

# DIRECT FOREIGN INVESTMENT BETWEEN ADVANCED INDUSTRIALIZED COUNTRIES

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## I. Introduction

There is a rising interest in the problems of direct foreign investment in manufacturing sectors among advanced industrialized countries. Ever since the "oil-shock" in October, 1973, this question has been one of the most important issues of consideration in Japan: is it indispensable for Japanese industries to extend their activities through increased direct investment in the U.S. and European countries and even to set up a full scale production bases there? On the other hand, direct investment in Europe by American enterprises, which has been continuously growing for the last twenty years, is said to have become stagnant while European big multinationals have been rapidly increasing their investments in the U.S.<sup>1</sup>

In order to consider these problems, the characteristics and the nature of direct investment between advanced industrialized countries should be carefully analyzed. And this paper will attempt to analyze this important problem facing the world's industrialized countries. Most direct investments between advanced countries, as I see it, are kinds of investment to overcome various trade barriers. The investments are being made in industries in which the host country does not have a comparative advantage, and thus hardly generate any economic gains. Therefore, direct investment between advanced countries may be recommended only when the investment reduces the transaction cost of importing the goods into that country. Japanese firms, for example, may be better to refrain from rushing into full-scale direct investment to the U.S.A. And, instead, they should consider more seriously increasing direct investment toward developing countries.

Another conclusion which is of worth notice is that the advanced countries should stop investing in the comparatively disadvantageous industries of the host country for the purpose of overcoming trade barriers. Conversely, they should undertake what I call "mutual intra-industry cross-investment," that is, to make a direct investment or purchase an equity in those industries in which the host country is thought to have its comparative advantage with the aim of importing back the product under free trade. In this way, maximizing the merits of direct investment, mutual trade of manufactured products would be expanded remarkably. This idea is theoretically consistent with that of "the Japanese type" of direct investment to less developed countries which I have so far been advocating.<sup>2</sup>

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<sup>1</sup> Reported in *Nihon Keizai Shinbun*, December 28, 1975.

<sup>2</sup> See, Kiyoshi Kojima, "A Macroeconomic Theory of Foreign Direct Investment," C.Fred Bergsten, ed., *Toward a New World Trade Policy, The Maidenhead Papers*, Lexington Books, 1975.

## II. *Characteristics of Direct Foreign Investment between Advanced Countries*

The following two characteristics can be pointed out by examining investment among advanced countries themselves: (i) in many cases, direct investments are being promoted in order to reduce or avoid high transaction costs accompanied with exportation, (ii) when we consider the products in which direct foreign investment is undertaken between any two advanced industrialized countries, the difference in comparative production costs (or the difference in absolute costs under given exchange rates) is so small that the trade between them is easily hindered by tariffs and other trade barriers. This means at the same time that, even if direct foreign investment is undertaken in such cases, there remain few margins with which the production costs in the host country can be reduced.

*Japanese direct investment in Advanced Countries.* Perhaps the above characteristics will become more clear to the reader if I cite several concrete instances of Japanese investment in the advanced countries.

(a) Most of Japan's direct investment directed toward the U.S.A. and Europe are undertaken in the fields of commercial, financial and insurance.<sup>3</sup> The proportion of the commercial business is overwhelming. And, in terms of the total investments in these areas, the majority of the investments are promoted by the subsidiaries of trading companies (*Sōgō Shōsha*), and financial and insurance business entities follow.

Trading companies, banks, and insurance companies (and shipping companies) are the biggest weapons that would develop and promote trade by reducing such transaction costs as acquisition of information, scanning of consumer's tastes and preferences, marketing and other transaction costs related to the promotion of trade. The fact that these businesses take up the overwhelming majority implies that the main objective of Japanese direct investment is to reduce the transaction costs incurred in trade.

Japanese investment in the U.S.A. and Europe in these service industries has led to the promotion of the investments by other types of industries because it has been playing an important role in reducing transaction costs of investing. Moreover, it has been contributing to intelligent decision-making by Japanese enterprises on the export—direct investment problem.

On the other hand, the amount of Japanese investment pertaining to direct investment in manufacturing sectors in advanced countries is still very small, and the majority is spent on the manufacturing activities which are no more than assembly of such things as trucks, automobiles, motorbikes, television sets, tape recorders. Assembly of this type can hardly be said to be full-scale direct investment in manufacturing industries, nor can it be

<sup>3</sup> The amount of Japanese direct foreign investment in North America reached 2,688 million dollars at the end of March, 1975, 45.5% of which is occupied by trading, financial and insurance businesses, while only 23.0% was investment in manufacturing industries. Direct foreign investment in the European countries amounts to 2,186 million dollars, 39.0% of which is investment in mining industries centering around the equity participation in oil development (10.7% of the investment in North America is used for the investment in mining industries). Of the 1,334 million dollars, which is the total investment excluding the amount invested in mining industries, 34.6% is investment in trading, financial and insurance businesses, 16.0% in manufacturing industry. *White Paper on Foreign Market in 1975—The Present Situation of Japanese Direct Foreign Investment*, (in Japanese) JETRO, p. 12.

defined as low cost-oriented direct investment. It is not in nature, export substituting. It expedites the exportation of parts and is also advantageous to after-care services (maintenance service for customers). Therefore, assembly is an export complement that "can be economically sound even in a relatively small local market with relatively small amount of production."<sup>4</sup> Its purpose is the reduction of transaction costs for the exportation of finished goods.

(b) It is noteworthy that the SONY Corporation which was previously engaged in assembling parts, is now involved in the production of parts also, near San Diego, California. However, "SONY invests in the U.S.A. not because it aims at extracting economic profits in the narrow sense, but because it has political purpose as well and tries to give a better impression of the company to the American people. It also hopes to maintain its position to produce in the U.S.A. in order to attain a higher flexibility both in production and trade."<sup>5</sup>

SONY's investment can be explained as a means of avoiding such pressures as the anticipated restriction on imports. This also is the case of reducing or avoiding the high transaction costs accompanied with the restrictions on imports.

Another interesting case similar to SONY is the investment in the mini-steel mill in New York State. Since the voluntary export restraints on Japanese steel export were imposed, the production abroad by direct investment has been pursued in order to expand our activity beyond the restriction level. Similarly, direct investment in the U.S.A. in several textile industries is mainly a consequence of the imposition of orderly marketing agreements. Though the advantage of utilizing American cotton there does exist, it cannot be thought of as the main reason for investment abroad.

(c) The following three examples show the characteristics of differentiated products for which small scale investment make the best use of special production techniques. None of the products require economies of scale for efficient production. We can cite three cases: for example, Kikko-Man Co. (manufacturer of soy-sause) faced with an increase in demand and the necessity to adopt the taste to the Japanese people living in the U.S.A. and started to use American soybeans on the spot; Japan Mineature Bearings Co., and YKK's zipper producing factory also falls under this category. There are so far not so many examples of this kind of investment which can be added here. But I call this "investment of differentiated products." Japanese investment of this kind, however, has not yet developed to the extent of a full-scale direct investment.

In short, the majority of Japanese direct investments so far have been either assembly-type as that of category (a), which is export complement or export promotion itself, or investment aiming at overcoming trade barriers as that of category (b). The category (c) alone has somewhat different character, the expansion of which needs further investigation in the future. Investments of such kind as (a) and (b) have in common such purposes and effects as reducing (or avoiding) high transaction costs pertaining to trade (exportation).

*Comparative Production Costs in Advanced Countries.* My second characteristic of direct foreign investment between advanced industrialized countries was that investments

<sup>4</sup> *Prospects for the Japanese Direct Investment in the U.S.A.*, Report prepared by the Boston Consulting Group (in Japanese), Economic Bureau, Ministry of Foreign Affairs, June 1974, p. 81.

<sup>5</sup> *Ibid.*, p. 83.

seldom contribute to decreased production costs. This is very clear in the Japanese case. I would now like to present statistical evidence that production costs between advanced countries do not vary significantly. In other words, the majority of investments between advanced countries is "the trade barrier-induced type" which is caused by the presence or elevation of tariffs and other trade barriers.

Table 1 contains interesting data that was presented as a reference during the preparation stage for the publication of *Policy of Trade and Industry in the 70's* (May, 1971) by the Industrial Structure Council of the Ministry of Trade and Industry.

TABLE 1.

|                                   | 1963                 |                      |                         | 1970                 |                      |                         |
|-----------------------------------|----------------------|----------------------|-------------------------|----------------------|----------------------|-------------------------|
|                                   | Japan                | U.S.A.               | Investment<br>in U.S.A. | Japan                | U.S.A.               | Investment<br>in U.S.A. |
|                                   | <i>P<sub>J</sub></i> | <i>P<sub>A</sub></i> | <i>P<sub>JA</sub></i>   | <i>P<sub>J</sub></i> | <i>P<sub>A</sub></i> | <i>P<sub>JA</sub></i>   |
| 1. manufacturing; total           | 100.0                | 119.2                | 461.4                   | 108.4<br>(100.0)     | 138.5<br>(127.8)     | 293.4<br>(270.7)        |
| 2. foods                          | 100.0                | 98.6                 | 486.9                   | 138.9<br>(100.0)     | 122.1<br>( 87.9)     | 437.7<br>(315.1)        |
| 3. textiles                       | 100.0                | 127.1                | 447.2                   | 99.9<br>(100.0)      | 132.6<br>(132.7)     | 343.6<br>(343.9)        |
| 4. apparels &<br>related products | 100.0                | 163.5                | 516.6                   | 107.7<br>(100.0)     | 190.2<br>(176.6)     | 314.8<br>(292.3)        |
| 5. wood                           | 100.0                | 62.5                 | 516.6                   | 99.6<br>(100.0)      | 81.7<br>( 82.0)      | 246.4<br>(247.4)        |
| 6. paper                          | 100.0                | 99.8                 | 444.8                   | 109.6<br>(100.0)     | 112.9<br>(103.0)     | 293.9<br>(267.9)        |
| 7. printing                       | 100.0                | 71.4                 | 405.0                   | 125.6<br>(100.0)     | 83.5<br>( 66.5)      | 312.7<br>(249.0)        |
| 8. chemicals                      | 100.0                | 146.9                | 446.0                   | 110.2<br>(100.0)     | 153.3<br>(139.1)     | 268.8<br>(243.9)        |
| 9. petroleum-coal products        | 100.0                | 77.7                 | 301.4                   | 99.0<br>(100.0)      | 81.5<br>( 82.3)      | 100.5<br>(101.5)        |
| 10. rubber                        | 100.0                | 106.3                | 475.9                   | 100.5<br>(100.0)     | 119.2<br>(118.6)     | 256.9<br>(255.6)        |
| 11. leather & furs                | 100.0                | 87.3                 | 344.1                   | 129.1<br>(100.0)     | 104.4<br>( 85.5)     | 312.4<br>(255.8)        |
| 12. ceramics                      | 100.0                | 108.5                | 480.4                   | 107.2<br>(100.0)     | 126.6<br>(118.1)     | 293.7<br>(274.0)        |
| 13. steel                         | 100.0                | 166.7                | 406.1                   | 117.6<br>(100.0)     | 200.6<br>(170.6)     | 218.5<br>(185.8)        |
| 14. non-ferrous metal             | 100.0                | 81.3                 | 376.9                   | 119.9<br>(100.0)     | 124.0<br>(103.4)     | 295.1<br>(246.1)        |
| 15. metals                        | 100.0                | 274.8                | 507.9                   | 118.6<br>(100.0)     | 343.3<br>(289.5)     | 416.7<br>(351.3)        |
| 16. machines                      | 100.0                | 195.7                | 463.2                   | 110.4<br>(100.0)     | 238.7<br>(216.2)     | 296.4<br>(268.5)        |
| 17. electric products             | 100.0                | 166.9                | 404.4                   | 100.6<br>(100.0)     | 185.6<br>(184.5)     | 245.0<br>(243.5)        |
| 18. transportation machines       | 100.0                | 117.4                | 410.9                   | 109.3<br>(100.0)     | 128.8<br>(117.8)     | 222.2<br>(203.3)        |
| 19. precision machines            | 100.0                | 295.2                | 501.0                   | 98.5<br>(100.0)      | 337.9<br>(343.0)     | 303.6<br>(308.2)        |

The figures in the table are calculated in the following manner:

Let  $P$  represent the production price per product,

$$P = \frac{w}{v \times s \times f}$$

where  $w$ =wage per capita,  $v$ =the ratio of value added,  $s$ =the labour's share,  $f$ =labour productivity;  $P_J$ =production price in Japan;  $P_A$ =production price for the American firms; and  $P_{JA}$ =production price for the Japanese firms investing in the United States.  $P_{JA}$  is calculated by applying  $w$  as the American wage level and  $s$  as the ratio of labour's share in American firms, and by using  $v$  and  $f$  as the ratio of value added and labour productivity in Japan respectively. In other words, the production price of this case is obtained with the assumption that Japanese firms produce by investing abroad with its production techniques (i.e., Japanese  $v$  and  $f$ ) and by employing labour force with local wage level (i.e., American  $w$  and  $s$ ). Though questions remain about this formula, some interesting trends as the followings can be found from the table.

(i) Though it varies between industries, in 1963, there was not so great a difference in production prices between Japanese ( $P_J$ ) and American ( $P_A$ ) manufacturing industries as a whole with the average of 100:119. As the production price for the Japanese firms in the U.S.A. ( $P_{JA}$ ) amounted to 4.6 times the production price in Japan, it made no sense for Japanese firm to invest in the U.S.A. This was because the wage level was higher by about their amount in the U.S.A.

(ii) There was a relatively rapid rise in the wage level in Japan compared with that in the U.S.A. since 1963. Nevertheless, as the improvement of labour productivity in Japanese industries was relatively greater than that of the U.S. industries, the difference in production price between the two parties widened to the ratio of 108.4: 138.5, i.e., 100: 127.8 in 1970. This means that Japanese competitiveness in the international markets strengthened. On the other hand, since the difference in wage level between Japan and the U.S. became narrower, the ratio of  $P_{JA}$  to  $P_J$  declined to 271:100 in 1970 from 461:100 in 1963.

Even in the 1970 situation, Japanese direct investment in the U.S.A. cannot yet be profitable at all. This was the reason that the export of Japanese goods to the U.S.A. was more advantageous in spite of rather high export transaction costs. The only Japanese investment in the U.S.A. that might be able to achieve less expensive production costs than an American firm is that in precision machines, although it is much more costly than the export of Japanese machines to the U.S.A.

It would be an interesting topic then to look at the present and foresee the future situation by considering the rate of increase in Japanese and the U.S. wages since 1970 and the revaluation of the yen. If you do the calculation using more recent data, you will see that Japanese and the U.S. production price differential (the ratio of  $P_J$  to  $P_A$ ) has probably been narrowed while the production price of Japanese firms in the U.S.A.,  $P_{JA}$ , has not yet and will not likely to be lowered to the point of making Japanese direct investment in the U.S.A profitable.

*Causes of Cross Investment.* There is a question whether the direct investment between advanced industrialized countries necessarily becomes cross-hauling, as many economists stress as one of the characteristics of direct foreign investment.<sup>6</sup> Incidentally,

<sup>6</sup> R.Komiya, for example, stresses the importance of cross-hauling and explains its reason in such a way that the direct foreign investment is a movement of a package of managerial resources (S.Sumita, R.Komiya and Y.Watanabe, eds., *Facts in Multinational Corporations*, Nihon Keizai Shinbunsha, 1972, p. 179). But there remains still a question why the movement of managerial resources necessarily brings about a cross-hauling.

it is theoretically true that in the case of international 'capital' movement in the form of liquidity and portfolio investment, the movement is undertaken one-way fashion from capital rich to capital hungry country.

Stephen Hymer's writings are one example which stresses the idea of "cross hauling." Hymer states that the majority of direct investments are in "heavy industries" which are characterized by large firms, high capital intensity, advanced technology and differentiated products. According to Hymer, the motives for an enterprise to undertake direct investments are; (1) the existence of some kind of barrier to entry in the industry in question (technological, economies of scale, or differentiated products), (2) it must be advantageous to produce locally rather than export from a single production bases (this depends upon tariffs, the size of the market, and the threat of local competition), and (3) the firm must find it more profitable to exploit the foreign advantage through direct investment rather than licensing, for there is the difficulty of extracting full quasi-rent for the license where markets are imperfect.<sup>7</sup>

Illustrating cases in which non-American multinational corporations have invested in the U.S.A., in the same kind of industries as American corporations, Hymer stresses that "this cross investment shows that American direct investment cannot be explained simply in terms of better access to capital, better entrepreneurship, better technology or higher profits abroad, since the flow takes place in two directions. Analysis of oligopolistic bargaining strategy is, however, helpful; it is not unusual for leading oligopolists to establish inroads into their competitor's home territory to strengthen their position; cross-investment may be a reflection of this tactic on the international level."<sup>8</sup>

Hymer tries to fully explain foreign direct investment, its cross-hauling and the activities of multinational corporations only from the viewpoint of strategies of oligopolists and competition among them of various advanced countries.

My answer to the problem in question is different and provided from the two characteristics concerning direct foreign investment in manufacturing industries between two advanced countries. Let us start with the second characteristic (ii). The difference in comparative costs between any two advanced countries (compared with the case of vertical trade of manufactured goods for primary goods) is very small. With this very small differences in costs by general category, it often becomes efficient for one country to specialize in one sub-category of that general product area. This intra-industry specialization can then induce cross direct investment within the general category, as both countries take advantage of the efficiencies which evolve from this specialization.

The fact that the difference in comparative costs between two advanced countries is very small also means that free trade between the two countries would make horizontal trade of manufactured products not only quite prosperous, but it also means that this kind of horizontal trade can be easily hindered by tariffs and other trade-barriers. This is why trade barrier-induced type of direct investment is apt to be undertaken. This type of investment tends to become "cross-investment" as long as both partner countries erect trade barriers. This kind of investment, however, is hardly effective in reducing the production cost in the host country. It can only be a device for saving some of the transaction costs

<sup>7</sup> Stephen Hymer, "United States Investment Abroad," Peter Drysdale, ed., *Direct Foreign Investment in Asia and the Pacific*, Australian National University Press, Canberra, 1972, p. 41.

<sup>8</sup> *Ibid.*

in exporting (my first characteristic).

These are so far the two characteristics of direct foreign investment in manufacturing industries among advanced countries. Let us call "trade-barrier induced direct investment in the narrower sense"<sup>9</sup> when the investment has the two characteristics as explored above and does not make the production costs in the host country lower than that in the exporting country. The rest of my analysis aims at evaluating this kind of direct investment; and it seeks answers to the questions of what kind of direct investment should be promoted and whether or not there would be another way of promoting horizontal trade of manufactured products among the advanced countries.

### III. *Transaction Costs of Trade and Investment*

As analytical tools, I would like to distinguish (a) production costs from (b) transaction costs,<sup>10</sup> and to compare each of these two with the cases of trade (exportation) and direct foreign investment.

(a) Production cost is the expenditure incurred in the production processes of manufactured products. It can be considered as the price at the time when a firm ships the products from its factory. It is this production costs that is the subject of comparative costs in trade. Comparative costs are determined by the difference in the production functions which reveal the disparity in management skills, and by factor endowment ratios of each country. Therefore, the three kinds of costs, that is, the production cost of the investing country, that of the host country and that of foreign enterprise operating in the host country, should be analyzed comparatively.

(b) Transaction costs include all expenses incurred from the time when the products are shipped by a firm with certain price to when they reach the users. In the case of export, transaction costs may be divided into three kinds; (i) "export transaction costs" are the costs in getting the goods to the country in which they are to be sold, (ii) the sales costs in the host market, and (iii) general costs such as taxes and exchange costs for payment.

Export transaction costs of the category (i) are; (i<sub>1</sub>) those for gathering information about the host market and for discovering and developing markets, (i<sub>2</sub>) "transaction costs" such as freight, insurance, and custom clearance procedures, (i<sub>3</sub>) tariffs, and (i<sub>4</sub>) non-tariff trade barriers such as quotas (including voluntary export restraints). Costs classified as (i<sub>3</sub>) and (i<sub>4</sub>) are specifically called as "artificial transaction costs."

So, then these four kinds of expenses are obviously extra costs necessary for exportation when compared with the sales costs of local firms or foreign firms in the host countries. To measure them precisely would be difficult, because they include those which cannot be expressed quantitatively (e.g. i<sub>1</sub> and i<sub>4</sub>). Japanese trading companies (and banks, insurance company and shipping agents which are in close contact with trading companies) make a

<sup>9</sup> We must recognize the fact that in broader sense, almost all direct foreign investments are induced by trade-barriers in the host country. Therefore, "trade-barrier induced direct investment in the narrower sense" must be carefully distinguished from other types of direct investment, as will be done in the last section of this paper.

<sup>10</sup> Problems concerning transaction costs are dealt by A.E. Safarian, "Problems of Host Countries," Peter Drysdale, ed., *Direct Investment in Asia and the Pacific*, Australian National University Press, Canberra, 1972, and S.Hirsch, *Location of Industry and International Competitiveness*, Oxford, 1967.

great contribution to promote world-wide export and sales efficiently by reducing the transaction costs of  $(i_1)$  and  $(i_2)$ .

In the case of manufactured products, it can be said that transportation costs in exporting per product is not so high, and that those are not so different from the transportation costs within the host market (there is even a case in which the freight costs of automobiles from Detroit to the west coast are higher than those when imported from Japan). Therefore, what brings about the definite difference between exportation and direct foreign investment is the artificial costs such as tariffs and non-tariff barriers.

Sales costs within the market, the category  $(ii)$ , are:  $(ii_1)$  marketing costs in the narrow sense of the word, activities such as advertizing and sales,  $(ii_2)$  inland transportation costs and  $(ii_3)$  after-care maintenance services. These may somewhat differ depending on which kind of distribution channels are employed. Ranging from such as a) selling the exported goods through an agent, b) letting trading companies handle the exported goods, to c) having their own factories for assembly work or their own distribution stores.

Since it is usually the case that a firm starts investing abroad when the exports of the product reaches a substantial amount and its market has been fully explored, marketing costs may be lower in direct investment than when the product is exported. And also by direct investment, an industry is able to catch the delicate differences in taste of the local consumers and to give its services quickly. Therefore it may be true that the country's sales costs may be economized somewhat by direct foreign investment, but it cannot be very substantial.

For the purposes of this paper, sales costs will be assumed equal for the three types of situations to be examined: goods imported from the foreign country; goods produced locally by a firm owned by host country interests; and goods produced locally by a firm owned by foreign interests. Moreover, it may be better to understand direct foreign investment which is no more than one of assembly character to be a way to reduce transaction costs pertaining to exportation, as in the case of subsidiaries of trading companies and banks abroad.

Differences in the general costs of the category  $(iii)$  such as taxes and exchange costs for payment, when closely examined, are rather complicated:  $(iii_1)$  There is no difference in the consumption tax between exported products and those produced by local firms or foreign firms;  $(iii_2)$  Concerning the corporate tax, difference between the gain through exportation and that of direct investment is eradicated if there exists an agreement for prevention of double taxation;  $(iii_3)$  In case of exportation, exchange costs are necessary for payment while the problem of exchange costs arises when a foreign firm is sending capital and profits back home. Though there would be some differences in a very strict sense, in this paper, it is assumed that there is no difference in general costs between the case of exportation and that of direct foreign investment. On the other hand, it is said that direct investment has such advantages as easier access to capital of low interest rate and preferential tax treatment. However, I would like to think that these advantages can be considered as elements influencing production costs.

Direct foreign investment is also said to generate profits by the utilization of transfer-pricing, tax havens, and exchange speculations. This is an extra profit which only a big multinational corporation can enjoy (apart from the problem of whether it is good or bad).<sup>11</sup>

<sup>11</sup> The advantages of direct foreign investment to reduce production costs and transaction costs are often emphasized, but it is natural that direct foreign investment accompanies great risk and uncertainty. There-



#### IV. *The Choice between Trade and Direct Investment: A Theoretical Model*

With these preliminary justifications, we now can make the following assumptions.

(1) The production costs

Let  $C_h$  stand for production cost of certain manufactured goods, say, textiles, in Japan (home country);  $C_f$  for the production cost in American (host country) local firms; and  $C_h'$  for the production cost in the host country by Japanese (i.e. foreign) firms which undertook direct investment. Here it is obvious that unless  $C_f > C_h'$ , it is not viable for the Japanese firm to invest in America and that since Japan has been exporting the product to America, she has comparative advantage in producing it and consequently  $C_h < C_f$ . In short, we assume that  $C_h < C_h' < C_f$ .<sup>12</sup>

(2) The transaction costs

Here we also assume that there is no or little difference in the sales costs in the host market and in the general costs necessary for the three different sales: the imported product, the local firm and the foreign firm. Therefore, the difference in the transaction costs is due only to the export transaction costs, represented by  $t$ . This amount  $t$  may be thought of simply as the tariff levied or its equivalent in case of quantitative restrictions.

Therefore, in case of  $C_h < C_h' < C_f$ , if the difference between  $C_h'$  and  $C_h$  is smaller than  $t$ , a foreign direct investment can take place, for then, the production of foreign firm, along with local firm, in the host country is protected from the competition of imported goods. On the other hand, if  $C_h' - C_h > t$ , exportation from Japan is preferable to direct investment.

Then, let us present a model for "trade barrier induced direct investment in the narrower sense" by the usual partial equilibrium figures (though we have to admit the limitations of the partial equilibrium analysis). In Figure 1,  $S_h S_h$  shows the domestic supply curve<sup>13</sup> of a certain industry (textiles) in the home country (Japan) and  $D_h D_h$  shows the domestic demand curve. When the price becomes higher than the domestic equilibrium point, an excess supply is created and exported as shown by  $XX$  curve in Fig. 2.

In Fig. 3, the host country's (American) domestic supply curve,  $S_f S_f$ , and the domestic demand curve,  $D_f D_f$ , are drawn. The difference between the two is an excess demand or import curve which is shown as  $MM$  curve in Fig. 2.

Now we suppose that an export transaction cost  $t$ , is added to the  $XX$  curve in Fig. 2 and, thus, the transaction cost-ridden export curve becomes  $X'X'$ . The new equilibrium point for this trade will be determined by the interaction of the  $X'X'$  and  $MM$  curves.

fore, it should be reminded that the advantages of direct foreign investment are considerably reduced by "spatial preference or inertial resistance," that is to say, investors prefer home country to a foreign country. See, J. David Richardson, "On Going Abroad: The Firm's Initial Foreign Investment Decision," *Quarterly Review of Economics and Business*, Winter, 1971.

<sup>12</sup> More exactly, although costs are the function of quantity produced, each of  $C_h$ ,  $C_h'$  and  $C_f$  represents a marginal cost at certain situation we have in mind.

<sup>13</sup> We can treat a case of decreasing costs in a similar fashion taking into account the maximization of monopolistic profits. See, Thomas Horst, "The Simple Analysis of Multinational Firm Behaviour," M. Connolly and A. Swoboda, eds., *International Trade and Money*, George Allen & Unwin, London, 1973.

FIG. 1

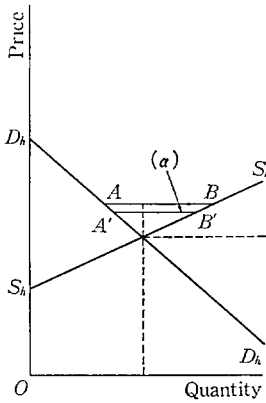


FIG. 2

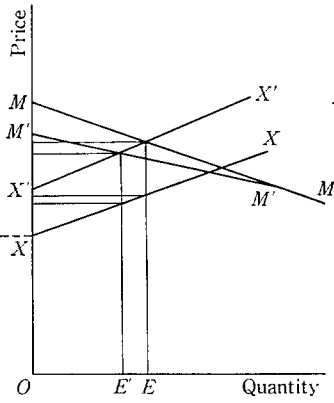
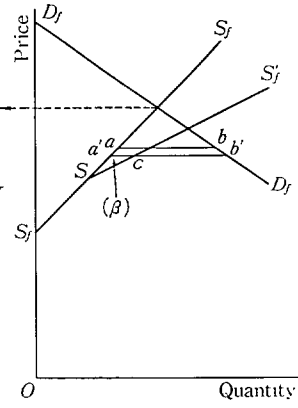


FIG. 3



The amount exported from the home country is equal to the amount imported by the host country, that is,  $OE$ , and this is also shown by the amount  $AB$  in Fig. 1 and  $ab$  in Fig. 3 respectively.

Next, we assume that a Japanese firm will undertake a foreign direct investment to set up a foreign operation in American market with the production cost,  $C_h'$ , higher than that of the Japanese export,  $C_h$ , but lower than that of American local firms,  $C_f$ . It also means that the difference in the production cost between the Japanese firm in America and the Japanese export is smaller than the export transaction costs ( $C_h' - C_h \leq t$ ).

The increased supply by the Japanese firm in America is added to the American domestic supply curve,  $S_f S'_f$ , and the total supply curve becomes  $S_f S S'_f$ , the horizontal difference between the two curves being the additional quantity supplied by the Japanese firm in America. So, with this change, the American import curve shifts downwards from  $MM$  to  $M'M'M$ , and consequently the equilibrium quantity of trade will decrease from  $OE$  to  $OE'$ . In other words, the Japanese exports will decrease to  $A'B'$  from the original quantity  $AB$  in Fig.1, and the American imports will correspondingly decrease from  $ab$  to  $cb'$  in Fig. 3.

### V. A Comparison of the Efficiency of Trade and Direct Investment

As long as the direct foreign investment is of the "trade barrier-induced" character, it necessarily tends to be export-substituting, so that the gain for the investing country cannot be so great. In the home country (Japan), (1) the exports will decrease to  $A'B'$  from  $AB$  and consequently the output level and employment will be lowered. In other words, the direct foreign investment substitutes for the exports and employment opportunities are "exported abroad;" (2) the Japanese firm will produce abroad the amount equal to  $a'c$  in

Fig. 3 and will receive profits.<sup>14</sup> The gain here is not so large, for its improvement in productivity is limited and remains within certain range such as  $C'_h - C_h \leq t$ .

Thus it is certain that in the type of direct foreign investment which we assumed, the production abroad is only a substitute for the export and the degree of that substitutability depends on the extent of the trade barriers (say, for simplicity, tariffs) and the productivity differential between the foreign and the local firms in the host country. And this results in the loss of real resources for the two countries taken together, since the Japanese exports are replaced by the production of her own firm abroad, with its higher costs (by the amount of  $t$ ). This type of direct foreign investment is not worth undertaking if it is judged from the view of the best allocation of the world's resources, even though it is a necessity for an individual firm to survive or grow when the company's exports encounter increased difficulty. As will be analyzed below, we must search for alternatives better than the direct investment of this type.

One thing which we must strive for is to reduce the export transaction costs as much as possible. That is to say, the policies which would narrow the distance between  $XX$  and  $X'X'$  curves in Fig. 2, should be encouraged by all possible means. The Japanese firms and government as well should try to persuade the host country to lower and eliminate its trade barriers. Also it can be easily seen that active roles played by the trading companies lead to the economizing of transportation and other transaction costs. A direct foreign investment that is of no more than an assembly character contributes to reducing the export transaction costs. Therefore, the subsidiaries abroad of the trading companies and banks, or assembly factories would be better labelled "export-facilitating" investment which contributes to economize on the export transaction costs. This type of investment is mutually beneficial to both the investing and the host countries and should be encouraged. On the other hand, countries should refrain from undertaking direct foreign investment which sets up full-scale production base abroad with higher costs than in the home country only in order to get around the trade barriers. This is one of the crucial arguments of this paper.

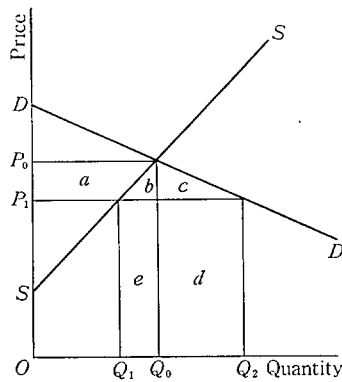
Let us turn now to an examination of the interests of the host country. In the U.S.A. the concept of "Peril Point in Imports" has been adopted. Take some manufactured product (say, textiles for example). If the imports of the textile products reach over 10% of the total domestic consumption, or when the imports of these products from a certain country (say, Japan) takes up more than 30% of the total imports, this phenomenon is interpreted as a sign that the imports have come to a "Peril Point," which threatens the domestic production of the products in question. Therefore, the importing country tends to institute such policies as raising tariff rates, suits against dumping or levying restrictions and demanding orderly marketing arrangement as a safeguard to curb the increasing imports. But why?

It is theoretically true that if the country opens up its domestic markets and begins to import as much as possible relatively cheap products compared to the domestically produced ones from abroad, this means an increase in consumer surplus and consequently an improvement in national welfare. But it is usually the case that the consumer's voice is widely

<sup>14</sup> The profits (or producer's surplus) due to the production of the Japanese firm in America is area ( $\beta$ ) in Fig. 3 and this is compared to area ( $\alpha$ ) in Fig. 1 which is a loss of profits due to the decreased export of the Japanese firms at home. To compare the two exactly may be of interest, although I have not done it. Nevertheless, it can be said that the net profits (i.e., the difference of the two) may be small or rather negative.

scattered and never becomes a strong, dominant force in the policy-making process of the government. On the other hand, the complaints filed by the domestic producers are more pressing and stronger and these complaints tend to gear the trade policies towards protectionism. Those complaints arise from the fact that with an increase in the imports, they will outsell the competing domestic producers. Here the loss incurred on the competing domestic producers can be divided into two parts; one is a decrease in the producers' surplus and the other is the loss that derives from the unemployment of factors of production (both labour and capital but our main concern here is labour) and need of transfer to other industries.

FIG. 4.



In Fig. 4, a usual domestic demand curve  $DD$  and supply curve  $SS$  are shown and the domestic equilibrium is reached at the point where these two curves intersect, with the price of  $OP_0$  and the quantity  $OQ_0$ . Now if the product is imported at the price,  $OP_1$ , the consumption will increase by  $Q_0Q_2$  whereas the domestic production will decrease by  $Q_1Q_0$ , with an increase of the import,  $Q_1Q_2$ . In this, the consumers' surplus obtained from this increase in the import can be shown by the area, equivalent to  $a+b+c$ , and the decrease in the producers' surplus is equal to area  $a$ , therefore, (though it still leaves some doubt about whether or not an addition or subtraction between the consumers' and producers' surplus is plausible here), we are left with a net surplus, equal to area,  $b+c$ . This is the orthodox explanation. (To incorporate the effects of protective tariffs, only a reverse explanation of this model is sufficient, though a treatment of the revenue of tariffs is added.)

From the analysis above, it can be said that if the consumers who receive the gain of the consumers' surplus are identical with the entrepreneurs who are to lose the producers' surplus, there could be no complaint about the imports under the free trade. These two groups, however, do not coincide in reality. Thus, no matter how big the consumers' surplus is, if even a small amount of their producers' surplus is lost, a complaint against the underlying import will be raised.

Then how about the areas  $d$  and  $e$  (these are not dealt in the usual orthodoxy explanation)? The area  $d$  is equal to the expenditures incurred by the extra consumption,  $Q_0Q_2$ , which was inspired by a decrease in price of the commodity concerned. This expenditure

is compensated by a decrease in demand in other industries because of relatively higher prices in their products. Therefore, if we assume the general equilibrium condition, the area  $d$  is neither a gain nor a loss to the country. Hence, as previously mentioned, the consumers' surplus (area  $a+b+c$ ) remains as a gain to the consumers.

On the other hand, the area  $e$  is equal to a decrease in the wage bill paid to the workers previously employed in the industry (if capital is disregarded) and represents the amount of labour discharged from the industry. In general equilibrium analysis, the redistribution of factors of production (labour and capital) is instantaneously made, so that the labour discharged from this industry will be immediately absorbed in other industries. Thus the full employment situation is always maintained. In this way, the problem related to Area  $e$  is disregarded in usual analyses. But in reality, the transfer of labour is not so easy. And since this transfer involves time and costs, the temporary unemployment in the domestic industries as a result of an increase of the import will lead to a pressing political issue.

Of course, what we are dealing with here is a dynamic world where different variables change over time and where boom and recession can take place recurrently. In Fig. 4, for example, as the national income level expands, and the demand for the product increases, the  $DD$  curve will shift to the right and also the  $SS$  curve will shift to the right. In such a case, even though the imports increase and the price falls, it is still possible to imagine a case where this does not hurt the domestic industry at all or even lead to an expansion of its production. In these plausible cases, complaints against the import would not become so serious.

In fact, in advanced countries such as the U.S.A., "protectionism" arises in the time of recession or depression and this tendency is more apparent in traditional, matured industries in which an increase in demand is hardly foreseen and further technological improvement cannot be expected. So, in case of recession coupled with the difficulty of balance of payments, a bitter protectionism comes to the surface focussed on those industries.

After all, the steady growth of the exports, especially in the trade of manufactured goods among advanced countries, depends on whether or not they can coexist with the competing local firms in other countries. It should not be achieved by "cutting the throat" of the local firms in other countries,—this always leads to complaints and finally to the institution of protective measures. We must create the kind of an economic environment where the demand increases and the exports expand on one hand, and the import competing local firms in different countries can coexist on the other. Even when the industry abroad in question is losing its comparative advantage, the industry should be given enough time to transfer smoothly its capital and labour to other more promising industries. And this is, in fact, a problem of structural adjustment and necessary safeguard measures.

However, contrary to the foregoing analysis, the U.S. government has been welcoming direct foreign investments from Europe and Japan<sup>15</sup> in contrast to fierce protectionism against increased imports. Is this dichotomy in attitude all right?

(1) The U.S.A. has been insisting on other countries' liberalization of direct foreign investment, especially Japan. And in order to justify it, the U.S.A. herself has had to take a liberal stand on the direct foreign investments directed toward the U.S.A. But this is not

<sup>15</sup> See for example, Lawrence B. Krause, "The U.S. Economy and International Trade," in Kiyoshi Kojima, ed., *Structural Adjustments in Asian-Pacific Trade*, The Japan Economic Research Center, Tokyo, July 1973.

a theoretical issue. However, it is true that direct foreign investments towards the U.S.A. have not yet reached a substantial amount, though cross-investment is often said to be one of the major characteristics of foreign direct investment. If cross-investment increases drastically and comes to control the majority of textiles and steel industries in the U.S.A., is it reasonable to assume that the U.S.A. will continue to take such a liberal stand? It is also a point of interest to investigate what kind of reactions the U.S.A. would manifest when foreign firms come to invest in huge scale in the leading, sophisticated industries such as automobiles and computers in which the U.S.A. is thought to have strong comparative advantages. It is easily expected that the U.S.A. will before long complain about "over-presence" of the foreign firms and turn to an antagonism against the foreign investors, and, as in case of imports, the problem of "Peril Point" will arise.

(2) It is often pointed out that the direct foreign investments coming to the U.S.A. would contribute to an improvement in her balance of payments. But this idea is based on an ambiguous foundation. Its short- and long-term effects must be examined more exactly. At least the above reasoning is quite contradictory to another American policy attitude which facilitates outgoing direct investments from the same balance of payments reason.

(3) The only positive aspect of welcoming direct foreign investments coming to the U.S.A. is that while an increased import suppresses domestic employment, import-substituting productions enabled by direct foreign investments create new employment opportunities.<sup>16</sup>

(4) On the other hand, as far as the intensified competition and damage on competing local firms is concerned, the foreign direct investment will have the same effects as the imports. Therefore, though the foreign investment inflow is well received from the workers' point of view, it is very unlikely the local firms welcome the entrance of the foreign firms; increased imports on the other hand, will bring criticism from local firms and from workers as well.

(5) Next is the so-called Uzawa-Hamada proposition.<sup>17</sup> According to this, the direct foreign investments which have been induced to enter to avoid trade barriers could enjoy the same degree of protection as the local firms. As a result, the investing firms tend to withdraw to the home country extra profits obtainable due to the protection. From this point also, we can say that trade-barrier induced direct investments in the narrower sense are not very beneficial, or might even bring a loss to the host nation.

Now let us analyze the above statements (3) and (4) using Fig. 3. As stated previously, a trade barrier induced direct investment in the narrower sense is unlikely to improve productivity very much so that its effect is only to shift the supply curve from  $S_f S_f$  to  $S_f S S_f'$  in the host country. As a result of this, the quantity produced increases to point  $c$  from point  $a$ , and employment will expand accordingly. But the local firms in the U.S.A. will contract their production from  $a$  to  $a'$ , for the increased production equal to  $a'/c$  is done by the foreign firms. Therefore, complaints certainly arise from local firms.

<sup>16</sup> The best policy to increase American employment should be her increased domestic investment with reduced investment abroad.

<sup>17</sup> K. Hamada, "An Economic Analysis of the Duty-free Zone," *Journal of International Economics*, August 1974, pp. 231-35. Originally, H. Uzawa proved the proposition geometrically, in his "Shihon Jiyuka to Kokumin Keizai (Liberalization of Foreign Investment and the National Economy)," *Ekonomisuto*, December 23rd, 1969, pp. 106-122 (in Japanese).

In the above case, employment will obviously increase corresponding to the increased total production. However, there are often cases where the labour force discharged from the local firms is not fully absorbed by the new foreign firms, where the quality of the labour force required differs between the two parties, or where the transfer of the labour force is not easy because of differing geographical locations. In these cases, as in the case of the imports, antagonistic feelings towards foreign direct investments will arise also from labour's point of view.

In short, we can expect a net gain in employment and this is the only positive aspect of encouraging the foreign firms' entrance. And the reason for this net gain is a result of productivity improvement, though limited, made possible by foreign investments. As a consequence, the quantity demanded will increase from point  $b$  to  $b'$  because the product in question is now supplied at a cheaper price, on the one hand, and the quantity of imports decreases from  $ab$  to  $cb'$ , on the other.

## VI. *Mutual Intra-Industry Cross-Investment*

The trade-barrier induced direct investment in the narrower sense, which is the usual type between advanced countries, results in the transfer of production from lower-cost bases in the exporting country to higher-cost ones in the host country and, thus, in the loss in the use of real resources for the two countries taken together. Therefore, this type of direct investment should not be undertaken.

However, there is a far better solution in this context. If the direction of direct investment is reversed, what will be the result? The U.S.A., which is up to now has been assumed to be the host country, in Fig. 3, should contract its production in the textile industry and instead undertake foreign direct investment in Japan which still retains comparative advantage in the industry, as in Fig. 1. Of course, there is of no need for the U.S. firms to set up a new factory in Japan. What they can do is to purchase an equity participation in the Japanese firm and to help expand its scale of production and make the production more suitable to American taste. It is in their interests to eliminate tariffs and other trade barriers and to import back those products as cheaply as possible under the free trade system. Free trade coupled with this kind of American participation in Japanese production is more beneficial for American welfare than the usual form of free trade if it contributes to increase economies of scale and other improvement in Japanese production. But the primary factor for success is the fact that American (i.e. importer) invests to comparative advantageous industry in Japan (i.e. exporter).

The Japanese firm also welcomes such partnership, because it assures an access to the American markets. Moreover, the production of the goods in question (say, textiles) will see an expanded scale of production of the particular goods and to leave it totally to the Japanese firms.

It should be reminded that even if the above partnership is adopted, there still remains the problem of unemployment in the textile industry in America. Now it is obvious that the American textile industry should, instead of protecting, transfer the resources to more advantageous industries as soon as possible since it is proved to have lost its comparative advantage and is thought to be a declining or dying industry. So, the question is whether

such promising, more advantageous industries to which labour and capital move, do really exist.

I have previously stated that the U.S.A. should invest in such Japanese industries as textiles where the comparative advantage of the Japanese is still retained. But at the same time we can imagine that it is beneficial for the Japanese firms to invest reciprocally in such American industries as, say, office machines, in which the Americans are thought to have comparative advantage, with an aim of importing back those products to Japan.

If this were the case, office machinery industry in the U.S.A. would be able to expand its scale of production, and the labour discharged from the incurred American textile industry would be possibly absorbed into this promising industry. The adjustment of economic structure, as in this case in which each country specializes in its comparative advantageous industries, should be mutually promoted by encouraging equity participation from the partner country.

An argument may be carried a step further towards what I call "mutual intra-industry cross-investment". Usual cross-direct foreign investments between advanced countries indicated a situation in which one country invests in certain industry (textiles) in the partner country and the latter invests in a different industry (office machines) in the former. This is a cross-investment between two different industries and this should be promoted so as to invest in those industries in which the partner country has comparative advantage. However, this still is accompanied with difficulties in the transfer of labour from the reason of skill difference and differing geographical locations.

Now suppose that one country invests in a specialized industry of the partner country and the latter country invests in a different type of product within the same industry in the former country: for example, bus and truck manufacturing vs. passenger car manufacturing, big luxury car vs. small economy car, or parts A vs. parts B.

In the case of intra-industry cross-investment, the difficulty in the transfer of labour is very limited or practically nil. It requires of the factory no more than to specialize in a certain type of product, giving up other types of products (though it may require some adjustments in layouts). Therefore, the problem of unemployment in the factory in question, or transferring the unemployed from that factory to another, is unlikely to arise and the expertise obtained from the previous work will not be wasted. The specialization in the product of comparative advantage, and longer production-runs made possible by it, will probably induce further gains from economies of scale.

Thus, it should not be so difficult to come to an agreement between companies in different countries on the cross-investment within the industry or what I call "mutual intra-industry cross-investments".<sup>18</sup> We can expect this type of foreign direct investment to

<sup>18</sup> "Mutual intra-industry cross-investment" is one of the implementations of my theory of agreed specialization. See, Kiyoshi Kojima, "Towards a Theory of Agreed Specialisation: The Economics of Integration," in *Induction, Growth and Trade*, Essays in Honour of Sir Roy Harrod, Oxford, 1970, pp. 305-324.

Concerning the intra-industry specialization, an excellent book is published in Herbert G. Grubel and P.J. Lloyd, *Intra-industry Trade*, Macmillan, 1975.

Also Bhagwati's "theory of mutual equity interpenetration" comes to the same point as our "mutual intra-industry cross-investment." He says, "Thus, the MNC in U.S. (say GM) that finds it difficult to compete in the small-car field with the MNC in Japan (say Toyota) that finds it difficult to compete with the MNC in the U.S. in the large-car field, would each decide that the best strategy if you cannot compete with comfort is to follow that policy: 'if you cannot beat them, buy them.' Thus GM would want to buy equity in Toyota for the small-car production and Toyota in GM for the large-car production; and GM in U.S.



take place in the future not only in the auto industry<sup>19</sup> but also in other industries such as textiles, office machines and even in the hotel business and many others if the two countries involved are as highly industrialized as Japan and the U.S.A. As compared to this, the inter-industry cross investment, like between textiles and office machines, although it is desirable, may take place sporadically but there is no strong incentive to do so.

## VII. *Classification of Types of Direct Foreign Investment*

To sum up, this paper has so far been confined to an analysis of "the trade-barrier induced direct investment in the narrower sense"—let us identify this as type A—which has two qualifications: firstly, a direct foreign investment is induced by trade barriers, and, secondly, the investment does not make the production cost in the host country lower than the price of export from the investing country. Therefore, this type of direct foreign investment results in the movement of production from a lower cost base to a higher cost base, bringing about waste of real resources for the two countries taken together. And this type of direct foreign investment should be refrained from undertaking.

The analysis carries with it a number of policy recommendations. First, instead of welcoming the trade-barrier induced direct investment in the narrower sense, the host country should realize free trade by eliminating tariffs and other trade barriers. Secondly, "export facilitating direct investment" (Type B) such as foreign subsidiaries of trading firms and banks and assembly factories is commendable, for it serves to reduce "export transaction costs." In this way it has exactly the same effect, or reinforces the effect of elimination of trade barriers. Thirdly, "inter-industry or intra-industry cross-investment" (Type C) between advanced industrialized countries is strongly recommended, for in this type the direct investment is directed mutually to comparative advantageous industry in the host country, resulting in the savings of real resources, prosperous horizontal trade of manufactured goods and higher national welfare for both countries.

However, there are other types of direct foreign investment and almost all of them stem from attempts to overcome trade barriers in the host country. Therefore, it may be appropriate at this time to compare briefly the above type of direct foreign investment with other types.

Type D, trade-oriented direct foreign investment or "the Japanese type," and Type E, oligopolistic, anti-trade-oriented direct foreign investment or "the American type," are defined as follows.<sup>20</sup>

Direct foreign investment going from a comparatively disadvantageous industry in the investing country (which is a potentially comparative advantageous industry in the host country) will harmoniously promote an upgrading of industrial structure on both sides and

would go off spending resources in producing and improving its own small cars while Toyota in Japan would similarly hold back on its own large-car efforts. One thus gets mutually interpenetrating MNC's within industries, with accompanying division of labour and a novel form of 'cartelization' which goes by sub-products." Jagdish Bhagwati, "Book Review: Raymond Vernon, *Sovereignty at Bay: The Multinational Spread of U.S. Enterprises, 1971*," *Journal of International Economics*, September, 1972, p. 457.

<sup>19</sup> From the investigation of the American-Canadian Auto Agreement, many insight view on the intra-industry specialization and investment is obtainable.

<sup>20</sup> Kiyoshi Kojima, "A Macroeconomic Theory of Foreign Direct Investment," *op. cit.*, p. 75.

thus accelerate trade between the two countries. This is "trade oriented" or "Japanese type" direct foreign investment. In comparison, American-type direct foreign investment starts in a comparative advantageous industry in the investing country produces the most sophisticated, capital- and/or knowledge-intensive new products. This does not conform to the direction of trade which comparative costs suggest, and works in an anti-trade oriented fashion. But this type of direct foreign investment is pursued for the sake of monopolistic or oligopolistic profit maximization.

The type D direct foreign investment is mainly directed to developing country's industrialization (besides the development of natural resources) taking trade-barriers in the host country as the primary incentive to move from export to investment at its beginning stage. This type of direct investment realizes the "potential" comparative advantage of the host country through the transfer and diffusion of superior technology and managerial skills. This means that at the beginning  $C_h < C_f$ , but later on, the direct investment transforms  $C_f$  to  $C_h'$  which becomes lower than  $C_h$ . It is profitable now for the investing country to import the product which the host country produces with lower costs. Therefore, the Japanese type direct investment is in essence "low-cost oriented" or "offshore sourcing,"<sup>21</sup> and most recommended.

The Type C or cross-investment is also low cost oriented or offshore sourcing and, therefore, based upon the same theoretical foundation as Type D. The only difference is that whilst in the Type C, direct investment is channelled into the already well-established, lower cost source, direct investment creates a new lower cost source in the Type D case.

The Type E or oligopolistic anti-trade oriented direct investment has a close similarity with the Type A, although both are not recommendable. In both types, the direct foreign investment is inspired by trade barriers in the host country. The Type A investment is undertaken in order to take advantage of protection of those trade barriers in competition with local firms. The motivation of the Type E investment is different and far beyond that. It aims at pre-empting the host country market through direct investment, instead of exportation. Consideration of comparative advantages is entirely neglected and usually  $C_h'$  becomes more expensive than  $C_h$ .

The most important criteria to judge what kind of direct foreign investment is worthwhile, is whether or not it can contribute to save the use of real resources, and, consequently, whether or not it conforms to comparative advantage.

There still remains one more type of direct foreign investment which is undertaken by giant multinational corporations. They combine several types of direct investment and realize an extra gain from systematization of those direct investments through vertical and/or horizontal intra-firm integration. Therefore, merits and demerits of giant multinational corporations are to be scrutinized more carefully by a separate paper.

<sup>21</sup> Cf. G. Ádám, "Multinational Corporations and Worldwide Sourcing," Hugo Radice, ed., *International Firms and Modern Imperialism*, Penguin Books, 1975.