

1 Post-Crisis Asian Economies: Some New Industrial Prospects

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1 Introduction

Asian economies are back on growth tracks, or so it seems. Whereas various comments in mid-1998 questioned the future of Asian economies – particularly Newly Industrialized Economies of East and Southeast Asia, a year later amazed comments applauded the resurgence of growth¹. As for the year 2000, the rosy mood based on overall growth performance in Asian emerging countries. The so-called Asian crisis vanished in early 1999 although some major structural issues such as bad loans, companies restructuring and stock exchange instability are still at the forefront of economic life. The Asian crisis was indeed a multi-faceted crisis in a new context of globalization: monetary (as a consequence of weak currency management in Thailand and other ASEAN countries), financial (partly derived from asset speculative bubbles), industrial (evidence of this is clear in the case of chaebol conglomerates failures in Korea, and also in the competitiveness issues in some ASEAN-4 countries in the years preceding the crisis), political (cronyism aggravating the structural failures, inefficiencies in State institutions, supervision and legal capabilities) and social (affecting the new middle class consumers).

In countries that were most affected (ASEAN-4 and Korea), consumption declined because of rising prices of imported manufactured goods, falling of income due to rising unemployment, loss of confidence in the future. The breakdown of the financial system making loan both scarce and very expensive also contributed to the consumption and investment shrinkage. For a couple of years, mostly 1997–98, but up to now in some emerging economies, small and medium sized firms which cannot finance activities by issuing bonds and therefore

¹ Among many other titles from leading economic magazines : "Can Asia be revived" Far Eastern Economic Review, June 18,2000 ; "Asia's astonishing bounce back."The Economist

are highly depending on banks borrowing found it particularly difficult to raise the necessary funds to continue production, lacking of the means to import raw material or parts and components. All together this lead to a broader deterioration of the economic climate.

The crisis revealed the urgent need for structural reforms. Governments generally acted in that direction taking measures to reform their financial system, to deregulate and review the grouping structure or diversification strategies of them like in Korea, to liberalized exchanges (or accelerate its pace) and to attract new investors, through taxes exemptions or easing of M&A. But the crisis did not promote strong regional collective reaction, or institution building that could capitalize on the experience and implement corrective measures to prevent a future similar crisis.

What is left of the crisis ? Which issues keep a strong relevance for firms strategies? In this paper we will try to identify new trends in major industrial powers in Asia and recent NIEs², and introduce some fundamental elements related to industrial dynamics.

2 From Crisis to Recovery: a Tentative Diagnosis

The regional spread of economic recovery followed the regional diffusion of the crisis. Statistical data, whatever optimistic or not, all confirm this recovery trend. This should not obscure the fact that national situations differ a lot. Beyond figures, some qualitative elements have also to be considered to explain these differences and the challenges countries in the region are facing.

2.1 A New Impetus: is New Growth Taking Roots in Asia ?

Since late 1999, only two years after currency collapsed, recovery is confirmed. The recovery – with performances better than expected – lead to upward growth figure revision by the beginning of 2000. It was suggested that growth was reaching a sustainable pace, avoiding overheating.

Depending of sources, the return to growth seems to be more or less optimistic. The FMI considers that Korea, China, Hong Kong, Taiwan and Malaysia could achieve a 6–7% growth in 2000 while the Philippines, Vietnam, Thailand and Indonesia would register only a 3–4.5% of GDP growth. The World bank for its part, estimates that all major Asian economics – Japan excepted (credited by a 0.7%) – are back on tracks with a growth rate for year 2000 and even for year 2001 being robust in several countries. The GDP growth rate of each countries is

² We refer to Japan, China, first generation NIEs – Korea, Taiwan, Hong-Kong, Singapore, and second generation Asian NIEs – or so called ASEAN-4, namely Malaysia, Thailand,

evaluated to between 3.8 for the Philippines and 6.5 for Korea and China in 2000; between 4.2 for the Philippines and 6.2 for Singapore and Taiwan in 2001 (see Table 1–1 in the statistical annex).

This optimism can be explained by two factors : on the side of world demand, the export led growth accelerated, based on consumption in North America and revival in Europe. On the domestic front most emerging economies have succeeded in maintaining budgetary and fiscal discipline and monetary stability. In recent months though, several governments, particularly in ASEAN-4 countries have been subjected to pressure from private sector for more subsidies for industrial restructuring and development, and from popular demands for social budget and less taxation.

However, even with the more optimistic estimates, the growth rate remains generally lower than in mid 90's with rates ranging from 5 to 9% (Table 1–1). Production volume as well as domestic or regional sales are also far behind pre-crisis levels in most industries. Consumption is increasing again in most countries covered by this study, and firms too, are resuming investment again, even at a rather low pace. The signs of health that we just mentioned could be counterbalanced by the remaining large amount of bad loans that some of the concerned countries still have to absorb and by the structural and institutional reforms that ought to be carried out.

The speed and extend of recovery are (and will be further) related to the capability of each country to cope with the restructuring issue. They also differ from one industry to another: there are for example great differences between industries turned to domestic demand and industries highly turned towards exports as we shall see in points 2 and 3. So if generally speaking, the recovery is faster and broader than expected during the first years of the crisis, the question remains: is the present recovery trend a long lasting one?

Table 1–1. Evolution of GDP in Asian Countries

unit:%	1996	1997	1998	1999	2000	2001
Malaysia	8.6	7.5	-7.5	5.4	6.0	6.1
Thailand	5.5	-1.3	-10.0	4.1	4.5	4.6
Indonesia	8.0	4.5	-13.7	0.2	4.0	5.0
Philippines	5.8	5.2	-0.04	3.2	3.8	4.3
Singapore	7.5	9.0	0.3	5.4	5.9	6.2
Vietnam	9.3	8.2	5.8	4.4	5.0	6.0
Japan	5.0	1.4	-2.8	0.7	0.7	**
Korea	6.8	5.0	-5.8	10.7	6.5	6.0
China	9.6	8.8	7.8	7.1	6.5	6.0
HongKong	4.5	5.3	-5.1	2.9	5.0	5.5
Taiwan	5.7	6.8	4.8	5.7	6.3	6.2

Source: World bank, until 1999 = actual, 2000 and 2001 = estimated

In fact, the future prospects are not only subject to the crisis and its impact, but also to a lot of other interrelated factors including American (or European) and Japanese growth, foreign investors behavior, and national and regional regulation.

2.2 Middle Term Prospects in Selected Asian Countries

In most emerging countries, large scars are left, although issues tend to be diluted in current optimism, or to belong to a not so distant past.

This on one hand can be explained because of the outcome of the crisis: it did not evolve into a full scale recession, neither did it develop a "fusion syndrome" with a new drastic chain reaction triggered, for example by a currency devaluation in China.

On the other hand, although a common feeling was shared about the crisis among most countries in Asia, there was much complacency about the lessons to be drawn and the measures to be implemented to facilitate recovery. This is even more an handicap now that recovery does not seem to be just a one country issue. Given the higher level of interdependence, the question should be much more addressed at the regional level, including the heavyweights countries that could be expected to act as engine for regional growth.

Japan representing about half of Asian GDP, the recovery of this heavyweight country constitutes a major expectation for its Asian neighbors. Unfortunately, although it recovered since early 1999, the pace is still low and unstable, generating apprehensions. In fact, growth is largely driven by government measures to sustain activity through public demand, taxes exemptions and also measures favoring SMEs and employment. Successive government plans result in higher growth for first term of 1999. Public investments increased by 10.3% and even private demand peaked again (family consumption, property investments, and firms investments). Thanks to these plans, the growth rate of Japan for fiscal year 2000 was re-estimated (Dourille 2000).

Public expenditures can be stimulus for growth in the short term, but the limit of this process seems in view by late 2000 and the long term remains uncertain. To recover effectively, Japan still has several issues to address: reduce excess production capacities (keeping low private investment), stop the increasing unemployment rate which is partly responsible for lack of confidence of Japanese household/consumers, and most of all further the restructuring of its capitalistic pattern.

Admittedly, deregulation progressed in the telecommunication or financial sectors, but there is still a lot to do to cope with needed changes in the employment system and in the firm governance structure. As long as Japan does not progress enough in these direction, confidence will not come back and consumption will stay at too low a pace to allow recovery. This is even more true because exports to the Asian region are lagging behind and do not fuel recovery.

Table 1-2. Fundamentals

2000 – latest as 1 sept	CPI Yoy %	Interbank rate	Current Acct 12mth \$bln
China	0.5	2.55	15.6*
Hong Kong	2.1	6.56	13.2
Indonesia	4.4	14	-5.8
Japan	0.5	0.396	121.6
Korea	2.0	6.75	14.5
Malaysia	1.4	3.08	19.3
Philippines	4.6	9.25	14.3
Singapore	1.1	2.5	24.3
Taiwan	0.3	4.97	5.6
Thailand	5.2	2.765	10.6
United States	5.5	6.62	-393
Euro-11	2.3	4.62	-4.7

Source : JP Morgan – The Economist.

Table 1-3. Trade and industrial activity

mid 2000	Trade balance	Industrial Production % chge yoy
China	29.6	12.8
Hong Kong	-8.7	-0.2
Indonesia	30.5	4.1
Japan	110	4.2
Korea	17.7	19.3
Malaysia	17.3	19.4
Philippines	5.9	14.3
Singapore	3.2	11.3
Taiwan	7.9	9.3
Thailand	6.5	-0.8
United States	-330	5.8
Euro-11	37	3.9

Source : Asian Development Bank and Far Eastern Economic Review

A new springboard could be found through the "new economy" and information technology related activities – recent investment by firms or new firms creation are strongly linked to telecommunication, and information related

necessary to keep in mind that the Japanese government does not have a lot of resource left to promote this new promising sector.

In **China**, fiscal policy aims at maintaining stable economic growth – the country displays probably the strongest growth in 2000 – public incentives are a major element to incite domestic consumption and defuse social crisis at sectoral or regional level. Exports are a key driver of current expansion. Considering the last step of WTO negotiation, prospects are quite rosy too. This explains most assumption on stability of the Renmibi – particularly as inflationary pressure fail to materialize (estimation of 0.5% year on year, see Table 1–2 and 1–3). The low interbank rate is a poor reflection of the state of financial institutions, and much restructuring is to be expected on that front. A major remaining issue is restructuring of some public assets and their social consequences, to be felt well into the future. As for Hong Kong, external demand and fixed investment are strong drivers of the economy, and recovery is also confirmed to accelerate (5 to 5.5%), with a strong current account surplus.

Korea growth accelerated in 1999 and remains sustained, with macro-economic consolidation – stable currency and balance of payment surplus – which will contribute to limit inflation. Major remaining problems are reform of financial institution and chaebol structure – which is lagging behind for political reasons.

Taiwan too shows impressive growth. Exports remaining strong, largely because of world electronics demand. Post election public policy is unlikely to change – therefore strategic ties with China could increase steadily.

The **ASEAN-4** countries show strongest unstable elements : weak monetary situation, shaky financial restructuring, and political pressure on top at various degrees of magnitude. In Thailand and Malaysia the recovery momentum continues – largely export led. Thailand shows rapid growth but slow restructuring and disappointing recovery of domestic consumption. Malaysia, despite political problems, seems in healthier situation – although the financial sector has yet to recover from its restructuring. Philippines enjoys good economic fundamentals but political issues increase the local uncertainties. This is even more so for Indonesia – where political issues are paramount – the only positive point being the current benefits from the oil price hike.

2.3 The Outcome of the Crisis and Structural Issues for Industries

Beyond the short term figures that outline the current context, other elements contribute to shaping firms' strategies in the coming decade. We would like to mention just a few, the pattern of which the crisis years have decisively affected both in terms of financial and public policy. Some elements can be considered as assets for future industrial expansion – nevertheless, inadequate policies, lack of resources or structural changes derived from the crisis will determine evolution in the coming decade – either to generate improvement or to generate bottlenecks or deficiencies that will bear upon industrial activities.

Education: East Asia was, and is even more than before a region with a well educated population. The widespread literacy and education was said to be an ingredient to the “Asian miracle” – referring both to educated steelworkers in Japan in the late 70's or to high school and university graduates in the car or electronic industries. In that respect Japan remains ahead, followed closely by some NIEs such as Korea, Taiwan or Singapore. The crisis struck at a time of transition for the educational system (particularly the new private institutions in Southeast Asia). One issue is the continuing mobilization of private capital and public fund to improve the development of education to higher levels in emerging countries (e.g. Thailand extended its compulsory education to 16 years but like other Asian-4 still show deficiencies in technical and engineering education, China showing a tremendous potential, and flexibility to adapt educational institutions with active foreign partnership still has a long way to go for mass technical education).

Networking infrastructure: The region is endowed with a powerful communication network, especially when compared to lower densities or grades in South America or Africa. The crisis years have delayed some investment, but all in all, in an area ranging from Singapore to Seoul, industrialists can take a regional view regarding transport infrastructure and services. The situation is marred though with local congestion, inadequate network management or even corrupt and inefficient institutions. Most industrialists (and investment agencies) would agree, there is still room for improvement. The issue of financing further development is an acute one, though, at a time of tightening government budgets. There is also a tough constraint on operation of some infrastructure – particularly mass transit systems – when purchasing power of private consumers is kept low.

Innovation: this is a crucial aspect of industrial dynamics for the coming decade. On the public side, there are clear achievements in many institutions of the NIEs whereas ASEAN-4 countries need to beef up their technology oriented policies. Regarding first generation NIEs, the challenge is to maintain technological capability of public research center and put oil in networks that make use of brain resource (reverse brain drain, regional cooperation...). Considering firms strategies, resource endowment – particularly educational levels – do play the key role in location decision for R&D centers or technology-based facilities – but the picture is being blurred by the intense restructuring following the crisis.

Market: Asia was labeled the most promising regional market at the end of the 90's, when emerging countries were fostering new consumer societies, with increasing number of so-called “middle class” consumers, plus very substantial potential for rural consumption increase. The crisis struck hard on consumers, altering patterns and strategies (such as loan seeking). Therefore, it remains to be seen whether mild growth can restore pre-crisis habits, or else new elements have to be put to revive a strong consumption pattern (such as e-commerce, new forms of loan allocation). This thinking also applies to the ‘mammoth market’ of China --

the magnitude of which will excite the appetite of industrialists for the next half century.

Governing the markets was identified as one of the key ingredients of Asia's emerging economies (Wade 1993) – some questions remain concerns the identification and implementation of policies to capitalize on these assets – at a time when developmental states are weakened and public budgets strained. Public institution improvement is a matter not only of increasing efficiency but also restoring legitimacy of State to intervene for progress and equity.

2.4 Asian Markets Recovery in Car and Electronic Industries

Almost Asian countries are on the track to recovery. Admittedly the diverse recovery paces of are also to be found at sector level: depending on industry the situations show substantial differences. Car industry which production was mostly dedicated to local markets strongly suffered of the crisis, while electronic industry much more export-based founded it easier to adjust.

2.4.1 Car Industry: Markets Shrinkage and Recovery Path

Car industry was at the center of new consumption patterns in emerging economies (see the late opening of the Korean market in the 90', and the rapid transport congestion of ASEAN-4 capitals as early as the 80's). In the context of the economic crisis of 1997–99, domestic markets were affected by a strong contraction derived from the domestic personal income and credit crunch.

With 218,330 vehicles sold on the Thai market in 1999, it is higher than the 144 065 of 1998, but compared to the 589,126 sold in 1996 (peak year), the pre-crisis level is still far behind. Future demand forecasts show that in 2003 the markets recovery will bring the sales around the 1994 level. It is the case for Thailand with 490,000 vehicles or for Indonesia with 359,000. Malaysia could recover a little faster with the 2003 estimated 363,000 vehicles being close below the 1996 level (Table 1–4).

Production numbers are following the same trend: with 327,233 vehicles produced in 1999 in Thailand for example, the recovery is noticeable compared to the 158,130 of 1998, but if compared to the 559,428 vehicles produced in 1996, the difference is still important (Table 1–5).

The Chinese market is the only one registering a permanent growth during the crisis years, confirming that the country was not hit directly by the crisis.

Comparing sales and production numbers shows that except Korea, the vehicles produced in each countries were almost dedicated to the local markets (see Table 1–4 and 1–5). In the case of Thailand for example, production reached 559 428 vehicles in 1996, short below the number of vehicles sold: 589 126 vehicles.

Table 1–4. Car industry (truck and buses excluded): Real sales and demand forecasts in main Asian countries (unit: vehicles number)

	93	94	95	96	97	98	99	00	01	02	03
Thailand	456,468	485,678	571,580	589,126	363,156	144,065	218,330	283,000	348,000	417,000	490,000
Philippines	83,811	103,471	128,162	162,011	144,435	80,231	74,414	81,000	85,000	98,000	117,000
Malaysia	167,928	200,435	285,792	364,788	404,837	163,851	288,547	307,000	334,000	342,000	363,000
Indonesia	210,679	321,760	378,694	332,035	386,691	58,303	93,814	195,000	252,000	302,000	359,000
Korea	1,435,967	1,555,602	1,555,902	1,644,132	1,512,935	779,905	1,273,079				
Sri Lanka	557,183	575,499	546,634	470,636	481,567	474,069	423,540				
China	1,470,151	1,451,696	1,564,000	1,458,666	1,565,904	1,604,480	1,832,470				

Source: Sakurasogo kenkyujo, 2000 for 1993 to 1999 real numbers and Mitsubishi 2000 (Ajia jidosha kenkyukai, May 30th) for ASEAN-4 st.

Table I-5. Annual production of car and LCV in Asian countries

	1996	1997	1998	1999
Korea	2,812,714	2,818,275	1,954,494	2,843,114
Taiwan	389,417	381,103	404,545	350,273
Thai	559,428	360,303	158,130	327,233
Malaysia	398,936	457,144	164,238	269,103
Indonesia	325,495	389,279	58,079	123,244
Philippines	136,556	110,983	45,040	n.a.
China	1,474,905	1,582,628	1,627,829	1,830,323

Source: Sakura sogo kenkyujo 2000

2.4.2 The Electronic Industry: Weathering a Market Cycle

On the eve of the Asian crisis, the world electronic industry was larger in gross turnover terms than all activities related to car industry. Major producers were the largest industrial nations – USA, Japan, United Kingdom and Germany, but the total consolidated production of emerging Asia was ranked just after. In terms of exports, Asia and Japan controlled a 50% share (emerging countries about 35%), before Europe (30%) and United States (15%). It was already global to a large extent – which means that major companies located their facilities in various regions – particularly in Asia.

Among Asian producers Japan had the lead, and still has to a large extent ; In 1997 Japan production surpassed \$250 billions, followed by Korea, Singapore and China (producing about \$US40–50 billions). Asia was also a major market for electronic products – similar in size to the US market – half of it being in Japan though. The prospects for expansion were considered very bright – taking into account the rapid integration of China in the network of world electronics and as a rapidly growing market.

The world electronics industry weathered a downturn as early as 1994 – for activities ranging from telecom to computers and Integrated Circuits (Ics). This was largely due to new product cycle, over-investment followed by drastic price cuts for products that could almost be labeled “world commodities” (standard Ics or chips, lower range of PCs).

This market stagnation was followed by the storm of the Asian crisis – in that respect deterioration of profitability was followed by actual market shrinkage in emerging Asia and Japan, which in turn resulted in excess capacity at some major production sites – in Korea, Malaysia, Taiwan, but also Scotland or other sites in Europe. Therefore, the electronics – and the electrical goods sectors too – in Asia were to a certain extent subject to instability during the “Asian crisis” – but not so much to the turmoil that struck the automotive industry. Indeed due to specific

condition, these sectors adjusted quickly since 1997 and weathered the storm after 1998.

Several reasons can be put forward to explain this specific feature.

In the electronics industry (comprising both equipment components and consumers goods), where production was largely dedicated to exports, the impact of the consumption shrinkage, credit squeeze... was largely offset by the recovery on world markets. The market for general consumer products collapsed in NIEs, and has not fully recovered in most of them though.

Regarding the specifically electronic components and particularly the integrated circuits, the export crisis actually preceded the currency and monetary crisis. A cycle downturn was observed before, as said above, concerning demand of ICs on major markets. The crisis was unprecedented as the market glut led to sales contraction of up to 30% for some segments, and the effect was particularly hard felt by companies that invested heavily in the preceding years. Regarding standard integrated circuits, the crisis was an internal one – largely due to a product cycle and over capacity built in Korea and Taiwan.

Production of electrical goods suffered much more because of shrinkage of domestic markets in emerging countries. There was a drastic reduction of both industrial and public investment – mostly concerning facilities maintenance and extension, or electrical networks.

To put it in a nutshell, production took off again due mostly to external factors – and this trend was backed up by new organization changes of firms to answer demand with more flexibility. As Table I-6 illustrates, the good situation for production of some major items brightened over the past years ;

(1) Most segments of production have recovered since 1998. The increase in production is largely export led. (2) At the same time, some reshuffle of production site took place among NIEs – particularly between ASEAN-4 countries as firms maximized their procurement and subcontractors network. (3) The quantitative recovery does not tell the whole picture though – as profitability of many companies suffered over the past years from heavy financial costs, intense competition in the region and expensive capacity investment.

The recovery might be faster or more or less stable depending on industry or production segments. The future prospects in both car and electronic industries are subject to several elements which combination can lead to further growth and to further restructuring.

Table I-6. Trends in production of selected electronic consumer goods for major countries

Annual production of selected items				
Unit : thousand				
	1998	1999	2000	Increase 2000/1998
Thailand				
Color TV	7,500	6,840	6,000	-20%
car stereo	3,780	6,010	6,000	59%
Electronic lens	3,000	3,600	4,000	33%
Portable phone	0	0	0	
HDD	21,000	25,800	30,000	43%
Fax	2,930	2,630	2,500	-15%
Malaysia				
Color TV	6,000	5,350	5,520	-8%
car stereo	8,370	8,230	8,640	3%
Electronic lens	620	650	650	5%
Portable phone	1,210	3,520	2,600	115%
HDD	10,000	18,000	18,000	80%
Fax	2,340	2,420	2,400	3%
Taiwan				
Color TV	610	600	600	-2%
car stereo	800	650	500	-38%
Electronic lens	240	250	250	4%
Portable phone	30	820	2,200	7233%
HDD	0	0	0	
Fax	1,330	1,760	1,850	39%
China				
Color TV	33,000	29,000	32,000	-3%
car stereo	16,800	16,300	17,500	4%
Electronic lens	2,600	2,700	2,800	8%
Portable phone	9,300	17,000	30,000	223%
HDD	6,800	11,700	16,000	135%
Fax	2,200	2,300	2,400	9%
Korea				
Color TV	10,600	10,700	10,700	1%
car stereo	4,640	5,400	5,500	19%
Electronic lens	8,060	9,200	9,500	18%
Portable phone	17,980	43,000	50,000	178%
HDD	8,210	6,000	12,000	46%
Fax	720	600	630	-13%
Singapore				
Color TV	1,030	1,080	1,000	-3%
car stereo	2,200	1,090	1,080	-51%
Electronic lens	960	960	960	0%
Portable phone	1,500	4,800	4,900	227%
HDD	60,960	74,640	80,600	32%
Fax	300	250	250	-17%

Source: from Sakura sogo kenkyujo 2000: I-1 to I-3

3 New Challenge for Car Industry in Asian Emerging Countries

The car industry is a symbol of both a particular industrial organization for which Japanese companies have played an increasing role over the past three decades and a national activity that used to be promoted and protected in some emerging economies for reasons of national strategy (Humphrey, Lecler, Salerno 2000). Changes in industries could be monitored in terms of ownership, restructuring of network and division of labor (at national and regional scale). The transformation that firms are implementing derives from several interacting factors. The crisis played its part for example in bringing ASEAN plants to serve as exports bases to some extent and in favoring concentration through mergers and acquisitions. But the present WTO membership of most of the Asian countries is probably a factor of more importance in the long term.

3.1 From National Markets to Exports Oriented Production

Japanese car manufacturers, which presence is quite high (except in China) with more than 90% of production volume and market share in the ASEAN for example, were not concerned by exporting from these countries until the crisis. They all focussed on the national markets which growth potentiality was high and exports of CBU¹ prohibitive, developing their Asian car concept, aiming at coping with local regulations in terms of local content and so on (Lecler Guiheux, 2000). Korean car makers followed the same strategy while opening plants in the ASEAN area in the 1990's to challenge Japanese domination on these attractive markets. European and American car makers, which presence was quite limited in the ASEAN area, are playing the same part in China where they are more involved, dedicating their production to the national market only.

In fact, in all these countries, multinational car makers are producing vehicles locally because they cannot secure the markets and/or take position on these growing markets by exporting from their home production basis. Concerned national governments aim at developing a national car industry or at least a national component industry. Therefore they implemented regulation to avoid CBU imports (taxes and/or quotas) and limit components imports too (local content ratios).

But considering :

(1) the high production costs, even if the manpower is cheap, due to low production volumes (markets are growing but still small, fragmented...) avoiding economy of scale. (2) the lack of supporting industries, leading to re-location of parts makers which production costs are high for the same reasons than car makers. (3) the poor technological capabilities making necessary to import a rather

high number of 'sophisticated' components, a majority of which are manufactured in Japan (thus became quite expensive with the yen increase of the 90s). (4) the difficulties, in the ASEAN, of implementation of regional exchange liberalization through scheme like BBC or AICO. (5) and finally, related to all this, the difficulty of achieving production at the international quality requirement, car makers, and to a rather large extend parts makers, generally think there is no competitive advantage for producing locally. Worldwide exports from these countries, were therefore not on the agenda until the markets shrinkage that resulted from crisis.

3.1.1 Increasing Exports as a Strategy Derived from Crisis

The market shrinkage due to crisis struck all car and parts manufacturers. The impact was stronger than in electronic industry as we shall see later, as automotive firms were only producing for local markets (Korea excepted). Amongst the survival strategies they developed (most of them being short term ones), the use of ASEAN production plants as export basis is probably the most important for future prospects.

Before the crisis, exports from ASEAN countries in the car industry were limited to some labor intensive and simple parts. But to maintain production levels as high as possible, exports of vehicles were envisaged by all car makers at the very beginning of the crisis, and it was quite a new attitude. This explains why Toyota could start production of the Hilux again (with only one shift instead of two however) after stopping it completely in November 1997. Mitsubishi decided to concentrate its production of one ton pick-up trucks in its new Thai plant. Production was progressively stopped in Japan, and pick-up trucks are now exported from Thailand to 80 different countries (Mitsubishi data 2000). Isuzu is thinking to do the same as far as pick-up are concerned (firm interview in July 1999). Other examples were related by newspapers almost everyday. In 1999, Thailand exported more than 150 000 vehicles, most of which being one ton pick-up trucks. Car manufacturers made every effort to export vehicles to ensure the survival of their ASEAN plants.

It is however not likely to see this trend increase drastically in the coming years, with the exception of pick-up trucks. In fact, the "Asian car strategy" that leads Japanese car makers to develop vehicles adapted to each Asian country, is showing its limit. These vehicles cannot easily be sold on other markets because of quality standards, lack of sophistication or simply because of different climatic conditions (c.g. no heating required). This "Asian car strategy" might not last any longer, but the situation cannot be changed so fast in the car industry. Therefore, export of vehicles will not increase substantially – at least until new models are introduced. These new model will not be specific to one or another country. It seems that to avoid the risk of market shrinkage, car makers are now considering to take, as basis for production everywhere, models developed for Japan. These models would be adapted to each market by...

options like airbag, cooler, or heating depending on climatic conditions. This confirms that exports of car from ASEAN countries targeted mainly a short term survival strategy. But at the same time it also reveals that if local/regional market, probably extended to peripheral countries like Australia, New Zealand, remains the main focus of Japanese car manufacturers, they also intend to integrate markets risk in their future behavior – keeping exports as a lifejacket in case of new market shock.

As far as parts and components are concerned, the situation might be quite different. It is in that area that exports increase is the most substantial and that potential for growth is highest. Already before crisis, exports from ASEAN-4 countries (Thailand, Malaysia, Indonesia, Philippines) were significant, even if concerned amounts involved were still low. Unlike the case of CBU cars, the dynamics that resulted from the crisis and from the necessity to maintain plants in activity seems to be an irreversible one.

It is still difficult to measure statistically to what extent the export strategy is successful, but if production shift, or purchasing from ASEAN plants, announced almost daily since the very beginning of the crisis until now, are to be taken into account, there is no doubt that changes are underway, especially as far as re-importation to Japan are concerned.

But question remains if growth of exports will favor intra-ASEAN trade. Car and parts makers, not only Japanese but also western ones – which are now more involved in the area than before – are demanding procedural simplifications and a greater liberalization so that their international division of labor can be extended, not only within the ASEAN area but also to include Japan (as re-exports growth show), Asia-Pacific neighboring countries, and later possibly other countries outside Asia.

To increase exports further, parts manufactured in ASEAN countries still have to be improved in quality, and technology mastering has to be increased to make it possible to produce sub-systems instead of simple parts. In the case of Thailand or Malaysia for example, this seems achievable on a long term perspective. Supporting industries in Thailand improved tremendously in the past decade due to relocation of numerous Japanese parts makers. Concerning Malaysia, the development of the electronic industry implies that a specialization in transmission and electronic related parts and components is possible.

The need for economies of scale – by increasing production volume – lead to focus not only on local markets but also consider production for exports. Consequently, production of one component reference will be located in the country having the best comparative advantage to produce it. This implies a reviewing of the international division of labor by car and parts makers and a kind of specialization by country and by product. Such a trend was already underway before the crisis but firms had difficulties to actually implement it because of national regulations. Presently, expecting the liberalization of trade under the WTO requirement, some companies are acting in that direction at a faster pace

GM, Ford in Thailand) and the increasing number of M&A in the sector leading to broader supplying opportunities for local or relocated Japanese/Western suppliers should contribute to decisive changes in supplying networks – on a more global level.

3.2 The Issue of Trade Liberalization (Revision/Suppression of Local Contents, Integration in the WTO)

The trade liberalization which is on the agenda is not only related to crisis, at least directly. To some extent, the crisis acted as an accelerator of the liberalization move, to another extent, it acted on the contrary as a brake. The situation is contrasted depending on countries or areas. In the case of ASEAN countries, the liberalization move which was scheduled through the implementation of CEPT (AFTA) was somehow slowed down, with most countries delaying the date of implementation, while others maintained it. Also, existing regional scheme, like AICO seems to be used on a broader scale than before. In China, the liberalization is more concerned by the entrance in the WTO and by the related 1999 agreement with the United States of America.

For example, through this agreement, China will have to revise constraints on car and parts imports to promote national production. Taxes on CBU imports are still prohibitive even if they were reduced several times recently. They are supposed to be significantly lowered at the 2006 horizon. But, even if the rate for 2006 is not yet announced, it is estimated that it will remain higher in the case of cars (around 25%) than it will probably be for industrial products as a whole (around 10%) (French Embassy in China 1999). This shows how strategic car industry is for China. Also a licensing system as well as quotas aim at strongly controlling the market. The suppression of quotas will be progressive until 2005.

As far as parts and components are concerned, the level of import taxes (28 to 30%) is not the only one difficulty. A reduced rate is applicable on parts for assembly on car produced in China. But the reduction level depends on the amount invested in the plant and on the local content ratio achieved. The measure of these gives a lot of room to negotiation with the authorities, the result of which being more related to bargaining power of the firm than to standards fixed by regulation. The agreement says that the rate should be the same than for all industrial products (10%) in 2006 giving an end to the preferential tariff system.

Finally, the minority ownership required on car and strategic components foreign assembling plants, the special agreement needed for each new model production are limiting the adaptation capabilities of firms making international competitiveness rather low. These points are not clearly addressed in the agreement with the States but some exception to the rule already exists (benefiting to Volkswagen Honda or GM) leading to expect an announcement of loosening of the regulation.

If these liberalization measures are effectively implemented (there is often a gap in China between official national government regulation and their real application especially at the local level), the question of competitiveness of vehicles produced in China will be at stake. For the moment, competitiveness is low and without import taxes, cars produced in China are more expensive than could imported CBU cars be. This is especially true for middle and higher class passengers cars and less for light trucks. Car makers having facilities in China could benefit of the opening measures on other segments like distribution or finance, they could take this opportunity to reinforce their distribution networks not only for models produced in China but also for models produced outside China to be sold on the Chinese market (some easing measures for imports of CBU are granted to manufacturers producing in China through the agreement of 1999). Also the possibility given to non-Chinese to operate on the market of financial services related to car distribution and sales allow them to propose directly credits to consumers. But, there is also a need for restructuring. Economy of scale have to be achieved to increase competitiveness towards imports. It means first that further concentration of the sector is absolutely needed at the car assembling level but also at the component manufacturing level. The loosening of local content request (preferential tariff according to local content rate will be eliminated), will make it quite necessary for parts makers to merge and/or diversify their buyer to survive in China. Facing competition of imported parts and probably request for cost reduction from buyers they need to increase order volume, achieve economy of scale and cut production costs.

No doubt that international competition on the Chinese market will be one of the big issue for the coming year. Depending partly on how regulation and law will evolve and be implemented in and after the transition period, and particularly on how the local protectionism will react, the choice between producing in China or importing from abroad will constitute a big challenge for both car and parts makers.

In the ASEAN area too, prohibitive taxes on CBU imports are the common rule while local content ratio tend to promote a national car or parts industry. But measures to favor intra-area trade were taken rather early even if their effectiveness can be questioned at least until recently.

A regional complementation system in the ASEAN was at stake as early as 1969 but it is only in 1988 that the first real scheme was undersigned under the name of Brand to Brand Complementation Scheme (for more details see, Legewie 1998, Guiheux, Lecler 2000). Even if most Japanese car makers (parts makers were not involved) adopted this scheme, the intra-ASEAN components exports remained quite low in comparison to exports outside the area. For example in 1995, Thailand was exporting 6% of the total exported components to other countries of the ASEAN 4 (Indonesia, Philippines and Malaysia). If we add the 19.5% exported to Singapur, it is more than the 15.7% to Japan but still far behind the 57.9% exported to other areas.

Table 1-7. Components exports from the ASEAN-4 countries – by destination (1995, per cent of total component exports)

Exports to:	Exports from:			
	<i>Thailand</i>	<i>Indonesia</i>	<i>Malaysia*</i>	<i>Philippines</i>
Thailand	x	1.2	2.9	9.2
Indonesia	1.1	x	1.9	1.8
Malaysia	3.5	2.1	X	0.7
Philippines	1.4	3.0	1.9	x
Singapore	19.5	31.2	17.4	0.4
Vietnam	0.9	0.8	0.1	0.2
Japan	15.7	11.7	8.4	31.8
Others	57.9	50.1	67.5	55.9
Total	100	100	100	100

* Data refers to 1994

Source: elaborated from LTCBR (1997: 70-3).

For the Philippines, the more exporting country to the ASEAN 4, the respective numbers are 11.3 (Singapore account only for 0.4) 31.8 and 55.9% (Table 1-7 in statistical annex).

In 1996, a new scheme, broader in scope (not restricted to car industry, thus allowing parts makers to use it), was implemented (AICO: ASEAN Industrial Cooperation Organization) as a transition to the Common Effective Preferential Tariff Scheme (CEPT) which is schedule for a full application in 2003. Under AICO scheme, tariffs were lowered to between 0 to 5%. At least 30 per cent of the capital of any participating firm had to be owned locally (a condition that will disappear with CEPT), but the local manufacturing ratio for the whole of the ASEAN region could drop to 40 per cent, compared to 50% for BBC. However, no single local content requirement prevailed throughout the entire zone, as each member state remained free to make its own decisions. Procedural complexity remains, as trade reciprocity must still be proven. The pace of signature was slow at the beginning because both of firms attitude (complexity of procedure, late taxes refunding under former BBC) and governments reluctance (fear of trade imbalance). The crisis-related market shrinkage gave a new impetus to the scheme as government saw in the easing of AICO procedure, a mean to increase exports and therefore production volumes. The first agreements within AICO were signed in 1998, between such car makers as Volvo, Toyota, Isuzu, and parts makers such as Sanden, Denso, and Nihon Cable (Fourin, 1999: 14). At the end of 1999, 29 agreements were signed under this scheme (SIR 2000/3:58). But if it seems that involvement in AICO scheme is higher than before, this does not mean that liberalization is higher. In fact, the situation is quite different from one country to another. Arguing of the crisis impact on car industries, some of the ASEAN countries decided to delay the implementation of some of the transition policies.

For example, Malaysia decided to extend the national local content ratio rules which were supposed to be abolished in January 2000, to deferred the transfer of items from the list of those which cannot benefit of reduce import taxes to 'the CEPT inclusion list', while Thailand continue to favor liberalization, shifting every year components from one list to another.

But, if liberalization is delayed to some extent, foreign manufacturers and parts makers are getting prepared to the opening of the markets. The situation derived from crisis as lack of liquidity by local partner firms or difficulties of local suppliers gave them an opportunity to restructure their networks, to contract new alliances through increase of capital or mergers and acquisitions.

3.3 The Increasing M&A and Business Tie-up, with a Correlative Restructuring of Groups

In most emerging countries, public regulations regarding foreign ownership in financial and industrial companies were strongly reformed. In ASEAN-4, and Korea, restrictions of majority foreign ownership for non-exporting companies were strongly disputed before and waived during the crisis. This enabled foreign shareholder to reinforce companies threatened by shrinking domestic markets and drastic local financing conditions. One could assume that national prejudices towards foreign long term capital is steadily decreasing (as opposed reinforced aversion to hot money and short term stock exchange oriented funds). If that holds true joint-venture creation and shareholding transparency will have been definitely reinforced by the crisis.

During the crisis, due to difficulties faced by local joint-ventures or partners, Japanese car or parts makers had to support them financially. They used to pay their orders in advance enabling local suppliers to purchase raw material or parts. But it is mostly by increasing their share in capital that they contributed to financial recovery of their partners. For example, Daihatsu rose its part in PT Astra of Indonesia from 20 to 40%, while Showa Corporation, a parts maker affiliated to Honda, doubled its share in its Thai joint-venture. Of course, these moves were emergency measures aimed first at facing both the credit crunch and credit cost problems, but they finally participated to the present concentration trend.

This trend is visible in Japan too where the taboo of foreign ownership is no longer widespread. The increasing number of mergers and acquisitions taking place in Japan – thanks to the easing of procedures through changes of corporate law since the Yamaichi failure – will bring Japanese and Foreign firms even closer. While the acquisition of Japanese firms by foreign ones in Japan were limited to 20-30 cases a year (2.5% of the total in 1990) in the first half of the 1990s, the number grew to 86 (12.2%) of the total in 1999 (Etienne 1999).

Japanese firms are also merging together to a larger extent than before: 429 cases in 1999, representing 60.7% of the total instead of 35.5% in 1990 (Etienne

1999). Most of these mergers concern the financial sector, but mergers of industrial firms are also on the agenda. For example, Bosch took the control of Zexel, Delphi acquired 6% of Akebono assets, without speaking of the Nissan-Renault case. Two of the main suppliers of Nissan (Calsonic and Kansei) also merged to better compete on the globalized market.

Facing changes of the international context and stagnation of national markets, big car makers intend to become more global. Business tie up are seen as means:

(1) to reinforce competitiveness at the global level through economy of scale, namely by common purchasing of parts. (2) to penetrate new markets and especially emerging ones without taking too much risk. (3) to diversify model range and benefit from advances in the new technologies related to environment, security, assisted navigation systems.

All these reasons are particularly true in the case of tie-up between Western and Japanese car makers.

The former are expecting an opportunity to penetrate Asian markets on which their presence was low and to acquire technologies in which Japanese have an advance. For example, Renault is expecting to benefit from the alliance with Nissan to increase its sales (mainly of light truck vehicles) on the Asian emerging markets. The firm created a structure in Japan to work in that direction. For the later, the business tie-up or mergers allow to share risks on emerging markets, the importance of which was clearly revealed by crisis and/or to reinforce their competitiveness on the global market.

This concentration trend at the car makers level leads to a broad restructuring of groups and networks. To better compete on their core business line, some are selling 'peripheral' activities (Renault selling its truck activity to Volvo). To achieve cost cutting through economy of scale, some plants are closed and production is shifted to other plants or relocated in emerging countries. Japanese parts makers too are starting to concentrate their production in some units while closing other plants in Japan. For example, Akebono announced that in the coming two years the firm will concentrate production of both drum braking and disk braking system in the same unit in Saitama prefecture. Futaba is gathering the production of exhaust pipe in its Fukushima unit and will close its Nagoya plant in 2004. Also they tend to specialize on their most performing components, progressively stopping production of less efficient ones.

All the recent business tie-up, M & A, will also have an impact in terms of firm governance. While Toyota is more concerned by reinforcing internal consistency of the group, taking a majority holding in Daihatsu, Hino and increasing its share in 11 other firms of its group (Nikkei 13/6/98), most of other car makers are experiencing bi-cultural or multi-cultural equity and management, the efficiency of which still has to be proved on the long term.

This concentration trend at the car makers level is followed by a concentration trend at the part makers level too. Business tie-up and M & A are usually

Parts makers have to adapt to this new situation by cutting production costs and also becoming more global. To do so, they need partnership to make economy of scale (by increasing orders volume), to share risks of investments in emerging countries and of R & D. This leads to business tie-up, M & A, between Japanese firms or Japanese-Western ones on the parts segments too. Thus, networks are changing enhancing a transformation of the division of labor between the center and the periphery, but also between the peripheral countries themselves. The move is still at its beginning stage and further changes have to be expected on that matter.

3.4 From National to Regional/Global Based Activities: Reviewing the Division of Labor

The Japanese car makers invested the ASEAN region quite early to supply local market. During the 1970s, as the ASEAN countries began to adopt policies that favored localization, Japanese parts makers also began to set up operations in the region. Japanese firms were for a long time the only ones to have established operation in the region for CKD⁴ vehicles. At that time, Japanese car makers were able to charge high prices for the vehicles they offered. Parts makers also could deliver components at higher price than in Japan. Thus, despite the small size of markets, and the high production costs, the ASEAN located firms were profitable.

In the 1990s, because of increasing competition on the markets, with growing demand from middle class consumers, Japanese car makers had to implement a new strategy aiming at cutting cost by increasing local procurements and achieving economies of scale by concentrating orders. Parts makers had to follow in the same direction.

Increasing local procurements and reducing imports from Japan was not so easy because the technological level of ASEAN countries and capability building is a long lasting process. A new wave of penetration by Japanese suppliers, on the request of their buyers or because of new opportunities of markets, took place in the mid-1990s.

Achieving economy of scale was not easy too. ASEAN markets for vehicles were fast growing in the 1990s and cumulative annual sales volumes would have justify mass production. However, strongly fragmented, markets remained limited in size for both vehicles and parts (see Lecler and Guiheux 2000).

Japanese firms that oriented production to local markets could not reproduce an organization of purchasing like in Japan. It was quite impossible for suppliers to follow the affiliated car maker in Thailand or Indonesia just to supply him. Opening a production unit could not be profitable without supplying several car makers in the region. The borders of industrial keiretsu had to be crossed to make local production possible at a reasonable cost. The distinctive feature of markets in a context of increased competition and high yen led Japanese firms to adapt their

purchasing strategies to the regional environment. Car makers experimented joint production and joint procurement from parts makers belonging to different keiretsu. Parts makers had the opportunity to experiment new relations with customers they were not supplying in Japan and also concluded agreement for joint production without keiretsu parts makers. This, tending to networks restructuring, also constituted a learning to change relations in Japan.

The ASEAN complementation scheme (BBC, AICO) does not seem to be the main factor why an Asian division of labor finally progressed, but they can be seen as an easing policy. From the moment where cost became the core element to secure market domination in the region, an Asian division of labor was the only mean to reach the goal, leading to a specialization of each country in one or several type of components⁵.

This move was already engaged when the crisis started and cannot be hold for responsible of the purchasing networks restructuring. But, the crisis acted as an accelerator of this move, making it more urgent and probably also more accurate if M & A and business tie-up are taken into account. Therefore, the revision of the division of labor and correlatively of purchasing networks (now including Western parts makers) and practices (Japanese and Western practices being mixed) is now a big issue of the globalization path of firms.

This division of labor of Japanese car makers which was still rather national even if some assembling plants and components purchasing were carried out of Japan (often because of regulation) is becoming much more regional for the time being and will probably become more globalized in the future. From a general point of view, it appears that buyers are locating their parts and components production or procurement in the country having the better advantage to produce it, leading to a kind of specialization by products and by countries. This division of labor is implemented between Japan and other Asian countries taken as a whole, and also between Asian countries themselves. Different patterns exist, depending on firms, but it is clear that parts with few value-added and low technology will increasingly be reserved to production in Asian emerging countries while high value-added one will remain produced in Japan or be purchase from Western countries. The location country will be chosen depending on the technological complexity of the product and on the local capabilities: less complex and less value-added parts or process in ASEAN countries, more complex and more value-added ones in the NIEs and high complexity/high value-added one in Japan (mostly), in the USA or Europe (with the development of e-commerce for some components bought on catalogue). Also it appears that mass production is shifting progressively to Asian emerging countries, with Japanese suppliers (in Japan) specializing on small lot production of highly specialized products. Commercial activities are also often transferred abroad but design of parts is still scarce. Eventually adaptation of products may be transferred (in the case of Taiwan, Korea) but original design remains anyway in Japan.

4 The Electronics/Electrical Products Industries in Asia: Becoming Even More Global

Electronics and electrical products industries are at the core of the industrial revolution in East Asia – Japan caught the first wave, as a leader for light consumer goods and equipment production in the 1960 and 70's, and the “gang of 4” conquered several segments of the market since the late 80's.

Several countries among the first and second generation of NIEs developed their electrical and electronics sector largely thanks to foreign direct investment and promotion of export oriented industries. The “Asian crisis”, in a context of slow market growth (even downturn for Integrated Circuits) struck directly in the form of disruption of production circuits in some countries (because of credit crunch and currency fluctuations) and contraction of domestic and regional sales. It also affected the image of the region as a stable production base and the fast growing market area for electronics and electrical products industries. In spite of this, it is assumed that these activities will remain a strong pillar of the NIEs industry in the coming decade.

4.1 Electronics and Electrical Products Industries Beyond the Asian Crisis.

This group of industries show quite diversified structure, products and dynamics, but exemplify the challenge of competitiveness of industries in Asia in the age of globalization. We derive our analysis from observations of recent trends in three sectors.

Semi-conductors/Integrated circuits, which is a global industry producing a “high tech commodity” supplying both equipment and consumers industries. For integrated circuits, several Asian companies have acquired and maintained a competitive hedge on selected segments – particularly in Singapore, Taiwan and Korea. This sector is characterized by rapid innovation, expensive capacity building (high entry costs) and periodical cycle of price fall/market renewal.

The market glut issue lasted until late 1998. The decisive factor for recovery was the sharp increase of demand in G6 countries for both lcs and electronic products (based on lcs too). It is well known that Asian exports (from countries such as Malaysia, Singapore, Taiwan, and to a lesser extent Korea, Thailand and Philippines) are strongly correlated to world demand – particularly USA. The increase of about 40% through the year 1999 in purchase by U.S based firms of major electronic components from suppliers located in Asia accounted for about 1.5% additional growth for producing countries (SG Securities estimate – with a similar figure for 1st semester 2000). This cycle is expected to last until beginning of 2001. The current technological cycle – related to maturity of large scale production memories such as 64 M Dram – is expected to last until 2003.

As some large new facilities in Korea and Taiwan are still far from recouping their investment, and restructuring is not completed in Korea, future expansion is marred with uncertainties for some companies. The major issue for emerging countries is to maintain their position among leading producing countries, while avoiding excess capacity and strengthening innovative and research capacity.

Consumer electronic products. They are characterized by oligopolies for some products, and a relatively strong position of Asian based firms – particularly Japanese, Taiwanese and Korean – for production of both mass produced component and standardized consumer products. Markets are expanding, very flexible with strong price elasticity, and innovations are flowing at lower pace – with a substantial proportion designed in Asia, and Japan retaining a leadership.

The squeeze of local markets in Asia was more than offset by the improving conditions for exports to North America and Europe. Consequently, product design is becoming more flexible to suit a wider range of markets, and production networks, division of labor are further adjusted to respond to market fluctuations and to trade liberalization (see some case study in 3.2). Japanese companies have managed well to retain their high grade image, particularly vis à vis firms from Korea and Taiwan. But things are expecting to change in the coming decade: innovation is getting more difficult and costly for the former and less sophisticated product in Eastern Europe, China will offer increasing opportunities for the latter. In addition the technological proximity between some consumer products and the personal computer system will increase the strategic conflicts between Asian companies.

Considering the position of Japanese subsidiaries, the production cost structure and the innovation pattern, last generation NIEs – i.e ASEAN-4 – can certainly improve further their position on regional and world markets for consumer electronics, but they face the formidable challenge of China.

Electrical equipment and consumer products – where a few companies of advanced industrial nations (USA, Japan, Europe) constitute a strong oligopoly, together with a very limited numbers of firms from emerging countries. Markets are determined by private and public investment programs and innovation is relatively steady.

4.2 The Asian Division of Labor: the Example of Some Consumer Electronic Products

The diversified structure and the broad product range of the industry does not allow to give a general picture of it like in the case of car production. Nevertheless, considering one product range through case studies of firms, we shall try to introduce what is at stake as far as changes in the division of labor and production networking is concerned.

In the case of electric/electronic appliances industry, relocation of activities in emerging Asian countries began rather early. Already in the 1970s after the Nixon

shock ending the fixed currency system of 360 yens for a dollar, some companies decided to relocate labor intensive production to cheap labor countries to cut production cost and stay competitive. For example, Sharp opened its first foreign plants in Korea in 1973 and the second one in Malaysia in 1974. These plants only aimed at exporting products to the US and Europe. At the end of the 70s and during the 80s, Japan had to cope with commercial frictions with advanced economies and firms started to invest in the US and Europe. The strategy was of course to secure market by substituting local production to exports. In the case of Sharp, in the early 80s for example, half of the products sold in Europe was produced in Europe and the other half exported from Asian countries.

Japanese firms implemented two different FDI strategies which coexisted at least until the mid-1980s: plants in advanced economies being dedicated to local markets while plants in Asian countries, whatever NIEs or ASEAN, export-oriented. After the mid-80s, the economic growth in Asian countries, NIEs first then ASEAN, making it possible to sell product on these markets too (Audio, TV, white goods), production volume increased and new plants were opened both for exports and for local demand – the two strategies became less differentiated. The re-appreciation of the yen after the Plaza agreement, and its increase in the following years contributed to the relocation of more activities in cheap labor countries (ASEAN but also China). Production of some product was completely transferred to these countries, and completely cut off in Japan.

Firms structured their networks within the host country purchasing as much as possible in the country of location because of import taxes. When this was impossible, components were procured from neighbor countries or from Japan – with most components supplied from Japan because of quality problem. Thus, local procurement is the common rule but the suppliers are mainly Japanese relocated firms, or local/Japanese joint-venture. For example, on the 80% local procurement that Sharp achieves in Malaysia for the TV production, about 60% is delivered by Japanese affiliated firms⁶. Contrasting with car industry, in the case of electric/electronic appliances, the production units being also dedicated to exports the production volume are high enough to make investment by suppliers profitable. For this reason firms of this sector suffered less of the Asian crisis than firms engaged in the car industry. Local procurement ratios being high, exports became cheaper because of fall in currencies. Even when local markets shrank, the reduction of sales was compensated by better competitiveness of exports.

Matsushita is an interesting example of change in the international division of labor. The firm originally developed a strategy to supply each market through local production creating 'mini-Matsushitas' in each country that offered a sufficient market in sales volume. These mini-Matsushita philosophy aimed at avoiding imports of components from other countries. It can be considered as a reproduction of the Japanese purchasing organization in each country of

localization. In the mid-90s, Matsushita decided to change this organization⁷ and began to implement an organization where each country would be specialized in one product to be exported to other countries in the region. The mini-Matsushitas constituted an embarrassment to develop the new strategy and the evolution was therefore slow. But the firm was quite decided to act in this direction not only in Asian region but also in the US and in Europe. In each region, a network coordinator firm is charged of importing and exporting components and products for the whole network.

Sharp also thinks of such an organization for the coming years, but taxes are still high even between ASEAN countries and according to the firm, complementation scheme like AICO is not suitable. First, only firms having 30% of local capital may use the AICO scheme. It is not the case in most of the Sharp plants. Second, the exchange reciprocity is a condition that Sharp cannot satisfy. According to Sharp managers, AICO is dedicated to car industry and is not adapted to other ones. But with the AFTA, the possibility is coming, so the firm is rethinking its organization. For the moment, in the ASEAN countries, the firm manufactures in each country. For example, TV are produced in Malaysia, in Thailand and in Indonesia. The firm recognizes that it could achieve better economies of scale by producing the TV in one country only and exporting to the others. The same can be said for video and so on. The case of copying machines by Sharp is interesting in this regard. In 1993, Sharp opened a plant in China. The choice of China was related to the cheap labor force, the possibility to procure components locally and to the incentives of the Chinese government. The plants is selling 80% of its production to the US, 10% is exported to other foreign markets and the 10% remaining are sold on the Chinese market. Final assembly is made in China but parts are coming from Japan, Taiwan, Hong Kong and ASEAN countries, depending on their sophistication level.

Thus, the division of labor, which is rather advanced in the consumer electronic products where relocation of firms in the Asian area was drastic and concerned a whole range of products (which production completely disappeared in Japan), could become even more globalized through the impact of crisis and the liberalization of trade associated to the WTO.

4.3 Global Activities Strengthening Their Asian Base

At present the dynamics of electronics and electrical products industries in Asia is characterized by three factors: oligopolies and increased foreign intervention; requirement for technology acquisition, and strengthening of global dimension.

4.3.1 The IC and Electronic Component Producers Restructuring Their Production

Through several waves of industrial investment the electronics industry created a complex production structure. It can be based on pluri-located network of production sites (the case of ICs) or specialized product dedicated sites (such as various types of consumer electronics in Southeast Asia). Some companies, particularly from Japan and Korea are still very specialized on standard components or mass production consumer goods. This strategy does not yield fat returns and is a handicap to both further investment and strong R&D.

The era of fully integrated firms is probably over and many companies in Korea and Japan (particularly in consumer electronics, IC and component manufacturing) still have to increase their ability to subcontract, organize outsourcing and network production.

4.3.2 Consumer Electronics and PC: Networks to Face a New Technological Wave

The crisis gave some impetus to a certain extent in these networks: production costs fell as a result of currency variation in emerging economies. At present the cost competitiveness is considered very satisfactory for consumer electronics and ICs although the rising US\$ (and uncertainty concerning future trends) makes things difficult in the short term (Problems of comparison to the Euro zone – which UK sites are not part of but Irish are – for multi-site assembly and sourcing in the specialized circuits production for example). It is very likely that stronger networking will be preferred to increasing M&A strategies. The expansion of high tech subcontracting in a strong Asian but USD denominated production area is also an emerging feature.

Markets do not show drastic changes, but channels to reach them do change e.g. NAFTA regulations will change access rules by 2003 for IC and TV parts, justifying more relocation of Asian firms to Mexico.

Firms from emerging Asia have not sought formal alliances with major world partners even if informal cooperation agreements have flourished. A sort of wait and see attitude seems to prevail. This could be a weakness at a time of increased oligopolies. Indeed “Major league” producers from industrial countries prospered: Thomson Consumer Electronics or Siemens are good cases of this. Increased competition between Asian based and world leading firms is already felt – particularly for computers, flat screens. It is increasingly harder to select product niches with moderate entry cost and easy world market channel.

Location strategies can be selected by firms depending on local competitiveness but also heavily influenced by local market potential. In that respect China is a very special case: on one hand it accepted low-tech relocation of consumer electronics and standard circuit manufacturing, particularly from

increased steadily since the beginning of 90's. On the other hand, because of potential local market major world class companies settled in China to manufacture for local needs with increasing technological content such as portable phone and telecommunication, and professional electrical equipment. The tendency to create strategic partnership between local and foreign actors seems to have been more decisive here than elsewhere throughout emerging Asia. This makes China a strong world competitor for the coming decade.

4.3.3 Beyond the Short Term Context, Some Major Challenges Are Facing Industries in Asia:

Innovation is heavily dependant on adequate financing – this is the Achilles heel for many Asia electronics companies, following crisis years. An option to maximize leverage of R&D funding is seeking private partnership – as the source of public fund is getting scarce in most countries (with the exception of Taiwan).

Market cycle effects such as for integrated circuits ICs – are still a parameter difficult to anticipate. They create costly excess capacity and handicap for product reorientation.

The regional relocation of assembly plants such as for consumer electronics (TV, CD, DVD) suggests there is a similar position of ASEAN-4 regarding location and competitiveness – which emphasize the question of cooperation/competition between countries in the region to attract and keep substantial share of activity in these sectors.

5 Conclusion : Prospects for Industrial Organization and Competitiveness in Asia

To sum up we consider that the post crisis years have resulted in a greater degree of volatility and diversity of growth patterns in the Asia region so called “soft divergence”. In that context, we assume that firms and States having shown resiliency and adaptive capacities through the “Asian crisis” years, will need to further strengthen their strategies to address both the issue of regional unstable integration, and the demands of the global economic environment.

5.1 Renewal of Industrial Dynamics ?

Selected major features in post-crisis firms' strategies, are derived from sector analysis; obviously their relevance and magnitude varies depending on products or companies strategies.

Sector restructuring – meaning more mergers and concentration – is one of the consequences of crisis years. Changes in structures and organisational patterns

to resist increased foreign ownership or reduction of protection for national industries. This was exemplified in the car industry, but also illustrated by other sectors.

Some leading world companies have snapped up opportunities for acquisition, taking advantage of weakened situation of potential Asian partners. This gave access to some closed markets, or strengthened position of foreign firms vis-à-vis local oligopolies. Future prospects for M&A will probably be more determined by the need for strategic alliances to access or control technologies markets. Other forms of inter-firms relation, with less formal control, are likely to spread in Asia, being well suited to business climate and to the regional market. Evidence of this can be found in the electronics industry where various grades of subcontracting, informal technological control or cooperation agreements contribute to the flexibility of a global network base.

Market strategies – In the current Asian context, more firms have learned to envisage both local and external markets. This does not mean learning global competitiveness, but developing an awareness of production and marketing beyond national niches.

At present, some industries do show a strengthening of their regional production base at the expense of their national dimension sectors; it will required further research to monitor how this translate into new marketing channels, together with claims for freer trade in the Asian region.

5.2 New Regional Context for Firms' Operation

The regional volatility is a major consequence of the crisis – the acute political conflicts in some NIEs, the depth of institutional reform make the regional scene full of contrasts, with a widening of differences between nations, at a time of increased regional trade.

We refer below to an expert assessment of institutional and system risk in countries under the scope of this study. Admittedly ranking is always debatable, but major criteria are relevant to understand major remaining issues: they refer to regulations and institutions, market mechanisms, role of States.

The Table 1–8 offers a framework to sketch some contrasted features and challenges for emerging Asian economies. Strikingly China remains at the top, when it comes to concerns and uncertainties. The second position is attributed to Malaysia – which comes as a surprise but give food for thought regarding systemic risk. Two neighboring second generation NIEs, Philippines and Thailand – although showing different recovery patterns face similar issues. A final surprise is the marking concerning Indonesia which might some actual recent changes well accepted by the international business community.

Considering the frail recovery, the degradation of the position of “developmental states”, questions remain regarding new policies to shape the future for Asian economies and their industries:

1-8. Risk and industrial systems in Emerging Asian Economies

	Financial regulation transparency	Pricing ability for risk and credits	Joint venture acceptability	Labour mobility	appropriate mix labour-capital	State crony capitalism	Reform and restructuring capability	rating
China	Strong	strong	Medium	strong	strong	Strong	medium	79
Hong-Kong	Low	strong	Low	low	low	Low	medium	21
Indonesia	Strong	low	Medium	medium	medium	Medium	strong	50
Malaysia	Strong	low	Low	low	strong	Medium	low	46
Philippines	Medium	strong	Low	medium	strong	Strong	strong	71
Singapore	Moderate	low	Strong	low	low	Strong	strong	54
Taiwan	Low	medium	Low	low	low	Strong	low	25
Thailand	Moderate	low	Low	low	low	Strong	medium	33
Singapore	Low	medium	Medium	medium	medium	Medium	strong	54

scaled from low / medium / strong

re : adapted from French trade office "Asie-strategie"

- Can a regional political impetus for regional integration flourish at the age of globalisation ?
- Which are the required elements for new competitive advantages enabling Asian countries to benchmark each other?

How will these issues be addressed when companies have less financial resource, more temptation to tap the scores of unemployed workers and States have to face social unrest and budget constraints – thus limiting their promotion capacity?

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2 Trends in Multinational Strategies and Organizations in the Asia-Pacific

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1 Introduction

Multinational companies face a variety of forces that are shaping their strategies and organizations. The globalization of competition, the localization of competitive advantage, and technological change, are affecting multinationals all over the world. For some traditional multinational companies, and for many new firms, modern developments will provide opportunities for them to develop and exploit competitive advantages across wider and wider markets. For others, the speed and scope of the challenge will be too much to handle. Today, rapid changes in the world economy present unprecedented challenges and opportunities. The interaction of product markets, service markets, financial markets, macroeconomics, public policy, and business strategy is reshaping firms, industries, cities, and entire economies.

Nowhere are the challenges faced by multinational firms more acute than in the Asia-Pacific region (East Asia plus Australia and New Zealand). The emergence of the economies of the Asia-Pacific was one of the most important stories in the world economy in the last quarter of the 20th century. The growing importance of the Asia-Pacific economies and the fact that multinational positions tend to be less entrenched and less stable than in North America and Europe mean that the Asia-Pacific may well be the main battleground for multinationals in the 21st century. Compounding the challenges will be additional features that set the Asia-Pacific apart from North America and Western Europe, namely greater volatility, vaster distances, wider cultural variation, more substantial differences in government and governance structures, and greater variety in development and development potential. Taken together, these features make the choices of strategies, organizations, and locations necessary to succeed in the Asia-Pacific among the most important choices multinational firms will face for decades.

This chapter summarizes some of the results of a two year project on the activities of major multinational companies in the Asia-Pacific region. Over 8,000 firms were surveyed in 1998–1999 about the nature of their activities in the Asia-Pacific, their organization and management structures in the region, the locations

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The process of recovery from the Asian economic crisis has been associated with three international players. The first is the creation of the ASEAN Free Trade Area (AFTA), whereby the ten ASEAN nations cooperate in regional liberalization of trade and investment. The second is the growing influence of China. China now exceeds Japan in exports of certain products, and will continue to penetrate World markets. AFTA will not be effective in protecting against Chinese products in the arena of cost competitiveness. The third is European multinationals. As we will see in this book, Japanese and U.S. MNCs are dominant players in the region, whereas European multinationals entered Asian markets and took on an active role only in the 1990s. European MNCs entered Asian markets creating alliances with Japanese multinationals and gaining market share. We can see a detailed study in the main body of this book.

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Haruo Horaguchi

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