

New Aspects of International Subcontracting: Towards the Internationalization of Multinational Corporations*

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Theoretical approaches toward the multinational corporations (neoclassical theory of international division of labor, product cycle theory, location theory) seem to insufficiently cover their transnationalization process. In the recent time multinational corporations attempt to organize an efficient international subcontracting, in particular, in automotive and electronic industry with the final goal to establish the Just-In-Time production. Two strategies in this respect are evolving: the one is to transfer domestic subcontractors to the investment region ("internalization of international subcontracting"); the other refers to the set-up of a new international subcontracting system *on the spot* ("externalization of international subcontracting"). The first strategy favored by East Asian Multinationals implies an extremely high outsourcing ratio which gives rise to a difficult handling of the local content; Western multinationals increasingly regard the second strategy as less competitive, preferring to internalize international subcontracting which is being, however, constrained by the lack of logistic capacity. Taking into consideration trends of the ongoing international subcontracting a new analytical eclectics of theoretical views appears to be necessary.

I. Internalization and Externalization of Subcontracting

The increasing internationalization of the production process, also due to the Just-In-Time production, which takes place in many large companies of some industrial branches, contrasts with the in-

* This paper was presented at the International Workshop on the Political Economy of Subcontracting System, held by the Institute of Social Research, Munich (June 20/21, 1988). It is to be contained in the forthcoming book on "Subcontracting as an Integrative Rationalization" (Campus/The Westview Press).

[Seoul Journal of Economics 1989, Vol. 2, No. 1]

sufficient research results on International Subcontracting (henceforward *IS*). Especially in the sector of the automobile and electrical/electronic industry, *IS* has become more and more important recently.

The following criteria are important to classify *IS*:

1. The geographical location of the companies involved in a subcontracting relation, i.e. the customer and the subcontracting company are located in two different countries.
2. The foreign country of origin of the customer which can be a branch of a multinational company or a company under "foreign control", i.e. the customer and the subcontracting company are located in the same country.¹

Yet, there is another important aspect. The destination of the products of the subcontracting company (often intermediate products, product parts etc.) gives *IS* another international dimension (export or re-export criteria). Especially the multinational companies from the USA, Western Europe, Japan and South Korea, operating in the very field of automobile and electrical/electronic industry, make use of the third *IS*-strategy. In short, recently the logistics of multinational concerns is becoming more and more apparent.

Concerning this third strategy, there seems to be two different concepts: one tries to transfer the domestic subcontracting relations already existing to the new country or region of investment, thus aiming at the internalization of subcontracting relations, the other concept is based on trying to build up new subcontracting relations on the spot, without transferring her own subcontracting network into foreign countries, i.e. the externalization of subcontracting relations.

This typology has to be made, as the foreign activities (investments, co-operation, credit granting etc.) of multinational concerns start out from their own individual logistics and therefore transfer their internal structure of organization and production completely or to a high degree into the foreign country. The transfer of already existing subcontracting relations that means the type of internalized subcontracting is more developed in Japanese/Korean/Taiwanese concerns than in American or Western European ones, which operate with the strategy of externalized subcontracting. This shows in

¹ See Dimitri Germides (1980, p. 13).

TABLE 1
FOREIGN INVESTMENTS OF THE ADVANCED COUNTRIES (%)

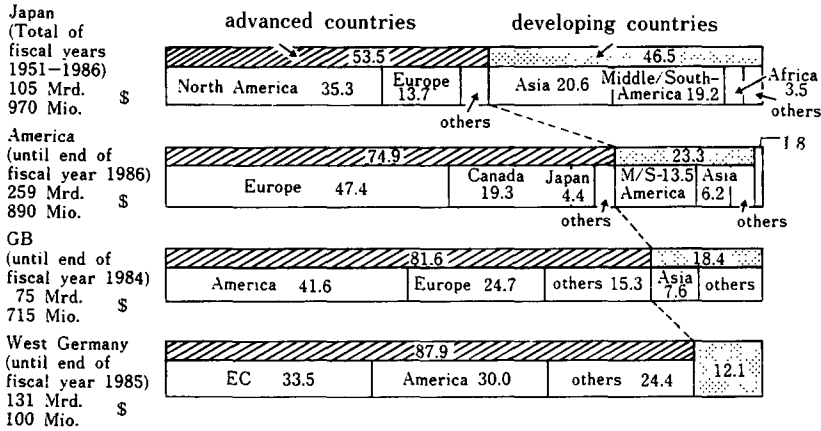
| | 1971-79 | 1980-84 | 1985 |
|----------------|---------|---------|------|
| USA | 48.6 | 20.0 | 13.6 |
| United Kingdom | 13.4 | 17.8 | 11.9 |
| Japan | 6.5 | 12.5 | 17.8 |
| West Germany | 8.9 | 9.5 | 9.2 |
| Canada | 4.5 | 10.8 | 12.6 |
| Netherland | 5.2 | 7.2 | 7.7 |

the fact, that Japanese companies transfer their vertical structure of subcontracting, or induce and systematically control the investments of their subcontracting companies (mostly small and medium range companies). The Americans, by contrast, start from the product-cycle-model (R. Vernon) or adopt the existing subcontracting structures of the (M & A) companies overtaken abroad.

II. International Division of Labor versus Intracompany Division of Labor

To examine these facts more extensively, some trends concerning foreign investments shall be discussed. First of all, the dominant position of the American foreign investment has become weaker recently. Especially the Japanese received a massive upturn (see also Table 1). Concerning the rapid increase in foreign investments of Japanese companies, it is important to point out that the Japanese invest equally in the industrial nations (USA and Western Europe) as well as in the developing countries, whereas for the Americans, British, and the Germans it is primarily the advanced countries (Figure 1). Some neo-classical economists (for example Kojima Kiyoshi) are of the opinion that the Japanese push forward the labour-intensive production in the Third World and the advanced nations the capital-intensive one, thus following a strategy of classical international division of labour. The Americans and Western Europeans would only pursue a substitutive division of labour with the advanced nations.² The question if and to what extent this thesis can be substantiated by empirical results, shall be discussed at a later point.

² There was a lot of criticism concerning that thesis, for example by Kojima Kiyoshi, pointing out that the Japanese foreign investments are mainly a sort of intracompany division of labour. See also S. J. Park (1977), Y. Miyazaki (1974) and M. Sumiya (1976).



Note: 1. Others (1.8%) for America: entry as "International"
 Source: Japan: Ministry of Finance, America: Survey of Current Business, GB: British Business, May 22nd, 1987, West Germany: Monatlicher Bericht der Deutschen Bundesbank, March 1987.

FIGURE 1
 FOREIGN INVESTMENTS OF ADVANCED COUNTRIES (%)

Although the tendency of increasing investment activities of Japanese and in particular American small and medium range companies has been observed by different authors, it is still assumed that they make up a relatively small percentage.³ Obviously this tendency grew stronger during the 1980s. According to OECD's information⁴ concerning the foreign investments of small and medium range companies, their share of the total foreign investment volume is said to be 20.0% for West Germany, 5.0% for Great Britain and 38.0% for Canada

What are the reasons for the increasing foreign investments of small and medium range companies? OECD lists the following:

1. The general trend of all advanced nations towards internationalization has been reinforced by the long stagnation of the respective domestic economy and its necessary change of structure.
2. The developments in several sectors, like for example the rapid diffusion of new technologies, have been the incentives for small and medium range companies to invest in foreign countries, especially when opening up gaps in the market.

³ See for example J. Stopford and J. Dunning (1983).
⁴ OECD (1987, p. 22).

3. Equally remarkable, that the rapid internationalization in the service sector, like for example tourism, has also reached parts having a low capital-intensity.
4. In general, in order to increase the international competition ("economy subcontracting") a flexible adjustment to the global market strategy by the outsourcings takes place within the company.
5. On the other hand it has to be noted that not all foreign investments of the small and medium range companies had positive results, whereas sectors like banking, roboting and bio-engineering have been quite successful. Mainly the expenditures did not match the results so that "joint" (group) investments were progressively preferred perhaps in combination with a vertical integration of production.
6. The "new" forms of co-operation have been inter alia Joint Ventures, the Turnkey-Operation, the licensed co-operation, the Management and Technical co-operation, Franchising, and of course *IS*.⁵

The above-mentioned activities are intensified, mainly by two supplementary factors: One is the increased control and preference of traditional investment-packages (i.e. of production, finance, technology, marketing and management), the other being the increased convergence of interests between the investor and the host country. (It should be noted that some countries in Western Europe and North America are leading a very active investment policy.)⁶ In other words, the "classical" criteria of UNIDO concerning *IS*, like specializing, cost saving, and capacity, refer mainly to the motives of *IS*. Recent efforts concerning the typology aimed at the strategy of the customer (parent company). Reference shall be made to the studies of Watanabe Susumu,⁷ H. Hanaut and C. Berthomieu,⁸ C. A. Michelet⁹ and some Japanese authors.¹⁰

At least in the course of the extensive increase in foreign invest-

⁵ OECD, *ibid.*, pp. 22-3.

⁶ For further information see H.P. Merz and S.J. Park (1985) and T. Abo (1988).

⁷ S. Watanabe (1972).

⁸ C. Berthomieu and A. Hanaut (1980).

⁹ C.A. Michelet (1980, pp. 38-66).

¹⁰ See M. Otsuka (1987) and H. Fukushima (1984a, 1984b).

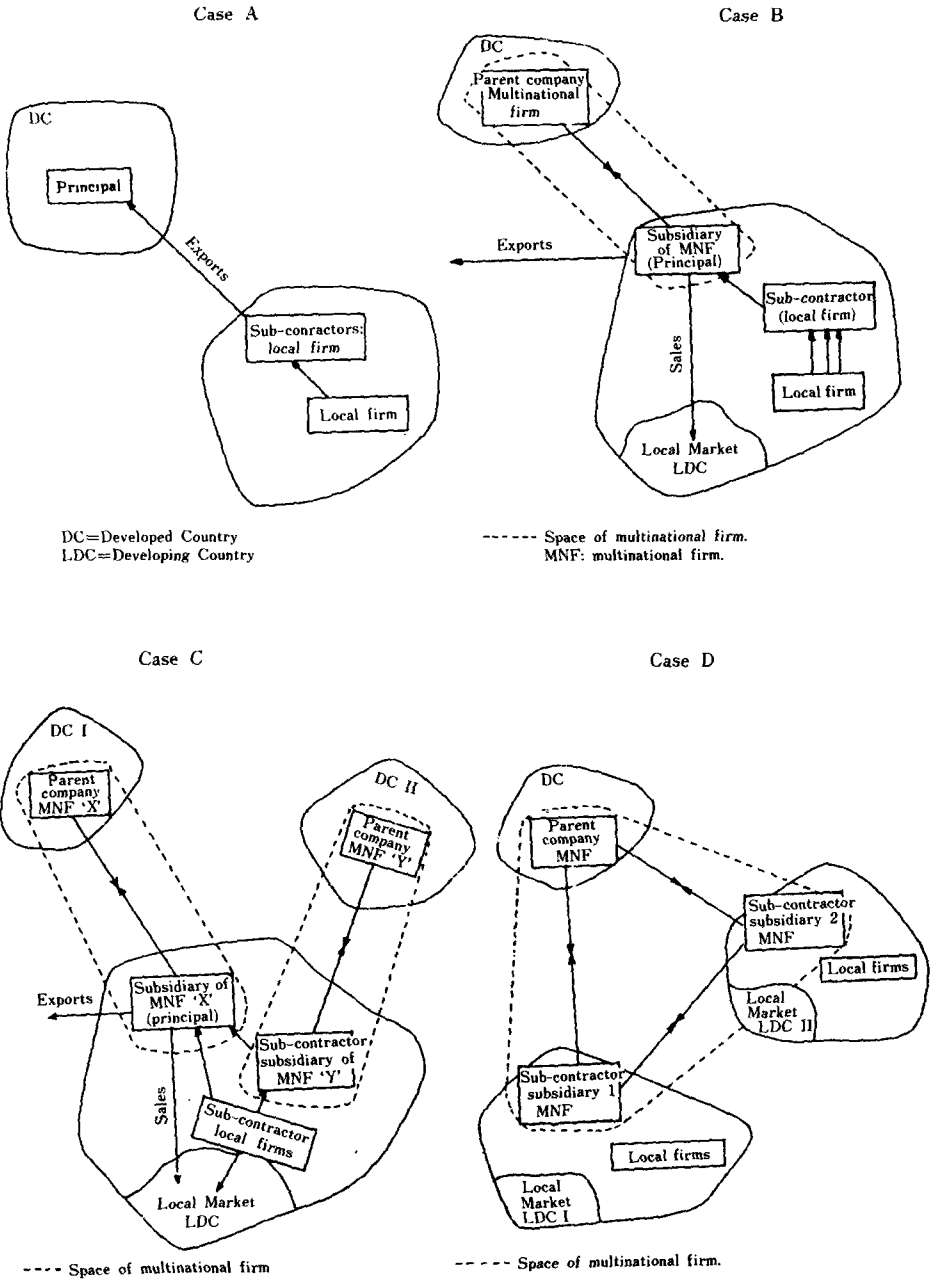


FIGURE 2
 INTERNATIONAL SUB-CONTRACTING

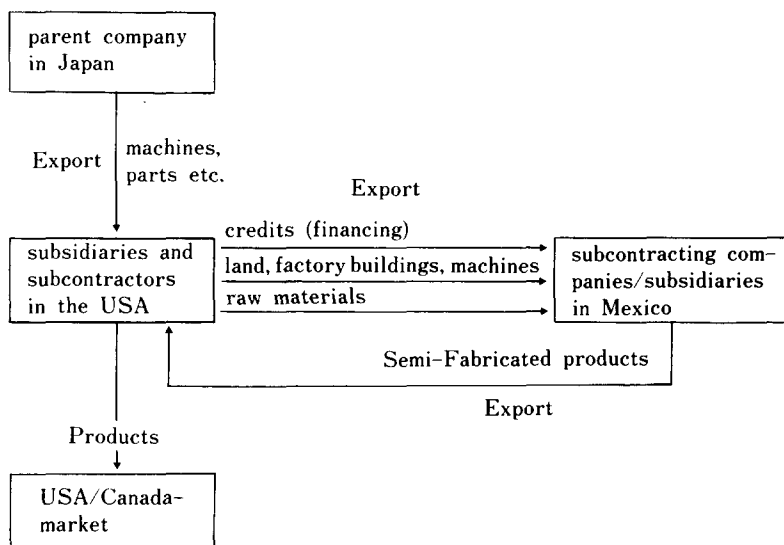


FIGURE 3
SUBCONTRACTING STRUCTURE IN USA/MEXICO

ments of Japanese large concerns and their subcontractors since the beginning 1980s, the transfer of the own subcontracting system extended the previous dimension of typology concerning the strategy of globalization and/or regionalization of the production- and sales-logistics. In other words, the *IS*-system means inter alia a sort of intracompany division of labour. As we can see from C. A. Michelet's logistics of multinational enterprises' subcontracting (see Figure 2)—which, by the way, seems clear to me—the intracompany trade takes place according to the same integrative conception of logistics, although it should be added that it is not only the relation between an advanced nation and a developing country which is concerned (cf. Figure 3). Figure 4 shows the Matsushita company operating in three ways: local market-centred, export-centred, and part-production-centred.

III. Patterns of Intracompany Division of Labor

It is extremely difficult to determine the respective intracompany trade share in the total trade of a country. In 1985 the exports of the parent companies situated in the USA and their subsidiaries were calculated at 27.8% of the total US-exports. In the same year,

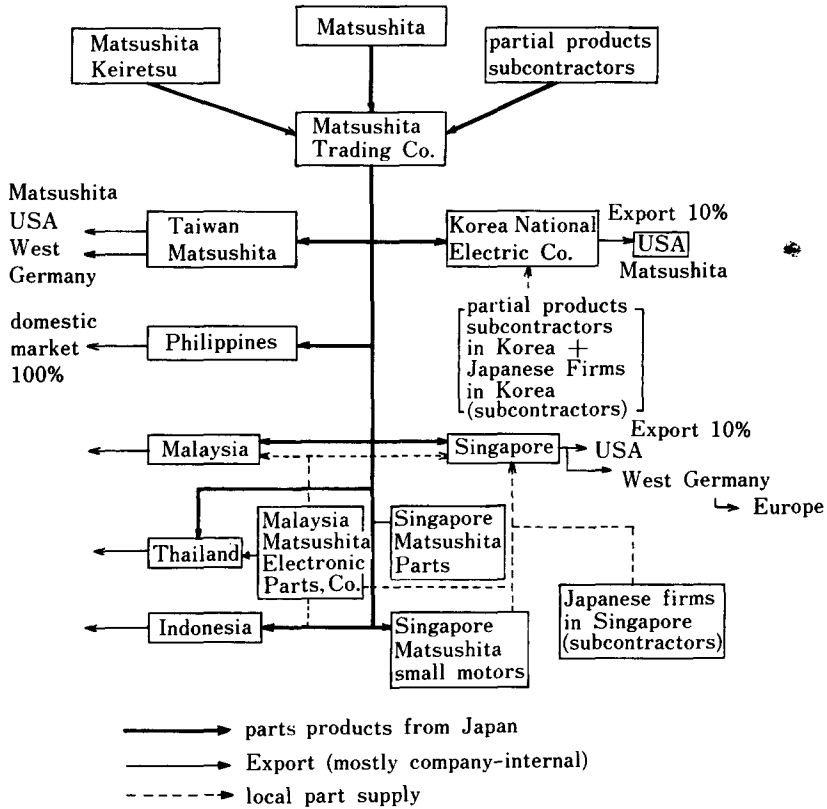


FIGURE 4

the imports from American subsidiaries to the USA amounted to 15.0% of the total US-imports. As can be derived from Table 2, the US-American enterprises generally prefer local production and local sales.

Looking at Table 2, there is only Asia which does not really fit in, as the three destinations of the products abroad, i.e. local market, export to the USA, and export to third countries are represented relatively equally. Particularly striking is the export to the USA. Especially recently the American companies have in the sectors electrics/electronics, computer, and automobile industry, intensified their investments in Asia. In most cases, production centres, being to the greatest extent possibly independent from the head office, are built up in the respective regions. As to what concerns the American investments in Asia, here the sector electrics/electro-

TABLE 2
US-AMERICAN COMPANIES ABROAD (%)

| | Japan | | Europe | | Asia | | Middle-/ South- America | |
|----------------------------|-------|------|--------|------|------|------|-------------------------------|------|
| | 1977 | 1983 | 1977 | 1983 | 1977 | 1982 | 1977 | 1983 |
| Sales at the local market | 89 | 88 | 62 | 54 | 44 | 42 | 90 | 88 |
| Export to the USA | 3 | 7 | 2 | 3 | 33 | 30 | 3 | 5 |
| Export to third countries | 8 | 6 | 36 | 38 | 24 | 20 | 6 | 7 |
| US-import volumes turnover | 9 | 12 | 4 | 6 | 17 | 28 | 11 | 13 |

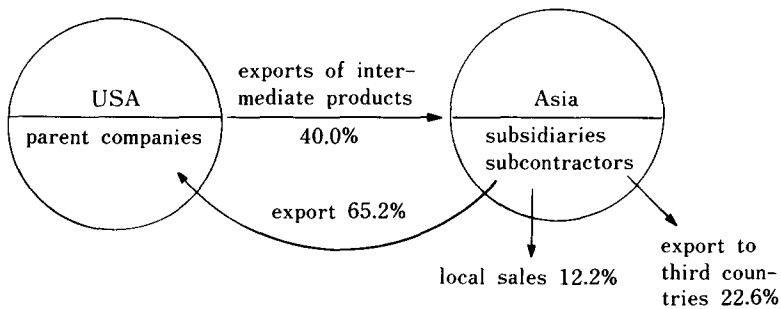


FIGURE 5

nics constitutes the central part. In Singapore for example, the investments in this sector reach 62.5% of the total US-investments, in Malaysia it is 77.4%, and in Taiwan 32.6%. The total product sales amounts at 12.2%. As we have seen already, the export of electrical/electronic products to the USA plays a dominant role: from Singapore it is 76.5%, from Malaysia 74.5%, and from Taiwan 67.5%. The local sales in Asia is even higher, reaching 88.0%. Figure 5 visualizes the present situation.

As to what concerns the German large enterprises, their position in foreign investments has been more or less stable. In the chemical sector, the big companies (like Bayer) try to increase the production-depth in the countries of investment and to integrate the foreign share (concerning the sales) stronger in the intracompany division of labour. In the sector of electronics, the international integrated system, which is based on the "model of the world market

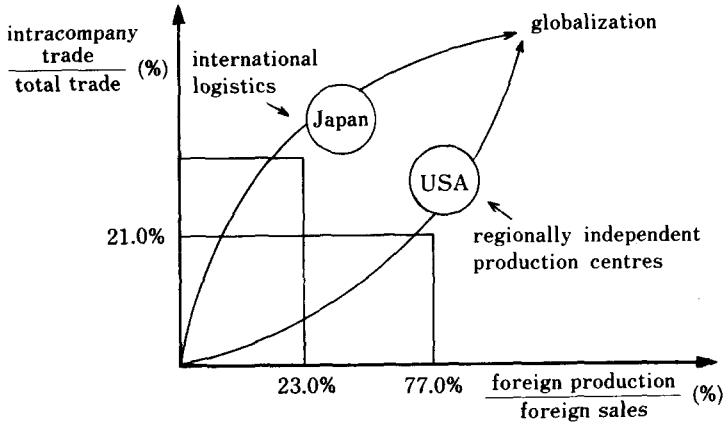


FIGURE 6

factories”, that means the supplying of the world market or a region covering several countries should be carried out by the most economical and geographically closest factory, is still in favour. Thus, it is apparent that because of lower wages and protectionism, regions like Southeast/East Asia and Latin America gained in importance. But when looking at the Peoples’ Republic of China in the sector of the automobile industry, it seems as if some problems have arisen in the building up of a partial subcontractor by the Volkswagen Company. This example taken apart, operations in this sector are mainly carried out by the own subsidiaries.¹¹

The share of the intracompany trade in the total of the Japanese foreign trade is evaluated at about 36.0%. The Japanese company logistics, however, starts out from the conception of international division of labour, considering particularly the costs structure and the content of protectionism of the respective country (for example local-content-clause). The Japanese Nomura-Research-Institute has illustrated two different strategies of globalizing multinational enterprises like Figure 6.

Being product-oriented, the American/Western European type attaches great importance to the process of production; the Japanese type starts with the opening up to a market and then proceeds to the production accompanied by the sales. The Japanese try in the first place to transfer the industrial branches having a

¹¹ See W. Olle (1985), K. Jungnickel, G. Koopmann, K. Matthies, and R. Sutter (1974) and G. Grosche (1971).

relatively low level of capital-intensity and technology (also in combination with the domestic policy of structural adjustments) abroad. For the building-up of a typical Japanese subcontracting system, it is necessary to parcel out the production- and sales-process as extensive as possible and preferably having a relatively long-term business relation. The American/Western European type principally aims at gaining the monopoly in the respective section of production and to use it as a market strategy. To dominate the market is a highly distinct company strategy, which goes together with the short-term maximization of profits.

IV. The Japanese Case

Let us now look at the Japanese example. In his studies on the Japanese investments, particularly on subcontracting in the Japanese automobile industry in the USA, Abo Tetsuo observed that in most cases the Japanese established one branch responsible for the production or obtaining product parts, and another responsible for subcontracting. Furthermore he notes that the latter joined together as they did in Japan (Kyoryokukai).¹²

The co-operation ranges from the joint development of new products to the joint storage policy (although companies operating in this way also supply American firms). Until March 1987 the Japanese founded 447 firms in the USA, 194 of which (43.4%) are "producing" directly in the States: 67 (34.5%) in the automobile industry and 45 (23.2%) in electrics/electronics. The subcontractors in the automobile sector concentrated in the region of five large lakes, which has always been known for its "good subcontractors" and skilled workers. In the section electrics/electronics, the subcontractors are mainly located in the states of California, Georgia, and Washington, thus having easy access to the R & D-Information, comparatively low wages, and easy-to-organize airfreight.

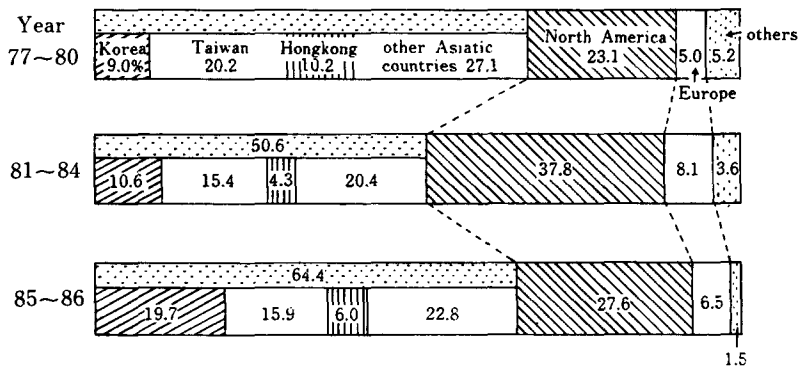
The sudden increase in the investments of Japanese small and medium range companies is very probably due to the fact that in the course of increasing investments by the Japanese large companies in the automobile industry as well as in electrics/electronics, their small and medium range subcontractors followed to the USA. It was limited, however, for three reasons: 1. The US local content policy on the import of parts products became more and more severe. 2.

¹²T. Abo, *loc. cit.*, p. 114.

TABLE 3
 FOREIGN INVESTMENTS OF THE LARGE COMPANIES(LC), THE CHUKEN (MIDDLE-LARGE),
 AND THE SMALL AND MEDIUM RANGE COMPANIES (SMC) IN THE SECTOR OF
 ELECTRICAL INDUSTRY

| | LC | subsidiaries/subcontractory Chuken | SMC |
|---------------|-------------|---------------------------------------|------------|
| Asia | | | |
| Taiwan | 47 (13.9%) | 12 (30.8%) | 13 (59.1%) |
| Singapore | 39 (11.6%) | 6 (15.4%) | 2 (9.1%) |
| South Korea | 30 (8.7%) | 9 (23.1%) | 3 (13.6%) |
| | ⋮ | ⋮ | ⋮ |
| Sub-total | 196 (57.8%) | 30 (76.9%) | 21 (9.5%) |
| Europe | 39 (11.5%) | 5 (12.8%) | |
| North America | 48 (14.2%) | 4 (10.3%) | 1 (0.5%) |
| | ⋮ | ⋮ | ⋮ |
| Total | 339(100.0%) | 39(100.0%) | 22(100.0%) |

Source: Sekai Keizai Hyoron, 1988 (April), p. 53.



Source: White paper of the small and medium range companies.

FIGURE 7
 REGIONAL DISTRIBUTION OF THE DIRECT FOREIGN INVESTMENTS OF JAPANESE SMALL
 AND MEDIUM RANGE COMPANIES IN THE MANUFACTURING SECTOR (%)

The revaluation of the Yen reduced the competitiveness of the Japanese small and medium range companies. 3. The NICs represented a real competitor for them in some manufacturing fields. Consequently, the Japanese in a way reorientated themselves and the NICs and other Asiatic countries again became the preferred sphere of investment of the Japanese small and medium range companies (see Figure 7).

Table 3 shows the extreme concentration of investments by the small and medium range companies in Asia, especially in the NICs.

The reorientation of the Japanese small and medium range companies takes place within the above-mentioned worldwide strategy of globalization by the Japanese large concerns. Thus, the rapid increase in investments by the Japanese small and medium range companies, which takes place recently, has to be considered against the background of firstly, the NICs having already developed well enough to aim at a sort of "horizontal" division of labour like Japan (and other advanced nations) in some sectors, such as electrics/electronics and secondly, the ASEAN-countries, as well as the Peoples' Republic of China, following them. Thus it is possible for Japan to pursue a strategy of investment according to the level of development of the respective country.¹³

But even if the possibility of intra-regional horizontal division of labour is discussed in Japan, the advantages resulting from the lower wages will nevertheless be an essential element not only concerning the development of the Asiatic countries, but also providing the motivation for the investments of the small and medium range companies in East Asia, which is of extreme importance. J. Grunewald and K. Flamm's study illustrates the fact that even in the "technologically intensive" production of semi-conductors, especially as the assembly is concerned, the low labour costs represent the decisive element in foreign investment, even if the costs for material, transport etc. may be higher abroad (in the Third World).

Therefore the producers in the electrical/electronic branch tend to transfer their production centres progressively to Thailand, Malaysia, the Peoples' Republic of China, as well as to the USA (Mexico), thus leaving Taiwan and Singapore (see Figure 8), because the important factor is primarily the assembly on a very low technical level but with high quality standards. Grunewald and Flamm concluded: "...subcontracting between independent firms appears to be the principal mode of having assembly done abroad... In electronics, however, such operations are usually carried out by subsidiaries of multinational enterprises. In complex, high-technology industries it can be risky for a US company not to control all manufacturing processes: valuable technology may lead to competitors..."¹⁴ J.H. Dunning and R.D. Pearce refer to that trend of

¹³ Sumiya Mikio once called this region the sphere of the Japanese small and medium range companies, imagining the low level of wages in Asia to be the decisive motivation (see M. Sumiya, *loc. cit.*).

¹⁴ Grunewald and Flamm, *loc. cit.*, p. 218.

TABLE 4
JAPANESE SUBCONTRACTORS'/SUBSIDIARIES' SUPPLY OF
RAW MATERIALS/PARTIAL PRODUCTS

| | <i>LC</i> | <i>Chuken</i> | <i>SMC</i> |
|----------------------|-----------|---------------|------------|
| Japan | 47.5 | 47.8 | 50.0 |
| Local subcontractors | 42.6 | 34.8 | 43.8 |
| Third country | 9.9 | 17.4 | 6.2 |

Source: Sekai Keizai Hyoron, 1988(4), p. 55.

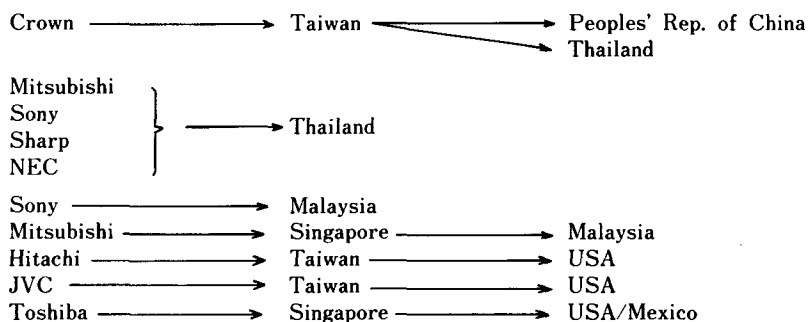


FIGURE 8

internationalization of high-tech-potentials in connection with the intracompany trade in their studies on 329 large companies.¹⁵

Thus the problem arises, how to get hold of parts and raw materials in the investing country. As Table 4 shows, imports from Japan play a dominant role. The smaller the company, the stronger the tendency. As to what concerns the local subcontractors it is not quite sure, whether they are really "local" subcontractors or rather joint ventures/companies operating mainly with Japanese capital. Quite a big share of Japanese exports, however, consists of those parts products and "raw materials." The Japanese government states a share of more than 15% of the total exports concerning the five items (see Figure 9). But the crucial point is, how fast the local-content-policy of the respective country will force the Japanese subcontractors/subsidiaries to change to local supply and subcontracting.

With 43.6% the rate of supply with raw material and product parts from Japan is still said to be too high, but as to what concerns

¹⁵ J. H. Dunning and R. D. Pearce (1981, p. 132).

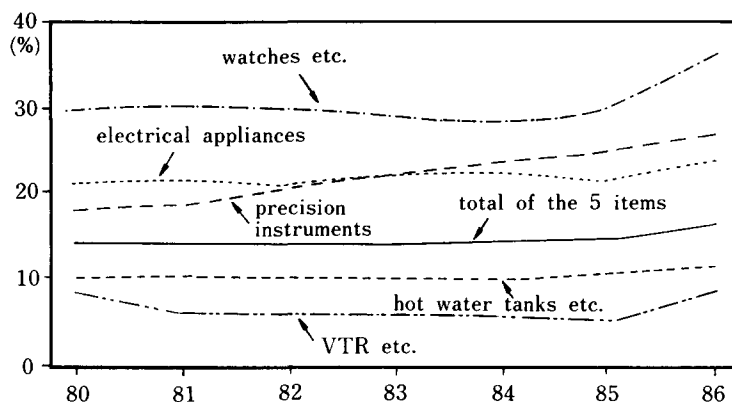


FIGURE 9
SHARE OF PARTS PRODUCTS IN THE EXPORT

electrics and the engineering industry (transport), 49.6% respectively 38.2% are for certain. Thus the Japanese concerns intend to react on the foreign complaints. Until 1990, Nissan plans to increase the local-content-share in Great Britain to 80.0% and therefore three companies responsible for parts production (joint ventures: Ikeda Hoover, Nissan Daiwa Engineering & Co., and TI Nihon) have already been founded. Similarly the increase in the US local-content-share shall be increased to 60.0%. In the automobile sector, the subcontractor Aiichi Kikai-Motors will use its subcontractors in the USA and Mexico and as to what concerns trucks, the motors shall still be imported from the subcontractors located in Kyushu. However, at present Nissan has about 120 part-producers (subcontractors) at its disposal in the USA.¹⁶

V. Conclusion

It proved extremely difficult to get an exact definition of *IS*. Above all its complex structure has to be analysed in connection with the strategy and structure of the large companies: the American/Western European concerns tend to externalize *IS*, whereas the Japanese often transfer the domestic subcontracting strategy abroad (internalization of *IS*). The Japanese method will become apparent according to the degree of how strong the JIT-production

¹⁶ Until 1991 Honda intends to increase the local-content-share in the USA and Canada to 75%. Having finished this study, I received a paper by W. Lütkenhorst (1988).

is built up abroad and how high the technological level of the respective product and production method is. The resulting intracompany division of labour is regarded necessary by the multinational enterprises for the globalization or regionalization of the strategy of the enterprise. It has become apparent, however, that the increased application of the local-content-clause on the foreign investments will lead equally to a further differentiation and flexibilization in IS.

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