

THE EFFECTS OF THE ASIAN CRISIS ON JAPAN'S MANUFACTURING FOREIGN DIRECT INVESTMENT IN ASIA

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1 INTRODUCTION

In the 1980s and the 1990s, there existed a complementary relationship between Asian host countries and Japan's manufacturing firms through foreign direct investment (FDI) and international trade. The Asian crisis since 1997, which was basically a financial phenomenon, prompted the transformation of this complementary relationship. The objective of this article is to analyze the effects of the Asian crisis on Japan's FDI outflow, based on a questionnaire survey conducted by the author which was delivered to Japanese manufacturing firms in May in 1998. The questionnaire was sent to 259 Japanese manufacturing firms of which 157 responded. To clarify the findings, 15 respondents were interviewed in Japan between July and August. Later, 8 manufacturing firms' affiliates, 3 Japanese banks and 2 FDI authorities were interviewed in Thailand, Indonesia and Singapore in September 1998.

The Asian crisis has had and will continue to have a negative impact on Japanese affiliates' sales and profit performances in Asia and, in turn, discourage to some extent, Japanese FDI flows into Asia. It may take 3 to 5 years for these firms to return to the level of sales and profits achieved before the Asian crisis and 10 years to recover to the level of 1997 in yearly FDI flows.

The contents of this article are as follows: in Section 2, the complementary relationship between Asia and Japan is briefly described; in Section 3, the effects of the Asian crisis on Japan's FDI are examined based on the results of the survey; Section 4 presents a theoretical argument to clarify the characteristics of Japan's FDI, which originated from specific advantages of Japanese firms, and the effects of the Asian crisis on those characteristics are discussed. Finally Section 5 presents the conclusion and comments on the prospects for Japanese FDI in Asia.

2 THE COMPLEMENTARY RELATIONSHIP BETWEEN ASIA AND JAPAN

The FDI of Japanese manufacturing firms has strongly promoted the economic development of host Asian countries while Japan's FDI has also preserved the international competitiveness of Japanese manufacturers. Japanese firms have enjoyed low-wages and qualified human resources, growing local markets, local currencies linked to the US dollar, and stabilized macro-economies and politics in Asia. From the perspective of the host Asian countries, they received large-scale FDI inflows, which provided them with financial resources of a non-debt nature, sophisticated managerial resources, advanced technologies and easy access to the international sales networks of Japanese firms. This relationship between Asia and Japan was based on six factors:

- 1) The advantage of export bases whose target markets were located in the USA, Canada and Europe was important. FDI specified for constructing export bases in Asia was accelerated by the trade frictions between Japan and Western countries and the appreciation of the yen. The Asian currency regime, which was in practice linked to the US dollar before the Asian crisis, prompted this type of FDI in Asia.
- 2) The role of export bases in Asia serving Japan was mutually beneficial. In order to decrease production costs in Japan, Asian-made parts produced by Japanese affiliates, which were of high quality and low price by Japanese affiliates, were increasingly imported by parent companies during the period of the yen appreciation from 1993 to 1995 (Tejima 1995, 1996 and 1997).
- 3) The divergence of the profitability of Japanese affiliates in major regions was advantageous. The annual surveys of the Export-Import Bank of Japan (JEXIM annual survey) and the Ministry of International Trade and Industry (MITI) showed higher profitability in Asia than in other regions in the 1980s and early 1990s (Table 1).¹ This profit divergence encouraged Japanese firms to invest more in Asia than in non-Asian regions.
- 4) The pro-FDI strategy of Southeast Asian countries was of additional critical importance to the region.
- 5) The advantages of Asian low wage cost significantly aided in maintaining low production costs.

¹ JEXIM annual surveys have been conducted annually for 500–700 major Japanese manufacturing firms. The response rate for the survey is 50–60% in average. The MITI survey is also periodically conducted. The sample size is about 2000–3000 firms, including small and medium firms. Both surveys show almost similar results.

6) The growth of markets in Asia finally facilitated expansion.

Table 1a: Profit/sales ratio (%) of Japanese overseas manufacturing affiliates

FY	Latin America	USA/Canada	Europe	Asia	World
1983	n.a.	1.9	4.2	3.9	3.0
1984	n.a.	0.9	2.8	4.7	1.9
1985	n.a.	-0.5	1.7	2.9	1.3
1986	n.a.	0.7	1.2	2.3	1.4
1987	n.a.	0.4	2.0	4.0	2.2
1988	n.a.	0.7	2.3	4.4	2.9
1989	n.a.	0.2	2.3	3.8	1.8
1990	n.a.	-0.9	3.2	5	1.8
1991	-2.4	-1.9	-0.6	4.8	0.9
1992	n.a.	-0.3	-2.5	5.1	1.1
1993	3.0	0.1	-1.0	3.8	1.4
1994	7.6	1.9	1.2	4.1	2.9
1995	11.8	2.0	1.3	4.1	3.1

Source: MITI

Table 1b: Profit evaluation of Japanese manufacturing affiliates by region/country

FY	NIEs	ASEAN	China	Other Asia	USA/Canada	E.U.	Latin America
1991	3.12	3.15	n.a.	2.81	2.27	2.93	n.a.
1992	3.34	3.19	n.a.	2.97	2.26	2.55	n.a.
1993	3.31	3.15	2.88	2.97	2.26	2.29	2.61
1994	3.04	3.20	2.83	2.97	2.46	2.35	2.65
1995	3.17	3.15	2.75	2.63	2.72	2.52	2.91
1996	3.24	3.20	2.55	2.91	2.88	2.81	2.89
1997	3.31	3.21	2.65	2.26	3.07	2.99	3.16
1998	3.29	2.76	2.67	2.51	3.14	2.99	3.05

Note: 5 stages evaluation: 1 unsatisfied, 2 rather unsatisfied, 3 average, 4 rather satisfied, 5 satisfied

Source: Japan Export-Import Bank

However, most of the above six factors have changed in recent years.

- 1) Japanese firms' large-scale production in Western countries have softened trade frictions while growing markets in Asia have strengthened Japanese supply bases to Asian markets.

- 2) Since the depreciation of the yen starting in 1995, Japanese domestic production for the home market has recovered substantially in comparison to the affiliates' production in Asia.
- 3) Global divergence of profitability has weakened since approximately 1993 because the profitability in Western countries and Latin America has improved (Table 1). This change from profit divergence to convergence prompted more FDI into non-Asian countries in the fiscal years 1996 and 1997.
- 4) Asian countries' unilateral liberalization of FDI resulted in a delay of the development of region-wide markets in Asia.
- 5) The Asian advantage of low labor costs has been gradually lost in recent years. Past successes of high economic growth have reduced the advantages in labor-intensive industries.
- 6) The Asian crisis has dampened the Japanese motivation for increasing FDI in Asia.

3 THE EFFECTS OF THE ASIAN CRISIS ON JAPAN'S FDI IN ASIA SHOWN BY THE SURVEY

3.1 Outline of the survey

The Asian crisis since 1997 as a financial phenomenon had a major impact on the FDI strategies of Japanese firms. In order to evaluate the concrete effects, a questionnaire was submitted to 259 Japanese manufacturing firms, which include major electric/electronic, automobile and chemical firms.

3.2 Profile of respondents

In total, 157 firms answered the questionnaire providing a response rate of 60.6%. The majority (60.5%) of the respondents were large-scale firms, which have paid-in capital equal to or more than 10 billion yen (about 80 million US dollars). The small-scale firms, with paid-in capital of less than 1 billion yen (about 8 million US dollars), represented only 8.9% of the total.

3.3 Overseas affiliates owned by respondents in Asia

A total of 157 respondents in this survey own 1,611 affiliates in Asia and 3,176 affiliates throughout the world. The definition of 'affiliate' in this article is a Japanese firm that owns 10% or more of the paid-in capital of the overseas firm. In addition, if a respondent owns more than 50% of the

paid-in capital of the overseas affiliate and if the same affiliate owns more than 50% of the paid-in capital of other overseas firms, they are also regarded as overseas affiliates of the parent company.

3.4 FDI plans over the short-, medium- and long-term period

3.4.1 FDI plan over the short term period

The basic purpose of this research is to find out about the respondents' FDI plans for the future. At first, 10 Asian countries / regions were selected representing the main destination for Japan's FDI in Asia. These are Thailand, Indonesia, Malaysia, the Philippines, Singapore, Korea, China, Taiwan, Hong Kong and Vietnam. The basic method of the survey was to ask whether or not the firm has positive FDI plans (in terms of yearly flows) in the future limiting responses to a selection of five scaled choices: at the one end of the range, the first choice was 'to reduce the annual FDI flow dramatically (by 50% or more) below the FDI flow of 1997'. The next was 'to reduce the FDI flow slightly (by 25%) below the 1997 FDI level', the third was 'to preserve the same FDI flow level as 1997', the fourth was 'to increase the FDI flow slightly (by 25%) above the level of 1997', and, finally, the fifth was 'to increase the FDI flow dramatically (by 50% or more) above the level of 1997'.

To clarify the trends of the future FDI flows, two indexes were introduced namely, the 'simple average index (SAI)' and the 'weighted average index (WAI)'. The former is to measure the average FDI in the future, assuming the answer of each respondent has the same weight. The latter is to measure FDI, assuming the answer of each respondent is weighted by the size of its domestic sale. The main objective of such a double-layered analysis is to identify the differences in the respondents grouped according to their company-size. Generally speaking, large-scale firms forecasted large-scale FDI and large-scale overseas business. On the other hand, small-scale firms planned for small-scale FDI. The difference between SAI and WAI is assumed to show roughly the difference in sales/profit performances and FDI strategies of the respondents by company-size. The formula of SAI and WAI are as follows:

$$\begin{aligned} \text{SAI of FDI} &= [(50\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) \\ &+ (75\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) \\ &+ (100\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) \\ &+ (125\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) \\ &+ (150\% \text{ (of FDI 97)}) * (\text{Number of Respondents})] \\ &/ (\text{Number of all respondents}) \quad (1) \end{aligned}$$

FDI 97 refers to the FDI achieved by our respondents in 1997.

$$\begin{aligned} \text{WAI of FDI} = & [(50\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) * W \\ & + (75\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) * W \\ & + (100\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) * W \\ & + (125\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) * W \\ & + (150\% \text{ (of FDI 97)}) * (\text{Number of Respondents}) * W] \\ & / (\text{Numbers of all respondents}) \quad (2) \end{aligned}$$

‘W’ refers to the ratio of the domestic sales value of each respondent divided by the total domestic sales value of all respondents. Table 2 and 3 show future FDI flows over the short-, medium- and long-term in SAI and WAI by country and by industry. The SAI for the 10 Asian countries is 94.1 over the short-term period when we assume 100 for the FDI flow in 1997. In other words, as an effect of the Asian crisis FDI will decrease slightly (0–25%) in the next three years. Taking into account that WAI is lower than SAI (88.4 as opposed to 94.1), it can be concluded that larger are more cautious than smaller ones over the short-term period.

Table 2: Expectations on FDI flows by country

		Short-term	Medium-term	Long-term
10 countries	SAI	94.1	97.8	101.9
	WAI	88.4	95.4	102.9
Thailand	SAI	88.9	94.4	100.8
	WAI	78.0	88.6	101.0
Indonesia	SAI	83.8	96.1	102.5
	WAI	71.7	86.1	100.0
Malaysia	SAI	96.2	97.3	100.7
	WAI	84.7	91.5	101.1
Philippines	SAI	101.0	102.2	107.2
	WAI	90.9	94.5	108.3
Singapore	SAI	94.8	95.8	96.0
	WAI	93.2	97.3	97.6
Korea	SAI	91.9	92.8	98.1
	WAI	91.0	95.6	100.4
China	SAI	99.7	103.4	107.8
	WAI	100.3	100.5	105.6
Taiwan	SAI	96.2	98.6	100.3
	WAI	93.9	104.6	106.1
Hong Kong	SAI	93.6	95.8	100.0
	WAI	96.0	100.0	102.2
Vietnam	SAI	100.0	104.8	108.3
	WAI	93.1	103.6	106.1

Table 3: Expectations on FDI flows by industry

		Short-term	Medium-term	Long-term
Chemicals	SAI	95.5	98.7	105.5
	WAI	93.9	95.9	104.8
Electric/electronic assembling	SAI	97.3	102.0	105.4
	WAI	89.6	96.8	100.7
Electric/electronic parts	SAI	101.1	102.1	102.1
	WAI	101.3	107.6	106.9
Automobile assembling	SAI	89.5	96.5	101.2
	WAI	83.8	98.3	108.8
Automobile parts	SAI	80.1	88.1	96.0
	WAI	77.0	79.8	104.7

The FDI attitude varied according to country and industry. Indonesia, Thailand and Korea, being the most severely affected by the crisis of all Asian countries, show the least positive FDI indexes in both SAI and WAI in Table 2. On the other hand, China will receive approximately the same amount of future FDI flows as in 1997. Singapore, Hong Kong, the Philippines, Malaysia and Vietnam and Taiwan are in between the first and the second group. In Section 3.5, it will be shown that good and bad sales and the profit performances of Japanese affiliates in host countries are closely related to the investment attitude of Japanese firms. In Indonesia, Malaysia, Philippines and Thailand, WAI is smaller than SAI by more than 10% percentage points. In these ASEAN countries the larger the size of the respondent gets the more cautious the FDI plans become.

By industry, the electric/electronic parts industry shows the most positive FDI over the short-term period both in SAI (101.1) and WAI (101.3) in Table 3. On the other hand, the automobile parts industry shows the most cautious FDI over the short-term period both in SAI (80.1) and WAI (77.0) in the same table. Again, the difference in attitude with regards to FDI is related to the sales and profit performances of their affiliates in Asia. By industry, we find some difference between SAI and WAI in the electric assembling industry but no significant differences in other industries. Larger electric assembling firms are more cautious in FDI over the short-term period than smaller ones. In other industries, the characteristic of company size is not so pronounced.

3.4.2 FDI over the medium- and long-term period by country

Generally speaking, Japanese firms' FDI plans over the medium-term period are more positive than over the short-term (Table 2 and 3). If we

look at the SAI and WAI for 10 countries, both indexes increase from 94.1 to 101.9 and from 88.4 to 102.9, respectively. Moreover, all respondents plan to recover, on average, their FDI flow level of 1997 within 10 years.

When we focus on the host countries, we find some changes in medium-term FDI plans. Even in the most severely damaged countries (Thailand, Indonesia and Korea), our respondents' medium-term FDI plans become more positive over the short-term. Over the long-term period, Japanese firms will exceed the FDI level of 1997 in 8 Asian countries. The respondents' positive FDI attitude is prominent in China, Vietnam, the Philippines and Taiwan. Even in Thailand, Indonesia, Malaysia and Hong Kong, SAI and WAI exceed 100 over the long-term period. But, we should take into account that long-term FDI plans are less concrete than those over the short- and medium-term period.

3.4.3 FDI over the medium- and long-term period by industry

If we compare the most optimistic electric/electronic parts industry with the most cautious automobile parts industry (Table 3), one prominent characteristic is that even the electric/electronic parts industry is moderate in its FDI over the medium- and long-term period. Another point is that the automobile parts industry does not recover its FDI flow level of 1997 for the next ten years. However, WAI shows that the larger our respondents are, the more positive with regard to their future FDI they are even in the auto-parts industry because of their larger managerial resources.

3.5 Effects of the crisis on sales and profits of Japanese affiliates

3.5.1 Effects of the crisis at present

One main objective of this survey is to show the effects of the Asian crisis on sales and profit performances of the respondents' affiliates (Table 4 and 5). If we calculate the SAI and WAI of sales in Table 4 by substituting 'sales value' for 'FDI' in the equation (1) and (2) of Section 3.4.1, the value decreases to 88.5 for SAI and 73.9 for WAI for nine countries at the end of this fiscal year. Vietnam was omitted because of insufficient sample size.

The calculation of SAI by country reveals that Thailand, Indonesia and Korea are most severely effected by the crisis. When employing WAI, Thailand, Indonesia and the Philippines are shown as the hardest hit. In contrast though, the sales of affiliates located in China and Taiwan are higher than before the crisis. The remaining countries are in between the above two groups.

Table 4: Expectations on sales performance by country

		At present	Short-term	Medium-term
9 countries	SAI	88.5	100.0	112.1
	WAI	73.9	92.2	109.4
Thailand	SAI	81.3	96.8	109.6
	WAI	76.5	102.4	118.7
Indonesia	SAI	81.6	93.1	108.5
	WAI	58.3	67.1	89.2
Malaysia	SAI	94.8	104.8	111.7
	WAI	101.6	109.1	110.4
Philippines	SAI	90.3	104.4	122.1
	WAI	79.1	105.0	127.0
Singapore	SAI	91.7	104.0	116.7
	WAI	95.7	103.6	107.6
Korea	SAI	88.8	97.2	107.7
	WAI	100.6	107.8	110.9
China	SAI	111.7	116.7	126.7
	WAI	113.6	114.4	115.8
Taiwan	SAI	103.6	105.4	115.4
	WAI	117.5	116.4	129.6
Hong Kong	SAI	90.4	98.1	109.6
	WAI	94.1	98.6	114.2

Regarding current profit performances, we find similar results to those of sales (Table 5). The SAI is 81.7 and WAI is 64.1 at present. This means that the decline of current profits is larger than the decrease of current sales.

The decline in profits is most striking in Indonesia, Thailand and Korea. On the other hand, China and Taiwan are exceptions to this observation. In the remaining four countries, Malaysia, the Philippines, Singapore and Hong Kong, the fall in profits ranges between these two groups. It is noteworthy that Indonesia and Thailand, which were severely effected in terms of sales and profits, are host countries where the majority of our respondents are planning to decrease their FDI flows over the short-term period. In contrast, China, which has been little touched by the crisis, will receive a rather positive FDI inflow over the short-term period (see Section 3.4). Other countries in between these groups in terms of sales and profit performances also range in between these groups in terms of their

Table 5: Expectations on profit performance by country

		At present	Short-term	Medium-term
9 countries	SAI	81.7	95.3	109.7
	WAI	64.1	78.7	103.0
Thailand	SAI	76.3	91.6	107.3
	WAI	63.3	82.0	109.6
Indonesia	SAI	74.2	89.5	107.3
	WAI	54.9	62.0	88.2
Malaysia	SAI	84.2	95.2	105.9
	WAI	87.2	99.4	109.4
Philippines	SAI	82.4	100.0	120.6
	WAI	78.6	104.7	106.3
Singapore	SAI	87.1	101.6	113.3
	WAI	95.0	102.2	107.5
Korea	SAI	75.9	92.6	106.7
	WAI	71.3	90.1	110.3
China	SAI	108.3	116.7	123.3
	WAI	103.7	115.2	115.8
Taiwan	SAI	98.2	101.8	113.5
	WAI	115.8	116.4	131.2
Hong Kong	SAI	92.3	98.1	113.5
	WAI	90.5	99.8	116.6

future FDI plans. As an exception to this pattern, in the Philippines, firms are rather positive toward future FDI flows as measured by SAI in spite of insufficient sales and profits.

If we focus on the difference between SAI and WAI, the decline of larger firms' sales and profits is very significant in Indonesia while that of larger firms is relatively slight in other ASEAN countries. This situation led large firms respondents to have a more cautious FDI attitude in regards to Indonesia.

Another aspect is sales and profit performances by industry (Table 6 and 7). The electric/electronic industry, which is more strongly oriented toward global markets than the automobile industry, was less effected by the Asian crisis than the automobile industry. The SAI of current sales performances of the electric/electronic parts industry is 96.2 and the WAI is 104.2, which means the affiliates of large firms will expand their sales beyond the level that existed prior to the Asian crisis. In contrast, the auto-

mobile parts industry suffered severely because of the crisis as most of the customers in Southeast Asia, including many Japanese affiliates, drastically decreased their demand for parts.

Table 6: Expectations on sales performance by industry

		At present	Short-term	Medium-term
Chemicals	SAI	98.4	110.2	122.8
	WAI	91.8	101.9	124.3
Electric/electronic assembling	SAI	89.2	99.0	111.5
	WAI	68.3	78.7	94.1
Electric/electronic parts	SAI	96.2	103.0	113.1
	WAI	104.2	99.7	105.5
Automobile assembling	SAI	61.8	87.5	107.5
	WAI	65.4	106.5	125.5
Automobile parts	SAI	76.7	88.3	100.4
	WAI	58.0	73.0	90.3

Table 7: Expectations on profit performance by industry

		At present	Short-term	Medium-term
Chemicals	SAI	86.7	105.4	123.7
	WAI	75.8	89.1	122.2
Electric/electronic assembling	SAI	83.0	93.1	111.0
	WAI	59.1	71.4	96.8
Electric/electronic parts	SAI	89.3	101.8	111.3
	WAI	82.8	99.9	110.4
Automobile assembling	SAI	51.5	73.8	100.0
	WAI	50.0	71.3	105.6
Automobile parts	SAI	72.5	84.6	98.8
	WAI	56.8	64.4	82.6

The difference between SAI and WAI is very large in the automobile parts industry, which means that the effect on large parts makers is greater than that on smaller makers. In fact, some auto-parts firms and their affiliates answered in interviews that demand by assemblers in Asia has shrunk dramatically. Presently, auto-parts affiliates have to export their products to Japan and third countries. Naturally, they are cautious in their FDI plans over the short-term. Several firms in the electric/electronic parts industry answered during interviews that they were only slightly effected

by the crisis because their customers' demand for their parts is globally strong and their Asian procurement ratio of parts is substantially high. High ratio of local parts procurement in Asia means that the electric/electronic parts firms do not suffer much from increasing import expenditure caused by the depreciation of Asian currencies. Rather, they gain benefit from expanding exports benefiting from the depreciated currencies. It is natural that the electric/electronic parts industry, which has performed better than other industries, is more positive in short-term FDI plans than other industries.

3.5.2 Effects of the crisis over the short- and medium-term period

Our respondents forecast a substantial improvement in sales and profit performance (Table 4 and 5) over the short- and medium-term. In sales performance, SAI increases to 112.1 over the medium-term from 88.5 at present and WAI increases to 109.4 from 73.9. In profit performance, SAI increases from 81.7 to 109.7 and WAI increases from 64.1 to 103.0.

Grouping respondents by country, in terms of the SAI and WAI of sales and profits over the short-term, the recovery foreseen for Thailand and Korea is prominent. Over the medium-term, sales and profits of Japanese firms' affiliates substantially exceed the level achieved before the Asian crisis in most of the countries. In terms of the WAI, the only exception to this observation is Indonesia, which means that large-scale firms are cautious about their prospects. This prediction of improved sales and profit over the short- and medium-term suggests more positive FDI plans over the medium- and long-term.

As measured by industry, all including the automobile parts industry, have turned to a more positive FDI over the short- and medium-term (Table 6 and 7). However, in the automobile parts industry, even over the medium-term, larger firms cannot recover the sales and profits level of those before the Asian crisis.

3.6 Export ratio of local affiliates by industry

Sales and profit performances of Japanese affiliates in Asia are strongly related to the export ratio of the affiliates. By industry (Table 8), the electric/electronic parts industry has the highest export ratio of local affiliates in Asian host countries. This is followed by the electric/electronic assembling, the chemical, the automobile parts and the automobile assembling industries.

Table 8: Expectations on export performance by industry

		At present	Short-term	Medium-term
Chemicals	SAI	32.6	33.6	32.8
	WAI	42.5	41.4	38.3
Electric/electronic assembling	SAI	42.8	47.7	49.8
	WAI	42.5	47.7	51.5
Electric/electronic parts	SAI	62.1	61.7	62.1
	WAI	50.7	57.4	58.4
Automobile assembling	SAI	12.5	14.5	14.5
	WAI	12.7	16.6	18.5
Automobile parts	SAI	18.0	22.6	23.8
	WAI	17.2	23.9	27.0

This result was predictable because the automobile industry is more oriented toward local markets than the electric/electronic industry. However, it is noteworthy that the electric/electronic parts industry is more export-oriented than the electric/electronic assembling industry probably because of a greater concentration of the latter in local markets. The results of this Section and Section 3.5 suggest that satisfied sales and profits are based on a high export ratio. The simple correlation coefficients between the export ratio and sales and between the export ratio and profits as measured by WAI for major industries are as illustrated by Table 9.

Table 9: Export ratios to sales and profits

	export ratio to sales	export ratio to profits
All industries	0.848	0.780
Chemicals	0.889	0.797
Electric/electronic assembling	0.758	0.646
Electric/electronic parts	0.800	0.738
Automobile assembling	n.a.	n.a.
Automobile parts	0.390	0.386

Observing the trend of WAI, we see that the increase of sales and profits in the electric/electronic parts and the automobile parts industries is prominent both over the short- and medium-term. In both parts industries, affiliates of large firms' affiliates seem more eager to develop further export markets than small firms' affiliates. Large firms seem to have more managerial resources to develop new export markets than smaller ones.

3.7 Local procurement of parts by Japanese affiliates in Asia

The local procurement ratio of Japanese affiliates in Asia is generally predicted to increase from the current ratio to a higher ratio over the short- and medium-term. Viewed on the basis of industry, the automobile assembling, the automobile parts and the electric/electronic assembling industries show a higher local procurement ratio than the electric/electronic parts industry. The result is noteworthy as the sales and profits of the former industries have deteriorated more than the latter. A high local procurement ratio obviously does not improve much the sales and profit performance.

3.8 Mergers & Acquisitions (M&A) in FDI strategies by Japanese manufacturing firms

One of the most prominent characteristics of Japanese firms' FDI is that they use M&A very rarely (only 7.9%) as a FDI measure. This attitude toward M&A is quite different from that of Western firms. Furthermore, most of our respondents do not wish to be involved in M&A after the Asian crisis. This Japanese attitude is again quite opposite from that of Western firms, which want to expand their Asian business through more frequent M&A, utilizing the lowered prices of Asian companies after the crisis.

The reasons for this difference seem to be the following: first, Japanese manufacturing firms always prefer to establish new companies owned completely by themselves in foreign countries, and secondly, they have already invested in Asia far more than Western firms. Therefore, they are more interested in supporting existing affiliates with additional capital injections than to conduct M&A.

3.9 The determinants of future FDI

As the most important FDI determinant among the 17 given to decide whether to increase or decrease future FDI over the medium term evolved the determinant 'future potential of the local markets of host countries', which was selected by 236 respondents (on a cumulative basis). Of the respondents, 62.4% said that 'the future of the local market is promising', while 37.6% of respondents said 'the future is gloomy'. As the second most popular reason in deciding on future FDI turned out to be 'the future development of regional integration of Asia over the medium term', which was chosen by 192 respondents. 63.3% of all respondents feel positive about the future expansion of Asian regional markets through re-

gional integration while 36.7% are pessimistic about it. The third most noted reason is 'the political stability of the host country', which was given as an answer by 178 respondents. From the respondents who gave this answer, 67.7% estimated that 'political stability will be achieved' over the next five years. The fourth reason is 'the infrastructure in the host country', which was the answer of 148 respondents. More than three quarters of our respondents, who chose this answer, believe that the 10 Asian countries will further develop their infrastructure. The fifth reason provided is 'the potential for export bases', which was the answer given by 144 respondents, 68.2% of the respondents believe that the 10 Asian countries have much potential as export bases. The sixth reason is 'the local finance procurement for capital formation in host countries', which was selected by 134 respondents of whom 45.7% expected to have a higher availability of local finance in host countries while 54.3% of them predicted to have in the future lower availability of local finance. Certainly, local finance procurement in host countries is one important negative FDI determinant. The seventh and final reason is 'labor costs in host countries', which was selected by 128 respondents of whom 69.1% of our respondents said 'labor costs of the host country will increase in the next five years', while 30.9% of them expected a decrease.

In summary, five of the seven major determinants bode well for future FDI. Only the sixth and seventh ones portend to have a negative impact on future FDI. The difficulty in local financing is especially serious to relatively small-sized affiliates in Asia. The increase in labor cost will diminish one important source of Asia's former advantages.

4 THE FIRM-SPECIFIC CHARACTERISTICS OF JAPAN'S FDI

4.1 The accelerated change of the complementary relationship

Section 3 showed that the sales and profit performances of Japanese affiliates in Asia were substantially damaged strongly affecting profitability in Asia. Worsened performances will accelerate the convergence of profitability of Japanese affiliates in Asia, Western countries and Latin America. Moreover, the advantage of low labor costs in Asia is predicted to diminish over the medium-term. Japanese affiliates are very eager to increase exports but the export increase is predicted to be rather moderate, in particular for the firms in the automobile industry that are facing serious difficulty in expanding exports because of the nature of their products.

4.2. Firm-specific characteristics of Japan's FDI

The Asian crisis has had a serious impact on Japanese affiliates, which rely on local markets. If assembling firms depend on local markets, the shrinking local demand for them is disastrous for parts suppliers, too. The Asian crisis is so serious that the recent FDI strategy of the automobile industry does not work well in this situation. This strategy was based on transplanting the concept of strong, long-term vertical supplier networks to Asian countries, in order to exploit the Japanese competitive advantages which result from lower transaction costs through networks (see Tejima 1996, 1998b). The basic assumption is that assemblers and parts suppliers have achieved economies of scale in parts production and that assemblers and parts suppliers prefer to preserve long-term transactions rather than to seek opportunist's profit. In addition to that, employers and employees in a company are also assumed to choose long-term transactions rather than short-term transactions (life-time employment system).

When Japanese firms engage in overseas production, they try to reconstruct these competitive internationalization advantages in their international production networks. One important way to do this is to persuade Japanese parts suppliers to invest in foreign countries to supply locally to their assemblers. Another measure is to persuade local parts suppliers and employees to change their habits to switch to long-term transactions. In Western countries, especially in the USA, Japanese affiliates have gradually succeeded to reconstruct their advantages after a struggle of more than 10 years in cooperation with affiliates of Japanese parts suppliers (also see Oman 1994). On the other hand, the Asian crisis has severely damaged Japanese firms' efforts in their Asian networks, especially in the automobile industry. Reconstructing assemblers and parts suppliers networks in Asia is not enough to reconstruct the advantages once held by the Japanese automobile industry in Asia, because the shrinking local demand is eroding the advantage of economies of scale. For that industry, an enlarged Asian-wide market is necessary in addition to the strategy of reconstructing their production networks in Asia.

5 CONCLUSION

Recent experience suggests that the complementary relationship between Japanese firms and Asia might be approaching a turning point at an accelerated pace. In the late 1980s and early 1990s, Japan's FDI in Asia stimulated high economic growth in that region and growing trade between Asia and Japan. But, the past Asian success has, ironically, weakened the

former advantage of low production cost. The recovery of the business performance of Japanese affiliates in non-Asian regions relatively weakens the position of Asia as a major destination of Japan's FDI.

The Asian crisis has accelerated this transformation of the complementary relationship. Deteriorated sales and profit performances in Japanese affiliates in Asia accelerate the diversification of Japan's FDI from Asia to non-Asian regions. Asian countries, which have gradually lost their advantages in labor-intensive industries, have to seek higher value-added industries to support the higher per-capita income of these countries.

The future success of Japanese industries in Asia will greatly depend on whether they can make the FDI of parts suppliers successful or not. Parts suppliers are now eager to expand exports from their Asian affiliates to non-Asian regions. They have to cooperate with newly constructed higher value-added industries in Asia. However, further liberalization of trade and FDI in the Asian region including developed countries is most important and indispensable into stimulating more of Japan's FDI flow to Asia and to foster the growth of region-wide markets and competitive large-scale industries.

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