concrete and secondary products through public works, such as enhancing roads, guttering and sewage piping.
- ⑤ *Guidance on quality enhancement and restriction of dust pollution:* Most of the vertical kilns used by Locals are the cause of dust pollution. Cement produced with vertical kilns is cheap but also of low quality. In the interests of preserving the environment and improving quality, the government should encourage the progressive phasing out and replacement of vertical kilns. Ways of enforcing the replacement of vertical kilns include tightening up environmental provisions, and using only higher-grade cement for infrastructure development work (even if it is priced slightly higher). The abolition of vertical kilns may cause unemployment, although as seen in the case of China, cement producers originally using vertical kilns can stay in operation by purchasing clinker from neighboring modern cement plants, and crushing it up at a mill and selling it under their own brand name.

¹³² Needs checking.

6. Cement industry deregulation due to AFTA/WTO membership, and future policy

6.1. The effects of AFTA/WTO membership

In the future, Viet Nam will be affected by the following three deregulation requirements imposed on it through membership of AFTA/WTO. ① Duties on regional imports must be brought down to 5% or lower by 2006, due to AFTA membership. ② All non-tariff trade barriers must be removed, and protective measures for local industry must be focused on import duties, due to WTO membership. ③ Commitment to AFTA/WTO must be displayed in the form of removing all import duties and allowing free trade, at some future stage.

Viet Nam, as with other ASEAN member countries, plans to adopt the CEPT scheme "fast track" and lower import duties on cement products to 5% or lower by 2006.¹³³ However, if the South East Asian market has not recovered by then and cheap cement from countries such as Thailand, Singapore, and Indonesia is to flood into Viet Nam, then local Vietnamese cement producers will be put in a difficult position. In essence, the cement industry is of a localized nature,¹³⁴ and if local markets throughout Asia recover lost ground, then cement manufacturers should be able to operate solely on local demand, at regular price levels. There is little doubt that local markets will recover in the medium and long terms, and the more immediate issue is how long the current dog-eat-dog market state will last.

6.2. Policy for cement industry furtherance

The most effective response to the requirements of AFTA/WTO is for the domestic cement industry to be made more competitive. The reason for the government imposing non-tariff trade barriers (import quotas, price control, investment freezes, etc.) is that VNCC and the plethora of small-scale cement producers in Viet Nam lack international competitiveness in terms of both price and quality. Industry protection has in turn preserved inefficiency in the local industry. In order for Viet Nam to promote its cement industry without turning its back on free trade, measures such as those outlined below must be adopted, and the competitiveness of local companies enhanced urgently.

① *Restructuring of VNCC*

Corporate restructuring of VNCC (the source of half the domestic production capacity) is integral in any attempt to enhance the competitiveness of the local product. The management of VNCC should be severed from its financial administration, and a corporate structure amenable with commercial management adopted. It will be by no means easy to improve the production efficiency of VNCC and transform it into a corporate entity that will be able to compete on an equal footing with other countries

¹³³ Viet Nam plans to lower cement import duties to 15% by 2003, 10% by 2005 and 5% or lower by 2006 (Viet Nam Economic Trends No. 189, Viet Nam Economic Research Center, June 30, 2000)

¹³⁴ Given present-day conditions, this perception of the cement industry needs revision.

after market deregulation. In order to achieve this mammoth objective, VNCC must be progressively exposed to free market conditions in stages, and clear incentives introduced to encourage tighter production efficiency in order to achieve greater profitability rather than greater production output. To achieve this, the government must present a medium- and long-term industry vision and outlay a system of strategic capital spending. It must impress upon VNCC the fact that protectionism is about to end, and progressively raise hurdles in order to encourage constant streamlining effort on the part of VNCC. As part of this, non-production operations should be scaled down. Modernization and streamlining of the production process is required through capital investment via reserves of retained earnings, policy-based finance, or tax breaks, for example. Devising an integrated production, distribution, and sales system could also enhance the profitability of the company.

② *Modernization of equipment used by small-scale producers managed by regional governments or the military (Locals)*

Modernization of equipment used by small-scale producers is believed to be necessary in order to enhance competitiveness and protect the environment, and policy-based finance or tax breaks would provide the source to do this. Vertical kiln facilities, commonly found in inland regions, should be aggregated or integrated into modern coastal plants, due to their greater competitiveness in production and sales distribution terms. As the economy grows in the future, demand for low-quality cement is expected to fall off. The mass of small-scale producers must be thinned out for the cement industry to survive in the future, and the government must embark immediately on policy to offset the social impact that will result from the dismantling of such operations. An environment conducive to autonomous industry transferal and/or the closing down of small-scale cement operations must be created, by stimulating the labor market such that inter-industry job transfer becomes an attractive option.

③ *Reduction of energy costs*

High electricity and other energy costs are draining the competitiveness of the Vietnamese cement industry, and energy tariffs should be brought down to a level comparable with neighboring countries.

④ *Government-facilitated infrastructure development for cement plants (port facilities, roads, fuel, communications, etc.)*

Non-profit investment is diminishing the competitiveness of the Vietnamese cement industry. Government subsidies for infrastructure development are desirous, targeted at both new and existing investment.

⑤ *Production capacity expansion in line with growth in demand*

The balance of supply and demand in the small-scale Vietnamese cement market will be upset greatly by the addition of a single 2 Mt/year plant. The government should use the plant approval process, for example, to keep the pace of production capacity expansion to a sensible level, so as to

avoid over-production.

⑥ *Active use of foreign capital*

It is desirable for Viet Nam to make effective use of foreign capital and technology. For this purpose, it should work toward relaxing the restrictions obstructing foreign investment.

Viet Nam should take a serious look at whether the clean development mechanisms, currently under consideration for introduction in United Nations Framework Convention on Climate Change (UNFCCC) member countries, can be used in its favor. The cement industry is one of the largest emitters of greenhouse gases, and cement companies in developed countries are looking to establish links with inefficient cement manufacturers in developing countries, due to the potential for energy efficiency enhancement at relatively low cost. The World Bank has already initiated a prototype carbon fund for use in revamping polluting plant facilities, which Viet Nam should look seriously at applying to good effect in updating its cement industry. For this purpose, data on the locations and types of Vietnamese cement production facilities, the relative energy efficiency of each, the manner of corporate management of each facility, must be made readily available in English for access by interested foreign companies.

By way of the above policies, the Viet Nam government should do its utmost to foster international competitiveness in the local cement industry by 2006. There are of course hurdles such as unemployment problems, and the restructuring of the industry will not be achievable at that fast a pace. Having said this, time is limited, and Viet Nam may find that the duration of tariff-based industry protection needs extending.¹³⁵ Generally speaking, however, the cement industry is considered to be in need of deregulation, and protective measures should be used only as a temporary response in an emergency. If protective measures are to be adopted, the long-term heading of the cement industry should be clearly laid out, a distinct protective period set, and rationalization forced upon the industry in the duration thereof. In this instance, the following are possible measures that can be adopted:

- ⑦ Apply to AFTA for temporary exemption from free trade requirements, or an extension of the protective period, depending on the state of recovery of the South East Asian market. If this option is to be adopted, Viet Nam should be prepared to pay some form of compensation.
- ⑧ Apply to the WTO to be able to maintain over the short term inflated import duties (say, 50%) as will give domestic cement a clear price advantage over imports, in return for agreeing to remove all non-tariff trade barriers. The existence of cheap cement producing nations within the ranks of ASEAN nations (i.e. Thailand and Indonesia) means that extra-ASEAN industry protection would have little effect.

¹³⁵ In determining whether to continue protecting the local cement industry, debate is required as to its relative importance in comparison to other industries.

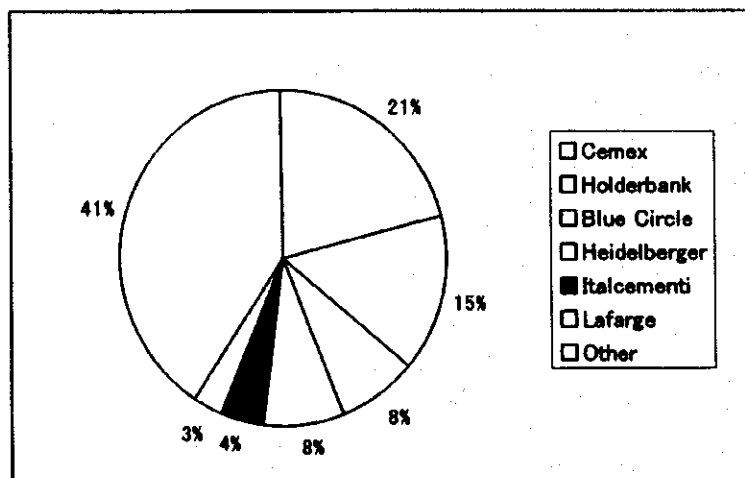
However, there is no guarantee that such demands would be officially allowed, in addition to which, import duties can only be used for a limited time to protect the domestic product. The pace of industrial reform must therefore be maintained at a high level. That is not to say that Viet Nam must sit by and watch as its cement market is ravaged by imports, and there will always be room to enforce anti-dumping regulations in a globally acceptable form, depending on the state of the market.

Note that in removing non-tariff trade barriers or enforcing protective import duties, due care is needed to adjust the balance of supply and demand (particularly regional supply and demand), so as to avoid rapid change in cement prices. One important facet of this is the establishment of a body to gather information on distribution and retail price patterns, and prevent the emergence of price cartels.

Appendix 1

The corporate state of cement companies in key South East Asian countries Spring 2000

Country	Company	Foreign shareholder	Share	No. of affiliated cos.	No. of plants	Crushing capacity (Kt)	Production share
Philippines	Hi Cement	Holderbank	40.0%	3	4	7,000	27.0%
	Alsons-Iligan	Holderbank	49.0%	2	2	3,100	12.0%
	Apo	Cemex	99.9%		1	3,000	11.6%
	Salid-Rizal	Cemex	70.0%	2	2	2,800	10.8%
	Seacem	Lafarge	33.0%	2	2	1,800	6.9%
	Continental	Lafarge	64.0%		1	1,000	3.9%
	Fortune-Mindanao-Re Northern	Blue Circle		3	3	4,600	17.8%
	Grand				1	1,000	3.9%
	Others			3	3	700	2.7%
		Total			19	20	25,900
Indonesia	Gresik	Cemex	22.0%	3	4	16,862	42.6%
	Indocement	Heidelberger	30.0%	2	3	12,500	31.5%
	Cibinong	Holderbank	49.0%		2	8,640	21.8%
	Andalas	Lafarge	71.7%		1	1,000	2.5%
	Others			2	2	620	1.6%
	Total		9	12	39,622	100.0%	
Malaysia	APMC	Blue Circle	58.0%		3	3,780	22.2%
	Kedah	Blue Circle	37.7%		1	3,300	19.4%
	CIMA				1	2,500	14.7%
	Tasek				1	1,500	8.8%
	Perak Hanjoong				1	1,440	8.5%
	Negeri Sembilan				1	1,200	7.1%
	Tenggara	Holderbank	70.0%		1	1,100	6.5%
	Pahang				1	1,200	7.1%
	CMS				1	1,000	5.9%
	Total				11	17,020	100.0%
Thailand	Siam Cement				5	20,400	40.7%
	Siam City	Holderbank	25.0%		1	12,350	24.7%
	TPI Polene	Cemex	25.0%		1	9,000	18.0%
	Asia Cement	Italcementi			1	5,000	10.0%
	Jalaprathan	Italcementi	27.2%		2	1,600	3.2%
	Others				3	1,730	3.5%
	Total				13	50,080	100.0%
Vietnam	VNCC				6+@	9,300	61.6%
	Nghi Son				1	2,140	14.2%
	Morning Star	Holderbank	65.0%			1,760	11.7%
	Chin Fon					1,400	9.3%
	Lucs					500	3.3%
	Total					15,100	100.0%
Cambodia	Naga Cement	Holderbank	65.0%		1	600	100.0%



Appendix 2

Domestic Asian cement markets

Country	Currency	Year	Exchange Rate		Cement market (cost per tonne unpacked cement, delivered)						Notes	
			(per US\$)	%	Local currency	%	US\$	%	Yen	%		
China	Yuan	98	8.28	99	310	103	37.44	103	5,320	117	Beijing market #425	
		99	8.28	100	300	97	36.23	97	4,350	82		
East Asia	Japan	Yen	98	142.00	86	8,800	97	61.97	85	8,800	97	
			99	120.00	115	8,700	99	72.50	117	8,700	99	
	S. Korea	Won	98	1496.68	34	59,600	106	39.82	64	5,650	72	Silo sales price increased from 55600 to 60600 in August 1998; figures include a freight tax of 320 won
			99	1179.00	121	64,100	108	54.37	137	6,520	115	
	Taiwan	NT\$	98	34.00	76	2,100	114	61.76	92	8,770	104	+5% VAT (not included in figures)
			99	32.36	105	1,800	86	55.62	90	6,670	76	
	Hong Kong	HK\$	98	7.75	100	650	100	83.87	100	11,910	113	
			99	7.78	100	550	85	70.69	84	8,480	71	
ASEAN	Thailand	Baht	98	46.92	16	2,440	156	52.00	85	7,380	96	Figures include 10% VAT
			99	37.15	121	2,530	104	68.10	131	8,170	111	
	Indonesia	Rupiah	98	10,700	1/5	300,000	165	28.04	37	3,980	42	Figures include 10% VAT
			99	7,050	134	340,000	113	48.23	172	5,790	145	
	Philippines	Peso	98	40.11	48	2,250	83	56.10	55	7,970	62	Figures include 10% VAT
			99	38.51	104	2,300	102	59.72	106	7,170	90	
	Malaysia	Ringgit	98	4.12	36	198	100	48.06	61	6,820	69	Government regulated prices; import tax on cement raised to 50% in Feb 1999
			99	3.83	107	198	100	51.70	108	6,200	91	
	Vietnam	Đồng	98	12,900	83	850,000	94	65.89	80	9,360	91	Hanoi, Northern Viet Nam (Ho Chi Min City, Southern Viet Nam: 840,000 đồng)
			99	14,000	91	728,000	86	52.00	79	6,240	67	
	Singapore	S\$	98	1.68	95	75	63	44.64	60	6,340	68	
			99	1.71	98	62	83	36.00	81	4,320	68	
	Brunei	B\$	98	1.68	95	130	87	77.38	83	11,000	94	
			99	1.71	98	130	100	76.02	98	9,120	83	

Notes:

1. Market prices for South Korea are on a delivered basis in the Seoul area (Truck transportation cost from Incheon Port to downtown Seoul: 4,000 won in 1998, 3,500 won in 1999)
2. Columns marked "*" represent the % change over the previous year

Thoughts on Promoting the Vietnamese Automobile and Parts Industry

1. Introduction

Demand for automobiles in Viet Nam is still extremely low (around 20,000 cars sold in 1999, including second hand vehicles). As a result, it can be said that Viet Nam is not yet at the stage where industry furtherance is possible, from the point of view of the economy of scale and wide range of supporting industries required by the automobile industry. If we are to take a long-term view of the industry over 20 or 30 years, it is hard to see a heavily populated country such as Viet Nam continuing to import finished cars in the future when its economy has grown and motorization has taken place. In essence, the motor vehicle industry requires long-term step-by-step protection and furtherance lasting around 30 years for it to reach fruition, as has been seen in countries such as Thailand, Malaysia, and Indonesia. In Viet Nam's case, however, global conditions rule out such long-term development. Due to its participation in AFTA, Viet Nam must remove all non-tariff trade barriers by January 2009,¹³⁶ and normalize import duties on products with a 40% or higher ASEAN content in the 0-5% range, under the terms of CEPT. Additionally, due to its pending entrance into the WTO, it will be unable to rely on local content requirements to develop the local car industry, under the terms of TRIM. Here, we review viable policies to establish an automobile industry in Viet Nam in a harsh global context, based around consideration of general features of the automobile industry, and the current standing of Viet Nam.

2. Features of the automobile and automobile parts industries

The automobile and automobile parts industries call for a large scale of economy. Thus, in order to generate industry competitiveness, latecomer nations with a limited domestic market must rely on some form of policy-based support over at least a limited period, in order to get the local automobile industry off the ground. Protecting earmarked industries in this way, however, places a burden on other sectors of the economy, and is not something to enter into lightly. Reasons that countries accept this overhead and give the automobile industry special treatment via protective/furtherance policy at relatively early stages of industrialization, relate to various features of the industry: (1) it is highly value added, and can lead to large-scale savings in trade revenue through locally producing rather than importing cars; (2) backward linkage effect is great, and extends over peripheral and base material industries; (3) as it is a high-technology industry, there is a high level of technology transfer to other industries; and (4) it has considerable potential for job creation. To be more specific, the following effects can be expected. High levels of value added generated in the automobile and automobile parts industries translate across to high demand in a wide array of base material industries, including

¹³⁶ It would appear that, at the economic ministers' conference held in Myanmar in May 2000, it was agreed that the CEPT deadline should be put back from 2006 to 2009, although no official announcement to this effect has been made.

steel, aluminum, and plastics. As the automobile industry calls for large volumes of expensive materials, growth in the industry has a considerable effect in promoting material industries. The industry is highly technologically sophisticated and demands that parts be hard-wearing, light, and reliable is highly reliant on electronic parts, and draws upon heavy machinery, machine tools, and automation systems as part of the production system; this corresponds to technological diffusion across to related industries. The skills and business know-how accumulated through working in the automobile industry are easily transferable across to other industries, having a positive external effect on local technological and business practices. Drawing upon foreign capital in developing the local automobile industry contributes greatly to the enhancement of the overall industrial base of the country. In this way, the overall competitiveness of industry in a country generates the competitiveness of its automobile industry, and at the same time, the scaling up of competitiveness of the automobile and automobile parts industries drives up overall technological levels. This is why developing and developed countries alike are so keen to protect and promote the automobile and automobile parts industries. At the same time, however, it makes furtherance of the automobile industry that much more difficult than other industries, due to the high stakes involved.

3. The state of the automobile industry in the ASEAN region

3.1. Features of the ASEAN automobile industry

There is a close link between the development of the automobile industry in ASEAN nations, and the presence of Japanese companies. The share of Japanese cars in sales of new cars in Thailand, Indonesia, and the Philippines is 89.9%, 82.5%, and 84.0%, respectively. In Malaysia even, where local-brand cars¹³⁷ account for more than 80% of sales, Japanese cars hold a share of 14.5%.¹³⁸

This strong showing is the result of a long history of involvement in the area by Japanese car makers, dating back to the 1960's and encompassing technology transfer into the area, the establishment of local automobile parts operations and construction of a number of production facilities in the area. Even at the onset of the Asian economic crisis in 1997, Japanese companies, disregarding short term losses, systematically provided capital assistance to their ASEAN operations (through increasing capital or rates of investment), reduced production costs and maintained technological assistance rather than pulling out. This level of commitment compares favorably to the stance of America's Big Three, in temporarily pulling out of the ASEAN market, only to commence production and sales anew in 1999. GM and Ford are currently focusing investment on Thailand, in the wake of trade deregulation efforts, and are pushing

¹³⁷ The two main local brands are Proton and Perodua, each holding a share of 53.4% and 27.4%, respectively. Proton was formed in 1983 as a joint venture company 30% financed by Japanese companies including Mitsubishi Motors, whereas Perodua is a joint venture company 20% financed by Daihatsu.

¹³⁸ Figures taken from FOURIN, "1999 Ajia Jidosha Sangyou" [The Asian Motor Vehicle Industry in 1999]

forward with plans to concentrate production in Thailand, and to export from Thailand to other countries. GM, for example, hopes to increase production of its Zafira multi-purpose mini-van to 100,000 units by around 2005, and export 85,000 of those within the Asian region. Toyota, on the other hand, which holds the top market share in Thailand, currently has a combined production capacity of 200,000 units over four model types.¹³⁹ In terms of production capacity per model, therefore, GM is expected to overtake Toyota in terms of production efficiency, and establish a price advantage over its competitors in the future. It is ironical that Japanese car manufacturers, which have given precedence to the long-term furtherance of the local car industry over short-term profitability, may have to play second fiddle to American car manufacturers, which have given precedence to short-term profitability over long-term industry furtherance. That Japanese and American car companies are being forced into concentrating car assembly facilities within the ASEAN region, is expected to lead to a heating up of competition in the region in the future.

Over the years, Japanese car manufacturers have worked toward developing automobile parts complementation schemes in the ASEAN region. As each individual ASEAN country has only a small market, it makes economic sense to view all ASEAN nations as a single market and achieve economy of scale through reductions in production costs. This trend of market integration continued with renewed vigor through the economic crisis as the Asian market shrank, and each car company progressively chiseled away at production costs by concentrating automobile production bases and complementing automobile parts production among the ASEAN nations and Taiwan. Toyota, for example, has established a production/export base for Soluna pick-ups¹⁴⁰ in Thailand, and a production center for TUVs (Toyota Utility Vehicles, such as the Kijang) in Indonesia, and looks highly likely to base production of 4WD/SUVs (the Prado, etc.) out of Malaysia in the future. It has also been making advances in the horizontal integration of part production for the main ASEAN car models (e.g. the Corolla, Camry, Hilux, and TUVs). For the Hilux in particular, Thailand both hosts the main ASEAN production center, and is the supply base for parts production, and Indonesia is similarly the center for TUV production and supply. In terms of the production base breakdown for particular car components, diesel engines are produced in Thailand, manual and power steering mechanisms are produced in Malaysia, gasoline engines are produced in Indonesia, and transmissions are produced in the Philippines. In stark contrast, GM and Ford plan to procure cheap parts from all over the globe in their Asian operations, and are putting pressure on other companies to do the same, as well as demanding car parts at prices commensurate with international levels, from ASEAN parts manufacturers. This trend for car companies to procure parts internationally from the optimal source is expected to accelerate further in the future, in line with the liberalization of trade in the ASEAN region under the terms of AFTA, and the removal of local content regulations in

¹³⁹ Car models manufactured in Thailand are Zafira for GM and Corolla, Corona, Soluna, and Hilux for Toyota.

¹⁴⁰ As of March 2000, Solunas are also being produced in Indonesia.

concordance with the WTO. Thailand is expected to be the sole benefactor of this state of affairs as things stand, from consideration of the local market size and diversification of supporting industries. The thinking behind this statement is that, if diversification of supporting industries is taken to be indicative of the number of car parts manufacturers, then Thailand is the outright leader among ASEAN nations, with around 1500 companies, followed by Malaysia with 350, Indonesia with 300, and the Philippines with 170, right down to Viet Nam with almost no supporting industry involvement. However, trade imbalance will result if production operations are to be concentrated almost exclusively in Thailand, meaning that some distribution of operations over all countries must occur. From this standpoint, Thailand, Malaysia, Indonesia, and the Philippines have combined to form an integrated industry structure, intended at a scheme of car part complementation. This integrated industry structure is almost complete, leaving little room for Viet Nam to operate in. GM and Ford will undoubtedly require that this national consortium of car parts manufacturers offer parts at prices comparable with other parts manufacturers around the globe, making their position less than stable. In reality, it would appear that GM intends to procure most of its parts from Europe.

3.2. The outlook for the new car market in Asia (ASEAN countries and Taiwan)

Sales of new cars in the ASEAN 4 (Thailand, Malaysia, Indonesia, and the Philippines) leapt up in each country in the latter half of the 1980's, peaking at 590,000 (1996), 400,000 (1997), 400,000 (1997), and 140,000 (1997) units, respectively.

Under the effects of the Asian crisis from July 1997, however, sales of new cars tumbled in 1997 and 1998, before rebounding in 1999, with sales in Thailand recovering to 220,000 units (1999). If recovery in the ASEAN forum is to continue unabated and the Japanese, U.S., and European economies are to remain at their current levels, then sales are expected to overtake former peak levels (1.45 million car sales in 1996, for the ASEAN 4) by around 2003-2006.

The production capacity in Asia (ASEAN 4, Viet Nam, and Taiwan) of the 11 main car manufacturers¹⁴¹ was 2,950,000 units at the end of January 2000 (2,210,000 units in the ASEAN region alone). All companies intend on expanding operations by 2005, with the production capacity expected to reach 3,320,000 units in Asia, and 2,580,000 units in the ASEAN region. On the other hand, the current demand for new cars in Asia is only 1,100,000 units as of the end of 1999. As such, Asia is currently in a state of relatively high overproduction. Assuming that forecasts for new car sales in Asia to reach 3,000,000 units by 2010 are correct, only then will the market reach a size commensurate with current production capacity, given that all cars are to be sold within Asia.¹⁴²

¹⁴¹ Toyota, Daihatsu, Hino, GM, Isuzu, Suzuki, Ford, Mazda, Honda, Mitsubishi, and Nissan

¹⁴² Note that some companies have targeted their operations at a component of exports outside the ASEAN region.

3.3. The current standing of the automobile industry throughout Asia

THAILAND: Prior to the currency crisis of 1997, Thailand was the largest automobile manufacturer in the ASEAN forum, but the currency crisis saw Malaysia take over that position. Car sales plummeted from around 590,000 units to around 140,000 between the years 1996 and 1998, but signs of recovery became apparent from the end of 1998. Even here though, recovery level was still 20% or so lower than that originally expected. In 1999, sales recovered to around 220,000 units, a figure that is expected to reach around 260-270,000 units in 2000 and 320,000 in 2001. In 2002 even, sales are expected to be around 370,000, and analysts predict that former peak levels will not be reached until 2005 or 2006. Total automobile exports¹⁴³ were around 100,000 units in 1999, but expected to grow healthily to 150,000 units in 2000 and 200,000 units in 2001, making the total number of production units 320,000 for 1999, 410-420,000 for 2000 and roughly 520,000 in 2001. By 2004-2006, the domestic market in Thailand is expected to be back to peak levels of around 600,000 units, and assuming that exports continue to grow at the current rate, then automobile exports will be of the size 400-500,000 units, pointing to the possibility of a total production market size of over the 1 million unit mark.¹⁴⁴

Due to over half of the Thai population being farmers, approximately 70% of new car demand are for 1 ton pick-up trucks, and production is centered on this vehicle type. Reasons for the demand for 1 ton pick-up trucks reaching this level are that they are more suited to driving on Thailand's many unpaved roads, and, more importantly, that the excise tax on pick-up trucks is 35% lower than that of passenger cars.¹⁴⁵ The share of Japanese cars in Thailand is over 90%, and the ratio of exports to production output is now as high as 40% (first half of 1999) as a result of Japanese companies across the board channeling their output into exports, in order to ride out the currency crisis. Thailand's recent economic recovery has coincided with the arrival of a range of Western car manufacturers (Volvo, BMW, Renault, Ford, and Fiat). While Thailand holds a relative lead over other ASEAN nations in the production of 1 ton pick-up trucks, it is unclear whether this vehicle type will be as popular in other countries, and it will be interesting to see how the composition of production models evolves over the coming years.

Thailand replaced its current local content restriction with an import duty in January 2000. In line with this, the import duty on CKD¹⁴⁶ parts was raised from 20% to 33%, which appear to be having the same effect as the local content restriction in terms of making local procurement more cost effective than

¹⁴³ Due to the depressed local market, plant-operating rates for the different car companies and general financial vitality are determined by the ratio of exports. Plants which are set up essentially for the local market, such as those of Toyota and Isuzu, are operating at around 50% of operating potential, whereas plants targeted more at exports, such as those of Mitsubishi and Ford, are a much healthier 80% or so.

¹⁴⁴ Based on an interview with a representative of a Japanese company in Thailand (Jan. 2000)

¹⁴⁵ The excise on double-cab pick-up trucks was dropped from 35-48% to a constant 12% in January 2000, and the preferential tax margin brought back to 9% from 30-43%. The preferential margin remains 32-45% against passenger cars.

¹⁴⁶ CKD ("complete knockdown") refers to local assembling with fully imported parts.

imports. At the time, there were concerns that the abolition of the local content restriction would lead to local car companies switching over from local parts to imports, but all companies have continued to procure parts locally and the impact on the local parts industry is predicted to be minimal, due to the extra distribution cost and risk associated with switching over to using imported parts, and the potential effects of any further increase in the level of the import duty.

MALAYSIA: Malaysia has been instrumental in developing local brand cars,¹⁴⁷ and this has brought about the formation of a passenger car-led market structure. Sales of cars in 1998 totaled a little under 160,000 units, representing a 60% reduction over the preceding year, but in 1999, this figure recovered to just under 290,000 units. The size of the automobile market in Malaysia has been greater than that in both Thailand and Indonesia since 1997. The introduction of a fixed base price system (in September 1998), aimed at stabilizing the local currency, has brought down interest rates and led to an increase in car loans, and the automobile market has been progressively recovering since the end of 1998. Local manufacturers across the board are gearing up for production increases, in line with predicted car sales in the range of 500,000 units as early as 2003.

In an attempt to nurture the local car parts industry, the Malaysian government has promoted the local production of parts by local-brand car companies, and given precedence to dealings with independent local companies. This has effectively blocked out competition between car parts companies, including foreign ventures, producing the side effect that, despite Malaysia having the second largest number of car parts companies in the ASEAN region, local car parts companies tend to lack international price competitiveness (e.g. in the case of the Proton, only about 20 of the 180 local part vendors are reckoned to be internationally competitive). Fearing the impact the revisions would have on local car parts companies, Malaysia postponed the abolition of local content restrictions, and also applied for an extension in the application of the CEPT-based 20% or lower import duty on car parts with 40% or greater ASEAN content, both of which were originally scheduled for application from January 2000. As part of industry deregulation efforts, Malaysia needs to enhance the international competitiveness of its car parts companies. Areas in which Malaysia hopes to boost competitiveness are in the development and production of both parts based on the abundant local supplies of rubber, and generic parts that can benefit from large-scale consumption in the production of the Proton. Malaysia is also believed to have strong potential for growth as an assembly and production base for SUVs, due to the relatively advanced state of its economy as compared to the other three members of the ASEAN 4.

INDONESIA: 80% of the Indonesian automobile market is taken up by commercial vehicles. The market for passenger cars is still in its infancy, and a drastic drop in car sales from 390,000 units to

¹⁴⁷ The Proton local-brand car project was launched in May 1983, and the Perodua project in 1990.

60,000 units was seen between 1997 and 1998, under the influence of the local economic crisis. Factors contributing to the drop in car sales include: (1) inflated prices for automobile and automobile parts imports due to the slump of the rupiah; (2) drops in car loans due to the high interest rate policy adopted under the direction of the IMF; and (3) the affluent (ethnic Chinese, and others) fleeing the country. The automobile market did not pick up appreciably in 1999 even, with sales reaching a paltry 95,000 units, although demand for luxury cars grew considerably in 2000, and sales are expected to recover to around the 300,000 unit level. There is currently talk of reinitiating a project to launch a local brand car company, after it was cancelled due to the currency crisis, change of government, and bankruptcy of Kia (S. Korea), the partner company to the initial project. Recently, investment would appear to have been on the increase, pinned on hopes of the future potential of the market. Indonesia revoked local content regulations in July 1999, and replaced them with an import duty, which in the case of CKDs is 15% irrespective of the degree of local content. CKDs manufactured by Japanese car firms with a 40% or higher local content, therefore, were suddenly subject to an import duty of 15%, up from the original 0%. This resulted in car companies opting to import components rather than drawing on the low levels of locally assembled parts, forcing some local parts manufacturers out of the industry. Indonesia being a large-scale producer of AUVs (ASEAN utility vehicles) has offset this, however. Indonesia has the greatest growth potential of all ASEAN countries, powered by its population of 210 million, and the local materials industry is expected to develop to the level of that in Thailand. Toyota's recent moves to commence production of AUV models based around the Kijang (the foremost AUV model) in Malaysia, the Philippines, Taiwan, and India, are hoped to place Indonesia as the production/export base for AUVs and AUV parts for the whole of Asia. Production of other models, however, may well drop in the future.

THE PHILIPPINES: The Philippines was the first of the ASEAN nations to enter into CKD assembly—with the first such operations at the start of the 1950's—and has actively promoted the automobile industry, although it has remained at the level of assembly operations. The currency crisis led to a drop in automobile demand from 160,000 units in 1996 to 70,000 units in 1999, and there are still only weak signs of recovery. Contrary to the depressed state of the market, Ford (U.S.) started up local assembly operations in 1999, after an absence from the local industry of 16 years. The Philippines government has provided support for this move through the introduction of provisions such as income tax waivers for car companies newly entering the local market, and tax breaks (not applicable to car companies with established local operations). The government additionally revoked the total ban on SKD vehicles in place from April 1998, in granting special permission for Transfarm & Co. to import SKD vehicles,¹⁴⁸ and also for 500 units of Chrysler SKDs to be imported at a tariff level of 10%. These moves have

¹⁴⁸ SKD: Semi knock down. The Philippines government is set to officially decide whether it revokes the total ban on SKDs by the end of 2000, to be replaced by an import tariff of 10%, equivalent to that for CKDs.

incurred the wrath of locally established car companies, and led to calls for a fair, consistent car industry furtherance policy.

On another front, the Philippines government has cited the lack of price competitiveness of local car parts companies, in negotiating with the WTO for an extension until 2004 in the abolition of both local production requirements on car parts and export stipulations on cars and car parts, originally planned for removal in January 2000.

Due to the limited size of the Philippines market and inconsistencies in the government's automobile policy, car manufacturers are likely to shirk any expansion in investment over the short term. In the longer term, however, the depth of the Filipino female labor force (with the potential for four-shift 24-hour operations) could feasibly allow the Philippines to establish itself as a car parts production/export base, particularly for electronic parts calling for short-term initial investment recovery.

TAIWAN: Of the 11 car manufacturers with local operations, the top 5 (Mitsubishi, Toyota, Nissan, Honda, and Ford) occupy more than 80% of the market. The number of car manufacturers in Taiwan and the number of models being produced are both unreasonably high, and no manufacturer is in a position of scale merit. Taiwan was relatively unaffected by the economic crisis, but the local bubble economy has lost momentum, and the automobile market has been in a state of decline since autumn 1998.

To date, Taiwan has relied on local content obligations (local production thresholds),¹⁴⁹ a parts refund system,¹⁵⁰ and an import restriction on fully assembled cars, to promote the local car industry. However, as part of attempts to gain WTO membership, Taiwan is committed to reducing tariffs on imports of completely assembled cars and motor vehicle parts,¹⁵¹ and the abolition of the local content requirement is under debate; the ban on imports of assembled cars is also being progressively lifted.¹⁵² The impact in other countries of such deregulation as part of WTO membership has been devastating, but Taiwan is not expected to be hit that hard. In terms of local content, the Taiwanese car industry already makes more than 50% of its own parts, a figure which is expected to be maintained after the revocation of the local content requirement. Removal of the parts repayment scheme is also not envisaged to impinge greatly on exports, as Taiwan is firmly established as a supplier of parts to Asian and South American plants operated by Japanese companies. The removal of the import restriction on fully-assembled cars is also expected to be minimal, as the restriction is scheduled for incremental dismantlement leading up to inclusion in the WTO.

¹⁴⁹ Local car companies must have at least a 31-40% component of locally produced parts in each model.

¹⁵⁰ Local car companies must offset a proportion of the value of parts imports, by exporting locally made parts. Exports must be worth at least 13% of the value of imports for the preceding year (1998), with this figure expected to be raised by one percentage point every year until Taiwan gains WTO membership.

¹⁵¹ Import duties are planned to be incrementally lowered from their current level of 20-42%, to 17.5-25%.

¹⁵² The import quota is to be expanded by 10% annually up until WTO membership.

Domestic demand for cars, on the other hand, is expected to remain stagnant at around 500,000-600,000 units in the future. In addition, trade liberalization after the WTO inclusion will lead to growth in sales of imported cars over the long term. These two factors will most likely put a brake on any efforts to expand local production. The general market consensus is that the current stable of 11 local car companies will be aggregated into 5 key companies in the future.

SOUTH KOREA: Since the onset of the currency crisis, South Korea has been following the guidance of the IMF in dissecting up conglomerates and pushing ahead with its Big Deal (operational exchange between conglomerates) policy. The 8 car manufacturers formerly in operation have been distilled down into two major groups: Hyundai and Daewoo. Only Hyundai is expected to remain an independent corporate entity, and Daewoo is currently negotiating with GM for a strategic link-up, although agreement has not yet been reached and the company has effectively been forced into bankruptcy. The former import diversification policy, which virtually halted imports of Japanese cars, was abolished at the end of June 1999.

CHINA: Potential demand for cars in China is phenomenal, given its 1.2 billion population. Production of cars in 1998 totaled 1,610,000 units, and solid rises are predicted for the future. Due to a tightening of finances and a resultant diminishment of purchasing power, however, the domestic market is in a state of oversupply. Most car manufacturers have to deal with stock increases and falling operating rates, and are struggling commercially.

INDIA: Car sales rose continuously for 5 years from 1992, but fell by 7.2% to 394,000 units in 1998. Sensing the mammoth potential of the Indian automobile market, fuelled by a population of 960 million, global car manufacturers from the West, Japan, and South Korea have flocked to India since car production was deregulated in December 1996 and entered into the market in the form of joint ventures. The Indian automobile industry is in fact the second oldest in Asia, after Japan, but it had been shackled by long-term protective policy, until the 1980's when the government relaxed restrictions on the industry as part of its industry modernization policy. This paved the way for joint ventures with foreign companies, and led to the establishment of a string of new car companies. The largest domestic car company at present is Maruti Udyog Ltd. (a joint venture with Suzuki), which has been a driving force in the local car industry since 1985, on the strength of the production of a car for the common person.

3.4. A comparison of the investment conditions in different ASEAN countries

The area in which Viet Nam is perceived to hold an edge over the ASEAN 4 is in labor costs. At present, however, it seems to lag behind Indonesia in this area even (see Table 1). Other basic costs such

as land (or rent in Viet Nam's case), electricity, communications, and transport are all relatively high.

Viet Nam does not hold an advantage over the ASEAN 4 in terms of institutional incentives (e.g., corporate tax reductions and regulatory flexibility governing foreign investment)(see Table 2).

Due to the minimum price system in operation in Viet Nam (the determination of basic duty levels on a product-by-product basis), it could happen in the past that the tariff on KD parts was in fact lower than the tariff on part components, acting as a disincentive to automobile parts production. This anomaly was resolved for car parts in 1998, by way of making production parts exempt from import duties.

In addition, Viet Nam is at a disadvantage due to high production costs, which derives from factors such as an underdeveloped legal system and inefficient licensing system, posing an extra overhead in time and labor. Note that a VAT was introduced in January 1999, replacing a sales tax that had hindered the development of parts complementation among car companies. Even here, however, the new VAT is operated in an identical fashion to the original sales tax, and the hurdle to parts complementation remains.

Table 1. A comparison of investment conditions in ASEAN nations

			Thailand (Bangkok)	Malaysia (Kuala Lumpur)	Indonesia (Jakarta)	The Philippines (Manila)	Viet Nam (Ha Noi)
Land prices	Purchase price of industrial land	USD/m ²	51.79 ¹⁵³	49.8 ¹⁵⁴	74-85 ¹⁵⁵	85	2.6/year ¹⁵⁶
Communi- cations	Phone connection fee	USD	168.39 ¹⁵⁷	131.58	62.11	132.92	114.24
	Basic monthly telephone fee	USD/month	2.59	9.21	4.94	28.16	8.93
	International phone calls (3 mins to Japan)	USD	3.11	2.61	2.59	3.78	8.52
Utility costs	Corporate power costs	USD/kWh	0.03	0.06	0.0161-0.0193	0.09	0.07
	Corporate water costs	USD/m ³	0.28-0.41	0.29	0.2291-0.5038	0.25	0.21
Wage levels	Minimum legal wage	USD/month	4.2/day ¹⁵⁸	none	31.75 ¹⁵⁹	5.26 ¹⁶⁰	45 ¹⁶¹
	Worker (general technician)	USD/month	176	329 ¹⁶²	44-83	137-319	79-108
	Engineer (middle-level technician)	USD/month	378	668	139-242	255-433	187-314
	Middle-level manager (department or section head)	USD/month	727	1,407	238-1,208	417-824	476-546
Transportation	Container transport (40' container: factory → nearest port → Port of Yokohama)	USD	1,466.53 ¹⁶³	895.06 ¹⁶⁴	1,252.09 ¹⁶⁵	994.60 ¹⁶⁶	1,700-1,950 ¹⁶⁷
Tax	Corporate tax (basic tax rate)	%	30	28	10-30	32	25 ¹⁶⁸

Source: "Dai-10-kai Ajia syuyou-toshi/chiiki no toushi-kankyuu kanren kosuto hikaku" [The 10th Cost Comparison of Investment Conditions in Key Asian Centers] March 2000, JETRO

¹⁵³ Amata Nakorn Industrial Estate

¹⁵⁴ Selangor Science Park

¹⁵⁵ Price for a lot in the KIIC and MM2100 industrial estates

¹⁵⁶ The annual lease per m² in the Saidong industrial estate

¹⁵⁷ Made up of a bond of USD75.57 and connection fee of USD92.82

¹⁵⁸ Last date of revision: January 1, 1998

¹⁵⁹ Last date of revision: April 1, 1999 (West Java)

¹⁶⁰ Last date of revision: May 1, 1999

¹⁶¹ Last date of revision: July 1, 1996

¹⁶² Based on the findings of the Malaysia—Japan Chamber of Commerce and Industry (JACTIM, October 1999)

¹⁶³ Amata Nakorn estate → Laem Chabang port (USD116.53) → Port of Yokohama (USD1,350)

¹⁶⁴ Shar Alam → Kelang Port → Port of Yokohama

¹⁶⁵ Land transportation from the Bekasi industrial estate to Tanjungpriok port: box rate, 130+B/L fee 20 + others 102.09

¹⁶⁶ Laguna → Port of Manila → Port of Yokohama

¹⁶⁷ Ha Noi → Hai Phong Port (USD200-250) → Port of Yokohama (USD1,500-1,700)

¹⁶⁸ The Foreign Investment Law and bylaws distinguish three corporate tax brackets (h-III), taxed at 20%, 15% and 10%, respectively.

Table 2. A Comparison of Investment Incentives in ASEAN nations

	Investment incentives
Thailand (Bangkok)	The Thai Board of Investment (BOI) offers incentives on items earmarked for fosterage (export companies, supporting companies, regional operations, infrastructure development, etc.), in the form of such measures as corporate tax breaks over 3-8 years, tariff reductions on imported machinery, and tariff waivers on base materials.
Malaysia (Kuala Lumpur)	Incentive in the manufacturing industry (as at October 1998) is of the form of 100% foreign ownership being allowed up until December 31, 2000, irrespective of the ratio of exports. (This does not apply for 7 industry types and 9 sectors)
Indonesia (Jakarta)	Incentives include tariff waivers on primary/reinforcing materials, parts, and base materials (for the first 2 years of operation), incentives for export companies, special industries, and KBs (bonded plants), and a tax holiday system for approved companies.
The Philippines (Manila)	Both the Philippines Board of Investment (BOI) and Philippines Economic Zone Authority (PEZA) provide corporate tax breaks for up to 8 years. On termination of the duration of corporate tax breaks, PEZA only requires that a flat income tax of 5% be paid, with all other taxes being waived. Note that in order to benefit from PEZA incentives, over 70% of output must be exported.
Viet Nam (Ha Noi)	For investment incentive sectors and regions earmarked in the Foreign Investment Law, foreign partners participating in foreign-investment ventures and operational agreements do not pay any tax on profits for up to 2 years from first returning a profit, and may also be granted a tax reduction of up to 50% on profits for up to 2 more years. Additionally, foreign companies and operational agreements meeting a range of investment incentive criteria do not pay any tax on profits for up to 4 years from first returning a profit, and may also be granted a tax reduction of up to 50% on profits for up to 4 more years. In the case of special incentive investment, the profit tax waiver period is for up to 8 years. Applicable tax rates are listed on the investment approval certificate, and are reviewed by the Finance Ministry if any change in operational content occurs.

Source: "Dai-10-kai Ajia syuyou-toushi/chiiki no toushi-kankyō kanren kosuto hikaku" [The 10th Cost Comparison of Investment Conditions in Key Asian Centers] March 2000, JETRO

4. The current standing of the automobile industry in Viet Nam

4.1. Domestic demand

In the mid-1990's when car companies¹⁶⁹ were fighting each other for entry into the Vietnamese market, the Vietnamese government acted to protect locally produced cars through such measures as banning secondhand car imports, in the hopes of progressively shrinking the market for secondhand cars and generating a CKD-dominated domestic market. Market growth based on this scenario was at the time predicted to be of the order 25,000 units in 1996 → 30,000 units in 1997 → 36,000 units in 1998 → 41,000 units in 1999 → 45,000 units in 2000. Despite these high expectations, actual market growth was almost level at 20,000 units in 1996 → 20,000 units in 1997 → 26,000 units in 1998 → 21,000 units in 1999, out of which the CKD market accounted for a constant quantity of 6,000 to 7,000 units.

Despite a slow start, domestic demand started showing signs of growth in 2000, with the 11 local

¹⁶⁹ To date, 11 companies and 17 plants have been approved, although, of these, Chrysler and Nissan terminated joint operations in 1997.

producers recording total production of 5,918 units for the first half of the year (January-June), twice that of the previous year, and new car sales amounted to a record high of around 14,000 for the year.¹⁷⁰ Factors leading to the strong performance for the first half of the year include: ① the corporate law enacted in January 2000 produced significant administrative relief for local companies, and led to an increase in the number of newly registered companies;¹⁷¹ ② restrictions on cross-industry participation were toned down, such that new entries into the industries such as travel and transport that use cars as part of their operations have increased considerably; ③ growth in middle-class consumption, due to the release of smaller car models (such as the Daewoo Matisse); and ④ import restrictions¹⁷² are turning private-sector demand toward locally-assembled cars.

Recent trends of note are favorable sales of 10-16 passenger mini buses for commercial use, due to an increase in sales for corporate use, and also an increase in sales of rental vehicles. Private-sector demand is becoming increasingly prominent, and cars are starting to be used as part of industrial infrastructure.

Despite sales in 2000 being on the up, the new car market in Viet Nam in 10 years time is expected to be no higher than about 60,000 units per year, which must be shared between 11 car companies, such that no company is expected to be able to achieve economy of scale.¹⁷³

4.2. Domestic supply

Combined 1999 sales for the 11 car companies currently in operation were 6,984 units, with all plants operating at exceedingly low production rates, in the range of a few percent to 20% of full capacity.¹⁷⁴ Toyota Motor Viet Nam produces a total of 4 models, and returned a nominal profit last year for the first time since inception, but other companies remain deep in the red. Even Toyota Motor Viet Nam is in the red as a group and has far from healthy accounts, and the general operating environment in Viet Nam is as trying as ever. A change has been seen in the corporate environments of Japanese companies, as shareholders push harder for capital efficiency to be enhanced. It is predicted that it will become increasingly difficult to keep covering deficits in local companies operating in developing countries.

At first, the Viet Nam government imposed a 200% tariff on all imports of completely assembled cars, but as part of negotiations to gain entry into the WTO, it has brought tariffs back to 55% (in practice, the effective tariff on imported cars was 210%, due to a 100% special consumption tax being applied to the

¹⁷⁰ According to a locally established Japanese car firm.

¹⁷¹ According to MPI, the total of new companies registering in the period January to June 2000 was around 6,000, 2.5 times the number for the same period in the previous year (Trade Bulletin, August 15, 2000)

¹⁷² The import of passenger cars seating 12 or less is essentially banned. Trucks and other commercial vehicles face an effective import tariff of 200%, including both import duties and local taxes.

¹⁷³ In order to achieve international price competitiveness, a plant is said to need to produce around 100-200,000 units annually.

¹⁷⁴ Toyota Motor Viet Nam has a production capacity of around 10,000 units/year, but had sales of only 2,179 units in 1999. Similarly, Ford Viet Nam has a production capacity of around 2,000 units/year, but sold only 325 units for the year.

CIF price, in addition to the import duty). However, this measure found disfavor with the WTO, and parliament passed a motion in April 1998 to apply a 100% special consumption tax on all car sales from January 1999, in line with the principle of non-discrimination of domestic and foreign products (GATT article 3). This met with resistance from both the domestic car companies and the Ministry of Industry, and domestically produced cars were granted a 95% exemption from the consumption tax for five years from 1999, postponing any genuine resolution of the problem. Note that despite imports of CBU¹⁷⁵ (completely assembled cars) having been banned since July 1, 1997, there is no regulation of secondhand car imports, causing a headache for local CKD production firms. Secondhand car imports was around 12,000 in 2000, accounting for a hefty 50% of domestic demand.

Viet Nam does not yet have the supporting industry base required to be able to produce cars locally. In the case of CKD products, parts are simply imported from Japan and assembled into cars locally. It is said to cost the same to assemble a car in Japan, as it is to package and ship those same parts to Viet Nam, making it more expensive to assemble the car in Viet Nam, by the margin of assembling costs. Consequently, it would be unrealistic to expect Viet Nam to be able to export cars in the near future, with the local car industry as it is.

Tire and battery productions are said to be the first steps toward local car production. At present, however, it is possible to procure only a very limited range of parts in Viet Nam, such as wire harnesses and sheets (assembled from fabric imported from Japan). For wire harnesses even, all that is happening is that a portion of the export-bound production output from Yazaki's local plant is being bought by car assembly companies. Given the current market size, it is hard to see car parts makers making the commitment to establish local operations.

5. Issues relating to AFTA/WTO membership

5.1. An outline of AFTA/WTO

Due its inclusion in ASEAN in 1995, Viet Nam automatically became a member of AFTA (the ASEAN Free Trade Area) in January 1996. As such, it must abide with the terms of CEPT (Common Effective Preferential Tariff), in freeing up the mutual trade with other AFTA nations of all products with an ASEAN content of 40% or greater (almost all industrial and agricultural products), by January 2006 (January 2002 for other member countries).¹⁷⁶ This freeing up of trade is to take the form of the removal of non-tariff trade barriers and reduction of import duties to 0-5%. Under CEPT, commodities are listed on either the IL (inclusion list: commodities to which CEPT applies) or TEL (temporary exclusion list: commodities temporarily excluded from the IL), with exceptional commodities listed on the GE (general

¹⁷⁵ CBU ("completely built up") refers to assembled imports

¹⁷⁶ Thailand, Malaysia, Indonesia, the Philippines, Singapore, and Brunei.

exemption list: commodities excluded from CEPT application, namely items related to natural security, life-threatening items, and the like) or the sensitive list (unprocessed agricultural products, etc). From 1999, all ASEAN countries have progressively been transferring TEL commodities across to the IL, with the proportion of commodities with TEL listing at the end of 1999 around 20%, primarily made up by fully-assembled cars and car parts. From 1999, Viet Nam has had to transfer one fifth of TEL items across to IL items, with all IL items eventually being subject to a duty of between 0 and 5%. Note that the Vietnamese government has applied to the ASEAN council for passenger cars seating 15 passengers or less, to be listed as GE items.

Note that what item is listed on which list is largely left to the discretion of each member country, and that Viet Nam has listed cars on the GE. As long as no other country finds fault with a particular listing, that country is not obliged to remove tariffs at any point. However, based on the definition of the GE as being "items related to natural security, life-threatening items, and the like", cars clearly have no place on Viet Nam's GE. This does not present a problem for the time being, but other countries (such as Thailand) are expected to put pressure on Viet Nam to free up trade of automobiles in the future. Also, as a result of Viet Nam including cars on its GE, it is disadvantaged by not being eligible for the AICO (ASEAN Industrial Cooperation) scheme. AICO preempts CEPT in establishing a tariff level of 0-5% on particular items for trade between two or more countries, but is only applicable to "items not listed on the CEPT GE." In order to benefit from the effects of the AICO scheme, therefore, cars must be removed from Viet Nam's GE, and be listed on the TEL or IL. While there is no real harm in listing cars on the GE at present due to Viet Nam not having any manufacturers in a position to export cars or parts to other ASEAN countries, in the future, AICO terms will become necessary in inducing export-capable parts manufacturers to Viet Nam. In practice, there are competitive large-scale parts manufacturers that stipulate the need to operate under AICO conditions in order to set up local operations. In order to entice such manufacturers to Viet Nam, it may be necessary for certain items to which AICO can be applied, to be removed from Viet Nam's GE.

For items listed on the IL, it is not only not possible to maintain import duties over 5%,¹⁷⁷ but non-tariff-based trade restrictions can also not be applied. The following protective measures are also not permitted as a rule:¹⁷⁸

- ① Raising the import duty on a certain item to counter lowering the import duty on a second item. AFTA is aimed at lowering import duties, and only permits moves toward the removal of import duties.
- ② Protect local industry through non-tariff-based means for as long as a particular item is imported only, only to remove trade restrictions when exports of that item become possible.

¹⁷⁷ At present, import duties up to 20% are allowed, but the ceiling is soon to be lowered to 5%.

¹⁷⁸ Based on an interview with the ASEAN Secretariat, Bureau of Trade, Industry & Service.

- ③ Ban imports of a particular item on the grounds that that country has no intention of entering into exports
- ④ Maintain high-level import duties on items of political significance
- ⑤ Postpone the reduction of import duties on items of political significance
- ⑥ Postpone the removal of local content requirements on items of political significance
- ⑦ Raise import duties for extra-ASEAN trade prior to joining the WTO, only to maintain low import duties on intra-ASEAN trade
- ⑧ Juggle import duties on parts in order to promote exports, thereby providing a form of subsidization
- ⑨ Reimburse a part of import duty payments on parts in order to enhance local content incentive

In Viet Nam's case, even corporate giants such as Toyota would not be able to survive were import duties lowered to 5% or below in time for the 2006 deadline.¹⁷⁹ In terms of car assembly, the chances of the Vietnamese industry attaining international competitiveness within the next 10-15 years are slim. In order to firmly establish the car assembly industry, protection via high-level import duties must be made, for which purpose, cars must be included on Viet Nam's GE.

At the same time, Viet Nam applied for WTO (World Trade Organization) membership in December 1994, and in July 1998 a WTO working group commenced negotiations and evaluation of Viet Nam's application for inclusion. GATT (the General Agreement on Tariffs and Trade)—a pivotal tool for WTO activities—is founded around the principles of liberalization, non-discrimination, and mutual benefit. It can be a thorn in the side of developing countries such as Viet Nam in its requirements for non-discrimination of domestic and foreign products (GATT article 3) and the elimination of quantitative restrictions (GATT article 11). GATT article 18 provides assistance for countries unable to abide with item 11, by way of acknowledging quantitative restrictions designed to cope with trade deficits or offer protection to infant industries, although it is only approved to protect infant industries through case-by-case negotiation.

5.2. The response of different countries to the terms of AFTA/WTO

WTO's TRIM (Trade-Related Investment Measure) agreement exemplifies local content and foreign currency procurement requirements as forms of non-tariff trade barriers, and developing countries must remove all non-tariff trade barriers, including local content requirements, within 5 years of the enactment of the TRIM agreement, that is by 2000. As this has not been achieved, however, around 7 member countries are currently appealing for an extension in the waiver period. The Philippines, for example, is applying for an extension of 5 years, and Malaysia for an extension of 2 years, and there is the possibility

¹⁷⁹ Based on an interview with a representative of a foreign company in Viet Nam (September 2000)

of an extension of 2 to 3 years being granted.

Originally, it had been thought that it would be difficult to enforce a local content requirement on the local automobile industry in Viet Nam, as the WTO stated that countries applying for membership subsequent to the enactment of TRIM would have to abide with its terms and no extension of the waiver period is approved by reason of postponed inclusion in the WTO. Now, however, given the large numbers of countries applying for an extension in the enforcement of TRIM,¹⁸⁰ Viet Nam has a good chance of being granted a reprieve of around 5 years from the date of its inclusion in the WTO, if it applies for a period of grace as part of membership negotiations. Having said this, Viet Nam should be careful not to get its hopes up too high, and should consider other policy-based measures for promoting the local automobile industry under the assumption that a reprieve will not be granted.

Thailand and Indonesia have effectively abolished requirements on local content, and policy in these countries is expected to fall into disarray if other countries are granted an extension. Note that these two countries have cleverly adjusted duties as part of the local content abolition process, thus maintaining protection of local parts production. The duty system adopted in Indonesia from July 23, 1999 is stepped as follows: CBU (passenger car) imports from outside the ASEAN region are subject to a duty of 65-80%, CKD imports a duty of 35-50%, IKD¹⁸¹ imports a duty of 10-15%, and other minor parts a maximum duty of 15%. CEPT rules require that intra-ASEAN distribution be subject to a uniform duty of no more than 20%.

As for Viet Nam, protection of local automobile assembling (CKD) solely around tariffs on imports from outside the region will not present a problem for its pending WTO participation. As CKD parts cannot be procured locally in Viet Nam and must be imported, cost levels are inflated over other ASEAN nations. For the medium to long term (3 to 5 years), Viet Nam should adopt a duty on completely assembled car (CBU) imports so high as to effectively block all imports. A similar measure is required for secondhand cars. Due to its pending WTO participation, quantitative restriction is ruled out, making it difficult for Viet Nam to regulate car imports, but it at least can set import duties so as to make secondhand CBU imports uncompetitive as compared to locally produced CKDs. Assuming for the moment that imports of CBUs are to be halted entirely, the market for new cars would rise to around 3 times its current level, given that the current demand for new cars is 6,000-7,000 units and that for all automobiles including secondhand cars is 20,000 units.

At the ASEAN heads of state meeting held in November 1999, Singapore, Brunei, Indonesia, Thailand, and the Philippines all agreed to abide with CEPT rules and reduce intra-regional duties to 20% or less

¹⁸⁰ Countries currently applying for a postponement of the abolishment of local content requirements, are Argentina, Chile, Mexico, Malaysia, Pakistan, the Philippines and Romania (Report on WTO Consistency of Trade Policy by Major Trading Partners, Year 2000, International Trade Policy Division, Japanese Ministry of International Trade and Industry)

¹⁸¹ IKD refers to CKD parts that are not locally produced.

from January 2000, and to 5% or less from January 2003. In contrast, Malaysia applied for a 3-year period of grace, fearing the effects of such a move on the local car parts industry. That is, it applied to be exonerated from reducing duties to 20% or under from January 2000, but stated that in return, it would be prepared to toe the line in reducing duties to 5% or under by 2003. At the ASEAN economic ministers' conference held in Myanmar in May 2000, Malaysia applied for an extension in the timing of the reduction in import duties to 5% or under to January 2005, for automobile-related items only. This partial postponement in the implementation of CEPT has essentially been agreed upon, but has yet to be officially cleared. There is also the possibility of postponement extending beyond January 2005. Recently, consensus was achieved on the procedure for applying for an extension in CEPT terms, triggered by the Malaysian application. The basic procedure is based on GATT Article 28,¹⁸² and involves negotiation between member countries as to what form of compensation should be made by the applying country, after receipt of the official application. If agreement can be reached on the details of compensation to countries heavily affected by the extension, then the overall means of compensation is determined in line with most-favored-nation treatment principles and the extension is approved. If, on the other hand, the details of compensation cannot be agreed upon, then the extension is not granted, and the matter is dealt with through one-way rivalry measures or similar. Member countries officially ratified this procedure at the heads of state meeting held in Singapore in November 2000.

Thailand, Indonesia, Malaysia, the Philippines, Singapore and Brunei have all transferred all trade items to their IL, while leaving some room to maneuver, and are due to reduce intra-ASEAN import duties to 0-5% from January 2002. By "room to maneuver" is meant that any items for which the import duty is not reduced under 5% by the appointed date, will be subject to an import duty of 5% or under from January 2003. That is, the ASEAN region will become a free trade zone from January 2003 at the latest. At this point, only those countries abiding with free trade requirements will be able to reap its benefits. The ASEAN league is founded around the principle of reciprocity for each trade item, and countries which do not include particular trade items on their IL and reduce local import duties, are unable to benefit from its rewards. As a result, until Viet Nam reduces import duties to 0-5% from January 2006, it will be subject to high MFN-based duties in trade with other ASEAN countries (e.g. a duty of over 100% for cars). Malaysian cars will suffer the same fate.

As detailed above, extra-regional protection and furtherance of the ASEAN automobile industry are to be achieved through a simple tariff-based structure, but the unification of duty levels to 5% or under from 2003 is expected to lead to exacerbated intra-regional competition.

¹⁸² GATT Article 28: Increases in the bound rates (i.e. ceilings on customs tariff rates) and the removal of those bindings must be made through negotiation/agreement with member countries and principal supplying countries, and consultation made with principal supplying countries supplying that product which will benefit from the change.

5.3. Activation of AICO

AICO (ASEAN Industrial Cooperation) is a preferential tariff scheme aimed at promoting mutual complementation between companies based in the ASEAN forum by preempting the realization of AFTA (ASEAN Free Trade Area) by enforcing final CEPT import duty rates (0-5%).

AICO targets industrial products traded within the ASEAN forum (all non-GE products with an ASEAN capital ratio of at least 30% and ASEAN content of at least 40%). Once a country has attained AICO recognition from a trading nation, then the duty on AICO items imported from that country is lowered to 0-5%. The scheme was initiated in November 1996, and will remain in force until final CEPT duties come into effect. In addition to industrial products qualifying for AICO benefiting from preferential tariffs, they receive the same treatment as locally-made products once imported, making them eligible for the application of tariff-free preferential treatment within that country.

The total number of automobile-related items to which AICO was applied in the two years from AICO's inception in November 1996 was a measly 10. The large-scale drop in the scale of car production in 1998 as a result of the 1997 currency crisis, however, led to a limited-term mitigation in the conditions on AICO applications,¹⁸³ over the term January 1999 to December 2000, in the interests of bumping up car production levels, streamlining the industry and promoting foreign investment. This resulted in the number of automobile-related items being granted AICO status, rising to a total of 32 by April 2000. Japanese car manufacturers in particular have put AICO to good effect in reinforcing and expanding the scope of part complementation within the ASEAN region. In the period up to the end of 1999, Toyota, for example, received AICO accreditation for 9 car parts types used in its core Corolla, Camry, Hilux, and TUV models, whereas Honda received AICO accreditation for 6 parts used in the City, Civic, and Accord models, all aimed at reducing part procurement costs (see Table 3-1, Figs. 1 and 2). Car parts manufacturers such as Denso (see Table 3-2), Showa and Mitsubishi Electric have also applied AICO accreditation in developing parts complementation networks. Denso in particular has used AICO with great success in establishing a parts complementation system with Thailand, Indonesia, Malaysia and the Philippines as discriminated production bases for electric, compressor, electronic and meter parts, respectively, connected by the hub of Denso International Singapore (DISP), as detailed in Fig. 3.

In this way, car and car parts companies have worked toward integrating the ASEAN countries into a single market, and using intensive production and parts complementation to generate economy of scale to a degree which would not be possible in any one of the member countries.

¹⁸³ Including removal of the 30% ASEAN capital ratio requirement, shortening of the review period for AICO accreditation from 60 to 45 days, and shortening of the lead-time for AICO application (the time taken to issue a certificate of eligibility) from 14 days to 10 days.

Table 3-1. The state of COE Accreditation to AICO car manufacturers (as of April 2000)

Car company	Thailand	Malaysia	Indonesia	Philippines	Number of COEs granted
Toyota	⊙	⊙			2
	⊙		⊙		1
	⊙			⊙	2
		⊙	⊙		1
		⊙		⊙	2
				⊙	1
Honda	⊙	⊙			1
	⊙		⊙		1
	⊙			⊙	1
		⊙	⊙		1
		⊙		⊙	1
Nissan	△		△		
	⊙	⊙			1
Mitsubishi Motors	△			△	
			△	△	
Isuzu	⊙			⊙	1
	△		△		
Ford	⊙			⊙	1
	×	×			
Volvo	⊙	⊙			3

*COE = Certificate of Eligibility

⊙ = COE (s) issued, △ = COE applications currently under review, × = Application(s) refused

Source: "2000 ASEAN/Taiwan Car Parts Industry" FOURIN

Table 3-2. The degree of use of AICO/CEPT by Denso (up to 1999)

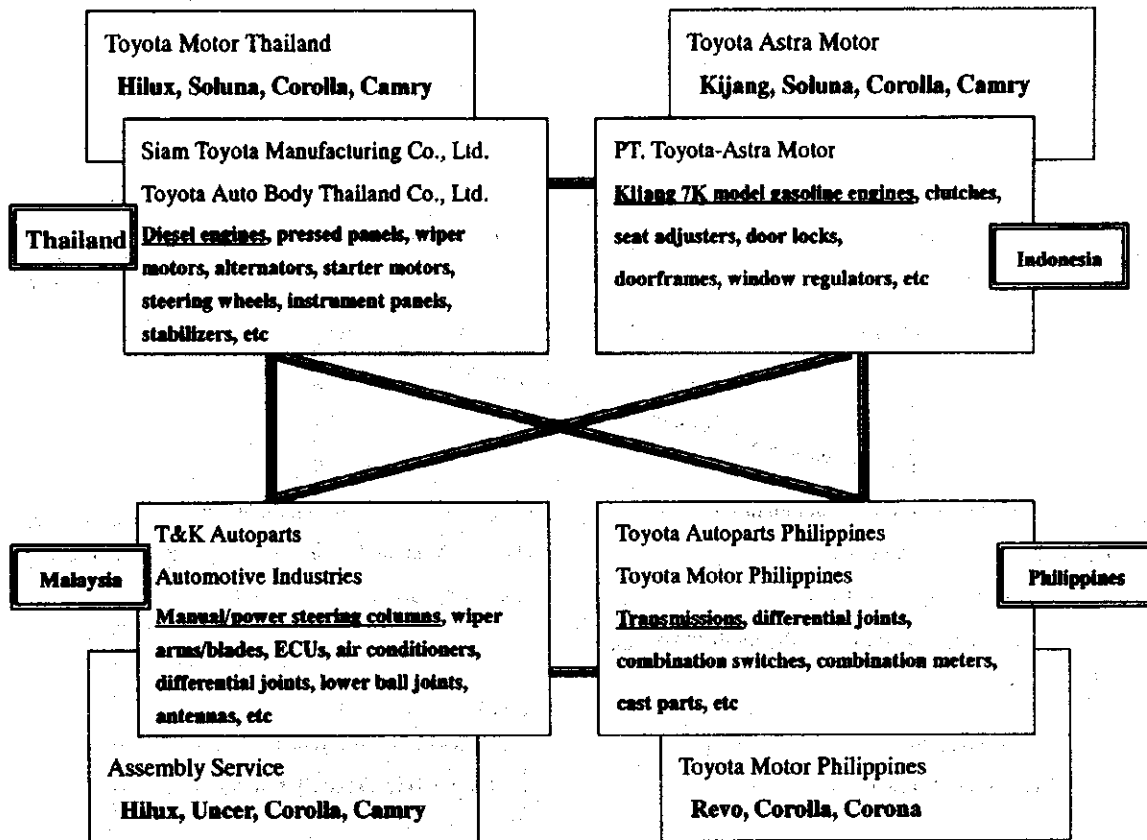
(O indicates that no application of AICO/CEPT was necessary due to low import duties)

Key products	Imports	Thailand	Malaysia	Indonesia	Philippines
	Exports				
Starter motor/alternator parts	Thailand		AICO accreditation	AICO accreditation	AICO accreditation
A/C amplifiers	Malaysia	AICO covered		○	○
Relays, flashers	Malaysia	AICO covered		○	○
Wiper arms & blades	Malaysia	AICO covered		○	○
Compressors	Indonesia	CEPT covered	CEPT covered		○
S plugs	Indonesia		CEPT covered		○
Meters	Philippines	AICO accreditation	○	○	

Note: Denso is currently applying for secondary accreditation in Thai-Malaysian and Thai-Indonesian trade, and has received official approval from the Thai and Indonesian governments.

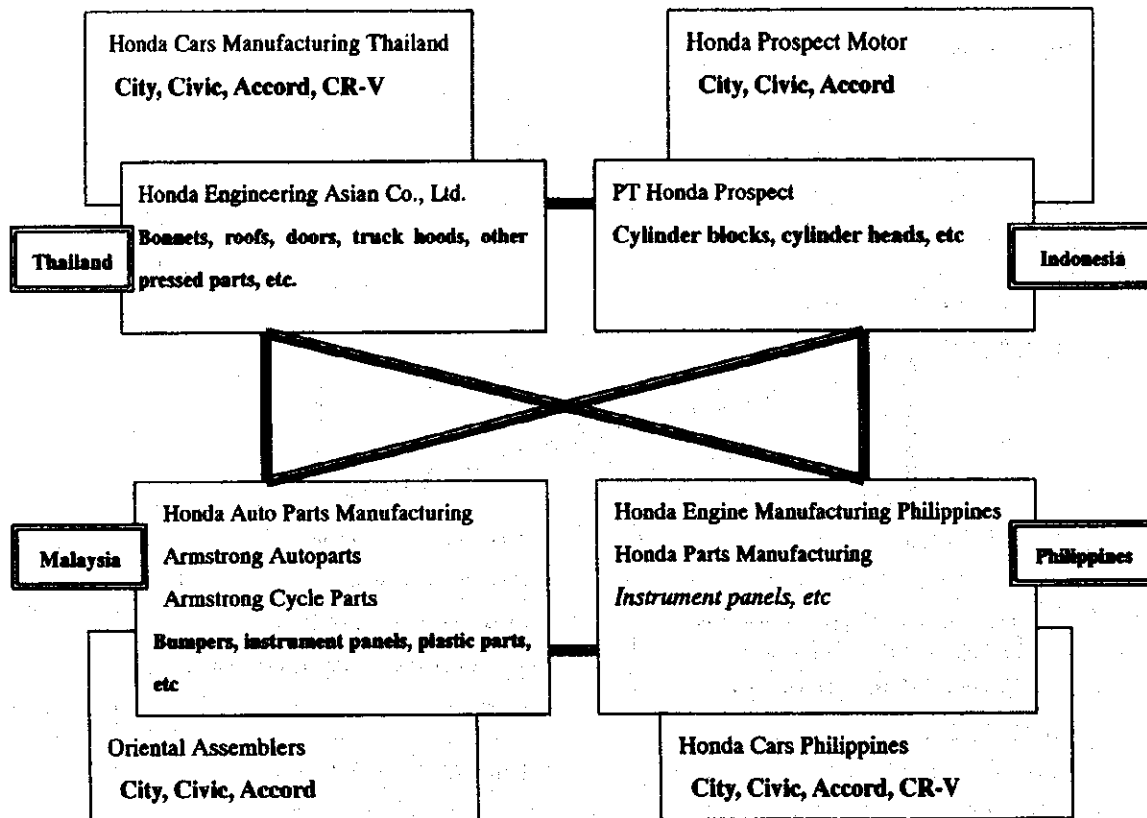
Source: Denso Singapore (DISP/DIAS) documents (October 2000)

Fig. 1. The AICO-based Toyota parts complementation system in the ASEAN region



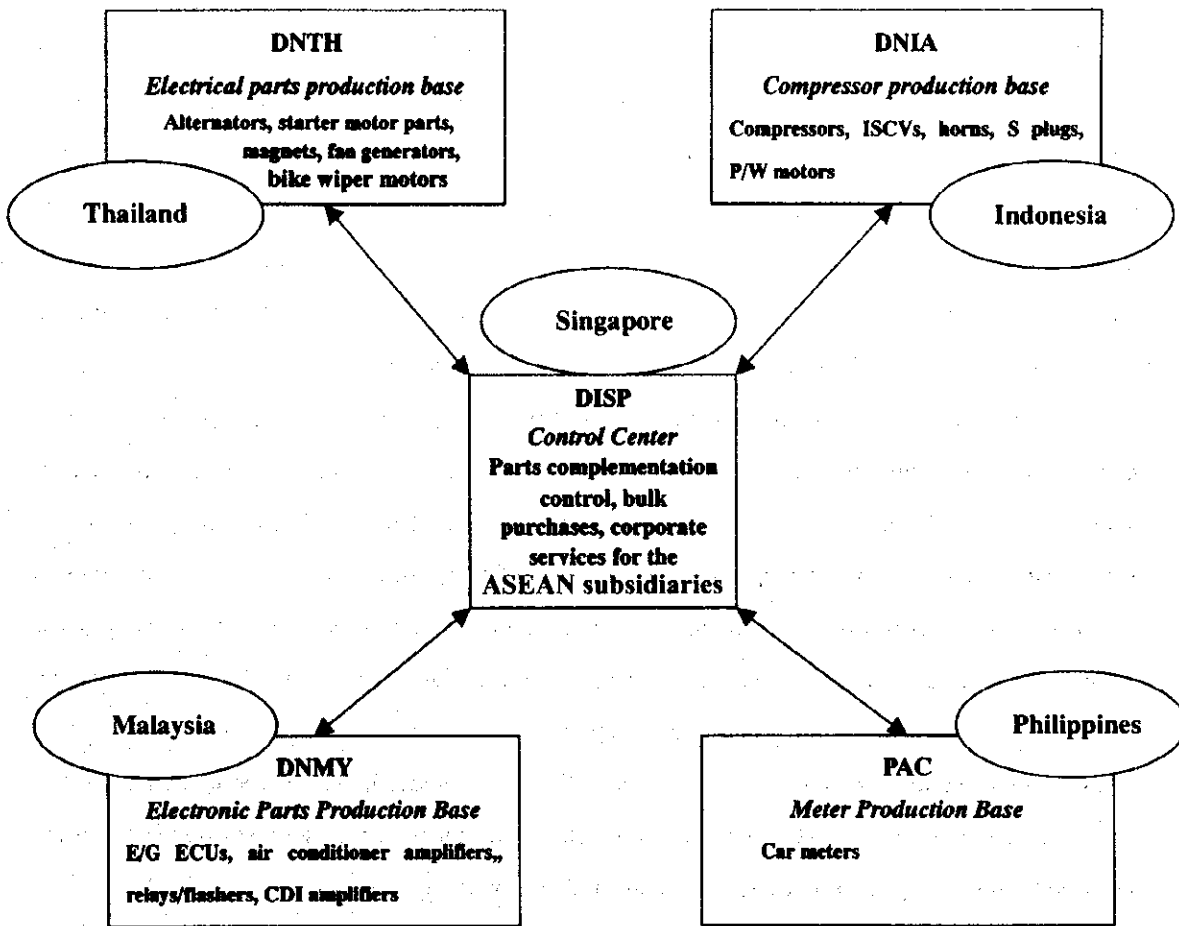
Source: "2000 ASEAN/Taiwan Car Parts Industry", FOURIN Co., Ltd. (May 31, 2000)

Fig. 2. The AICO-based Honda parts complementation system in the ASEAN region



Source: "2000 ASEAN/Taiwan Car Parts Industry", FOURIN Co., Ltd. (May 31, 2000)

Fig. 3. The AICO-based Denso parts complementation system in the ASEAN region



Source: Denso Co., Ltd. Documents (August 2000)

Note: DNTH = Denso (Thailand) Co.Ltd., DNIA = P.T. Denso Indonesia Corp.,
 DNMY = Denso (Malaysia) SDN.BHD.,
 PAC = Philippines Auto Components Inc., DISP = Denso International Singapore

5.4. Toyota's Thai strategy: 100% local car parts procurement

In August 2000, Toyota took the lead on other car companies in announcing its intention to achieve a local procurement rate of 100% for car parts in the Thai market by around 2003. This was portrayed as a ploy to make the most of the introduction of intra-ASEAN import duties of 5% or under from 2002 as part of AFTA terms, as well as to reduce production costs and avoid currency risk. The reason that Toyota gave for having concentrated its efforts on Thailand, was that Thailand's car industry has the greatest depth of peripheral industries of all ASEAN countries, and that competition with European and American car companies was heating up in Thailand.¹⁸⁴ Toyota's motivations in this decision are instructive for Viet Nam, which must start up its own car industry in the context of AFTA.

The reason behind this move on the part of Toyota represents a significant change of direction for the company. One gets the sense that the decision was founded on a fundamental shift in thinking from "make what we can locally" to "aim for local production but import in the case that this is not possible".¹⁸⁵ Using traditional production methods, it is an extremely difficult prospect to achieve 100% local content in a market such as Thailand where car sales are limited, and Toyota is aiming to make a technological breakthrough by daring to set itself an almost impossible task. For example, if Toyota were to use the AICO scheme in adopting intra-regional parts complementation, then it would have to base calculations on the same production systems as used in Japan. That is, in a traditional complementation model, Toyota would have to look at what countries it would have to bundle together in order to achieve payline sales for a single car model in the tens of thousands of units. Toyota sensed that this model had its limitations, and felt the need for a completely different approach.

Next, why did Toyota choose to set about achieving 100% local procurement in Thailand? Here, we take a look at the relative advantages and disadvantages of car production in Thailand (Table 4).

¹⁸⁴ "Toyota part trading: toward 100% local procurement in Thailand", *Nihon Keizai Shinbun* (August 18, 2000)

¹⁸⁵ Based on an interview with the Manager of Production and Technology at Toyota Motor Thailand Co., Ltd.

Table 4. The relative advantages and disadvantages of the Thai car industry

Investment conditions	Advantages	Disadvantages
Political	<i>Political stability:</i> Thailand has a stable government and no ethnic problems, meaning that Japanese car manufacturers were quick to enter the market and are now well entrenched	<i>Administrative inadequacies:</i> Thailand is plagued with administrative problems such as inadequate documentation of customs procedures, rampant corruption and unreliable VAT remuneration, although it is not markedly worse than other ASEAN nations in this respect
Production costs	<i>Size advantages:</i> Thailand is the home to many companies, which operate larger plants than in the Philippines or Malaysia <i>Labor costs:</i> While labor costs are relatively higher than some other ASEAN countries, they are much lower than in developed countries	<i>Transportation costs:</i> Distribution costs and import duties on CKD parts are above those in other ASEAN nations
Private infrastructure*	<i>Good depth and breadth of supporting industries:</i> Primary, secondary and tertiary subcontracting is quite common <i>Technical levels:</i> There is no product to speak of that can be made in other ASEAN countries but not Thailand	<i>Material supplies:</i> No industries to supply base materials such as steel <i>Technical levels:</i> Cannot produce electronic parts <i>Worker quality:</i> Taiwan has superior educational levels. Job-hopping is rife. Numbers of engineers and mid-level managers are low, making it difficult to hire such personnel

Source: Interview with Economic Analysis & Investment Promotion Dept., JETRO Bangkok Center, Thailand, and also interviews with individual foreign companies with local operations in Thailand (October 2000)

Note (*): See Table 1 for details of public infrastructure (water, electricity, communications, wage levels, etc.)

If one were to weigh up the advantages and disadvantages of the Thai car industry (independent of public infrastructure as is generally used in evaluation of investment conditions) from the viewpoint of starting up car production from scratch, then there would certainly be room for doubt as to the suitability of Thailand as a car production center. However, in the first place, Thailand is politically stable, and has also long been the home to local production operations for Japanese car manufacturers. Such companies have invested large amounts of money in Thailand and are well known to the local population, smoothing the way into the local market. Second, for exactly these reasons, the Thai plants of most companies tend to be bigger than their Philippine or Malaysian counterparts. Consequently, if one were to take the conventional line of making the most of size in establishing car production facilities, then Thailand would be the country of choice.¹⁸⁶

Third, Thailand has the upper hand in terms of supporting industries. Most Japanese companies already have local production operations in Thailand, generating a network of dependable, high quality parts

¹⁸⁶ GM, for example, wishes to make Thailand its ASEAN production center, although Ford has based its East Asian production out of the Philippines. These companies have their reasons for choosing the countries they have, and there is no absolute best country for establishing car production operations.

suppliers. Also, primary, secondary and tertiary supporting industries are already in place. Toyota alone has around 100 primary subcontracting companies in Thailand, and around 2000 secondary subcontractors. It is generally prohibitively expensive to ship parts overseas for simple assembly into cars, and Thailand has an advantage over other countries in that it is possible to locally procure reasonable quantities of the components required to make car parts. On the technological side, there is said to be no car parts that can be manufactured in other ASEAN countries but not Thailand.

On the negative side, firstly there is a problem with personnel. It is not altogether true to say that Thailand holds a relative advantage over other countries in terms of skill levels and labor costs. Certainly, Thailand has a depth of car workers due to its 30 or so year involvement in the industry. However, Thai workers are adept at performing basic tasks, but lag well behind countries such as Taiwan in terms of ingenuity and expertise, including overall product development prowess, marketing skills and after service. Taiwan has large numbers of skilled workers due to its high educational levels, and despite being more expensive than Thailand on a simple cost comparison, holds a distinct overall advantage when worker quality is taken into account. One reason for this is the Confucianism-influenced class system in existence in Thailand, whereby only the wealthy go to university, obstructing the fosterage of skilled personnel. Job-hopping is also commonplace, and engineers and mid-level managers are thin on the ground and difficult to locate.

A second disadvantage is in production costs, in that Thailand has relatively high import duties on CKDs, as compared to other ASEAN nations. The duty in Thailand on CKDs is 33%, well above the single figure duty in place in the Philippines. Distribution costs are also surprisingly high in Thailand, with transport costs and insurance making up around 10-20% of the production cost of cars in Thailand.

One problem common to all ASEAN countries but also prevalent in Thailand is that material industries are sparse. A lack of locally produced steel, petrochemicals and other base materials proves a bottleneck in any attempt to achieve 100% local content in the car and other manufacturing industries. With steel, mills producing cold-pressed plates do exist, but upstream operations are missing. This lack of steel and other base materials is a fatal handicap not only in Thailand, but also throughout the ASEAN forum. Within circles of foreign companies established in Thailand, there is a strong desire for the construction of a blast furnace in Thailand or elsewhere in the ASEAN forum, in time for 2004-2006 when production of cars in Thailand (bound both for the domestic market and exports) is expected to hit the million unit mark. Plans to link up with foreign capital and construct a blast furnace do exist, but are on hold as a result of the currency crisis. Some large corporations in the steel industry have fallen on hard times since the currency crisis, and a general reorganization of the industry is currently underway. The Thai steel industry is in the throes of reconstruction, including big companies pulling out of non-core business, and operating rates are low. As a result, domestic capital procurement is expected to be difficult for some time. The underdeveloped capital market tends to force companies to rely on the capital reserves of

conglomerates, but the bigger the company, the greater the reluctance for a share float.

Based on the above analysis of the advantages and disadvantages of car production in Thailand, it is plain that Thailand is not by any means the absolute best investment prospect in the ASEAN forum. However, until breakthroughs are made in developing revolutionary new production methods which reduce costs for small production lots even, as sought by Toyota, the only option is employ traditional methods in treating the ASEAN forum as a single market in order to achieve economy of scale, and make use of parts complementation. Here, the achievement of price competitiveness is a key issue, for which purpose the most effective way forward is to maximize local content. Toyota's journey of exploration has only just begun, but the move toward the realization of 100% local procurement among car companies in the ASEAN forum, looks like an ongoing trend.

6. The medium and long term prospects of promoting the automobile industry

6.1. Policy to expand domestic production

As detailed above, the automobile industry is governed by the effects of economy of scale, posing difficulties for the establishment of local production facilities in a country with a limited market such as Viet Nam. Expanding the domestic production capacity will be an integral part of industry furtherance. The optimal size for a single plant is said to be over 200,000 units/year,¹⁸⁷ a level that has not been reached by any ASEAN nation. In this sense, the local Vietnamese market is far from being an economy of scale. If Viet Nam is to ignore this in attempting to retain the value added of the car industry within its borders and promote supporting industries, then now is the time to make a move. However, the government is caught in a vicious circle, as any policy-based measures adopted by it are doomed to failure because the domestic market is too small to support promotion of the automobile industry.

The restriction of imports of both secondhand and new cars (i.e. the imposition of a high tariff on imports) is vital to facilitate growth in domestic production levels. Prior to January 1999, a duty of 55% was imposed on fully assembled car imports, in addition to which, a special consumption tax of 100%

¹⁸⁷ In developed countries, the optimal plant size is said to be 200,000 units/year, but in developing countries, cheaper labor costs mean that a plant of size 100,000 units/year can operate successfully if due care is taken to curtail capital investment. Just as the same company would spend more or less on different plants around the time of the Japanese bubble economy, plant sizes and costs differ across national boundaries. Generally speaking, the greater the level of automation, the greater the level of production needs to be, but if the level of automation is kept low and cheap labor can be employed, then costs can be kept down for smaller plants even. In the case of car parts, the greater the number of casts, the greater number of units must be produced, but if it is possible to get by without large numbers of casts and employ labor-intensive techniques, then the cost per unit of making much fewer parts can be around the same as for a full-scale plant. Additionally, even for a cast-based plant, if the same cast can be used to produce multiple parts types, or other technical ingenuity is employed, then further cost reduction is possible. (Based on an interview with a Japanese car manufacturer in Thailand, October 2000)

was applied to CIF prices. In January 1999 this tariff was replaced by a total ban on all CBU imports from both within and outside ASEAN region. At the same time, the special consumption tax on imports was applied to domestically produced (CKB) cars, in line with the WTO principle of non-discrimination of domestic and foreign goods. This was offset by a 95% tax exemption for the 5-year period from 1999 to 2003, in order to protect the local product. While this preserves the price competitiveness of new CKD cars, it has only limited real-world effect as, in practice, sales of secondhand cars far outweigh new car sales, and the market for new cars is very limited. Looking to the future, the only way the Vietnamese government has of protecting locally produced cars is through import tariffs. The WTO should have no complaint with Viet Nam promoting an industry of national importance solely through tariffs.

One option that Viet Nam could take before the most of the current early stage of negotiations with the WTO is unfolded, would be to urgently raise the level of tariffs on automobile imports as high as is required to protect the local industry, and resubmit its application for membership to the WTO. If it were the case that local production levels had reached the level of Thailand, locally-produced cars would sell with the import duty set to 20% due to locally produced cars holding a basic price advantage over imports. In Viet Nam, however, locally assembled (CKD) cars were not competitive with the import duty set as high as 55% even. The only way of protecting the local product in Viet Nam from imports, is to set the tariff level so high that it is uneconomical to import CBU cars. The tariff on extra-regional CBU imports in Thailand, Indonesia, Malaysia, and the Philippines (current for 2000) is, respectively, 80%, 65-80%, 42-140% (vans), and 30%.

At the same time, it is important to stimulate domestic demand for cars in Viet Nam, and thoroughly examine why it is that domestic demand for cars over the past 4 years has been constant at around 20,000 units. One immediate reason why the automobile market should have been stagnant for so long is the undeveloped state of road infrastructure, but a cultural stigma would also appear to have a hand in things. That is, there is peer pressure against buying a car. According to some analyses, the proportion of people in Viet Nam at present who have a total disposable income (from main and peripheral income sources) of over USD10,000/year is around 10%, despite this figure not being reflected in official statistics. Based on this observation, it is certainly not the case that people cannot afford to buy a car, and in reality, motorbikes costing from USD2000 to USD4000 are selling very well.¹⁸⁸ At the lower end of the car market, the Kia Pride sells for USD7900, pointing to large numbers of people who can afford to buy a car but are choosing not to. Analysis must be made of the factors deterring these people from buying cars, and any obstacles removed. The main reason cited for low car sales is peer pressure to maintain social equality. Other reasons are the lack of car park facilities, and problems in buying a house or locating a car space outweighing the need for a car. There is also the question of the relatively flat social

¹⁸⁸ The Vietnamese market for motorbikes is around 300,000 units/year (1998). There are about 4.5 million motorbikes on Viet Nam's roads, placing it third in the ASEAN region, after Indonesia and Thailand.

structure in Viet Nam, with little to separate the rich from the poor. In other ASEAN countries, growth in demand has followed the pattern of the affluent first buying cars, and lower classes progressively following their lead as the economy takes off, but this has not been evident in Viet Nam. That is, the reason that demand for new cars has remain unchanged at 6,000-7,000 units for the past 4 years, is that car buyers are primarily restricted to corporate bodies, such as governmental organizations or foreign companies. It is essential for the future furtherance of the car industry that domestic demand is expanded through road infrastructure improvement and some other social means.

6.2. Promotion of local car production

Local car production should be promoted over the long term, based around future expansion in the domestic market. The first step in this direction should be the incremental transfer across from imports of assembled new and secondhand cars, to domestic KD production. In terms of the "CBU \Rightarrow SKD¹⁸⁹ \Rightarrow CKD \Rightarrow local production" industry development process, Viet Nam is currently undergoing the transition from SKD to CKD. In light of the miniscule market scale and there being little hope of a rapid expansion in the market in the future, however, it will be extremely difficult for Viet Nam to continue attempting to develop a self-contained local automobile industry for the next 10 years and beyond. In the long-term process of integration, aggregation, and specialization of production operations according to model type in the ASEAN region, the Vietnamese government must provide assistance for the production of a car model targeted at the overall ASEAN market, and development of a local mother plant therefor. In the future, it will be highly beneficial for Viet Nam to host a mother plant for a promising car model. Thailand holds an advantage over other nations in the production of 1 ton pick-up trucks, but the future of this car type outside Thailand, within the ASEAN market is by no means a sure thing. Strategic policy-based assistance must be provided to support the transition of Viet Nam's assembly plants into mother plants for a car of the future, while casting an eye to advances in automobile assembly technology, including the development of modularization techniques.

The second step toward local car production should be the maintenance of a viable tariff structure (with progressively lower tariffs for completely assembled cars, KD parts, and KD part components) to promote local car production. If the degree of value added generated domestically is to be progressively increased over the years, then the only option open to the government is to incrementally move toward full domestic production, starting with part production destined for intra-ASEAN exports. The government must devise some way of realizing a system to support this (a tariff structure, etc.) posthaste. In order to promote domestic production of automobile parts, for example, the duty on KD parts imports should be reduced to the level that does not hinder domestic part production. Normally, tariffs on parts which can be produced locally should be set high and kept high, but in Viet Nam's case, there are very few parts

¹⁸⁹ SKD (semi knockdown) refers to the process of partial domestic assembly.

which can be produced locally, and the high reliance on imports will continue for some time to come. If things are left as they are, however, the automobile parts production industry will never get off the ground. Key components that are not currently produced in large volumes in the ASEAN region should be identified, and the car parts industry strategically targeted at the production of those parts. As a result, the furtherance of car parts promotion should go hand in hand with policy to attract FDI. That is, Viet Nam should put itself in a position of exporting sought-after parts within the ASEAN region, and use this place of privilege to attract parts makers from advanced parts manufacturing countries. From this launch pad, it should have parts manufacturers produce car parts for the Vietnamese market as a side concern, and gradually step up the level of local parts production.

Viet Nam both has a miniscule market, and lags well behind other countries in technological levels in the automobile parts industry. As a result, it will be extremely difficult to attract FDI purely through tariffs. Foreign car companies currently financing operations in Viet Nam are currently at the stage of having put their foot in the door, in the hopes of significant market growth in the future (20 or 30 years' time). That is, the reality of the situation at present is that, to companies presently emergent in the local market, Viet Nam is a dispensable sideline. Consequently, Viet Nam must prepare a set of attractive measures to entice FDI, as are unrivalled by other countries, and work hard to attract FDI from car parts makers. It is imperative that FDI be attracted to Viet Nam as soon as possible, and that all assistance possible is provided to generate competitiveness between now and 2006.

As a fourth and final step, the Vietnamese government should establish high-level tariffs to keep prices at their current level, and generate export incentives to induce foreign investment. Foreign investors must be provided with some incentive to invest in Viet Nam over other ASEAN nations, which will persist once import duties have been unified throughout the ASEAN region.

6.3. Participation in the automobile parts complementation system among the ASEAN nations

For Viet Nam to be able to participate in the automobile parts complementation system among ASEAN nations, (1) FDI must be relied upon to develop exports in the car parts sector, and (2) wide-ranging investment incentives must be provided to plants producing parts for export.

There is no reason why it should not be possible for Viet Nam to be included in plans for multinational companies (MNCs) such as Toyota to strategically distribute parts production capabilities throughout the ASEAN region in an attempt to avoid friction between countries. It is quite possible that some form of parts plant could be added to the assembly lines currently in existence in Viet Nam, as part of future efforts on the part of car companies to establish car production centers and distribute parts production throughout the ASEAN region. Some car companies may well close down current facilities in Viet Nam given the current state of manufacturing operations, but other car companies are sure to brush aside short-term losses and maintain their production lines, through faith in the future of the local market 20 or

30 years down the track. Viet Nam's troubles are expected to continue unless MNCs take this long-term view of the market.

6.4. Policy to attract parts manufacturers to Viet Nam

The first step in establishing car parts production in Viet Nam is as follows. As Viet Nam does not currently have any supporting industries to supply part components, it must aim for relatively self-standing production facilities, or it will be placed at a disadvantage over more advanced car production nations such as Thailand. One product type that suggests itself from this perspective is an aluminum wheel. Aluminum wheels sell at a relatively modest price of around USD30-40 apiece,¹⁹⁰ but are highly value added, and have an export demand of around 500,000 to 1 million units in the Japanese and ASEAN markets. Aluminum is an international commodity, and it would be fairly simple to get operations off the ground by transferring a plant from Japan. Thus, assuming that there were merits in terms of infrastructure (electricity costs, etc.) in having the plant in Viet Nam rather than Thailand or any other ASEAN country, then it should be possible to attract FDI. Not long ago, an actual aluminum wheel manufacturer was considering either Viet Nam or Indonesia as the site for offshore operations, but opted for Indonesia due to its superior infrastructure. The Vietnamese workforce has a good reputation, but a skilled workforce does not have much impact on company accounts. What do impinge on profits are power, communications and distribution costs, in all of which respects Viet Nam is at a disadvantage over other countries. In the case of electricity, power supplies are unreliable and power failures are not an uncommon occurrence. Viet Nam is on a par with other countries in terms of investment incentives, but then again there is little to set it apart from the crowd. Viet Nam needs to find some obvious sales point that translates into corporate profits, to win FDI off other countries.

A further problem associated with Viet Nam is the lack of systematic protection for technological transfer. Car and car parts production technologies must generally be transferred from developed to developing countries on a constant basis, but Viet Nam currently allows only one-off technical transfers as a rule, and the maximum duration of technical transfer contracts is only 7 years. There is also a ceiling on royalty payments of a paltry 3-4%. Japanese companies, for example, usually receive royalties of over 6%, but in Viet Nam only receive payment of about 3% in practice. Even American manufacturers operating around 100% royalty revenue are rumored to be at loggerheads with the government over outstanding revenue. This situation must be resolved and a proper legal system laid out for progress to be made in technology transfer through FDI. Commensurate remuneration must be made for technical transfer, and the intellectual ownership of transferred technologies properly upheld. Only when such a system is in place will technical transfer from developed nations take place.

The most effective form of investment incentive is corporate tax breaks, and further reductions in tax

¹⁹⁰ Based on a conversion rate of USD1 = ¥100.

levels over other ASEAN nations must be made for Viet Nam to make itself an attractive investment prospect. Given that Viet Nam is at a disadvantage in a number of other areas, it must provide incentives for FDI to a degree that at least sets it apart from Indonesia.

Governments can offer export rewards through not just cash payments, but in adjusting the levels of import duties on CKD parts imported by individual companies, according to the value of exports. The final impact on tax revenue is the same, but tariff adjustment has the benefit of not involving government capital. Such measures can be adopted only for items registered in the GE, however, and as long as an item is on the GE, it is ineligible for the benefits of AICO and CEPT, and difficult to export.

All car companies are obliged to meet a 30% local content requirement within 10 years, and some form of dispensation through tariffs or otherwise could be made for companies that achieve this target. Realistically speaking, no company can expect to realize this objective, and this requirement may have to be abolished at some future point due to it breaching WTO conditions. That is not to say, of course, that it is not important to maintain some form of incentive that will be of direct benefit to companies, to encourage increases in local production rates.

In order for Viet Nam to participate in the parts complementation system among ASEAN nations, it will have to develop export items of interest to the ASEAN community. The details of the industry scheme (BBC: Brand to Brand Complementation, and AICO: ASEAN Industrial Cooperation) have nearly been finalized by the ASEAN 4 (Thailand, Malaysia, Indonesia, and the Philippines), leaving little room for Viet Nam to maneuver in. Even if Viet Nam is to attempt to attract car parts companies to produce parts that have not yet been incorporated into the industry scheme, it will have to compete with other countries. This is the most important issue currently facing the Vietnamese automobile industry, and Viet Nam must bite the bullet and lure strategic FDI to its shores. Policies that can be adopted by the Vietnamese government to this end fall into 4 stages.

STAGE 1: Key policies that should be adopted immediately:

- ① *Divestment of long-term car and car parts industry furtherance policy:* In order for car companies to be able to invest in Viet Nam with confidence, details of long-term (at least 5 years) policy must be divested to the private sector. In the case of Thailand and Indonesia, for example, a key factor in the success of the local car industry has been that people with a keen appreciation of the industry and a clear idea of what to do, have continually implemented long-term furtherance policy. One reason for the stagnation of the Philippine car industry, on the other hand, is a constantly changing government and the lack of consistent furtherance policy.
- ② *Legal provision for smooth technical transfer:* In order to promote technical transfer, extra protection for intellectual ownership must be provided. The influx of copy bikes from China is undermining the investment confidence of foreign companies aiming to increase levels of local procurement. It is important

that the manufacturers in the relatively large bike parts market are given a helping hand, and that all effort is made to ensure that the endeavors of bike manufacturers to increase local content, are not hindered. In Thailand, technical levels in the bike parts manufacturing sector have progressively been built up, and led to a flow-on for car parts production.

- ③ *Enhancement of investment conditions*: In order to make investment conditions more attractive, infrastructure (in particular, electricity and water supplies and roads) must be further developed. What is needed in the case of electricity is not simply lower power tariffs, but consistent supplies of large volumes of electricity without power cuts. Viet Nam should model itself on Thailand, which has the best investment environment of any ASEAN country, and set power tariffs and stable supply objectives accordingly. It is essential that an environment conducive to foreign investment is generated, and that the greatest possible investment incentives are provided. For this purpose, the current system of charging foreign nationals extra income tax and overtaxing foreign companies must be rectified without delay.
- ④ *Assistance with local company link-ups*: Increasing local content is a means for foreign companies investing in Viet Nam to both reduce exchange risk and reduce production costs, and the desire to make use of local companies certainly exists. However, it can be extremely difficult for foreign companies to seek out local companies capable of producing the desired item. Here, the government could act as a go-between between foreign and local companies, and provide foreign companies details of what local companies are situated where. In some Middle Eastern countries, for example, a very convenient local company introduction system is in place including such services as the local Ministry of Industry issuing a detailed list of local companies including information on the technical expertise of each company, and hosting lavish trade fairs. By way of helping foreign companies to locate local supply companies, foreign technical transfer is accelerated and the scope of peripheral industries is increased.

STAGE 2: Key policies which are needed in the medium term (between now and January 2006):

- ① *Maintenance of general exemption of AFTA conditions*: It is vital for the upkeep of the local assembly industry that a 95% exemption from the 100% special consumption tax and a 55% import duty are maintained. Investment incentive must be offered by maintaining industry protection while progressively increasing levels of local content. The inclusion of cars on the AFTA IL of Viet Nam has a very good chance of resulting in the effective cessation of car industry furtherance.
- ② *Stimulation of demand for cars*: Expansion of the local car market is essential for the furtherance of the local car industry, for which purpose, infrastructure must be developed and an environment conducive to car ownership provided.
- ③ *Enticement of prominent parts manufacturers to Viet Nam*: Enticement of prominent parts manufacturers to Viet Nam is a key factor in the preparation of a foundation for the Vietnamese car industry. For this purpose, the AICO scheme must be called upon, legal conditions adjusted to allow for the immediate

utilization of AICO, and a wide-ranging portfolio of investment incentives put forward. For the time being, Viet Nam should aim for mutual car parts complementation with Thailand, due to its larger market size. Discrimination of different production items may be necessary, in removing items to which AICO can likely be applied from Viet Nam's GE, and leaving items to which it cannot be applied in the GE.

- ④ *Promotion of exports:* It will not be possible to nurture a competitive car parts industry by targeting the Vietnamese domestic market exclusively, due to its limited size and limited potential for growth. Exports are essential, and a preferential tax system adopted to encourage exports.¹⁹¹ For this purpose, it is a vital task to entice parts manufacturers with export competitiveness to Viet Nam, in the interests of which a preferential tax system should be adopted, including reductions/waivers/remuneration of import duties on base materials and parts, and abolition of taxes on product exports.

STAGE 3: Policies that will be needed after the initiation of AFTA (from January 2006):

In the lead-up to the initiation of AFTA, the intra-ASEAN import duty on all products will be reduced to 5% or under, and once the free trade zone is in place, it will become impossible to protect industry by way of import duties of non-tariff-based provisions. Having said this, there has been no particular agreement on subsidies between ASEAN countries, such that it would be possible, for example, for Viet Nam to call on subsidies to increase FDI. One way of achieving this would be to increase the domestic consumption tax at the same time as decreasing import duties, and redirect the extra revenue resulting therefrom into subsidies of a form which would not be considered export subsidies. In order to ensure that subsidies do not turn into profits in a vested interest, the implementation must be kept unambiguous.

STAGE 4: Policies that will be needed after signing of the Viet Nam-US agreement/entry into the WTO

There is little the government can do to promote industry other than to enhance investment conditions through the development of infrastructure, or nurture local companies through the promotion of technical transfer, but there are limited possibilities for direct furtherance through subsidies and the like. As a developing country, there is a possibility that Viet Nam would be excluded from WTO subsidization restrictions.

Viet Nam is not able to follow the path of countries such as Thailand and Indonesia in progressively building up the car industry over 30 or so years, through the sequence of banning imports of assembled

¹⁹¹ In order to nurture production of parts that can be exported in the interests of scale merit, a cost level at least 20% cheaper than other countries must be realized for the parts to be price competitive. Given the cost of land and sea transportation and insurance, as well as exchange risk, an item must be at least 30% cheaper than foreign products for exports to be possible (based on an interview with a foreign company in Viet Nam: October 2000).

cars and starting up a domestic assembly industry, then progressively increasing local content by enforcing local parts procurement requirements, and finally incrementally deregulating the market only after the basic foundations have been laid. In Viet Nam's case, industry furtherance must be achieved at 3-10 times this pace, despite the difficulties associated with nurturing a technically-demanding, capital-intensive industry such as the car industry over the short term. For this purpose, between now and 2006, parts production not requiring peripheral industry support must first be developed as rapidly as possible through the implementation of the strategic investment incentives described above, in order to path the way for future local car production. To this end, superior investment conditions to rival countries such as Indonesia must be generated posthaste, and all effort made to attract FDI in the parts industry. Production of exportable parts must be gradually induced, and domestic car assembly costs brought down. Using this as a stepping stone into medium and long-term involvement in complementation in the ASEAN forum is essential for the survival of the Vietnamese car industry. The car assembly industry is expected to reach a modest 60,000 units of annual production by 2010, the limited spoils of which must be shared between 11 companies. International competitiveness is thus not a realistic prospect for a time to come. There is a real chance that the Vietnamese car assembly industry will vanish the moment protection is revoked, a situation which must be avoided by leaving car assembly on the GE, and progressively building up competitiveness over about 20 years through incremental increases in local content, under the guidance of long-term industry policy.

A Comparison of the local car industries in ASEAN nations (current at April 2000)

(Units: '000 units; %)

	Thailand				Malaysia				Indonesia				Philippines			
	'96	'98	'99		'96	'97	'98	'99	'96	'97	'98	'99	'96	'97	'98	'99
Assembled units	560	360	160	330	400	460	160	300	330	390	60	120	140	110	45	65
Total sales	590	360	140	220	360	400	160	280	330	390	60	90	160	140	80	74
Passenger cars (%)	29	36	32	31	76	76	84	85	13	19	20	12	57*	54*	45*	38*
Exports	14	42	68	121	22	25	18	15	5	6	11	32	n.a.	n.a.	n.a.	n.a.
Imports	183	82	n.a.	n.a.	72	41	11	10	92	120	n.a.	n.a.	22*	21*	11*	7*
No. car firms	16 (8 Japanese)				9 (8 Japanese)				15 (7 Japanese)				17 (7 Japanese)			
Production capacity	1,040,000 (operating rate 32%)				560,000 (operating rate 54%)				660,000 (operating rate 19%)				290,000 (operating rate 22%)			
State/features of the car industry	'97: Transformed into export production center after onset of currency crisis. '99: String of Western car firms moves in on market. It pick-ups account for 60% of market.				'97: Increase in share of local companies due to a rise in import duties on CKDs & assembled cars ('95: 68% → '99: 87%)				'99: Increased local presence by Japanese car companies as a result of deregulation policy, etc (market share of Japanese makers over 95%). AUVs main product type				'99: Rampant unfair trade practices, including special permission granted for the import of 500 Chrysler SKDs, and tax exemption provisions for Ford			
Key furtherance policy for the car and car parts industries	'62: Start of SKD production through foreign investment induction policy '71-74: Transition to CKD production; restriction of assembled car models, and requirement for 25% local content '75: Protection/furtherance of car and car part industries through requirements on local parts content, a ban on imports of assembled cars, tax breaks for exports of assembled cars, etc '78-88: Protective policy for local companies, and heightened local content requirements '88: Announcement of local production of It pickup engines '91: Removal of import ban on assembled cars '00: Abolition of local parts content requirement, increase in import duty on CKD imports				'66: Import restriction on assembled cars, CKD parts imports exempt from duties '79: Local content requirements for certain parts types '83: Protection/furtherance of local companies; local production of parts, CKD imports exempt from duties for the first 5 years and a reduced rate thereafter (currently 13%), 50% exemption from commodities tax '97: Increase in import duties on assembled cars/CKDs '00: Postponement in the abolition of local content requirements, and extension in the initiation of CEPT				'69: Start of local production; import ban on assembled cars and local content requirements for specified parts → failed '93: Policy shift; deregulation of assembled car imports and reductions/exemption from duties on CKD imports based on the level of local content (incentive scheme) '94: Abolition of foreign capital restrictions '96: People's car plan; parts exempt from import duties and assembled cars exempt from luxury tax '98: People's car plan scratched due to ruling that it violated WTO regulations '99: Abolition of incentive scheme, deregulation of assembled car imports and reduction in import duties, introduction of CKD import duties as part of new car policy				'51: Import restriction on assembled cars, start of CKD assembly operations '71: Start of local production plan '87: Protection/furtherance through local content and foreign currency procurement requirements '93: Easing of restrictions (lifting of ban on passenger vehicle imports, lowering of CKD import duties, market entry deregulation, etc) '98: Increase in CKD import duties, ban on SKD imports, easing of local content requirements, imposition of local procurement requirements on high-tech parts '00: Postponement of the abolition of local content and foreign currency procurement requirements (to the end of 2004)			
AFTA/WTO response	Protection via import duties All import duties to be reduced to 0-5% by Jan 2003				Postponement of removal of quantity restrictions to the end of 2001; all import duties to be reduced to 0-5% by Jan 2005				Protection via import duties All import duties to be reduced to 0-5% by Jan 2002				Postponement of removal of quantity restrictions to the end of 2004; all import duties to be reduced to 0-5% by Jan 2002			
Population ('000)	61,800 (1999)				21,800 (1999)				208,970 (1999)				76,770 (1999)			
Rate of car ownership	9.5 people/vehicle				4.5 people/vehicle				41.2 people/vehicle				32.5 people/vehicle			

Note(*): Does not include medium and large commercial vehicles

Sources: 2000 ASEAN & Taiwan Car and Car Parts Industries, FOURIN Co., Ltd. (May 31, 2000)

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