

MACROECONOMIC VERSUS INTERNATIONAL BUSINESS APPROACH TO DIRECT FOREIGN INVESTMENT

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I. Introduction

Since I published my first paper on direct foreign investment (DFI), a paper entitled "A Macroeconomic Approach to Foreign Direct Investment," in the *Hitotsubashi Journal of Economics*, June 1973 [22], and compiled my studies on related issues in a book, *Direct Foreign Investment* (London: Croom Helm, 1978) [31], I have received many valuable comments and suggestions, some favourable, but others less favourable and even critical. Such a wide range of reactions reflects the fact that my approach is founded on the theory of international division of labour (hereafter called the macroeconomic approach), an approach quite different from the existing body of theories, which are presented basically within the managerial economics of international business administration (hereafter called the international business approach).

The purpose of this paper is to further elaborate on my own approach to eliminate possible misunderstandings. Section II summarises the core theorems of the Kojima approach, and Section III sorts out a number of important comments I have received.

It seems quite important to me that an integrated theory of international trade and direct investment be established along the lines of the theory of comparative advantage. Without this effort, the desirable effects of DFI cannot be analyzed from a macroeconomic point of view. True, there have lately been several attempts to do so, especially by John H. Dunning and his school, but their approaches are, in my judgement, not satisfactory for they are essentially variants of the international business approach. My critique of their reasoning is presented in Section IV. In order to have DFI contribute effectively and harmoniously to the economic development of Third World countries, its new roles and new forms need to be explored within the framework of the macroeconomic approach rather than that of the prevailing international business approach. Section V pursues this line of argument. The paper concludes with the observation that how to integrate the macroeconomic approach with the international business approach (that is, microbusiness economics) remains an important topic in future study of the issues surrounding DFI and the multinational corporation.

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II. *The International-Division-of-Labour Paradigm*

My approach to direct foreign investment can be summarised into one basic theorem, five corollaries, and four applied policy prescriptions:

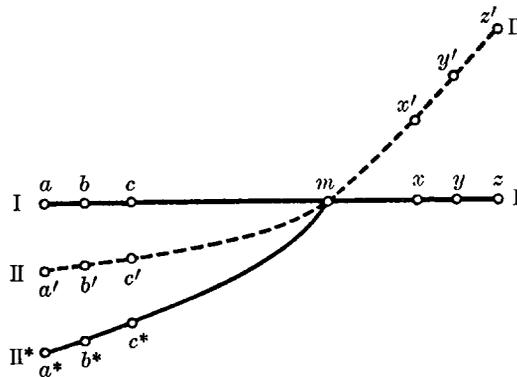
Basic Theorem: Direct foreign investment should originate in the investing country's comparatively disadvantaged (or marginal) industry (or activity), which is potentially a comparatively advantaged industry in the host country. This may be called, in brief, 'the principle of complementing comparative-advantage patterns' or 'the principle of DFI originating in the marginal (including submarginal) industry.'

Figure I may help understand the theorem, though the diagram does not represent its dynamic implications concerning over-time changes with exactitude. Line I-I shows the production costs of a whole range of tradable commodities in investing country I (say, Japan) where a unit of commodity is defined as the amount of that commodity produced at ¥100 in country I, whereas dotted line II-II shows the corresponding costs (say, in terms of \$) in host country II. We place the commodities in an order that will compare those of lower dollar-cost in country II with those in country I (for example, points *a* and *a'* indicate ¥100 and \$0.8, respectively, while point *z* and *z'* indicate ¥100 and \$3). When the exchange rate is ¥100=\$1, line II intersects with line I at point *m* because commodity *m* is produced at ¥100 in country I and at \$1 in country II.

Thus, Figure 1 shows the comparative advantage (or cost) pattern of many commodities between two countries. It tells clearly why international trade is opened in such a direction that country I imports commodities *a*, *b*, *c*,... while exporting commodities *z*, *y*, *x*,.... It also suggests that when line II-II shifts eastwards (as a result of either country II's exchange devaluation or its domestic deflationary policy), country I's imports will expand while its exports decline.

Let us now consider DFI. Industries *a*, *b*, *c*,..., *m* in Figure 1 are marginal (including submarginal) ones for which country I should undertake DFI in country II. This type of direct investment transplants superior technology and management, making the production

FIG. 1



costs in host country II lower from a', b', c', \dots to a^*, b^*, c^*, \dots , as shown by II*. Then the imports of country I from country II will become available at lower costs and perhaps in greater volume than before the DFI, leaving greater gains for the host country too. This is a pro-trade DFI (which I called somewhat impressionistically the Japanese-type DFI).

Conversely, what happens when DFI goes out from the leading industries of country I, z, y, x, \dots ? The realised direct investment into country II may lower production costs somewhat more than z', y', x', \dots (otherwise it cannot survive even under country II's protective measures), but make production costs higher than z, y, x, \dots in country I. In such circumstances country I should continue to export those goods instead of undertaking DFI. If such DFI is undertaken, it works in an anti-trade direction (which I call the American-type DFI). [31, Chap. 5]

Corollary 1: The Kojima approach makes it possible to establish a theory that integrates international trade and direct foreign investment, two activities that lead to a dynamic reorganisation in the international division of labour (or activity).

The direction of international trade is determined by a given pattern of comparative costs that makes each country specialise in, and export, its comparatively advantaged products, while decreasing the home output of, and importing, its comparatively disadvantaged products; the result brings about *static* gains from the international division of labour for both trading partners. On the other hand, direct foreign investment transfers a package of capital, technology and managerial skills, improving production functions and reducing costs in the host country, and thus enhances *dynamic* structural changes along the lines of comparative costs.

If DFI occurs in an industry in which the investing country has a comparative disadvantage (see the Basic Theorem), the recipient country can develop or strengthen a comparative advantage in the same industry. This type of industrial transplant helps reorganise the international division of labour, increasing production and consumption gains from trade for both countries. Here, that is, DFI works in a complementary fashion to create and increase international trade.

On the other hand, if DFI moves out from an industry in which the investing country has a comparative advantage without prospects of developing a comparative advantage in the same industry on the part of the recipient country, it causes a loss of efficiency: such DFI substitutes for and decreases international trade.

The point is that we should not neglect the doctrine of comparative costs (or, more generally, the principle of international division of labour) when we consider DFI, as in the case of treating international trade [31, Chap. 4].

Corollary 2: The trade-oriented (or Japanese-type) DFI does not substitute for international trade but complements it [31, Chap. 6]. It is beneficial for an investing country if DFI goes abroad from its comparatively disadvantaged marginal industry (or activity) for the purpose of producing goods in the host country at costs lower than at home through the transfer of efficient technology and management and importing them back to the home country (or exporting them to third markets). Such DFI is pro-trade oriented (i.e., trade-creating) [Bergsten, 4, p. 6] in the sense that it gives birth to exports of new products from the host country. Also, such DFI is, in essence, oriented to *offshore sourcing* [Adam, 1] from the point of view of the investing country.

Corollary 3: We can extend the concept of ‘marginal industry’ by substituting for it ‘marginal production (or economic) activity.’ The Japanese-type DFI was originally dominated by labour-intensive industry with simple technology transplanted from Japan to developing countries. In this type of industry, while big Japanese firms may maintain a strong comparative advantage and continue to export, small and medium firms, being marginal, inevitably lose competitive power and must go abroad. Even within a given process of production used by a firm, those labour-intensive segments with simpler technology, such as assembly or production of certain parts and components that are either already submarginal or might easily become marginal can be transplanted abroad where labour is cheaper. Such an extension of the concept and its applicability has been made by T. Ozawa [43, pp. 61–4]. To transfer technology or to transplant industry to the host country by starting with both marginal activities and marginal firms in the investing country is easier and more efficient because of the smaller gap in technology between the two countries. The importance of ‘comparative advantage in improving productivity’ in the host country cannot be overemphasised [31, Chap. 7].

Corollary 4: The macro-economic approach of DFI is based on the theory of comparative advantage (or costs) which deals with at least two commodities in two trading countries under given tastes (or demand conditions), factor endowments, and production functions, as typically shown by the Heckscher-Ohlin model. It should be noted that here everything is expressed in a comparative fashion or in terms of ‘the ratio of ratios’ between one country and another, such as a ratio of comparative costs, a ratio of comparative factor-endowments, a ratio of comparative factor prices, a ratio of comparative factor intensities, and the like.

In contrast, the business administration (or microbusiness economics) approach deals in essence with one commodity produced by one firm, calculating everything in *absolute* terms (e.g., price, cost, and profit of a product as well as its various inputs in the home country and abroad), and aims at finding the best location for the activity with the least cost and the largest possible profit. The business-administration approach is in this sense a partial analysis, although it does provide—albeit in a fragmentary fashion—the pieces of information needed to establish a comparative-costs formula which makes general equilibrium (macroeconomic) analysis possible.

In reality, it is difficult to find comparative costs, either existing or potential. The Heckscher-Ohlin model is able to provide an answer only theoretically. In practice, cost calculation by firms in various industries through the business-administration approach provides us with more realistic information. But the business-administration approach remains a sectoral and partial analysis and neglects the macroeconomic analysis that would provide comparative costs. There is a great need to bridge the two approaches [31, Chap. 3].

Individual manufacturers concentrate on their own line of products and do not concern themselves with comparing costs and profits of other lines of products. A manufacturer might thus easily misjudge and expand overseas business at what will prove to be an inappropriate location. General trading companies and transnational banks have superior ability to consider international comparative costs fully [31, p. 233].

Corollary 5: Although the comparative-costs formula is of prime importance in guiding

not only international trade but also international factor movements, especially DFI, it is not easy to understand and calculate. The export of X-goods in exchange for the import of Y-goods is undertaken only when X-goods are produced relatively cheap and Y-goods are relatively expensive at home as compared to those abroad. In other words, under these circumstances it is profitable for trading firms to intermediate in both exporting X-goods and importing Y-goods. Similarly, it can be said that it is quite profitable to undertake DFI in those overseas industries that have a potential of developing comparative advantages, for this type of DFI transfers superior technology and management, and will make those industries capable of exporting. This is a 'correspondence principle' between comparative costs and comparative profit rates [31, Chap. 5].

The comment has been made [Geroski, 13, Juhl, 19] that the correspondence principle has not been satisfactorily explained. To explain it well requires, I recognise, a more fundamental revision of the traditional *static* theory of international division of labour so as to express in it explicitly the role of the entrepreneur and his profits, in addition to the rewards (i.e., interest) for capital used, as is done in the Shumpeterian dynamic model. On this point, I admit, we must borrow many ideas from the business-administration approach.

From the Basic Theorem and Corollaries stated above, a number of important policy prescriptions for DFI can be derived.

Application 1: Overseas resources development is a typical offshore-sourcing type of DFI. Historically, the U.S. and major European countries have secured resources through multinational corporations, usually through captive development ventures with vertical integration; that is, a corporation obtains a large area of deposits as a concession, and undertakes exploration, development and production through wholly-owned subsidiaries. Not only upstream operations but also such downstream ones as transportation, processing, distribution and sales throughout the world are integrated within the firm.

How to secure access to overseas resources at reasonable prices is a very serious concern for the Japanese economy. Japan tries to accomplish this task through the 'development for trade under a long-term contract' method. 'Development for trade' means offshore sourcing through a trade-oriented investment in return for an assurance of a supply quota or production sharing. A similar type of non-equity arrangement for resource security can be promoted in the new international political environment in which resource nationalism in developing host countries is on the rise [31, Chap. 10].

Application 2: To promote DFI in the manufacturing industry of developing countries, we must take into consideration the following four points:

(i) It is most important for developing countries to choose carefully what kind of industry and what type of technology they want to receive. Steady economic development in these countries is fostered through an orderly establishment of industries assisted by direct foreign investment and an orderly transfer of technology, starting with labour-intensive and relatively simple technology and gradually moving towards more capital-intensive and sophisticated technology. In other words, developing countries should start receiving DFI from industries in which they have potential comparative advantage in production and comparative advantage in improving productivity. The latter brings about an orderly transfer of technology, which begins in those industries where the technological gap between providing and receiving countries or firms is smallest and therefore the transfer of technology is

easiest and its spread effects largest [31, p. 153].

(ii) DFI in developing countries should play the role of a 'tutor' [Findlay suggested the term 'midwife' instead of 'tutor'—12, p. 448]. In other words, the main role of DFI is to transplant superior production technology through training of labour, management, and marketing, from advanced industrial countries to less developed countries, or, in brief, it is the transfer of a superior production function to replace inferior ones in the host country. DFI should be an initiator and a tutor of industrialization in less developed countries [31, p. 152].

(iii) The fact that a subsidiary of joint venture is established in a host country is only the beginning of national (or macro-) economic effects, although in contrast with so-called 'enclave' direct investment, the establishment of a joint venture alone is significant. DFI will gradually have a spill-over effect on a given industry and related ones in the host country through the training of workers, engineers, and managers, and will make the establishment of competitive firms by local capital possible, ultimately improving the production function of the entire industry in question and making that industry competitive in international markets. When the process is completed, it can be said the new technology is really transferred and established in the host country.

But this desirable effect may be hindered if too many foreign firms enter at once and establish too many new plants in a short period or if they concentrate in a certain industry, a situation that suppresses local firms and increases negative effects.

(iv) Once DFI in developing countries is successful in its role of tutor, it should fade-out, transferring the right of ownership and the control of management to local firms, and move to other less developed countries that wait for the coming of a 'tutor' [31, pp. 152–3].

Application 3: Is it vital for Japanese industries to extend their activities through increased direct investment in the U.S. and European countries and even to set up full-scale production bases there?

(i) Most direct investments between advanced countries, as I see it, are designed to overcome trade barriers. This type of DFI is not recommended, since the investments are made in industries in which the host country does not have a comparative advantage, and thus hardly generate any economic gains. Japanese firms, for example, might do better to refrain from rushing into full-scale direct investment in the U.S. Instead, they should consider more seriously increasing direct investment in developing countries.

(ii) Advanced countries should undertake what I call '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 a comparative advantage with the aim of importing back the product under free trade. This type of undertaking is especially applicable to specialized production in, and mutual procurement of, different parts and components of automobiles [31, Chap. 9].

Application 4: Giant multinational corporations gain profits from direct foreign investment stretching around the globe, using both vertical and horizontal forms of integration to make even greater profits. In other words, they obtain through global strategies economies of scale over and above the economies of scale which each production and/or sales unit realises. This practice usually leads to monopolistic or oligopolistic conditions in the industries in which they operate [31, Chap. 11].

(i) Multinational corporations achieve two types of economies of scale: the first are 'genuine economies of scale,' which contribute to savings of real resources; the second are 'commercial¹ or pseudo economies of scale,' which result in increased profits for the corporations, but no corresponding savings in real resources. Examples of this second type are transfer pricing, tax havens, and foreign exchange manipulations. The contribution of multinational corporations to the society should be to realise genuine economies of scale all over the world and thus benefit users by supplying less expensive products, but not merely to increase private profits through the realization of pseudo-economies of scale.

(ii) The idea of economies of scale, without differentiating the pseudo type from the genuine one, is used to justify the 'internalization of market' by giant multinational corporations, and is becoming one of the prevalent theories of MNC. I seriously doubt the validity of this approach, as will be explained later. Instead of institutional and monopolistic intra-firm integration of such a type, many Japanese direct investments abroad, which are scattered in various areas by each Japanese enterprise, are functionally integrated with each other by trading companies, making it possible for the Japanese enterprises as a group to operate much like the giant multinational corporations but still in ways that are close to a free market mechanism.

III. *Comments on the Kojima Theorem*

Important comments and suggestions which my macroeconomic approach to DFI has received can be sorted out as follows:

(1) *Is Kojima's a static model?*

H.W. Arndt provided comments on my first DFI paper [22] to the effect that besides (a) Kojima's chief welfare criterion of "international trade growth" resulting from either trade-oriented or anti-trade-oriented DFI, (b) there are the favourable and unfavourable externalities of foreign direct investment, such as the "wider spill-over effects for genuine national-economic development" in less developed host countries [Arndt, 2, pp. 26-27]. Both (a) and (b) are *dynamic* effects of DFI, and the importance of (b) is explored later, in Chap. 8 of my major book [31].

Steven W. Kohlhagen takes (a) as static but (b) as dynamic and offer critical comment as follows:

In addition, there are severe problems with Kojima's welfare criterion. He confines himself to a purely static analysis by looking only at the trade effects of international investment. He thereby ignores all of the familiar dynamic benefits of investment such as employment creation, upgrading of the labor force, increasing technological capabilities, and other spill-over effects that may well be greater for market penetration (i.e., anti-trade-oriented) investments than for trade-oriented ones such as natural resource extraction [Kohlhagen, 21, p. 171].

His evaluation that Kojima's analysis 'completely ignores dynamic considerations' is

¹ I received a letter from Professor Pan A. Yotopoulos suggesting that my terminology of 'commercial economies of scale' is better than his 'financial economies of scale.' See [55].

shared by Dunning [10, p. 412], Lee [36, p. 27], Sekiguchi and Krause [49, pp. 436–9], Kitamura [20, p. 232] and others. On the contrary, my intention was to show the dynamic effects of DFI on improving production functions in the host country (Basic Theorem and Corollary 1) and on creating spill-over effects (Application 2). I dealt with these dynamic effects by a comparative static method for a real dynamic model of international division of labour, inclusive of trade and investment; admittedly, however, it has not yet been well developed.

Ronald Findlay gives me a favourable evaluation, saying that “(Kojima’s) ‘Japanese’ investment is intimately related to factor proportions in both the source and host country and plays the role of midwife to the ‘natural’ evolutions of comparative advantage on the basis of differences in relative labour costs.” “(Country) A produces all the capital-intensive goods for both regions, and direct foreign investment by A raises the efficiency of labour-intensive production in B to the gain of consumers in both regions” [Findlay, 12, pp. 448–9].

(2) *Is a macroeconomic approach unnecessary?*

A second important comment is made by P.A. Geroski from the viewpoint of international business administration. In reviewing my book, he says that he is not convinced of the usefulness of Kojima’s general macroeconomic approach:

The author (Kojima) has many derogatory things to say about the ‘Business Administration’ or ‘Industrial Organization’ approaches, but his review of them in Chapter III is so cursory that one can justifiably feel that he has not given them a fair chance. The Heckscher-Ohlin model (and, indeed, most general equilibrium models) pays too little attention to firms to catch any of the complexities or richness in behaviour we observe; and while partial equilibrium has many limitations, it has nevertheless produced a wide range of hypotheses for testing, which is more than can be said for the theory under review here [13, pp. 163–4].

The real issue is, as Geroski mentions, too, how to integrate trade theory with the theory of direct investment. Here we need to bridge, in a number of important points, the macroeconomic approach with the business administration approach. I endeavoured to introduce into the trade theory explicitly ‘firms’ and ‘entrepreneurs’ profits on the full-cost principle, making it possible to show the correspondence between changes in comparative costs and in comparative profitabilities (Corollary 5). Enquiring into this correspondence seems the most promising way to bridge the two approaches.

The fact that my presentation is thought to be unsatisfactory does not mean that a macroeconomic approach is of no use, nor that to confine our analysis to the international business approach is superior and, therefore, sufficient. However closely one may pay attention to firms from the viewpoint of the international-business approach and however minutely one may observe the complexities or richness in behaviour of firms, he can only make an absolute comparison of costs, risks, and profitabilities between domestic and foreign production activities by taking into account a large number of variables and situations. This approach, however, does provide us with the necessary information to build a ‘comparative costs formula,’ from which a macroeconomic analysis may be derived.

The Heckscher-Ohlin model is criticized by international business theorists as being too simplistic. True, the ‘comparative costs formula’ is a highly abstract model, for it is based

on one set of two commodities produced in two countries in accordance with a pattern set by comparing the factor endowment ratios and factor price ratios of the two countries, on the one hand, and the factor intensity differences of the two commodities, on the other hand. The Heckscher-Ohlin model has so far had little success in incorporating into itself several key elements, such as technology, human capital, and specific factors (which are not well defined; they simply mean those factors that are immobile between different industries). In order to make the comparative costs formula more realistic we may be able to use some of the specific pieces of information derived by taking the business approach so as to include not only direct production costs but also transportation and other transaction costs.

If one confines himself, however, to the international-business approach alone, it is impossible to provide any guide for selecting appropriate DFI. According to this approach, the primary concern is the profitability of overseas business as compared to that of domestic business, the comparative profitability that can be enhanced by utilizing cheaper labour abroad through DFI or by monopolizing (or oligopolizing) international markets by means of technology and other firm-specific advantages. Thus the business approach justifies monopoly, oligopoly, transfer pricing, and other forms of market imperfection merely for the sake of increasing profits for individual firms, and neglects macroeconomic effects upon both the investing and host countries.

In Japan,² K. Ikemoto [17] recommends me to adopt his 'specific factor model,' which deals with general equilibrium, including some specific factors in addition to general factors. It is difficult, however, to identify what specific factors are. And if one takes into account many factors as specific to each firm or industry, such an analysis comes close to becoming a business-administration approach and loses the merit of general equilibrium analysis. Moreover, H. Kitamura [20] recommends me to abandon my macroeconomic approach and instead to take the monopolistic or oligopolistic theory of DFI.

In connexion with these comments³, I would like to refer to the late Professor Harry G. Johnson, who identified Japanese type DFI as follows:

If the transfer of 'know-how' can be policy-controlled, the proper policy for United States skilled-labor would be to prevent the transfer of skilled-labor 'know-how' (the objective of the United States union movement) or to transfer unskilled-labor 'know-how' only (the policy of Japan, that is, invest only in the exploitation of other countries' natural resources, and the industrialization of their resources of cheap labor, for export to Japan) [18, p. 53].

(3) *How to find empirical evidence?*

Another point on which Geroski criticizes my book is that "The (Kojima's) argument is entirely theoretical, with no real supporting empirical evidence presented or testing of hypotheses" [13, p. 163]. This is true, and I am anxious myself how to find empirical evidence.

First, it seems to me difficult for the international business approach to analyse such

² Some debates are taking place about the theoretical compatibility of introducing tariffs into Mundell's static model among Ekkehard Bechler [3], Nobuo Minabe [38] and Kojima [29]. But this is not my main concern here, for I intend to introduce dynamic considerations into the Heckscher-Ohlin model.

³ Brigitta Swedenborg suggests that her findings in [51] can be consistent with the Kojima theorem for Swedish machinery firms. For example, they often choose to produce older and more standardized products abroad and continue to produce at home products in which Sweden has a comparative advantage.

macroeconomic contributions of DFI as increased employment, transfer of technology, orderly industrialization, growth of GNP, and balance of payments in both the investing and host countries. From the viewpoint of the international business approach, firms aim at maximizing profits; even monopolistic or oligopolistic economic rents are therefore fully justified. In other words, undesirable macroeconomic effects are of no concern for individual firms. Even preventing the transfer of technology to the host economy by means of wholly-owned subsidiary is justified. Therefore, if any meaningful analysis is to be made of the impact of DFI, the macroeconomic approach must be adopted.

Second, many scholars, to whom I am deeply grateful, show empirical evidence identifying characteristics of the Japanese-type DFI along the line of the Kojima theorem. Terutomo Ozawa, for example, presents ample evidence supporting almost all of Kojima's Basic Theorem and Corollaries 1–3, and four Applications [43, Chap. 1, 42, 44 and 45]. Ozawa concludes, for example, the "one major characteristic of Japanese multinationals... is that they are strongly influenced by the macroeconomic factors of their own economy and by those of the host countries" [43, p. 39]. In fact, he extends the Kojima theorem (as was already touched upon in Corollary 3) as follows:

First, the marginally efficient firms that must exist from the contracting sector are most likely to find it much easier to set up their own lines of business overseas, where factor endowments are more favorable for them than at home (that is, to cross a national border) than to re-establish themselves *de novo* in the expanding sector at home (that is, to enter a new industry). ... Moreover, the macroeconomic forces of international trade exert pressure for overseas production in a more suitable factor-endowments environment on the marginally efficient firms and not on the most efficient firms. In contrast, in the monopolistic theory, the leading firms (the "technostructures" and "product-life-cycle" firms) are the first to move to overseas" [43, p. 61].

Thus, Ozawa explains, as I have done, Japanese-type DFI from the viewpoint of the expanded factor-endowments model, but not from the prevailing international business approach.

Chung H. Lee [36] compares some of the salient features of U.S. and Japanese direct investment in Korea, and observes that the characteristics of Japanese-type DFI are in agreement with what I have depicted, whereas American DFI is carried out by large 'oligopolistic' firms, which invest a relatively large amount per project (the average is \$3.8 million). In addition, large oligopolistic U.S. DFI is directed toward relatively sophisticated industries, while Japanese DFI is mostly in textiles and other traditional industries. The U.S. investors, Lee further observes, prefer majority ownership, whereas their Japanese counterparts willingly accept minority ownership in joint ventures. Moreover, American DFI, especially that made by large oligopolistic firms, is domestic-market oriented, while Japanese DFI is export-oriented.

Lee [36, p. 34] explains, however, that an important motivation for the Japanese DFI is the possession by Japanese firms of an advantage in the form of marketing skills of both firm- and location-specific types, an advantage that they exploit through market-internalization efforts.

R. Hal Mason [37] agrees with me on the characteristics of Japanese-type DFI with regard to its role in technology transfer to developing countries. But he argues that any

difference between American-type and Japanese-type DFIs is explainable by Vernon's product-cycle theory, and that Japanese investors are late-comers and immature; their present characteristics derive mainly from a relatively low level of Japanese industrial technology.

I am not satisfied with either Lee's or Mason's explanation. Their explanations in terms of the international business approach (i.e., Lee's dependence on the theory of market internalization and Mason's emphasis on the theory of product cycle) do not help the development of a new theory of macroeconomic approach which I consider crucially important.

Let us turn back to the problem of empirical study. It is not only inappropriate but also impossible, as has already been mentioned, to study the macroeconomic effects of DFI on both the investing and host countries from the viewpoint of the international business approach. Admittedly, it is not an easy task, either, to do so even with the macroeconomic (or general equilibrium) approach. In the case of international trade, gains from the initial opening of trade cannot be measured empirically; only changes in gains from the continuation of trade can be measured, and even those not quite satisfactorily, by way of various terms-of-trade indices. In the case of DFI, since the terms-of-trade indices are of no use, a completely new method of measuring gains from DFI must be devised. It may be worthwhile investigating, for example, how far and how fast a transformation of industrial structure, an upgrading of national product mix, and the growth of GNP might have been achieved in both the investing and host countries by comparing the situations such as (a) without any DFI, (b) with trade-oriented DFI, and (c) with monopolistic (or oligopolistic) DFI. This type of study may be done through either time-series analysis for a certain country or through cross-country comparison.

IV. *Limits of International Business Approach*

Almost all the criticisms of the Kojima theorem have been made from the viewpoint of the international business approach, as surveyed in the preceding section. The typical views of the international business approach are (a) the theory of product-cycle advanced by Raymond Vernon; (b) the monopolistic or oligopolistic theory of growth of firms stressed by Stephen Hymer and others; and (c) the theory of market internalization developed by John H. Dunning and his group. These theories have one characteristic in common: they are all based on a microeconomic or sectoral analysis, an analysis that has various merits as well as limitations.

I have already commented on (a) and (b), though perhaps cursorily, in [31, Chap. 3]. I am now interested in (c), since Dunning intends to establish 'the eclectic theory of international production,' based both on the *location*-specific endowments of countries and the *ownership*-specific endowments of enterprises. In pursuing this approach, he sets out 'a systematic explanation of the foreign activities of enterprises, in terms of their ability to internalize market to their advantage' [11, p. 395]. Dunning's eclectic theory is well explained by Neil Hood and Stephen Young [15]. 'Internalization of market' is even appraised as a general theory of DFI by Alan M. Rugman [48], and a further theoretical elaboration is made by Mark Casson [6].

Dunning sees two kinds of advantage which a firm can command:

The capability of a home country's enterprises to supply either a foreign or domestic market from a foreign production base depends on their possessing certain resource endowments not available to, or not utilized by, another country's enterprises. We use resource endowments in the Fisherian sense (Johnson, 1970) to mean assets capable of generating of future income stream: they include not only tangible assets such as natural resources, manpower and capital, but intangible assets, such as knowledge, organisational and entrepreneurial skills, and access to markets. (a) Such endowments could be purely *location*-specific to the home country, in other words originating only from the resources of that country but available to all firms, or (b) they could be *ownership*-specific, that is internal to the enterprise of the home country, but capable of being used with other resources in the home country or elsewhere [10, p. 399].

Here (a) corresponds to the trade theory of neofactor brand and the traditional location theory, and Dunning makes (b) microeconomic, firm's advantages (especially technology) complementary with (a), where (b) is represented by Vernon's product-cycle theory. This is a first eclectic integration.

The extent to which they [MNEs] engage in foreign production will depend on their comparative ownership advantages *vis à vis* host country firms, and the comparative location endowments of home and foreign countries [10, p. 400].

It should be noted that 'comparative' in the above quotation does not mean comparative advantages in the sense of trade theory but simply means 'absolute' advantages because Dunning deals here with only one commodity, producible both at home and abroad. Therefore, Dunning's approach belongs to a typical sectoral analysis along the line of the international business approach.

Although Dunning, and also Hood and Young, mention numerous elements which consist of location-specific and ownership-specific advantages, they do not show how they can calculate and compare costs at home and abroad, which the comparative costs formula requires. Instead of doing that, Dunning jumps to the theory of internalization:

The thesis is that the international competitiveness of a country's products is attributable not only to the possession of superior resources of its enterprises but also to the desire and ability of these enterprises to internalise the advantages resulting from this possession; *and* that servicing a foreign market through foreign production confers unique benefits of this kind.

What then, are these incentives of firms to internalise activities? Basically, they are to avoid the disadvantages, or capitalise on the advantages, of imperfections in external mechanisms of resource allocation [10, p. 402].

Since the benefits to the firm from internalization are brought about by its monopolistic (or oligopolistic) behaviour, Dunning makes a second eclectic integration between a firm's location-specific and ownership-specific advantages, on the one hand, and its advantage of pursuing international monopoly on the other. In this connexion, Rugman appraises "internalization" as follows:

Internalization can occur in response to any type of externality in the goods or factor markets. As discussed above, a tariff, or other type of distortion in the goods market,

will induce DFI and multinational activity. The essence of internalization theory is the explicit recognition of these worldwide market imperfections which in practice prevent the efficient operation of international trade and investment. Following this line of thinking it can be that the MNE has developed in response to both exogenous government induced regulations and controls as well as other types of market failure which have destroyed the theoretical reasons for free trade and private foreign investment. The process of internalization permits the management of the MNE to overcome such externalities and governmental regulations in the product market [48, p. 368].

It is now time to recognize that internalization is a general theory of DFI and a unifying paradigm for the theory of the MNE [48, p. 376].

From the viewpoint of the macroeconomic approach, I would like to raise four comments on Dunning's eclectic theory:

First, in his initial eclectic integration he did not unify general equilibrium trade theory with the theory of the firm but did reduce the former to one commodity analysis with the absolute comparison of various advantages in activities at home and abroad. This is characteristic of an international business approach like Vernon's product-cycle theory. Neither Vernon nor Dunning and any of the other international business theorists came up with any device that came closer to or aligned itself better with the macroeconomic approach. But at least their recommendation is straightforward: as long as any firm in any industry has some advantages, whether ownership-specific and/or location-specific, it should undertake direct investment abroad to extract additional profits and growth, although degree of profitability may vary. No criteria are provided with regard to the desirability of specific firms undertaking direct investment abroad from a macroeconomic point of view, namely, which firms should and which firms should not do so.

Second, through his second eclectic integration, Dunning reaches a conclusion that the internalization of various activities, which is equivalent to the monopolization (or oligopolization) of the market, is the main source of increased profits for multinational enterprises. With such a conclusion, he implicitly recommends that any firm in any industry, without exception, multinationalize its activities: "Other things being equal, the more internal transactions the company engages in, the greater its opportunities for doing this; hence, in the case of MNEs, the added impetus to engage in a global strategy and to practise product or process specialization within its organization" [10, p. 405]. Dunning thus becomes an influential supporter for giant and monopolistic MNEs.

Third, what is the nature of gains from internalization? I have distinguished, in Application 4 above, 'commercial or pseudo-economies of scale' from 'genuine economies of scale.' Almost all of what Dunning attributes to the source of gains from internalization belong to the former, such as transfer pricing, tax havens, exchange manipulations, etc. [10, p. 405]. These gains accrue because of imperfections of market, and "as markets become less imperfect the net gains of internalization become less" [10, p. 405]. Internalization is efficient and beneficial only for the giant enterprise to maximise its profit on a global scale, but it is harmful for both national and international economies, for it creates another form of market imperfection. Why does no scholar recommend how imperfections or failure of market mechanism be corrected? Instead of multinationals' internalization of activities, functional integration through the free market mechanism must be superior from a macro-

economic point of view [31, pp. 227–8].

Fourth, Dunning's eclectic theory of DFI, and especially the internalization theory, which belong essentially to the international business approach, were developed only for the sake of enhancing the private company's interest and cannot properly deal with the macro-economic effects of DFI on both the investing and host countries, especially on developing host countries. In this connexion, a recent work by Mark Casson should be noted. He considers "DFI as a consequence of the internalization of markets for proprietary information and other intermediate products," and comes to the conclusion that "the social costs of internalization tend to be greater than the private costs," where "a social cost is anything which reduces world welfare" [6, p. 83]. In cases of transfer pricing, market fragmentation and the diversity of the firms's operations, "the net social benefit from internalization is less than the corresponding private benefit" [6, p. 85]. Casson's analysis is rigorous but although limited to the systems of property rights, it is important, since he attempts to pay much considerable attention to the socio- or macro-economic effects of DFI and MNEs.

How can one deal properly with macroeconomic effects? Perhaps we must integrate the international business approach in its various aspects into the macroeconomic approach. At the same time, the general equilibrium theory of international trade and investment should be improved so as to be able to treat, at least, (i) economies of scale, (ii) transport costs, taxes and tariffs, and other transaction costs, and (iii) input-output relations through trade and DFI.

V. *International Complementation of National Economic Development in Developing Countries*

The international business approach justifies a giant multinational enterprise that pursues profit maximization on a global scale so that it may grow and survive, ignoring the interests of developing host countries. But how can direct foreign investment help those developing countries which intend to encourage steady and gradual economic development? Only taking the macroeconomic approach will provide the answers in these circumstances [35].

Instrumental for complementing and augmenting the production factors available in developing host countries are (1) various kinds of aid, (2) direct foreign investment and other capital flows, (3) the transfer of technology, and (4) the imports of input goods that cannot be produced at all or only at much higher costs in developing countries. Developing countries are in urgent need of those factors of production which, if supplies are inadequate, cause bottlenecks at each advanced stage of economic development. The proper handling of international flows of these factors could accelerate greatly the process of economic development in developing countries and contribute to a desirable reconstruction of the prevailing international division of labour between the 'centre' (or North) and the 'periphery' (or South), a phenomenon which I call 'international complementation.'

If they are properly conducted, direct investments in developing countries or the activities of multinational corporations are highly complementary with the process of economic development. But as the situation now stands, a considerable modification of behaviour is

called for.

Since the end of World War II, direct foreign investment has increased tremendously, most of it coming initially from the U.S., but more recently from West Germany and Japan as well. Especially in the U.S., production costs have risen sharply on account of both strong pressure by labour unions and the heavy tax burdens and various government regulations imposed on business activities. As a result, American business firms lost profit opportunities at home and accelerated their overseas activities, spreading in their wake capitalistic business behaviour abroad. The U.S. government has been in support of this trend as a substitute for its declining official development aid (ODA) in order to maintain its Pax Americana regime.

A giant American MNC usually invests abroad from the viewpoint of its global strategy to maximize its profits; it invests abroad mainly in monopolistic or oligopolistic industries such as natural resources development, industries with technological advantages and product-differentiated industries. This means that American DFI goes out in the main from industries with comparative advantages. Such industries may insist on setting up wholly-owned subsidiaries (i.e., enclaves), their creation justified and supported by the theory of international business administration (which is the prevailing approach to DFI and MNCs) to monopolize foreign markets and to undertake transfer pricing policy, restrictive business practices and other extremely capitalistic measures as far as they contribute to minimizing costs and maximizing profits.

Such American-type MNC activities, which usually result in an anti-trade-oriented DFI, are directed not to step-by-step or balanced economic development of developing countries but rather take the opposite direction. It should also be remembered that it was hasty American direct investment abroad on the part of her most sophisticated industries, those that ranked at the top of her comparative advantage structure, which brought about her present difficulties, such as the loss of international competitiveness, deterioration in balance of trade, unemployment, and inflation.

Therefore, it is most important to clarify the role of international complementation. The new idea should be to extend and spread national welfare policies internationally beyond the territory of each advanced country. The new role should be, through effective international complementation, to start and encourage the national economic development process in developing countries. In other words, international complementation should play the role of 'tutor' in the transformation and industrialization of developing countries, as was explained in Application 2.

In order to receive benefits effectively from a 'tutor,' it is most important for developing countries to choose carefully what kind of industry and what type of technology they want to promote. Steady economic development in such countries is fostered through an orderly establishment of industries assisted by DFI and an orderly transfer of technology, starting with labour-intensive and relatively simple technology, and moving gradually toward more capital-intensive and sophisticated technology. In other words, developing countries should start receiving DFI in industries in which they have potential comparative advantage in production and comparative advantage in improving productivity. The latter brings about an orderly transfer of technology beginning in those industries where the technological gap between providing and receiving countries or firms is smallest and therefore the transfer of technology is easiest and its spread effects largest. A pro-trade-oriented DFI meets those

criteria but an anti-trade-oriented type does not.

From the viewpoint of the new role for DFI delineated above, when the foreign firm has successfully completed its job as tutor, it should transfer ownership by stages to the host country. Similarly, nationalization of the property of foreign firms should be allowed in exchange for fair and prompt compensation. Nationalization in the OPEC countries is a great achievement, although its monopolistic price-raising policy is certainly not praiseworthy. Also, the UN Commission on Transnational Corporations (on which I have been serving as an expert adviser) will officially recognize the right of nationalization in the Code of Conduct of MNCs which is now under discussion. This must constitute an evolution and an important modification of modern capitalism and the free enterprise system. In the light of the strong nationalistic views in many developing countries, non-equity arrangements such as production-sharing contracts, long-term purchasing contracts, etc., are recommended rather than wholly-owned subsidiaries.

Finally, it should be stressed that self-reliance or collective self-reliance endeavours are the major generative force in the economic development of developing countries and the pre-requisite to making international complementation applicable and fruitful. In this sense, the UNCTAD's proposal of 'collective self-reliance,' including economic cooperation among developing countries and the creation of their own multinational corporations, transnational banks, trading firms and shipping companies, should be supported.

Recently, OECD and the UN Centre on Transnational Corporations have become interested in studying the 'new forms' of DFI [40, 53]. This is an important move, but I am afraid such study tends to be trapped in the international business approach. Instead, we should, first of all, identify the macroeconomic role of DFI in, and technology transfer to, developing countries, as suggested above. On the other hand, profits and risks for MNCs cannot be ignored, for they are incentives for DFI and technology transfer. Therefore, as a trade-off between the needs for a macroeconomic development process on the part of developing host countries, on the one hand, and the incentives for MNCs, on the other hand, the new forms of DFI appropriate to each need to be worked out.

VI. *Conclusion*

There appears to be a big difference in both methodology and policy prescription between the international business and macroeconomic approaches dealing with DFI and MNCs. Whether the anti-trade-oriented American-type DFI or the trade-oriented Japanese-type is more beneficial is not so much the real issue here. Rather, the methodological differences behind the analysis of each of these two types of DFI are the crux of the problem. It is definitely important to integrate the two approaches in a complementary manner so that we can come up with appropriate policy recommendation to both the investing and host countries.

REFERENCES

- [1] Adam, G., "Multinational Corporations and Worldwide Sourcing," Hugo Radice, ed., *International Firms and Modern Imperialism*, Penguin Books, 1975.
- [2] Arndt, W.H., "Professor Kojima on the Macroeconomics of Foreign Direct Investment," *Hitotsubashi Journal of Economics*, vol. 15, no. 1, June 1974.
- [3] Bechler, Ekkehard, "International Trade and Capital Movements—A Re-examination," *Hitotsubashi Journal of Economics*, vol. 18, no. 1, June 1977.
- [4] Bergsten, C. Fred, *Toward a New World Trade Policy: The Maidenhead Papers*, Lexington Books, 1975.
- [5] Bronfenbrenner, Martin, Book Review, *Journal of Economic Literature*, June 1978.
- [6] Casson, Mark, *Alternatives to the Multinational Enterprise*, Macmillan, 1979.
- [7] Clark, Gregory, "An Analysis of Japanese Direct Investment Overseas in Postwar Years," *The Developing Economics*, vol. 9, no. 1, March 1971.
- [8] Corden, W.M., "Survey of the Issues," Ross Garnaut, ed., *ASEAN in a Changing Pacific and World Economy*, Australian National University Press, 1980.
- [9] Cho, Soon, Book Review, *Korean Journal of International Studies*, vol. 10, no. 3, 1979.
- [10] Dunning, John H., "Trade, Location of Economic Activity and the MNE: A Search for an Eclectic Approach," Bertil Ohlin *et al.* eds., *The International Allocation of Economic Activity*, Macmillan, 1977.
- [11] ———, "Explaining Changing Patterns of International Production: In Defence of the Eclectic Theory," *University of Reading Discussion Papers in International Investment and Business Studies*, no. 46, November 1979.
- [12] Findlay, Ronald, "Comment," Ross Garnaut, ed., *ASEAN in a Changing Pacific and World Economy*, Australian National University Press, 1980.
- [13] Geroski, P.A., Book Review, *Economic Journal*, March 1979.
- [14] Hamada, Koichi, Book Review, *Journal of International Economics*, vol. 18 (1978), no. 3.
- [15] Hood, Neil and Young, Stephen, *The Economics of Multinational Enterprise*, Longman, 1979.
- [16] Hufbauer, G.C., "The Multinational Corporation and Direct Investment," Peter B. Kenen, ed., *International Trade and Finance*, Cambridge Univ. Press, 1975.
- [17] Ikemoto, Kiyoshi, "Comment on Kojima's New Theory of International Trade and Investment" (in Japanese), *Sekai Keizai Hyoron*, March 1980.
- [18] Johnson, Harry G., "Trade, Investment and Labor, and the Changing International Division of Production," Helen Hughes, ed., *Prospects for Partnership, Industrialization and Trade Policies in the 1970s*, World Bank Publication, 1973.
- [19] Juhl, Paulgeory, Book Review, *Weltwirtschaftliches Archiv*, Band 116 (1980), Heft 2.
- [20] Kitamura, Hiroshi, Book Review (in Japanese), *Kokusai Keizai*, no. 30, 1979.
- [21] Kohlhagen, Steven W., "The Characteristics, Motivations, and Effects of Japanese and United States Direct Investments in the Pacific Basin," *Explorations in Economic Research*, vol. 3, no. 2, Spring 1978.
- [22] Kojima, Kiyoshi, "A Macroeconomic Approach to Foreign Direct Investment," *Hitotsu-*

- bashi Journal of Economics*, vol. 14, no. 1, June 1973.
- [23] Kojima, Kiyoshi, "Reply to Professor H.W. Arndt, 'Professor Kojima on the Macroeconomics of Foreign Direct Investment'," *Hitotsubashi Journal of Economics*, vol. 15, no. 1, June 1974.
- [24] ———, "International Trade and Foreign Investment: Substitutes or Complements," *Hitotsubashi Journal of Economics*, vol. 16, no. 1, June 1975.
- [25] ———, "A Macroeconomic Theory of Foreign Direct Investment," C. Fred Bergsten, ed., *Toward a New World Trade Policy: The Maidenhead Papers*, Lexington Book, 1975, pp. 75–104.
- [26] ———, *Japan and a New World Economic Order*, Croom Helm, London, 1977. Tuttle, Tokyo, 1977.
- [27] ———, "Transfer of Technology to Developing Countries—Japanese Type versus American Type—," *Hitotsubashi Journal of Economics*, vol. 17, no. 2, February 1977.
- [28] ———, "Direct Foreign Investment between Advanced Industrialized Countries," *Hitotsubashi Journal of Economics*, vol. 18, no. 1, June 1977.
- [29] ———, "A Rejoinder on International Trade and Capital Movements," *Hitotsubashi Journal of Economics*, vol. 18, no. 1, June 1977.
- [30] ———, "Giant Multinational Corporations: Merits and Defects," *Hitotsubashi Journal of Economics*, vol. 18, no. 2, February 1978.
- [31] ———, *Direct Foreign Investment: A Japanese Model of Multinational Business Operations*, Croom Helm, London, 1978.
- [32] ———, "Direct Foreign Investment to Developing Countries: The Issue of Over-Presence," *Hitotsubashi Journal of Economics*, vol. 19, no. 1–2, December 1978.
- [33] ———, "Japan's Resource Security and Foreign Investment in the Pacific," L.B. Krause and Hugh Patrick, eds., *Mineral Resources in the Pacific Area*, Federal Reserve Bank of San Francisco, 1978.
- [34] ———, "Japanese Direct Foreign Investment in the Asian-Pacific Region," *Business Cooperation between Asia-Pacific and Japan in the Eighties, Symposium*, The Export-Import Bank of Japan, 1980.
- [35] ———, "A New Capitalism for A New International Economic Order," *Hitotsubashi Journal of Economics*, vol. 22, no. 1, June 1981.
- [36] Lee, Chung, H., "United States and Japanese Direct Investment in Korea: A Comparative Study," *Hitotsubashi Journal of Economics*, vol. 20, no. 2, February 1980.
- [37] Mason, R. Hal, "A Comment on Professor Kojima's 'Japanese Type versus American Type of Technology Transfer'," *Hitotsubashi Journal of Economics*, vol. 20, no. 2, February 1980.
- [38] Minabe, Nobuo, "Mundell and Kojima on Trade and Capital Movements," and "Bechler's International Trade and Capital Movements: A Comment," *Hitotsubashi Journal of Economics*, vol. 18, no. 1, June 1977.
- [39] Mundell, R.A., "International Trade and Factor Mobility," *American Economic Review*, June 1957.
- [40] Oman, Charles, "Changing International Investment Strategies: The New Forms of Investment in Developing Countries," OECD Development Centre, Working Document, no. 7, 1981.
- [41] Oda, Masao, Book Review (in Japanese), *Sekai Keizai Hyoron*, January 1979.

- [42] Ozawa, Terutomo, *Transfer of Technology from Japan to Developing Countries*, The United Nations Institute for Training and Research, New York, 1971.
- [43] ———, *Multinationalism, Japanese Style: The Political Economy of Outward Dependency*, Princeton Univ. Press, 1979.
- [44] ———, "International Investment and Industrial Structures: New Theoretical Implications from the Japanese Experience," *Oxford Economic Papers*, March 1979.
- [45] ———, "Japan's New Resource Diplomacy: Government-Backed Group Investment," *Journal of World Trade Law*, Jan.-Feb., 1980.
- [46] Roemer, John E., *U.S.-Japanese Competition in International Markets*, Institute of International Studies, Univ. of California, 1975.
- [47] ———, "Japanese Direct Foreign Investment in Manufacture: Some Comparisons with the US Pattern," *The Quarterly Review of Economics and Business*, vol. 20, no. 4, Winter 1977.
- [48] Rugman, Alan M., "Internalization as a General Theory of Foreign Direct Investment: A Re-Appraisal of the Literature," *Weltwirtschaftliches Archiv*, Band 116, Heft 2, 1980.
- [49] Sekiguchi, Suelo and Krause, L.B., "Direct Foreign Investment in ASEAN by Japan and the United States," Ross Garnaut, ed., *ASEAN in a Changing Pacific and World Economy*, Australian National University Press, 1980.
- [50] Smith, Ben, "Comment," Ross Garnaut, ed., *ASEAN in a Changing Pacific and World Economy*, Australian National University Press, 1980.
- [51] Swedenborg, Brigitta, *The Multinational Operations of Swedish Firms: An Analysis of Determinants and Effects*, The Industrial Institute for Economic and Social Research, Stockholm, 1979.
- [52] Taira, Koji, "Colonialism in Foreign Subsidiaries: Lessons from Japanese Investment in Thailand," *Asian Studies*, April 1980.
- [53] United Nations, *Transnational Corporations in World Development: A Re-examination*, March 1978.
- [54] UNCTC, *Reporter*, Book Review, April 1979.
- [55] Yotopoulos, Pan A., "Rationality, Efficiency, and Organizational Behavior through the Production Function, Darkly," *Food Research Institute Studies*, vol. 13, no. 3, 1974.