

THE GLOBALIZATION OF JAPANESE FIRMS AND ITS INFLUENCE ON JAPAN'S TRADE WITH DEVELOPING COUNTRIES

TōRU NAKAKITA

FOLLOWING the G-5 meeting of September 1985, Japanese firms engaged in active overseas operations. Faced with the steep appreciation of the yen and continuing trade friction, the initial reaction of Japanese firms was a hesitant overseas expansion, replacing exports by overseas production. However, as overseas expansion progressed, the management attitude in Japanese firms took on a more global perspective, aimed at optimizing a range of firm activities in this respect (e.g., general production, sales, and R & D). This has led to the form of their overseas expansion becoming increasingly diversified, from foreign direct investment to business tie-ups, technology cooperation, production cooperation, and now to merger and acquisition (M & A) as well.

These developments will have a far-reaching effect not only on Japan's economic relations with advanced nations like the United States and members of the EC, but also on trade relations between Japan and developing countries in East Asia. Japan's foreign operations in East Asia were the result of a convergence of interests of individual Japanese firms and the needs arising from the rapid catch-up process being undertaken by the East Asian nations.

In recent years, the overseas operations of these firms have attracted a great deal of attention, and some remarkable studies have already been conducted by Nakatani [9]. However, studies designed to grasp the total picture of foreign operations and its influence on trade and economic relations, especially, as regards intra-firm trade in the North-South context are still rare, despite some earlier studies by Helleiner [3].

This paper takes an innovative integrated approach to the operations of Japanese firms. We begin with a theoretical analysis of the factors leading to diversification in the form of overseas operations, and then consider the implications this has on policy making in the North-South context.

In Section I, we present a comprehensive picture of the overseas operations of Japanese firms using a new method. Section II attempts to conduct an analysis on the background, factors, and characteristics of these rapidly growing and diversifying overseas operations. In Section III, we study the linkage between overseas operations and trade, and, *inter alia*, the influence of intra-firm trade on Japan's trade with developing nations. Section IV attempts to consider the challenges to the traditional framework of economics. Finally, in Section V, we take up the developmental problems of developing economies, and consider the implications for industrial adjustment in the international context.

TABLE I
JAPAN'S EXPORTS ON A REGIONAL BASIS

(U.S.\$ 100 million and %)					
	1980	1985	1986	1987	1988
U.S.A.	314(24.2)	653(37.2)	805(38.5)	836(36.5)	827(33.0)
Southeast Asia	309(23.8)	332(18.9)	418(20.0)	530(23.1)	622(24.8)
Korea	54(4.2)	71(4.0)	105(5.0)	132(5.8)	146(5.8)
Taiwan	51(3.9)	50(2.8)	79(3.8)	113(4.9)	133(5.3)
ASEAN	131(10.1)	112(6.4)	101(4.8)	156(6.8)	195(7.8)
China	51(3.9)	125 (7.1)	99(4.7)	82(3.6)	82(3.3)
Europe	167(12.9)	200(11.4)	307(14.7)	377(16.4)	560(22.3)
Oceania	40(3.1)	65(3.7)	63(3.0)	63(2.7)	67(2.7)
World total	1,298	1,756	2,092	2,292	2,509

Source: Own calculations based on Japan Tariff Association, *The Summary Report, Trade of Japan*, various issues.

Note: Figures in parentheses show world share.

TABLE II
JAPAN'S IMPORTS ON A REGIONAL BASIS

(U.S.\$ 100 million and %)					
	1980	1985	1986	1987	1988
U.S.A.	244(17.4)	258(19.9)	291(23.0)	314(21.0)	411(22.4)
Southeast Asia	318(22.6)	303(23.4)	295(23.3)	386(25.8)	462(25.2)
Korea	30(2.1)	41(3.2)	53(4.2)	81(5.4)	106(5.8)
Taiwan	30(2.1)	34(2.6)	47(3.7)	71(4.8)	84(4.6)
ASEAN	213(15.2)	182(14.0)	152(12.0)	185(12.4)	226(12.3)
China	43(3.1)	65(5.0)	57(4.5)	74(5.0)	92(5.0)
Europe	78(5.6)	89(6.9)	140(11.1)	176(11.8)	228(12.4)
Oceania	78(5.6)	84(6.5)	79(6.3)	91(6.1)	112(6.1)
World total	1,405	1,296	1,264	1,494	1,835

Source: As in Table I.

Note: Figures in parentheses show world share.

I. JAPANESE FIRMS' OVERSEAS OPERATIONS: CHARACTERISTICS AND CONTEXT

A. *Economic Relations Following the G-5 Agreement of 1985*

Tables I and II show the recent trend of Japan's trade with its major trading partners and Table III shows comparable figures for foreign direct investment. Continuing trade frictions and the sharp appreciation of the yen has resulted in a rapid expansion of the overseas operations of Japanese firms. This expansion was particularly steep for the United States, the EEC, and the ANIEs (Asian Newly Industrializing Economies). Trade and overseas investment relations with

TABLE III
JAPAN'S FOREIGN DIRECT INVESTMENT ON A COUNTRY BASIS

(U.S.\$ million and %)

	FY1951-83 (Accumulated Amount)	FY1984	FY1985	FY1986	FY1987
Korea	1,471(2.4)	107(1.1)	134(1.1)	436(2.0)	647(1.9)
Taiwan	581(0.9)	65(0.6)	114(0.9)	291(1.3)	367(1.1)
Hong Kong	2,388(3.9)	412(4.1)	131(1.1)	502(2.3)	1,072(3.2)
Singapore	1,705(2.8)	225(2.2)	339(2.8)	302(1.4)	494(1.5)
Indonesia	7,641(12.5)	374(3.7)	408(3.3)	250(1.1)	545(1.6)
Malaysia	904(1.5)	142(1.4)	79(0.6)	158(0.7)	163(0.5)
Philippines	785(1.3)	46(0.5)	61(0.5)	21(0.1)	72(0.2)
Thailand	593(1.0)	119(1.2)	48(0.4)	124(0.6)	250(0.7)
China	73(0.1)	114(1.1)	100(0.8)	226(1.0)	1,226(3.7)
Oceania	3,271(5.3)	120(1.2)	491(4.0)	974(4.4)	1,343(4.0)
U.S.A.	16,536(27.0)	3,359(33.1)	5,395(44.2)	10,165(45.5)	14,704(44.1)
Europe	7,135(11.6)	1,937(19.1)	1,930(15.8)	3,469(15.5)	6,576(19.7)
World total	61,278	10,155	12,217	22,320	33,364

Source: Ministry of Finance.

- Notes: 1. FY=fiscal year ending March 31 of the next year.
2. Figures in parentheses show world share.

Korea and Taiwan have also expanded. Such developments are considered to have encouraged the economic development of the East Asian countries.

Figures on foreign direct investment presented in Table III show a sharp increase following FY1986, and they have continued to rise noticeably during FY1987. We must note that whilst there has been a substantial increase in the manufacturing sector, the non-manufacturing sector, namely banking and insurance, is the principal driving force. The growth of overseas investment in the manufacturing sector has undoubtedly been a major factor in bringing about an increase in overseas investment in the non-manufacturing sectors such as finance, distribution, real estate, etc.

On a regional basis, direct investment in the advanced nations has risen rapidly in response to trade frictions. But now Japanese foreign investment in Asia is increasing more rapidly than elsewhere, particularly in ANIEs such as Korea and Taiwan. Foreign direct investment in Asia, exhibiting relatively small sums per case, is the result of, among other factors, an active response by small- and medium-scale industry.

It can be seen from the above that there has been a geographical shift in Japanese direct investment from Southeast Asian countries to the Western developed countries, while in terms of technology there has been a shift from labor-intensive to technology-intensive industries. That is to say, Japanese direct investment has become more diversified.

At this stage, we would like to emphasize that the scale of the shift from export to overseas operations by Japanese firms is misleadingly underestimated by the

figures on direct investment presented in Table III. The foreign investment statistics released by the Ministry of Finance cover cases which involve domestic capital transfers on a declaration basis alone, but do not cover direct investment by overseas subsidiaries which procure the requisite money abroad. Nor do these figures contain the overseas activities which do not involve capital transfers, such as technology cooperation or production collaboration. To get a comprehensive picture of the overseas activities of Japanese firms, we must take a different approach.

B. *Diversification of Japanese Overseas Activities: An Alternative Approach*

To obtain a broader picture, newspaper clippings on overseas activities of Japanese firms since the G-5 meeting were collected and categorized on the basis of forms of activity, regions, and industries. The data was collected by searching the Nikkei Economic Electronic Data System (NEEDS) for the period between September 1985 to June 1988.

A fourfold classification of overseas activity was adopted. These were; business tie-ups, technology tie-ups; production cooperation; and local production. Business tie-ups mean the setting up of cooperative relationships between Japanese and foreign firms pertaining to the acquisition and provisions of sales rights or brand names, etc. Technological tie-ups mean the introduction and provision of new technologies between Japanese and foreign firms for joint efforts on R&D, the development of computer software systems, etc. Production cooperation indicates the establishment of cooperative relations between Japanese and foreign firms pertaining to commissioned production, and licensed production. Local production is defined as the setting up of overseas subsidiaries (namely, plants), for the purpose of overseas production. For each category, a further categorization was made into outward and inward expansions and mutual interchange.

In the following analysis, we refer to the overseas activities, other than the foreign direct investment, as intermediate forms of overseas activity. Oman [10] and Chee Peng Lim [2] emphasize the increased importance of arrangements such as long-term contracts, management contracts, franchise, turnkey, and production sharing, and they group these under the heading of "new forms of investment." Casson [1] draws attention to the importance of these intermediate forms of overseas activity, although his argument remains at an abstract level.

The approach adopted here has some limitations in the sense that the statistics collected pertain to cases, not to values. Furthermore, these inevitably reflect newspaper biases. The official data, however inadequate, confirm the underlying trend of overseas activity involving international capital transfers. The changing form of overseas activities can be better comprehended by using time, region, and industry dimensions.

The results of this exercise are shown in Table IV. It is clear from this table that there was a sharp increase in overseas operations concomitant with the appreciation of the yen. Moreover, the diversification in the form of such operations also increased.

On a regional basis, the United States is by far the largest partner in overseas

TABLE IV
NUMBER OF JAPANESE FIRMS OPERATING OVERSEAS

	U.S.A.	Europe	ANIEs	ASEAN	China	Oceania	World
Business tie-ups							
Sep.-Dec. 1985	89 (42)	58(33)	19 (9)	7(0)	10(4)	5(1)	193
Jan.-June 1986	169 (80)	102(65)	22 (8)	3(2)	15(6)	6(3)	321
July-Dec. 1986	185 (96)	95(58)	34(15)	3(2)	16(2)	10(3)	357
Jan.-June 1987	213(105)	85(43)	41(12)	5(1)	21(7)	8(1)	378
July-Dec. 1987	185 (90)	126(71)	53(15)	7(0)	27(7)	10(3)	413
Jan.-June 1988	244(128)	155(91)	51(19)	17(6)	24(7)	10(7)	510
Technological tie-ups							
Sep.-Dec. 1985	21	22	16	3	18	6	94
Jan.-June 1986	50	33	26	14	38	3	180
July-Dec. 1986	76	47	32	6	20	0	199
Jan.-June 1987	61	20	50	10	23	5	181
July-Dec. 1987	90	37	32	11	15	6	198
Jan.-June 1988	82	51	25	6	17	11	185
Production cooperation							
Sep.-Dec. 1985	21	15	4	0	7	0	50
Jan.-June 1986	31	11	13	4	5	1	68
July-Dec. 1986	39	18	36	6	13	1	116
Jan.-June 1987	28	16	46	4	7	0	103
July-Dec. 1987	53	30	38	7	13	2	148
Jan.-June 1988	61	59	37	17	21	6	204
Local production							
Sep.-Dec. 1985	86	28	18	20	23	1	184
Jan.-June 1986	158	64	75	18	23	4	369
July-Dec. 1986	110	52	92	21	19	5	327
Jan.-June 1987	154	68	133	59	18	9	464
July-Dec. 1987	192	84	108	76	18	8	507
Jan.-June 1988	179	59	79	86	20	6	452

Source: Compiled by author from NEEDS, September 1, 1985-June 30, 1988.

Note: Figures in parentheses represent the number of manufacturing cases.

operations, followed by the EC members and the ANIEs, but East Asian countries, including the ANIEs, there has been a remarkable rise since 1987. Local production in East Asia has shifted from the ANIEs to ASEAN members, whilst the ANIEs have seen a further consolidation, expanding the already existing activities.

Turning to the form of overseas operations, we see that local production has gone up, and intermediate forms of overseas activities have grown alongside.¹ Similarly, there is a steady increase in the number of OEM cases, import development, the setting up of overseas branch offices, and investment in real estate.

¹ A monitoring survey by the Japan External Trade Organization [6] regarding industrial cooperation also supports these statistical trends. According to this survey, technology exchange agreements as well as investment cases are on the rise globally. On a regional basis, the United States was at the top of the list with 40 per cent of all the cooperation agreements followed by Asia, with Korea and Taiwan showing a rising trend thus broadening the individual cooperation network. Also see Yamazawa [14].

As far as these forms of overseas activities are concerned, every one of these has existed before. What is important is that the globalization of Japanese firms proceeded by combining these varied arrangements in an organic way.

It is to be noted that there is a steady increase in the number of M&A when starting local production in the United States, EC countries, or in Asia. M&A is considered to be unsuitable for the Japanese management climate. However, as communication becomes faster and the product cycle shortens, firms are being forced to reconsider their overseas operations methods in relation to cost of delay, and to recognize the need for purchasing managerial resources from outside in order to accelerate firm growth. As overseas operations become more sophisticated, the methods of organization, management, and employment in the Japanese firms are also expected to change.

Finally, on an industry basis, business tie-ups increased sharply, especially in services such as banking and insurance for the purpose of setting up an extensive network. Technological cooperation grew in the chemical and machinery sectors—a development reflecting a strong need for cross-licensing. For local production the increase was pronounced in assembly industry using standardized technology, such as transport vehicles and electrical machinery.

II. AN ECONOMIC ANALYSIS OF GLOBALIZATION

A. *The Interaction between the Forms and Regions*

Figure 1 depicts the time profile of overseas production. In the initial stages, overseas operations rose sharply in the ANIEs, followed by the ASEAN countries. Gradually the profile is becoming increasingly similar to that in the United States and the EC. The crossing of the lines representing both areas with those representing the EC and China suggests that there were interactions between the regions and forms of overseas activities.

In general, the forms of overseas activity has shifted as location shifts from advanced to developing nations, and from relatively developed areas to less developed areas within the developing countries. Over time one could find some theoretical basis for these interactions between regions and forms of involvement. Hence, there is a need to analyze the effect of these two factors on the number of cases. One can assume that firms' decisions are made independently and can be repeated endlessly.

Following the above discussion, we have conducted a variance analysis with the regions and forms as two elements. We obtained the following regression results:

$$N = 42.830 + 7.998 X_1 - 11.826 X_2 + 4.387 T, \quad (1)$$

(8.00) (4.48) (-11.85) (3.75)

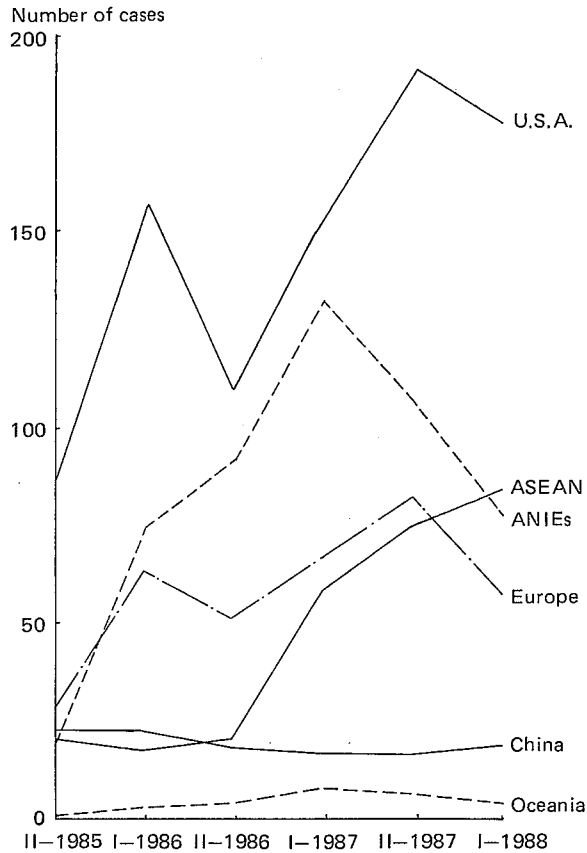
$$R^2 = 0.516, D.W. = 0.66$$

$$N = 35.697 + 12.753 X_1 - 9.448 X_2 + 4.387 X_1 \cdot X_2 - 1.585 T, \quad (2)$$

(5.37) (3.99) (-5.69) (3.78) (-1.79)

$$R^2 = 0.595, D.W. = 0.65$$

Fig. 1. Recent Trend of Local Production by Japanese Firms



Source: As in Table IV.

Note: I=January-June and II=July-December.

where N stands for the number of cases; X_1 , X_2 , elements representing the forms of activities and regions, respectively; and T is the time trend.

In terms of estimated equations, X_1 , X_2 represent main effects and $X_1 \cdot X_2$ represent the interaction effects.

We then test the following null hypothesis:

H_0 : All the parameters in equation (2) are zero.

The residual sum of squares for equations (1) and (2) were calculated and F values were obtained to determine the significance of the parameters. H_0 is rejected at the 5 per cent level of significance. This indicates that there may be interactions over time between the main effects of forms of activities and regions.

We can conclude from this that, in the process of the globalization of Japanese

firms since the G-5 meeting of September 1985, an interaction effect between region and form of activities has been operating.

B. *Accumulation of Managerial Resources*

What were the factors behind the rapid increase in overseas activities by Japanese firms and their diversification as seen in the last section?

A growing firm accumulates extensive managerial resources in the process of expansion. It is natural for such a firm to make use of these resources in the most suitable way. A dynamic firm will not be content to search for profitable business opportunities in the domestic market alone. Over the long run, it will try to extend its network across national boundaries. Overseas operations can, therefore, be interpreted as reflecting the process of transfer of managerial resources across national frontiers. It is a matter of the general process of growth through diversification [11].

Overseas operation is intricately linked with the objective of firm growth. On this account, at least, there seems to be no difference in the investments undertaken by a firm in its country of origin or in foreign countries. The only difference lies in the vulnerability of foreign investments to changes in foreign exchange rates, the differences in the economic policies pursued by foreign governments, and in differing social expectations and/or legal requirements.

Overseas business activities include direct investment, but also turnkey operations, sales cooperation, management contracts, technology cooperation, and long-term contracts, etc. Whatever form they take, these methods of overseas involvement are characterized by an inflow of managerial resources and, in this sense, should be treated within the same spectrum of foreign investments.

If foreign involvement is characterized in this manner, the factors promoting the globalization of Japanese firms seem to be the abundance of business opportunities around the world, not in the form of foreign trade, but in the transfer of managerial resources across national boundaries.

In the first place, there are technological innovations in the fields of transportation, information, and communications, and these technologies are being made available at dramatically reduced prices. The development of these technologies has considerably altered the concept of national boundaries. By use of VAN (value added network), firms can now detect the consumers' needs promptly, thus enabling them to respond in a more elaborate manner. Some firms attempt to procure the products and intermediate goods suitable for Japanese consumers and producers through the use of an international information network with the ANIEs. Furthermore, technological progress has enabled Japanese producers to transport the semi-finished LSI to the ANIEs by air, where exports to the United States and the EC are executed.

Secondly, there is an accumulation of human capital. Under the influence of globalization, even firms without any overseas experience can benefit by sharing local information through externalities of information. This mechanism serves to accelerate the accumulation of managerial resources at a national level.

Thirdly, East Asian countries are now upgrading their technological and pro-

duction capabilities and expanding the basis for receiving Japanese firms' overseas operations very quickly. This in turn means that the catch-up process of these countries quickens. For the purpose of upgrading the industrial and trading structure of their economies, these countries make conscious efforts to introduce technologies, financial resources, and management know-how from Japan while they strengthen their ability to develop indigenous technologies.

These changes in long-term trends, together with the sharp appreciation of the yen and contentious trade frictions decisively pushed Japanese firms into globalization.

C. The Background and Reasons for the Diversity of Methods of Foreign Operation

What are the underlying factors which cause the diversification of the forms of Japanese foreign operations, and, in particular, what are the intermediate forms?

A major factor is the close relationship between trade and foreign investment. Another is the higher degree of human capital contained in the products and services produced and exported by Japanese firms.² To cite an example, when capital goods such as machinery equipment is exported from Japan, management and technology guidance usually accompany it while trying to establish overseas subsidiaries and/or technological cooperation with customers. The contemporary method of foreign trade has transcended the ordinary exchange of physical goods, and is characterized more by the combination of business tie-ups (purchasing the final products and selling them in the third market), technological cooperation, capital participation, long-term contracts, and so on. Similarly, when Japanese firms try to commission their production facilities to the indigenous producers in the ANIEs, they will install production facilities, provide materials and semi-finished goods, and give guidance while engaging in capital cooperation. Even after that, the parent company is often obliged to sell the products worldwide by conducting the marketing efforts. The sophistication and higher-grade software of their products indicate that they are in effect exporting human capital to other countries. To cope with this trend more effectively, they are required to combine various arrangements, including management contracts, technological guidance, resource procurement, and the like.

Conversely, as far as ordinary foreign trade transactions are concerned, there is no effective method of ensuring confidentiality of software exchanges. Therefore, there has been a shift towards transactions of information and production factors through organizations. This point will be further elaborated upon in the next section.

In the meantime, foreign investments are becoming increasingly similar to foreign trade. One reason for this trend is restrictions on foreign investment by recipient countries. In many developing countries today (though not only in developing nations), the inflow of foreign capital is severely restricted through controls on equity participations, local procurement, remittance of profits, and

² For a similar argument from the viewpoint of trade finance, see [12].

so on, to protect domestic capital, promote local employment, and safeguard real or supposed national interests. Countries like Korea attach a higher priority to access to high-technologies over financial resources and management know-how, etc., while encouraging the inflow of foreign capital into technology-intensive industrial sectors. In such cases, foreign firms have to forego the acquisition of 100 per cent equity shares in overseas subsidiaries and take recourse in non-majority ownership of foreign investment, that is, new forms of investments. It is natural for such firms to exercise influence through technology, management know-how, and marketing, instead of direct control over foreign subsidiaries. This effectively corresponds to the case of capital goods exports combined with technology tie-ups or capital participation, and is often accompanied by commissioning production. In addition, if the firms are risk-aversers, they try to reduce the risks involved by an early recovery of their profits from direct investments by means of arrangements like production sharing, lease contracts, project financing, and long-term contracting.

The above argument leads us to conclude that the diversity in the form of overseas operations has been the result of a combination of accumulated technologies, on the one hand, and the growing existence of restrictions on foreign capital by recipient countries as well as risk-averse behavior, on the other.

The above argument does not prevent Japanese firms from seeking to set up 100 per cent equity foreign subsidiaries. However, since managerial resources are a "package" consisting of various kinds of know-how, firms have to engage in foreign operations in forms other than foreign direct investment in cases where all the requisite elements are not available and prepared.

This argument can be elaborated as follows:

Firstly, we have to consider differences in the developmental stages of individual firms. At the initial stage when accumulated managerial resources are still inadequate, firms undertake localization on a piecemeal basis. To begin with, overseas offices are set up as information bases to monitor local needs. This is followed by licensing, production cooperation, sales cooperation and, finally, direct investment aimed at setting up joint ventures and foreign subsidiaries. To cite an example, when the Nissan Motor Company attempted to start overseas operations in the United States, they began by assembling small-trucks, requiring relatively few number of parts and components and involving a smaller scale of operation. Then they followed this by the fully fledged local production of passenger cars entailing more sophisticated technology. When each industry, differing in developmental stages and the amount of managerial resources follows this pattern, it looks as if, at the aggregate level, individual Japanese firms go abroad taking different forms at the same time.

Secondly, differences in companies' decision-making processes are involved. Large corporations, where consensus-building on the basis of "bottom up" is resorted to, tend to be very cautious and averse to the risks involved. They are likely to prefer intermediate forms of investment. On the other hand, self-owned companies and small- and medium-scale industries, where top management is directly exposed to risks, are likely to resort to acquiring foreign subsidiaries through M & A.

TABLE V
THE SIZE OF INTRA-FIRM EXPORTS BY JAPANESE FIRMS

	(U.S.\$ million)		
	1980	1983	1986
Total exports conducted by Japanese-related firms	279,581	305,381	—
Exports from headquarters	189,177	221,483	—
(1) From headquarters to its subsidiaries	33,739	48,703	97,871
(2) From headquarters to its related companies	138,355	157,070	208,331
(3) From non-related companies to overseas subsidiaries	17,083	15,710	—
Exports by overseas subsidiaries	90,404	83,898	91,330
(1) To headquarters	23,606	19,913	} 41,740
(2) To non-related companies located in Japan	37,297	28,631	
(3) To subsidiaries in third countries	} 29,502	} 35,353	} 49,590
(4) To non-related companies in third countries			
Total exports to the world	1,896,700	1,680,600	1,993,800
The ratio of intra-firm exports compared to total exports (%)	14.7	18.2	—

Source: Ministry of International Trade and Industry, *Tsūshō hakusho Shōwa 63-nen ban* [White paper on trade and industry 1988] (Tokyo, 1988).

Note: Exports by overseas subsidiaries are calculated by multiplying total turnover and export ratio. Exports conducted by trading companies can be double-counted. Mechanical comparison can not be made since coverage differs from year to year. Figures for FY1986 are estimates.

This trend can be demonstrated in the case of Asia, where foreign direct investment by small- and medium-scale industries is increasing in number. However, even some large corporations, like Bridgestone or Dainippon Ink & Chemicals, now wish to have their top management play a leadership role by acquiring subsidiaries through M & A.

III. THE INTERNATIONALIZATION OF JAPANESE FIRMS AND ITS IMPACT ON TRADE

A. Impact on Intra-Firm Trade

The transfer of managerial resources resulting from the globalization of Japanese firms will alter the endowment of capital and technology, and thus affect the structure of comparative advantage among various economies. In this regard, the globalization of firms will augment intra-firm trade by activating intra-firm transactions between headquarters and their subsidiaries abroad.

Generally speaking, different types of corporate behavior can be found in

intra-firm trade, as opposed to ordinary trade among different companies. Firstly, the division of labor through the production process is promoted, making it possible for production sites to be reorganized with a view to global optimization. This facilitates the expansion of commissioned processing, product differentiation and long-term contracts. Secondly, as a multinational attempts to optimize its production, marketing, R & D, etc., its volume of trade is likely to stabilize in the long run, irrespective of such phenomenal fluctuations as changes in foreign exchange rates and interest rates.³

Table V shows the results of a survey concerning intra-firm trade by Japanese firms, released by the Ministry of International Trade and Industry.

In the ratio of intra-firm trade in the total trade, Japanese intra-firm exports exceed that of the United States. This is because the electronics and transportation vehicle sectors show comparatively high results.

During the early 1980s, the U.S. multinationals' balance of payments registered surpluses despite the high value of the U.S. dollar. The Japanese firms' overseas subsidiaries depend largely upon their head office for the supply of capital goods and facilities. Judging from this, the recent appreciation of the yen will expand the value of intra-firm exports from Japan. For the time being in sectors like electrical machinery and motor vehicles, exports of intermediate goods and parts will expand as a result of increased direct investments.

In the meantime, the intra-firm import ratio remains particularly high for trading companies, thus lowering the ratio for manufacturing as a whole. This, however, points to a potential for expanding intra-firm imports in the form of development imports and/or reverse imports, especially of final products from East Asian countries.

If the technology level of East Asian countries further improves, intra-firm trade and the division of labor between head offices and their subsidiaries abroad will deepen, thus encouraging a horizontal division of labor between Japan, the ANIEs and ASEAN members. Concurrently, the devolution of power from the head office to overseas subsidiaries will also proceed.

Though Table V does not include intra-firm transactions between independent, but closely related firms through capital participation or cooperative arrangements, these exchanges should be given similar treatment and included in intra-firm trade.

If we take this viewpoint, globalization, following the G-5 meeting of September 1985, is expected to expand imports of manufactured goods as well as parts and components from East Asian countries. Thus, Japan is expected to increasingly take up the promotion of capital goods for the world.

B. *The Pattern of the Globalization of Japanese Firms*

The globalization of Japanese firms show two patterns: Firstly, Japanese firms

³ Lipsey and Kravis [7] show that the ratio of manufactured exports of U.S. multinationals in total world trade has remained surprisingly stable, roughly at 17 per cent since 1966. Also intra-firm exports by the U.S. multi-nationals to their foreign subsidiaries have expanded by 61.8 per cent in value terms in the face of the high U.S. dollar in the early 1980s.

TABLE VI
THE DEGREE OF HORIZONTAL DIVISION OF LABOR: JAPAN'S TRADE
WITH THE ASIAN COUNTRIES

	Nondurable Consumer Goods		Capital Goods	
	1980	1985	1980	1985
Korea	0.28	0.31	0.19	0.08
Taiwan	0.29	0.33	0.11	0.19
Hong Kong	0.39	0.32	0.02	0.10
Singapore	0.09	0.11	0.14	0.16
Thailand	0.13	0.27	0.00	0.03
Philippines	0.31	0.19	0.02	0.04
Malaysia	0.09	0.19	0.06	0.09
Indonesia	0.27	0.27	0.03	0.00

Source: Own calculations based on OECD, *Foreign Trade by Commodities*, 1980 and 1985 editions.

encountering "catching up" by East Asian countries actively pursue division of labor in the production process. Parent companies seek to optimize within a global perspective, a range of activities such as general production, sales, and R & D, by utilizing foreign subsidiaries and participatory relationships. Typical examples can be found in electronics or in electrical machinery. They are increasingly shifting general production to East Asia while concentrating coordination and R & D activities in the headquarters in Japan. This creates the triangular international network over the Pacific Ocean between Japan, the United States, and East Asian countries. This effectively means, in terms of corporate structure, that with a more pronounced pattern of comparative advantage among departments or sections of a firm, production departments shift abroad while sections dealing with R & D, finance, and planning are being further strengthened [8].

Secondly, firms go abroad to locate in developed nations such as the United States. With income levels going up, product life-cycles shortening, and more importance being attached to firm-specific technology, more firms are locating close to their consumer markets and attempting to integrate the whole process of general production, R & D, and marketing. As consumer tastes become more sophisticated and create individualistic demands, multiple-products with few production runs are required, thus creating a need for integrated management from production through marketing and R & D activities.

However, it can be considered that the former pattern is only a transitional stage, and will eventually merge with the latter. As the East Asian countries upgrade their production skills and technology, foreign subsidiaries located there will be able to expand their local procurement, while the size of local consumer markets expand owing to the demonstration effect taking place in the take-off process of these economies. As a matter of fact, inter-regional trade in East Asia is now undergoing a rapid expansion. Coinciding with this, the degree of horizontal trade between these countries and Japan has increased (Table VI). A higher

degree of horizontal trade means a greater impact on the industrialization of these countries.

IV. INTERNATIONAL ECONOMICS AND ITS CHALLENGES

A. *Intermediate Forms of Overseas Operations*

Traditionally, international economics focuses interest on a comparison between trade and foreign direct investment by placing them in juxtaposition. However, new forms of investment are not given adequate attention simply because they are not statistically well founded, and not often observed in Anglo-Saxon multinational behavior.⁴

However, as far as the activities of Japanese firms are concerned, new forms of international investments have substantially increased in number, implying that these firms are actually making decisions across a much wider and more complicated spectrum.

The common characteristics among these intermediate forms of activity is found to be the transfer of managerial resources, and it can be seen that the element of human capital transfers, hitherto nontradable, has increased.

These trends of "higher grades of human capital" contained in manufactured goods have brought about significant structural changes, including the convergence of international trade and direct investment, the financing system of trade and the progress of intra-firm trade.

A typical representative theory explaining the cause of direct investment has been the product life-cycle hypothesis expounded by R. Vernon [11]. This theory argues that an industry in which developed countries have lost comparative advantage moves its production base from developed to developing countries. Its implications are that while developed nations maintain comparative advantage, the industry concerned continues to export, but when they have lost comparative advantage they undertake overseas production through direct investment.

However, recent overseas investments by Japanese firms in such industries as transport equipment and electrical machinery suggest that factors other than simple comparative advantage are operating.

It would seem that the high value of the yen has reduced the value of being located in Japan to a point where other factors can tip the balance in favor of investment abroad. These overseas investments are mainly taking place in the United States, in European countries, and in those East Asian countries where technology and production facilities are rapidly improving. One can say therefore that firms engage in overseas operations in developed countries, not because the structure of comparative advantage has actually changed but because their overseas markets have become harder to access from a Japanese production base.

⁴ The few exceptions include the arguments made by Hladik [4] saying that foreign investments undertaken by the U.S. multinationals are becoming more export-oriented accompanied by reverse imports into home markets, or exports to third countries or more R & D intensive development of new products, and also that the type of ownership is moving towards non-majority holdings.

Continuing trade friction is of course one reason for this. But trade friction, like intervention in the foreign exchange markets seems to work best when expected to affect a marginal change or when reinforcing an existing market trend.

In this respect, we can suggest that the "internal market theory" is particularly relevant. This theory argues that firms undertake foreign direct investment in order to overcome the imperfections of the market and that therefore it is important to investigate the issue by looking at the decisions taken by each firm. This may indicate whether transaction costs are lower via markets or via organizations.

B. *Reexamination of the Concept of National Boundaries*

The concept of national boundaries requires a reexamination. With the exchange of information becoming speedier and the interdependence of economic relations deepening, firms should not be bogged down by the conventional notion of state. They should simply identify the country that ensures the best conditions for business activities and utilize the network for activities such as general production, marketing, and R & D in a global perspective. This can be understood as a natural extension of the growth process of the firm. Individual firms which are set up in local domestic markets wish to expand their business from domestic markets to overseas markets. Eventually they hope to become worldwide companies. To achieve the maximum possible success, they need to be free from national constraints.

However, in the sphere of politics, people are only allowed to exercise their rights to vote within national boundaries, and thus foreigners are excluded. But in economics, while the political barriers erected by national regulations exist, the concept of national borders exists only in name.

If the government applies rigid regulations under these circumstances, based solely on the principle of nationality, trade frictions are bound to emerge since they arise spontaneously out of industrial dynamism transcending the framework of the state and societies. Ultimately, trade frictions are the result of a conflict between politics and economics, national sovereignty, and the logic of firms. Therefore the government role should be, if anything, to eliminate superfluous restrictions and try to ensure the freedom of business activities beyond national borders. If this view is accepted, the present stance taken by the Japanese government policy as regards the petroleum industry, for example, seems to run the risk of causing serious problems in the future, because it is a contradiction to insist on deregulation whilst still propounding the need for government intervention.

C. *The Globalization and Effectiveness of Governmental Regulations*

As mentioned earlier the existence of barriers to trade including trade frictions, can be referred to as the background of Japanese firms' move into globalization. When government regulations impede corporate opportunities for further development, corporations will try to circumvent them and finally escape to other countries where governmental regulations are less stringent.⁵

⁵ In the present day when international transactions are becoming more common and national borders are being broken down, firms are able to express their opinions by way of "exit" while the government's monopolistic powers as a controlling entity are weakened.

However, once having established their worldwide network, firms are able to accommodate the transfer of commodities, information, and capital between their headquarters and overseas subsidiaries, by reacting flexibly in intra-firm transactions.

This leads to behavioral changes on the part of firms and reduces the need for them to exit into other countries. Under such circumstances, government regulations become less and less effective. It is therefore extremely important to identify which present governmental regulations are effective, and to what extent, and then to work out a common international set of rules concerning corporate behavior.

V. INTRA-FIRM TRADE AND INTERNATIONAL INDUSTRIAL ADJUSTMENTS

The analysis undertaken in the above sections deals only with developments which occurred after the G-5 meeting of September 1985, and does not cover a period long enough to analyze long-term developments. The data used here also has some limitations in that they are taken from newspaper reports. Despite this, the investigation has revealed that the internationalization of Japanese firms has proceeded very rapidly and in a diversified manner.

These developments at a corporate level will create a momentum for change in the trade and industrial structure of the world economy. In East Asia, countries are located in a geographical continuum. These countries are strongly motivated to engage in intense competition and this creates unceasing growth and continuing vitality.

Given these circumstances, a shift of manufacturing into East Asia will encourage a catch-up process and facilitate the reorganization of the system on the basis of a horizontal division of labor.

On the other hand, with the intra-firm division of labor progressing further, international industrial adjustment will be facilitated by the spontaneous efforts on the part of corporations. That is, if a certain sector of industry loses international competitiveness, in the long run it will entail the transfer of resources into another sector. But in the case of intra-firm trade, these industrial adjustments take place in the form of adjustments within the same corporation. The resulting transfer of production factors is thus achieved through internal labor markets, facilitating industrial adjustments [5].

In Japanese firms, management and labor share common interests, thus facilitating the forces in favor of the liberalization of international trade. The government plays the role of providing necessary information and public goods, including R & D assistance. This is in line with the PAP (positive adjustment policies) expounded by the OECD.

This intensifies international competition in terms of "institutional systems" putting pressure on the state to rectify the problems with systems. For an extension of the argument, see [9].

However, the author does not insist that with greater economic interdependence, an international system based on the state as a fundamental unit will disappear, nor will multinationals be promoted to the status of independent political units to replace the state.

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