

International Production and the Multinational Enterprise

JOHN H. DUNNING

*Esmée Fairbairn Professor of International Investment
and Business Studies, University of Reading*

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The Distinctive Nature of the Multinational Enterprise

Why is the multinational enterprise (MNE) a subject worthy of study by economists? What new insights do its operations and effects offer on the workings of the international economy? What distinguishes this institution from other economic phenomena?

One simple answer to the first question is the importance, and increasing importance, of the MNE in the modern world economy.¹ Firms that engage in foreign direct investment — the broad definition of the MNE adopted by this book² — accounted for one-fifth of the world's output, excluding the centrally planned economies in the mid-1970s (UN, 1978). Their production, for some years now, has been growing at the rate of 10–12 per cent per annum — nearly twice the growth of world output and, outside the petroleum industry, half as much again as world trade.

According to *Who Owns Whom*, in 1976 there were nearly 11,000 companies which operated 82,600 foreign affiliates, a 20 per cent increase over a previous estimate of 9,481 by the Commission of the European Communities in 1973 (1976). Of this latter number of MNEs, 371 operated in twenty or more countries; these were thought to account for more than three-fifths of all sales of MNEs. In 1977, some 27 per cent of the sales of 866 of the world's largest industrial enterprises was derived from their foreign affiliates (Dunning and Pearce, 1981); of 381 enterprises with sales of more than \$1 billion, 153 had a foreign content ratio (i.e. percentage of all sales, assets or employment accounted for by their foreign based activities) of more than 25 per cent, and 52 a foreign content ratio of more than one-half (UN, 1978). Some years ago, the liquid assets of all kinds of multinational institutions were estimated at twice the size of the world's gold and foreign exchange reserves (US Tariff Commission, 1973); by the end of the 1970s, the corresponding figure was probably nearer three times. In every respect, MNEs are among the most powerful economic institutions yet produced by the capitalist system.

This chapter is adapted from Chapter 1 of *Economic Analysis and the Multinational Enterprise*, J. H. Dunning (ed.) (London: Allen & Unwin, 1974).

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To these data may be added others which illustrate the role that MNEs, or their affiliates, play in the particular economies in which they operate. Again the facts have been well documented.³ To the *home* countries their importance is usually expressed, at a macro level, by the share of the gross national product accounted for by the foreign activities of domestically owned MNEs; and at a micro level, by the percentage of the sales, assets, profits or employment of a particular company or industry generated by foreign production. Table 1.1 gives some details of the proportion of sales of the world's largest industrial enterprises accounted for by their overseas operations in 1977. It can be seen that the ratios vary considerably both between home country and industry, being highest among European nations⁴ and within the research intensive sectors.

Outside manufacturing industry, though indigenous (and often state owned) enterprises are increasing their participation in the petroleum and some non-fuel mineral sectors (Dunning and Pearce, 1981), eight major MNEs still accounted for 30 per cent of the oil production of market economies in 1975; in copper, the corresponding share of seven principal MNEs in 1978 was 25 per cent; while in the same year six multinationals owned or controlled 58 per cent of the world's bauxite capacity. More than one-half of all iron ore production in 1976 was accounted for by the seven largest multinationals (UNIDO, 1979). In several agribusiness activities, for example, tea, coffee, bananas, pineapples, sugar and tobacco, a few multinationals account for upwards of 60 per cent of the world output of the product in its natural or processed state. Lastly, in the services sector, most of the world's leading banks, advertising agencies, hotels, airlines, auditing firms, engineering, petrochemical and management consultants, and construction companies have major and expanding interests outside their national boundaries. Increasingly, the world is becoming one large market place with the interpenetration of national markets by international production, supplementing, and in some cases replacing, that by trade.

To many host countries, the contribution of affiliates of MNEs is a crucial one. In several economies, such affiliates account for more than one-third of the output of the manufacturing sector and/or one-half the output of their primary product industries. Examples include Australia, Belgium, Canada, Ireland, Norway and Sweden among the developed countries; Brazil, the Dominican Republic, Ethiopia, Fiji, Ghana, Honduras, Kenya, Malaysia, Mexico, Nigeria, Peru, the Philippines, Sierra Leone, Singapore, and Turkey among the less developed nations. The concentration of activity is most marked in import-substitution or export-oriented sectors supplying primary commodities, branded manufactured goods and skill-intensive services, and in which the market structure is oligopolistic. Some details published by the United Nations Centre on Transnational Corporations in 1978 are set out in Table 1.2.

Table 1.1 The Foreign Content Ratio of 866 of the World's Largest Industrial Enterprises, 1977

Home Country of MNEs		All Countries	
USA	Europe	Japan	Other Countries
High Research Intensity			
Aerospace	7.6	n.a.	n.a.
Office Equipment and Computers	42.2	39.3	n.a.
Petroleum	47.0	59.5	1.3
Measurement, Scientific and	35.2	21.0	8.0
Photographic Equipment	21.3	26.6	4.5
Electronics and Electrical Appliances	25.7	40.5	4.3
Chemicals and Pharmaceuticals	35.8	44.0	5.2
Total	28.1	26.9	48.5
Medium Research Intensity			
Industrial and Farm Equipment	5.0	1.6	7.1
Rubber	31.6	48.5	7.0
Motor Vehicles and Components	21.4	20.5	17.4
Metal Manufacturing and Products	13.7	16.8	3.3
Total	19.6	20.4	21.6
Low Research Intensity			
Building Materials	21.7	38.7	3.0
Tobacco	29.0	52.1	n.a.
Beverages	23.6	20.5	n.s.a.
Food	18.9	55.2	2.1
Paper and Wood Products	13.6	32.8	4.0
Textiles, Apparel, Leather Goods	10.2	26.5	12.3
Publishing and Printing	6.2	15.3	4.1
Total	17.9	44.6	4.8
Other Manufacturing	11.0	0.9	5.0
Total	27.4	35.1	6.1
n.s.a. not separately available.		n.s.a. not separately available.	
Source: Dunning and Pearce (1981). Foreign content is defined as the percentage of sales of foreign affiliates of MNEs (excluding goods imported from the parent companies for resale) to the worldwide sales of the MNEs.		n.a. not applicable.	

^a Employment by US majority affiliates.
^b Based on the largest 5,113 enterprises.
O = Output, T = Turnover, R = Revenue, A = Assets, E = Employment.
Source: Table III-63 of UNCTC (1978).

of) their resources, only the foreign affiliates are controlled from abroad in the use of these resources. In the second case, both firms are part of larger enterprises, and so their activities are likely to be truncated in some way or another; the difference here lies mainly in the extent to which division of labour is practicable and in the inter-country distribution of the proceeds of the output.

Although it may be argued that these differences are ones of degree rather than of kind, and arise largely because the world is divided into a number of sovereign states, they do confer a certain distinctiveness on MNEs and their affiliates, the extent and character of which will vary according to, *inter alia*, the industries and countries in which they operate and their organisational strategies. However, wherever they occur, the response of MNEs and their affiliates to the economic environment of which they are part, or to changes in that environment, will, to some extent, be different from that of their near relations.⁶

Partly because of this and partly because some of the output generated by the affiliates of multinational enterprises in one country will accrue to the owners of resources in other countries, both the international allocation of resources and the distribution of economic welfare will be affected. Since the operating objectives of affiliates will be geared primarily to those of the enterprises of which they are part, rather than those of the countries in which they operate, clashes with host governments over some aspects of their behaviour are unavoidable. These clashes are likely to be most pronounced *inter alia* the more a country pursues a policy of economic autarky and hence the more the activities of MNEs are in response to market imperfections, for example, barriers to trade in goods, inappropriate exchange rates, etc., and the greater the differences in incentives and/or penalties imposed by governments which cause MNEs to shift resources, or claims to resources, across national boundaries.

III

To what extent do the distinctive characteristics of multinational enterprises necessitate modification to received economic analysis? Economic analysis is concerned with explaining the way in which resources possessed by economic agents are (or could be) used, and how the resulting output is (or could be) distributed. In so doing, it is interested both in the formulation of empirically testable hypotheses, and in advancing understanding about the relationship between economic phenomena. Economic policy deals with more normative matters. It is concerned with identifying and evaluating ways in which resources may be allocated to achieve certain goals, both economic and non-economic.

There are three main objectives that guide most policy makers in their attitudes towards the allocation of resources for which they are responsible.

These may be summarised under three heads: efficiency, equity and sovereignty.⁷

- (1) *Efficiency* is concerned with the volume and composition of output produced by a community from the resources available to it, and its rate of growth over time. In the present context it is the contribution of MNEs (or their affiliates) to gross *national* output which is relevant; this is equal to gross *domestic* output, plus income earned on assets owned abroad minus income earned on foreign owned domestic assets.
- (2) *Equity* (in this context) is a function of the way the proceeds from production or the rate of growth of production are distributed between the contributing factor inputs, customers and tax authorities, both within the country of production and between that country and others which provide part of the resources for the production.
- (3) *Sovereignty* is a catch-all word which may be loosely defined as the ability of a country to run its own affairs and retain the maximum freedom of choice in the allocation of its resources. Within this heading, one might include such targets as economic nationalism, participation in decision taking, cultural identity and so on.

The extent to which these goals are realised will, of course, depend on the achievement of various subgoals; for example, the need to cure a balance-of-payments deficit may act as a constraint (in the short run) on maximising efficiency. Moreover, both goals and subgoals may sometimes conflict with each other. The implicit assumption of our analysis is that the behaviour of multinational enterprises is different from that of other economic agents and that this will affect the success of countries in achieving their objectives.

Clearly it is of interest to the economist to study these differences, the reasons for them and their effects on the realisation of both micro and macroeconomic objectives, but before looking into them more fully, a comment about the current state of economic analysis and the MNE may be in order. Until recently, the subject held little appeal to the academic economist and the main body of economic literature has remained substantially unaffected by it. Only in the last five or six years have articles on it begun to appear in the leading journals. This apparent lack of concern could be because economists believe that the subject matter is not sufficiently distinctive to warrant separate attention, or that the existing tools of analysis are adequate to deal with it, or even that economic analysis has little to contribute to an understanding of it.

On the other hand, it may be that economists have insufficiently appreciated either the extent of the MNE or its implications for economic analysis. We are inclined to take this latter view, or, at least, suggest there

is an *a priori* case for it. Certainly, even the most cursory glance at the empirical work done on the subject makes one uneasy about its implications for received theory. Notwithstanding that much of this work has been descriptive, and most of the discussion outside academic circles has been politically oriented, traditional economic doctrines have been frequently called to task. Is this because the theories are wrong, or because they inadequately take account of the distinctive characteristics of the MNE? Or, could it be that the critics do not properly understand the theories?

IV

There are three ways in which a new institutional phenomenon might affect existing explanations of the structure of resource utilisation. The first is that existing assumptions about the behaviour of institutions may no longer be appropriate. Take, for example, the goals of business behaviour. To what extent are MNEs likely to be differently motivated than other enterprises? How far does their presence affect the goals of other economic agents including governments? For example, are consumer tastes likely to be more interdependent or cosmopolitan as a result of the closer links they make possible between people of different cultures? Will the community's welfare function be more geared towards economic nationalism? What, too, of the assumptions about the value of exogenous variables, or those one usually chooses to hold constant? Foremost among these in microeconomics are that prices are determined by the actions of independent buyers and sellers. Where the exchange of goods is between different parts of the same economic agent this latter assumption may no longer hold good. New tools of analysis may be needed to explain these prices and, hence, behaviour dependent on them.

Second, new institutions may require economic analysis to be reconstructed or extended to take account of new independent variables which might influence their behaviour. In the present context, these arise partly because the MNE introduces a new dimension to both the theory of the firm and the theory of international relations, and partly because behavioural variables which may have been previously unimportant are now important.

Third, an explanation of the relationship between variables may be affected because the *value* of variables is no longer appropriate. This does not affect analysis itself but rather the conclusions to be drawn from the analysis.

Put in simpler terms, the MNE may influence resource allocation and economic policy through affecting: (1) the goals of economic agents; (2) the means of achieving these goals, that is, the availability and efficient use of resources; and (3) the mechanism by which means are related to

ends, for example, the economic system. We shall now discuss each of these from the viewpoint of the three broad aims of governments set out earlier.

(a) *Efficiency*

Most economists see no *a priori* reason to suppose that the MNE is motivated any differently from a large national enterprise.⁸ The fact that the world is organised into separate sovereign states of *itself* need make no difference to the way in which firms exploit markets. However, given the fact of MNEs and that individual governments *do* operate policies to advance the economic welfare of their own citizens, the allocation of resources may be different than would occur in the absence of separate governments. These actions might be independent of the operations of multinational enterprises, but may also be affected by them. Mention might be particularly made of their impact on competition, regional and demand management policies. None of these raises new conceptual issues; they arise equally at a regional level wherever affiliates of multi-plant national companies are operating. The question as to whether the territorial extension of an enterprise's activities makes for more or less economic power, thereby affecting the efficiency of resource allocation, is a separate one.

The impact of MNEs on world output arises partly from the extent to which the enterprises are themselves more efficient, as a result of their multinationalism, and partly by the response of such companies to government policies designed to advance their own economic and social goals.⁹ These policies differ widely across national boundaries. Examples include different tax rates and fiscal provisions, exchange rate policies, labour laws, differential monopoly and regional policies, import substitution and export promotion policies. Such policies, of course, affect all firms, but to the enterprise producing in more than one country they represent discriminatory treatment, and since their options, with respect to geographical resource allocation, are wider they are able to respond differently than indigenous companies.

The analogy with a spatially diversified national firm is a particularly apposite one as, by its behaviour within the framework of both regional and national policies, it can affect the disposition of economic activity both between industries and between regions. It can influence the level and rate of growth of employment and real income distribution between regions in a way which may increase the efficiency of resource usage in the region in which it operates, yet lower its actual production. It can create disturbance problems in the same way as can exogenous structural changes, and it is likely to do this more easily than a uniregional firm partly, at least, because of its wider spatial choices. As far as the government of the nation state (of which the region is part) is concerned, this may be an acceptable price to pay where it advances national economic

welfare, as it is able to alleviate, in part, undesirable distributional effects by appropriate adjustment policies. Moreover, in the last resort, it has power to directly influence the locational choice of the multilocation domestic firm.

At an international level, this is not the case. There is no *a priori* presumption that the presence of (say) US affiliates in Britain will make for a higher economic welfare of the UK, even if they are more efficient than indigenous firms. One can easily imagine takeovers of UK companies by US firms that may benefit both the investor and the US economy and, indeed, the combined welfare of the US and UK economies, yet may not be in the best interests of the UK economy. The reason for this lies partly in the greater immobility of resources, particularly unskilled labour, across national boundaries than within national boundaries, and partly in the fact that there is no machinery by which the UK can share in the increased wealth accruing to the US economy, which directly arises from the employment of its own resources. In the case of a UK company taking over a firm in the north-east of England, the same thing may happen, but at least devices are open to the national government to ensure that the North-East can share in the prosperity of the country as a whole.

The identification and measurement of the international resource allocative effects of supplying markets from alternative production locations are questions which concern both location and trade economists. Is there any reason to suppose that a firm supplying the national market with only one production unit will behave very differently than one that is spatially diversified? On the other hand, there is a separate branch of economic analysis concerned with trade between nations rather than regions within a nation. As will be emphasised in Chapter 2, the analytical threshold which distinguishes the two sorts of trade is the immobility of factor inputs, while intra-country differences in the institutions and actions of governments also differentiate the determinants of external trade from those of internal trade. Presumably, the theory of capital movements, once national boundaries are crossed, should also take on a new meaning, though there seems to be no reason (at a micro level) to suppose that the determinants of international investment by enterprises are significantly different from those of domestic investment (Stevens, 1974).

Perhaps one important difference between national multiregional and international trading enterprises, on the one hand, and MNEs, on the other, revolves around the question of *ownership*. A market for a particular product may be serviced in three main ways: (1) by domestically owned firms producing within that market; (2) by imports either from (a) foreign firms or (b) the foreign affiliates of domestically owned firms; (3) by the affiliates of foreign firms producing in that market. Location theory is concerned with explaining the choice of firms between options (1) and (2b) or (2a) and (3): trade theory is largely concerned with explaining the choice between options (1) and (2a). It is only by using *both* approaches

that one can appreciate why neither, by itself, is sufficient to explain the choices open to multinational enterprises. For example, how does one explain the share of a market serviced from a given location by indigenous firms and affiliates of foreign firms or by importing goods from foreign firms or affiliates? Trade theory is deficient because its assumption about the immobility of factor inputs is inappropriate. Location theory is deficient because it cannot explain why firms of different ownership vary in efficiency. Both theories fail to appreciate that where there are barriers to or imperfections in the transmission of knowledge between firms, this will tend to increase the concentration of ownership, but widen the options open to firms to service their markets. Such advantages may be *enterprise*, *industry* or *country* specific. *Enterprise*-specific advantages include access to particular markets or sources of inputs, the economies of size and integration and the possession of proprietary knowledge. *Industry*-specific advantages include those concerned with market structure and the economies of production. *Country*-specific advantages include the educational system and state policy towards research and development.¹⁰

These specific advantages may be a function of many factors apart from the multinationality of firms, and some, such as economies of integration, may apply to multilocation domestic enterprises. Again, however, there are some advantages which only arise if firms produce in more than one country. Sometimes these are matters of degree, for example, the extent to which an American firm in America might possess a comparative advantage over a UK firm in the UK compared with a UK firm in Birmingham over a UK firm in Southampton. Since the difference between the two locations is more pronounced in the first case, so will be the comparative advantage of their firms. Perhaps more important is the case where a firm trades with another at other than 'arm's length' prices, that is, the terms of trade that would operate in independent transactions. Although in a world context this is primarily a distributional matter, from the point of view of a particular country, it will influence its efficiency of resource usage and its share of the output produced.

Such intra-group trading, whether it be of goods, services, money or assets, at other than arm's length prices, emphasises the distinction between the international trading and the international producing firm. There are other ways in which the latter type of enterprise may have more control over its market than the former, but these are similar in kind to those available to the multiregional firm. The extent to which a multinational enterprise will wish to earn income in one country rather than in another depends very much on conditions outside its control, in particular the policies of individual governments and the international monetary system.

In his contribution to an earlier volume edited by the author, Max Corden examined the impact of the MNE on the pure theory of international trade and concludes it can be easily incorporated into its framework (Corden, 1974). Most of the ingredients of received theory remain –

notably, the immobility of certain productive factors, for example, land and most kinds of labour. On the other hand, because of a common ownership of factor inputs, some features immobile between independent firms across national boundaries, for example, knowledge, information and various kinds of services, become mobile in the case of the multinational company. Moreover, because of intra-group pricing, the terms of trade and hence the allocation of resources and composition of trade may be different. This point has also been recognised by Baldwin (1970) and Gray (1981) who plead for a more systematic incorporation of the movement of inputs in trade theory. Several empirical studies have also shown that international investment and trade are closely linked (Bergsten, Horst and Moran, 1978; Hood and Young, 1979).

Most writers on the MNE have been concerned with both their *positive* and *normative* implications. It is, for example, well recognised that their effect on economic welfare is strongly influenced by both government policies and institutional mechanisms. Several economists have asserted that market imperfections favour MNEs more than national enterprises (Lundgren, 1974).¹¹ It is also clear that second best government policies lead to lower efficiency; a protectionist import policy is one example. Like other institutions, MNEs respond to economic signals; if these are inappropriate they could lower rather than raise welfare standards, and make it more, rather than less, difficult for governments to achieve their social goals.¹² By their behaviour, for good or bad, multinationals may also force governments or markets to modify established policies. An example of a beneficial impact (according to some economists at least) is the adoption of flexible exchange rates by countries following some of the financial activities of MNEs, but such companies may cause governments to take restrictionist measures with less welcome consequences and economic well-being. However, in spite of recent research, we are only at the threshold of our understanding of the interactions between the behaviour of MNEs and government policy.

(b) *Equity*

It has been suggested above that the economic welfare of individual nation states is likely to be influenced by MNEs and their affiliates by the effect they have on the distribution of income between investing and host countries. This has its parallel in international trade, where the terms of trade will determine the share of the gains from exchange accruing to the participants. Given the output created by an affiliate of an MNE, the question of its distribution between the citizens of the host nations in which the affiliate is located and those of other nations providing resources to that affiliate is of critical importance. It is, for example, possible that an affiliate may be more efficient than an indigenous firm, in the sense that its contribution to the gross *domestic* product is higher, but that all or more of this accrues to the investing country, so that gross *national*

product is unchanged (or lowered). Higher efficiency of foreign affiliates does not guarantee an increase in gross national product, as it does when achieved by indigenous firms, where the issue is entirely one of distribution of the product between sectors within a nation state.

This, indeed, is a noteworthy difference between the impact of MNEs on the nation states in which they operate and those of national enterprises in the regions in which they operate. Both affect the economies of the area of their adoption, but only in the latter case is wealth created and available for distribution in a way that *all* participants might gain. Again, it is worth emphasising that the effects differ primarily because the world happens to be organised into sovereign nation states, each with its own economic and social objectives, and its ways of achieving these, which may be very different from each other.

The determination of the benefit/cost ratio for companies and countries, and the extent to which it is as high as it might be, is central to any study of the economic consequences of multinational enterprises. Rarely, of course, is the bargaining conducted in an easily identifiable way. The components of costs and benefits are many and varied, and some defy easy measurement. To the host country they include all the externalities, or spill-over effects, both positive and negative, arising from the presence of affiliates of the MNEs. This is a subject on which there has been a great deal of research, at both a macro and micro level.¹³ The share of the benefits created directly by the affiliates, which is then distributed to the investing company (or other affiliates), includes not only profits, interest, royalties, technical fees and contributions to managerial and administrative overheads, but also income resulting from the intra-group exchange of goods and services at above arm's length prices charged to the affiliate.¹⁴ In various contributions, Constantine Vaitsos has argued that the true income accruing to MNEs is often well in excess of the profits recorded, and that some countries, particularly developing countries, are paying well above their opportunity cost for the assets, goods and services provided.¹⁵

All governments are concerned with evaluating the contribution of resident economic agents to their economic and social goals. For income generated by national enterprises, this reduces to a question of the distribution of the proceeds between factor inputs, notably between capital and labour within the country. The share does not directly affect the size of the national income except in so far as it affects incentives. With affiliates to MNEs the situation is very different for reasons already given, which is why the bargaining process becomes all important. How far are existing models, for example, that of bilateral monopoly, relevant? It is here that economic analysis leaves much to be desired.¹⁶ Certainly there is no direct parallel in the case of the multi-regional company, nor with the international trading company, where the question of the terms of trade is the relevant one.

Perhaps it is the national company, which obtains its inputs separately from independent foreign sellers, which offers the nearest parallel. In this case the economist is interested in assessing the differential effects of control over the use of local resources, and the decision of whether or not to supply the foreign resources which is implicit in international direct investment, and the benefits and costs of this investment. What is the difference in economic terms? It is partly a question of price. In the case of licensing fees and interest on local capital negotiated by firms in the open market the price is known in advance. Even in the case of equity capital one knows the range of benefits and costs and is prepared to make a choice on this basis. However, in the case of a company whose price can be affected in so many different ways and which does not always wish to act in the way it would on an open market there is a large difference. In addition, there is the question of concentration of economic power. Investment by the large multinationals is often indivisible. An investment of £100 million by a dozen companies is very different from the same expenditure by 1,000 companies.

Because of the complexity and uncertainty surrounding the behaviour of MNEs as a result of their economic power, and because of ignorance surrounding their pricing strategy, they do seem to have established a new set of rules in the bargaining game. The bargaining options open to multinationals call for some reappraisal of the traditional theories of wage determination. Although one can cite illustrations of bargaining strengths and weaknesses, we are still awaiting a satisfactory theory to explain the distribution of income generated by the multinationals.

A secondary question concerns the factors influencing the distribution of income *within* a country arising from MNEs. Carlson (1974) has addressed himself to this question. Again, from the viewpoint of economic analysis, it is possible to examine these effects on the distribution of income as having been caused by different goals of MNEs, or of means to achieve these goals, or of the system in which they operate. Does one need a new theory to explain the share of the benefits accruing from the operation of affiliates to the investing company, where that company is domiciled in a different country? Possibly, in so far as the multinationals have more choice in the use of the income they earn, modification is required. There is also some evidence to suggest that their policy towards the distribution of profits may be different from that of unimational firms (Stevens, 1974). Far more important, however, is the bargaining position of the multinational company with domestic authorities. Here there is no comparable model which economic analysts can call upon.

Summarising, then, the MNE introduces a new institutional situation which may expose weaknesses in existing mechanisms of resource allocation, either at a national or international level. Where the effects of domestic economic policies of governments are confined to firms earning income within their jurisdiction, the fact that these policies may be

different across national boundaries may have no effect on the international distribution of income. For companies operating in different parts of the world, this becomes an imperfection in the market system, and affects behavioural patterns, which will not necessarily be in accord with policies of governments. A national firm which operates management policies to maximise its receipts is operating in the country's best interests; but, by becoming international and pursuing the same objectives, it may find itself in conflict with the governments of one or more of the countries in which its activities are located. The fact that it is the structure of the international economic system which causes this and not any change in behaviour of the companies (whose interests only coincide with nation states in so far as it pays them so to do) does nothing to endear them to governments.

Lastly, what of the means by which MNEs achieve their ends of the optimum distribution of income? The answer in the case of efficiency lay in technology and the economies of integration and size. The answer here also lies with some of those same variables and particularly those which affect bargaining and competitive strength. Of these, size, flexibility in operation, access to information about international goods and factor markets, and sheer professional skill and adroitness in international management explain how distribution of income may be affected by additional means open to MNEs. However, sometimes the bargaining strength is on the side of nations, particularly where nations by grouping together (e.g. Organisation of Petroleum Exporting Countries, the Andean Pact countries) can evolve common strategies towards MNEs.

(c) *Political Aspirations and Economic Sovereignty*

Positive economics takes political ends as given, but the cost and benefits of attaining political ends have economic consequences. Ultimately, a country will wish to be as politically independent as it can. This is its right. Economic nationalism is a 'good' in itself, the opportunity cost of which, like that of any other good, may be evaluated in economic terms.

Here, I would simply mention that the economist must be clear on what grounds he is making decisions which may affect the behaviour of MNEs. When a country nationalises or expropriates the assets of a foreign affiliate in its midst; when it imposes a tariff or import controls to encourage inward direct investment; when it seeks to control the movement of funds from affiliates to parent company (or vice versa); when it insists on a certain proportion of the equity capital of the affiliate being locally owned or a minimum of local representation on the board of directors; when it requires the affiliate to purchase a certain quantity of its inputs from local firms and to recruit its management from indigenous sources; when it discriminates against local subsidiaries in its purchasing policies, or in their use of local capital markets; when it insists on research and development being undertaken locally; does it pursue these and similar

policies to promote higher efficiency or to achieve a more acceptable distribution of income, or because, by so doing, it is better able to control the use of its resources or achieve non-economic goals? On the first issue the economist can make a direct assessment, though, in practice, this may be an extremely difficult thing to do. On the second, he can still estimate the economic trade-off between alternative courses of action to the decision takers to make the final choice. In both cases, his role may be a valuable one in that it enables more informed and rational decisions to be taken.

V

The growth of the MNE and international production adds a new dimension to various branches of economic thought, the theory of international trade, the theory of the firm and the theory of bargaining being perhaps the most affected. Factors which appear irrelevant or insignificant for analysing the behavioural consequences of the multiregional or international trading firm take on a new meaning with the MNE. Foremost among these are the presence of intra-group pricing across national boundaries, the international allocation of resources and the distribution of the output of MNEs between the nation states in which they operate. We have also suggested that the interactions between MNEs and domestic economic policies and mechanisms create new tensions. These arise because the growth of MNEs has coincided with developments in technology, communications, patent systems and with the increasing intervention of governments in economic affairs. They are both the creatures of these circumstances and have helped fashion them. Policies or mechanisms appropriate in their absence may no longer work in their presence; they may also give rise to a completely new set of problems. The usual response of governments is to try and control the MNEs so that they behave in a way consistent with their policies and mechanisms. But sometimes a country's goals may be better served if the policies or mechanisms are themselves changed. On such normative issues the economist may be able to give important advice.

Notes: Chapter 1

- 1 As, for example, summarised by Hood and Young (1979).
- 2 For a comprehensive analysis of the various definitions of the multinational (or transnational) enterprise, see U.N. (1978).
- 3 See, for example, U.N. (1978) and citations in Section II of Chapter 4.
- 4 Particularly among some of the smaller countries, for example, Switzerland (77 per cent) Belgium (60 per cent) and Sweden (33 per cent). Of the larger European countries, the UK recorded the highest overseas production ratio of 41.3 per cent and Italy the lowest of 16.5 per cent.
- 5 For a further examination of these and other differences, see Chapter 9.

- 6 Chapters 8 and 9 take this point up further.
- 7 A more pragmatic classification of the objectives of countries is set out in Nau (1976).
- 8 See, for example, Horst (1974) and Teece (1979).
- 9 This point is further explored in Chapter 14.
- 10 These advantages are discussed in more detail in Chapter 2.
- 11 See also Chapter 7.
- 12 See Chapter 14.
- 13 See also Chapter 13.
- 14 In other cases, affiliates may be charged below arm's length prices, for example, subsidised inputs, cheap loans, machinery at knock-down prices, etc.
- 15 See, for example, Vaitos (1974).
- 16 But here see especially Lall and Streeten (1977) and Streeten (1974).

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2

Trade, Location of Economic Activity and the Multinational Enterprise: A Search for an Eclectic Approach

I

The main task of this chapter is to discuss ways in which production financed by foreign direct investment, that is, undertaken by MNEs, has affected our thinking about the international allocation of resources and the exchange of goods and services between countries. The analysis takes as its starting point the growing convergence between the theories of international trade and production, and argues the case for an integrated approach to international economic involvement, based both on the location-specific advantages of countries and the ownership-specific advantages of enterprises. In pursuing this approach, the chapter sets out a systemic explanation of the foreign activities of enterprises in terms of their ability to internalise markets to their advantage. It concludes with a brief examination of some of the effects which the MNE is allegedly having on the spatial allocation of resources, and on the patterns of trade between countries.

We begin by looking at the received doctrine on international economic involvement. Until around 1950 this mainly consisted of a well-developed formal theory of international trade and a complementary but less well-developed theory of capital movements. With the notable exceptions of John Williams (1929)¹ and Bertil Ohlin (1933), international economists of the interwar years were less concerned with explanations of the composition of goods and factors actually traded across boundaries (and implicitly, at least, of the spatial distribution of economic activity) as with theorising on what would occur if, in the real world, certain conditions were present. The Heckscher-Ohlin model, for example, asserted that, provided certain conditions were met, countries would specialise in the production of goods

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which required relatively large inputs of resources with which they were comparatively well endowed, and would export these in exchange for others which required relatively large inputs of factors with which they were comparatively poorly endowed. The conditions included that countries had two homogeneous inputs, labour and capital, both of which were locationally immobile (i.e. they were to be *used* where they were *located*); inputs were converted into outputs by the most efficient (and internationally identical) production functions; all enterprises were price-takers, operating under conditions of atomistic competition; there were no barriers to trade and no transaction costs; and international tastes were similar.

The Heckscher-Ohlin model has been criticised in the literature on various grounds, including the unreality or inapplicability of its assumptions. Here, I would underline some of the implications of three of these assumptions: factor immobility, the identity of production functions and atomistic competition. These are, first, that all markets operate efficiently; second, there are no external economies of production or marketing; and third, information is costless and there are no barriers to trade or competition. In such a situation international trade is the only possible form of international involvement; production by one country's enterprises for a foreign market must be undertaken within the exporting country; and all enterprises have equal access to location-specific endowments.

One of the deductions of the Heckscher-Ohlin theory is that trade will equalise factor prices. Replacing the assumption of factor immobility with that of the immobility of goods, it may be shown that movements of factors also respond to differential resource endowments. This was the conclusion of the early writings of Nurkse (1933), Ohlin (1933) and Iversen (1935) which explained international (portfolio) capital movements in terms of relative factor prices, or differential interest rates. For many years trade and capital theory paralleled each other, it being accepted that, in practice, trade in goods was at least a partial substitute for trade in factors. Eventually, the two were formally integrated into the factor price equalisation theorem by Samuelson (1948) and Mundell (1957).

In the late 1950s there was a striking shift of direction in the interests of international economists brought on, *inter alia*, by the tremendous post-war changes in the form and pattern of trade and capital exports. Building on the empirical work of MacDougall (1951) and Leontief (1953 and 1956), and taking advantage of much improved statistical data, the 1960s saw the first real attempts to explain trade patterns as they were, rather than as they might be: contemporaneously, the emergence of international production as a major form of non-trade involvement was demanding an explanation.

Over the past twenty years the positive theory of international economic involvement has 'taken off'. For most of the period it comprised two quite separate strands. The first concerned explanations of trade flows. Here,

contributions were mainly centred on introducing more realism into the Heckscher-Samuelson-Ohlin doctrine. Basically, there were two main approaches. The first was that of the neofactor theories, which extended the two-factor Heckscher-Samuelson-Ohlin model to embrace other location-specific endowments (notably natural resources) and differences in the *quality* of inputs, especially labour. The second group of theories was more path-breaking, as it cut at the heart of the Heckscher-Samuelson-Ohlin model by allowing for the possibility of differences in the production function of enterprises and of imperfect markets. These theories, which included the neotechnology and scale economy models, were different in kind to the neofactor theories because they introduced new explanatory variables which focused not on the specific resource endowments of countries but on the exclusive possession of certain assets by enterprises. Sometimes, in addition to, but more often as a substitute for, orthodox theories, these new hypotheses of trade flows have been exposed to various degrees of testing. Yet as Hufbauer (1970) has shown, the predictive power of the neofactor and the neotechnology theories is scarcely better than that of the crude factor proportions theory. In his own words, 'No one theory monopolises the explanation of manufacturing trade'.

The second strand of research in the 1960s centred on explaining the growth and composition of foreign direct investment, or of production financed by such investment. At first causes were sought either from orthodox location theory (witness the plethora of microeconomic field studies and more macro-oriented econometric studies) or from neoclassical investment doctrine; but for various reasons, discussed elsewhere (Dunning, 1973a), neither approach proved very helpful. More rewarding were the attempts to identify the distinctive features of foreign *direct* investment in terms of ownership advantages of foreign firms. Though the gist of this idea was contained in the writings of Southard (1931) and Dunning (1958), it was left to Stephen Hymner in his seminal PhD thesis (Hymner, 1960) to explore it in depth. Out of this approach, later refined and extended by Caves (1971, 1974a & b), several hypotheses, focusing on particular kinds of ownership advantages of MNEs, were put forward: for example, access to superior technology (Johnson, 1970), better capabilities for product differentiation (Caves, 1971), underutilisation of entrepreneurial and managerial capacity (McManus, 1972; Wolf, 1977), etc., while a more behavioural perspective was taken by Vernon and his colleagues, notably Knickerbocker (1973), who chose to emphasise the role played by defensive oligopolistic strategy. These theories, too, have been subject to some testing,² but again it seems clear that no single hypothesis offers a satisfactory explanation of non-trade involvement.

Though these new theories of trade and production originated quite independently of each other, by the early 1970s it was clear they were converging on, and even overlapping, each other. Though expressed differently, the same variables were being increasingly used to explain both trade

and non-trade involvement. Comparable to the technological gap theory of trade was the knowledge theory of direct investment; analogous to monopolistic competitive theories of trade were theories of direct investment focused on product differentiation and multi-plant economies. Yet, with the exception of Vernon's early integration of trade and investment as different stages of the product cycle (Vernon, 1966), which took as its starting point the innovative advantages of *enterprises* in a particular country, and the later discovery of Horst (1972) that the same variable — size of firm — which best explained foreign investment also explained investment plus trade, no attempt was made to integrate the two forms of involvement into a single theory, although the need for this had been discerned by Baldwin (1970) and others. Nor, indeed, was there any explicit recognition that, because the decisions to trade or engage in foreign production are often alternative options to the same firm, any explanation of one must, of necessity, take account of the other.

The last decade has seen the first, albeit faltering, attempts to do just this. In a paper published in 1973, this author suggested that only by considering trade and foreign production as alternative forms of international involvement in terms of ownership and location endowments could the economic implications of the UK joining the EEC be properly evaluated (Dunning, 1973b). Seev Hirsch (1976) formalised these concepts into a model that specifies, very clearly, the conditions under which foreign markets will be serviced by alternative routes. Tom Parry (1975) applied these concepts to a study of the pharmaceutical industry; his contribution is especially noteworthy as he included licensing as a third form of economic involvement. Buckley and Dunning (1976) examined comparative US and UK trade and non-trade in these terms. Birgitta Swedenborg (1979) uses a similar approach in her analysis of the international operations of Swedish firms. In the belief that this is a helpful route towards an eclectic theory of international economic involvement, I now explore it in more detail.

II

Exactly what is to be explained? Here an important point of taxonomy arises. A country's economic involvement outside its national boundaries may be perceived in two ways. First, it may mean the extent to which its own resources, that is, those located within its boundaries, are used by economic agents (irrespective of their nationality) to produce goods or services for sale outside its boundaries; or the extent to which it imports either resources or the products of resources located in other countries. This is the interpretation of orthodox international economics; *inter alia* it implies arm's length trade in inputs and outputs. But secondly, a country's involvement may mean the extent to which its own economic agents³

service foreign markets with goods and services, irrespective of where the resources needed to do this are located or used, and the extent to which its own economic agents are supplied goods by foreign owned firms, irrespective of where the production is undertaken. Here, a country's economic space is perceived more in terms of the markets exploited by its institutions than of its geographical boundaries.

Like the distinction between gross national product and gross domestic product⁴ which of the two interpretations is the more appropriate depends on the purpose for which it is being used. But for an evaluation of the contribution of a country's international economic involvement to the economic welfare of its citizens, the second has much to commend it, particularly where inward or outward investment account for a substantial proportion of its net capital formation.

Economic involvement by one country's enterprises in another may be for purposes of supplying both foreign and home markets. Production for a particular foreign market may be wholly or partly located in the home country, in the foreign market, in a third country or in a combination of the three. Similarly, production for the home market may be serviced from a domestic or a foreign location.

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 utilised by, another country's enterprises. We use resource endowments in the Fisherian sense (Johnson, 1968) to mean assets capable of generating a 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. Such endowments could be purely location specific to the home country, in other words they have to be used where they are located⁵ but are available to all firms, or 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.⁶ In most cases, both location and ownership endowments affect competitiveness.

For some kinds of trade it is sufficient for the exporting country to have a location-endowment advantage over the importing country, that is, it is not *necessary* for the exporting firms to have ownership-endowment advantage over indigenous enterprises in the importing country. Much of the trade between industrialised and non-industrialised countries (which is of the Ricardian or H/O type) is of this kind. Other trade, such as that which mainly takes place between developed industrialised countries, is of high skill intensive or sophisticated consumer goods products, and is based more on the ownership advantages of the exporting firms;⁷ but, observe, this presupposes that it is better to use these advantages in combination with location-specific endowments in the exporting rather than in the importing (or in a third) country. Where, however, these latter

endowments favour the importing (or a third) country, foreign production will replace trade. Foreign production then implies that location-specific endowments favour a foreign country, but ownership endowments favour the home country's firms, these latter being sufficient to overcome the costs of producing in a foreign environment (Hirsch, 1976). (Again we assume that transfer costs can be considered as a negative endowment of countries other than the country of marketing.)

From this it follows that any theory that purports to explain the determinants of any one form of international economic involvement is unlikely to explain the whole; nor, where that form is one of a number of possible alternatives, will it be adequately explained unless the forces explaining these alternatives are also taken into account. One should not be surprised, then, if trade theories of the *neofactor* brand, based on location-specific endowments, will not normally be able to explain trade in goods based on ownership-specific endowments. But neither should one be disquieted if the neotechnology and monopolistic competitive theories of trade, based on ownership-specific endowments, are also inadequate where the use of such advantages is better exploited in conjunction with location-specific endowments of foreign countries.

It may be reasonably argued, however, that this latter criticism would be better directed against the way in which data on international transactions are collected and presented, and the way in which the exported ownership advantages are priced. First, trade statistics usually give details of the *gross output* of goods exported. But where exports contain a high import content, their total value may tell us little about the use made of indigenous endowments. This deficiency can only be overcome by recording exports on a domestic value-added basis. Second, trade statistics either ignore, or classify completely separately, intermediary goods, such as technology, management and organisation, which are exported in their own right. If these could be given a commodity classification, and their value added to the export of final products, then the ownership advantages of exporting enterprises would be better captured. Third, where trade takes place within the same enterprises the recorded prices may bear little resemblance to arm's length prices, and so to the value of factor inputs used. If these problems could be overcome, a combination of the *neofactor*, neotechnology and monopolistic competitive theories of trade would probably explain trade patterns very well.

III

So far the multinational enterprise has not been explicitly introduced into the discussion. MNEs are companies which undertake productive activities outside the country in which they are incorporated. They are, by definition, also companies which are internationally involved. The extent to which

they 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.

Unlike location-specific endowments, which are *external* to the enterprises that use them, ownership-specific endowments are *internal* to particular enterprises. They consist of tangible and intangible resources, including technology, which itself dictates the efficiency of resource usage. Unlike location endowments many ownership endowments take on the quality of public goods, that is, their marginal usage cost is zero or minimal (hence, wherever a marginal revenue can be earned, but is not earned, they are underutilised); and although their *origin* may be partly determined by the industry or country characteristics of enterprises, they can be used anywhere.

What, then, determines the ownership advantages which one country's enterprises possess over those of another? For our purposes, we distinguish between three kinds of advantage. The first comprises those which any firms may have over another producing in the same location. Here, Bain's (1956) classic work on the barriers to new competition provides the basic answer. Such benefits may lie in the access to markets or raw materials not available to competitors; or in size (which may both generate scale economies and inhibit effective competition); or in an exclusive possession of intangible assets, for example, patents, trademarks, management skills, etc., which enable it to reach a higher level of technical or price efficiency and/or achieve more market power. These advantages, then, stem from size, *monopoly power*, and better *resource capability and usage*.

The second type of advantage is that which a branch plant of a national enterprise may have over a *de novo* enterprise (or over an existing enterprise breaking into a new product area), again producing in the same location. This arises because, while the branch plant may benefit from many of the endowments of the parent company, for example, access to cheaper inputs, knowledge of markets, centralised accounting procedures, administrative experience, R & D, etc., at zero or low marginal cost, the *de novo* firm will normally have to bear their full cost. The greater the non-production overheads of the enterprise, the more pronounced this advantage is likely to be.

The third type of advantage is that which arises specifically from the multinationality of a company, and is an extension of the other two. The larger the number and the greater the differences between economic environments in which an enterprise operates, the better placed it is to take advantage of different factor endowments and market situations. I shall return to this point later in the chapter.

Most of these benefits, both individually and collectively, have been used by economists to explain the participation of affiliates of MNEs in the output of industries in host countries. However, while recognising they are interrelated, there have been few explicit attempts to explain either the

basis of the interrelationship or why the more marketable of the advantages are not sold directly to other firms. In consequence, not only has one of the fundamental attributes of MNEs been largely overlooked, but so also has the basis for much of the concern about the present international economic order. The substance of our thesis is not, in itself, new; it is more a reinterpretation and extension of an idea first formulated by Coase in 1937, and more recently resurrected in the literature by Arrow (1969, 1975), Williamson (1971, 1975, 1979), Alchian and Demsetz (1972), Furobotn and Pejovich (1972), McManus (1972), Baumann (1975), Brown (1976), Magee (1977a, b) and, perhaps most systematically of all, by Buckley and Casson (1976).⁸

The thesis is that the international competitiveness of a country's products is attributable not only to the possession of superior resources and, in some cases, the necessity of its enterprises but also to the desire and ability of those enterprises to internalise the advantages resulting from this possession; and that servicing a foreign market through foreign production confers unique benefits of this kind. Where, for example, enterprises choose to replace, or not to use, the mechanism of the market, but instead allocate resources by their own control procedures, not only do they gain but, depending on the reason for internalisation, others (notably their customers and suppliers prior to vertical integration, and their competitors prior to horizontal integration) may lose. Internalisation is thus a powerful motive for takeovers or mergers, and a valuable tool in the strategy of oligopolists.

It has long been recognised that such gains may follow from vertical integration and, to a lesser extent, from horizontal integration of a firm's activities; and much of current antitrust legislation is designed to prevent or minimise abuses arising as a result. But much less attention has been paid to the type of internalising practised by conglomerates, or that which reflects in the internal extension of a company's activities, or that associated with the internalisation of resources, products or markets over geographical space.

Consider, for example, the areas in which the participation of MNEs, irrespective of their country of origin, is most pronounced in host countries. These include export-oriented primary goods sectors requiring large amounts of capital, for example, aluminium, oil, copper and/or those faced with substantial barriers to foreign marketing and distribution, for example, bananas, pineapples, coffee, etc.; technologically advanced manufacturing industries or those supplying branded consumer products with a high income elasticity of demand and subject to the economies of large-scale production; capital or skill intensive service industries, such as insurance, banking and large-scale construction; and activities in which the spatial integration of inputs, products or markets is essential to efficiency, for example, airlines, hotels, etc. All of these not only require endowments in which MNEs have a comparative advantage, and which are difficult to

acquire by *de novo* entrants, but, more pertinent to our argument, they are all sectors in which there is a pronounced propensity of firms to internalise activities, particularly across national boundaries.

What, then, are these incentives of firms to internalise activities? Basically they are to avoid the disadvantages or capitalise on the advantages of imperfections or disequilibria in external mechanisms of resource allocation.⁹ These mechanisms are mostly of two kinds – the price system and public authority fiat. Where markets are perfectly competitive, the co-ordinating of interdependent activities cannot be improved upon; once imperfections arise or can be exploited through internalisation, this becomes a possibility.

Market imperfections may be both structural and cognitive. Uncertainty over future market conditions in the absence of competitive future markets, or about government policies, is another kind of imperfection. *Structural imperfections* arise where there are barriers to competition and economic rents are earned; where transaction costs are high; or where the economies of interdependent activities cannot be fully captured. *Cognitive imperfections* arise wherever information about the product or service being marketed is not readily available, or is costly to acquire. The cost of *uncertainty* may be gauged by the risk premium required to discount it, which may differ quite significantly between firms. From the buyer's viewpoint, market imperfections to avoid include uncertainty over the availability and price of essential supplies, and lack of control over their delivery timing and quality. From the seller's viewpoint, the propensity to internalise will be greatest where the market does not permit price discrimination; where the costs of enforcing property rights and controlling information flows are high; where the output produced is of more value to the seller than the buyer is willing to pay (again, possibly because of ignorance on the part of the buyer),¹⁰ or, in the case of selling outlets, where the seller, to protect his reputation, wishes to ensure a certain quality of service, including after-sales maintenance. For both groups of firms, and for those considering horizontal integration, the possession of underutilised resources, particularly entrepreneurial and organisational capacity, which may be used at low marginal cost to produce products complementary to those currently being supplied, also fosters internalisation.

At the same time, to benefit from some of these advantages an enterprise must be of sufficient size. This prompts firms to engage in product diversification or integration, which, in turn, increases their opportunities to profit from other internalising practices such as cross-subsidisation of costs, predatory pricing, etc. One suspects that many of the advantages of conglomerate mergers are of this kind; and it cannot be a coincidence that, in recent years, takeovers and mergers have been concentrated in areas in which advantages of internalisation are most pronounced.¹¹

Public intervention in the allocation of resources may also encourage

enterprises to internalise activities. Many policy instruments of governments, however justified in the pursuance of macroeconomic (and other) goals, may create distortions in the allocation of resources which enterprises may seek to exploit or protect themselves against. Some of these provoke reactions from all enterprises; others from only those which operate across national boundaries.

Here the analysis will be confined to two kinds of government intervention especially relevant to the behaviour of MNEs. The first concerns the production and marketing of public goods, which are not only characterised by their zero marginal cost, but by the fact that their value to the owner may hinge on the extent to which others also possess them. Under these circumstances, an orthodox perfect market is impossible, unless the purchaser relies on the seller to withhold the sale of a good to other buyers, or not to price it lower.

Some commodities and services produced by private enterprises also have the characteristics of public goods. The major example is technology — an intermediary good which embraces all kinds of knowledge embodied in both human and non-human capital (Johnson, 1970). The significance of technology in the modern world economy needs no elaboration: it is the main engine of development, a leading determinant of both absolute and relative living standards, and a controlling factor in the spatial allocation of resources. Its phenomenal growth since the Second World War, especially in the field of information and communications technology, has undoubtedly facilitated the internationalisation of firms, just as the railroad, telegraph and telephone helped the creation of national enterprises a century ago.¹²

It is my contention that the need both to generate innovations and ideas and to retain exclusive right to their use has been one of the main inducements for enterprises to internalise their activities in the last two decades. Governments have encouraged this by extensively subsidising R & D, continuing to endorse the patent system and by recognising that, in some industries, if the benefits of technological advances are to be fully exploited, not only may it be necessary to restrict the number of producers, but that enterprises should be free to internalise their knowledge-producing with their knowledge-consuming activities. Even without the intervention of governments, technology possesses many of the attributes for internalising (or not externalising) markets. At the time of its production, it is the sole possession of the innovator, who naturally wishes to exploit it most profitably; it is costly and takes time to produce but there is no future market in it; it is often difficult for a potential buyer to value as its usefulness can only be determined after it has been purchased. Yet often, for its efficient exploitation, it needs complementary or back-up resources. These qualities apply particularly to the kind of knowledge which *cannot* be patented, for example, financial systems, organisational skills, marketing expertise, management experience and so on.

The second example of government intervention is particularly relevant to the operations of MNEs. It both encourages such enterprises to internalise existing activities and to engage in new activities which offer the possibility of internalising gains. It arises because of different economic policies of national governments which often lead to distortions in the international allocation of resources. Assume, for example, that an MNE wishes to maximise its post-tax profits and that corporate tax rates differ between countries. One way it can reduce its total tax burden is to capitalise on its intra-group transactions by manipulating its transfer prices so as to record the highest profits in the lowest tax areas. 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 specialisation within its organisation.

The MNE has other reasons for internalising its operations across boundaries (Rugman, 1980). These include the desire to minimise the risk and/or costs of fluctuating exchange rates; to cushion the adverse effects of government legislation or policy, for example, in respect to dividend remittances; to be able to take advantage of differential interest rates and 'leads' and 'lags' in intra-group payments; and to adjust the distribution of its short-term assets between different currency areas. Some of these benefits of internalisation are now being eroded by government surveillance over transfer pricing and by the tendency for contractual arrangements between foreign and indigenous firms to replace equity investments of the former.

How far MNEs actually *do* manipulate intra-group prices to transfer income across national boundaries is still a matter for empirical research; so far the evidence collected is partial and impressionistic. Suffice to say there are many reasons why an MNE may wish to take advantage of such opportunities (Lall, 1973), and that however vigilant the tax authorities may be in some areas, for example, the pricing of intangible assets, the difficulty of (1) estimating the extent to which a transfer of goods or services has taken place, and (2) assigning a value to them, is a very real one.

It has been illustrated, at some length, why firms, and MNEs in particular, gain from internalising their activities, especially in respect of the production and marketing of technology. Another sector in which MNEs are particularly active is the capital intensive, resource based industries. Here, all the traditional reasons for vertical integration hold good, in addition to those which result from multinationality *per se*; the classic example is the oil industry. They imply, for the most part, a vertical division of activity of firms, though the operations may be horizontal as well, where similar products are produced. Here, too, the impetus to internalise transactions (as opposed to engaging in contractual arrangements) in the case of international vertical integration is likely to be greater than in the case of domestic vertical integration.

It must not be forgotten, however, that there are costs as well as benefits to internalising economic activities; for an examination of these see Coase (1937) and Buckley and Casson (1976). As markets become less imperfect the net gains of internalisation are reduced. The move towards internalising the marketing of many raw materials, partly stimulated by the actions of governments, testifies to this. In his study of UK direct investment overseas, Reddaway (1968) found that only 4 per cent of the output of UK plantation and mining affiliates, originally set up to supply the investing firms, was now directly imported by them.

It can be concluded, therefore, that the ownership advantages of firms stem from their exclusive possession and use of certain kinds of assets. Very often, enterprises acquire these rights by internalising those previously distributed by the market or public fiat, or by not externalising those which they originate themselves. This will only be profitable in imperfect market conditions, and where it is thought the co-ordinating and synergising properties of the firm to allocate resources are superior to those of markets or public fiat. It is possible to identify the source of such imperfections, both within countries and internationally, and to point to the types of activities which offer the greatest gains from internalisation. Of these, the production and marketing of intangible assets and of essential location-specific resources are the two most important. Both happen to be areas in which MNEs are particularly involved; the fact that the ownership advantages are exploited by foreign production is partly explained by location-specific endowments of the foreign country, and partly by certain ownership advantages which accrue only when a firm produces outside its national boundaries.¹³

IV

What is the link between the above discussion and other explanations of international involvement? Simply this. The neotechnology theories of trade and the knowledge theories of direct investment both emphasise the possession of superior technology as an explanation of both trade and production. The monopolistic competitive theories concentrate on some aspect of firm's length imperfect competition as the explanation for trade and investment.

It is my contention that the two approaches should be treated as complementary aspects of an eclectic theory of international involvement, which should embrace not only the product but also the factor and intermediary goods markets, and should acknowledge that the ownership advantages arise not only from the exclusive possession of certain assets, but from the ability of firms to internalise these assets to protect themselves against the failure of markets (including the consequences of this failure for competitors' behaviour) and government fiat over the rest of

their activities. Because it relates to the way in which the enterprise co-ordinates its activities, this approach may be called a *systemic* theory of ownership advantages, applied to both trade and international production.¹⁴ In favouring such an approach admittedly I may be in danger of being accused of eclectic taxonomy. I also acknowledge the interdependence between technology, imperfect competition and the internalisation process, and that it is not always easy to separate cause and effect.

But in the search for a composite measure of ownership advantage a systemic approach has something to commend it. Empirically, there can be little doubt of the increase in the vertical and horizontal integration of firms and of market and product diversification, which has enabled firms to benefit from the internalisation of their activities. This is demonstrated both by the increase in the concentration of enterprises in industrial economies in the postwar period and by the growing importance of the pre- and post-production activities of firms. Other data suggest that about one-half of all exports of MNEs are intra-group in character.

More generally, the eclectic model can be perceived as a general theory of international production in so far as it provides an analytical framework for explaining all forms of such production. This, however, is not to assert that particular forms of international production are to be explained by the same ownership, location or internalisation characteristics. This is clearly not the case, and it is readily accepted that different types of international production may call for quite different explanations. But our contention is that these should be regarded as complementary, rather than alternative, interpretations of MNE activity and of the eclectic paradigm. For this reason, I have no difficulty in reconciling seemingly competing theories within this paradigm, as, more often than not, they are seeking to explain different things.

What, then, is the positive value of the eclectic theory of international production? The theory suggests that, given the distribution of location-specific endowments, enterprises which have the greatest opportunities for and derive the most from, internalising activities will be the most competitive in foreign markets.¹⁵ *Inter alia* these advantages will differ according to industry, country and enterprise characteristics. Hence, the ownership advantages of Japanese iron and steel firms over South Korean iron and steel firms will be very different from those of UK tobacco firms over Brazilian tobacco firms or US computer firms over French computer firms. Enterprises will engage in the type of internalisation most suited to the factor combinations, market situations and government policies with which they are faced. For example, the systemic theory would suggest not only that research intensive industries would tend to be more multinational than other industries, but that internalisation to secure foreign based raw materials would be greater for enterprises from economies which have few indigenous materials than those which are self-sufficient; that the most efficient MNEs will exploit the most profitable foreign markets — compare,

for example, the US and UK choice of investment outlets (Stopford, 1976); that the participation of foreign affiliates is likely to be greatest in those sectors of host countries where there are substantial economies of *enterprise* size. This theory is consistent with Horst's conclusion (1972) that most of the explanatory variables of foreign direct investment can be captured in the size of enterprise; indeed, one would normally expect size and the propensity to internalise to be very closely correlated, and MNEs to be better equipped to spread risks than national multiproduct firms.

What does the eclectic theory predict that the other theories of international production do not? Taking the theories as a group, probably very little, except in so far as the independent variables fail to capture the advantages of internalisation. Indeed, it could be argued that this theory is less an alternative theory of ownership advantages of enterprises than one which pinpoints the essential and common characteristics of each of the traditional explanations. There is, however, one difference of substance. The eclectic approach would argue that it is not the possession of technology *per se* which gives an enterprise selling goods embodying that technology to foreign markets (irrespective of where they are produced) an edge over its competitors, but the advantage of internalising that technology, rather than selling it to a foreign producer for the production of those goods. It is not the orthodox type of monopoly advantages which give the enterprise an edge over its rivals — actual or potential — but the advantages which accrue through internalisation, for example, transfer price manipulation, security of supplies and markets, and control over use of intermediate goods. It is not surplus entrepreneurial resources *per se* which lead to foreign direct investment, but the ability of enterprises to combine these resources with others to take advantage of the economies of production of joint products.

In other words, without the incentive to internalise the production and/or sale of technology, foreign investment in technology-based industries would give way to licensing agreements and/or to the outright sale of knowledge on a contractual basis. Without the incentive to internalise market imperfections there would be much less reason to engage in vertical or horizontal integration, and again transactions would take place between independent firms. This, it could be argued, is the distinctiveness of this approach.

V

So far the discussion has concentrated on the ownership endowments of its enterprises as an explanation of a country's international competitiveness, whatever the form of the involvement. It has been argued that, although the advantages are enterprise specific, the fact that these may differ according to nationality of enterprise suggests that such advantages,

though endogenous to the individual firms at that time, are not independent of their industrial structure, or of the general economic and institutional environment of which they are part. For example, US government science and education policy may be a key variable in explaining the technological lead of US firms in many industries, while, as Vernon (1974) has pointed out, innovations respond to factor endowment and market needs, which also influence the likely advantages of internalising those innovations. The institutional arrangements by which innovations are rewarded are no less relevant.

But these country or industry variables affecting ownership advantages are not the same as the location specific endowments referred to earlier. With this interpretation, these comprise three components: the resources which can only be *used* by enterprises in the locations in which they are sited, unavoidable or non-transferable costs such as taxes, government constraints on dividend remission, etc., and the costs of shipping products from the country of production to the country of marketing.

Each of these elements has received extensive attention in the literature of location theory, which usually assumes ownership endowments as the same between firms, and seeks to explain *where* they are exploited. Our concern here is a different one. Put in question form it is: given the ownership endowments, is the location of production by MNEs likely to be different from that of non-MNEs? The systemic theory suggests that it is, and for three reasons. First, there may be particular internalising economies resulting from the friction of geographical space. Second, the location-specific endowments, which offer the greatest potential for internalisation, are not distributed evenly between countries.¹⁶ Third, where there are differences in the market imperfections or government policies of countries, then MNEs might be influenced by the extent to which they take advantage of these imperfections by internalising their operations.

In elaboration of these points, four observations can be made. First, various studies have underlined the advantages of co-ordinating R & D activities of MNEs (Ronstadt, 1977; Fischer and Behrman, 1979; Lall, 1979) and centralising them in or near the markets which stimulate such activities (Michalet, 1973; Creamer, 1976). In the case of US-based MNEs, this suggests, that for most kinds of R & D, both ownership and location endowments work in favour of a home R & D base.¹⁷ In the case of MNEs from smaller home markets this tendency may not be so pronounced. By contrast, because the advantages of internalisation are generally much less, it may be profitable to spatially disperse some kinds of manufacturing activities, especially where the production processes involved have become standardised (Vernon, 1974).

Second, an MNE which produces in different market environments may well seek to co-ordinate its activities differently. The degree of uncertainty over local consumer tastes, future market conditions and

government policy certainly varies between countries. For example, the less imperfect is the market for technology, the less likely is an enterprise to market technology based products itself. Compare, for example, the role of foreign pharmaceutical companies in Italy, which does not recognise patent protection on drugs, with that of such companies in almost any other European country. By contrast, in some developing countries, MNEs may be reluctant to license local firms because they feel that the complementary technology is insufficient to ensure the quality control they need.¹⁸

Third, and perhaps most important, is the advantage that a diversified earnings base provides for an MNE to exploit differential imperfections in national or international markets and/or currency areas (Aliber, 1970), *inter alia*, through transfer-price manipulation; the use of leads and lags in intra-group transactions; the acquisition and monitoring of information; and the extension of benefits enjoyed by multi-plant national firms at an international level. These are some of the (potential) advantages of internalisation afforded by international production, compared with international trade.

Fourth, there is the drive towards international production as part of oligopolistic behaviour (Knickerbocker, 1973; Flowers, 1976; Graham, 1978). This is really a territorial extension of domestic strategy, and does not pose any new conceptual problems (but, see Vernon, 1974). Again, however, in so far as a company perceives its foreign interests to be part of a global strategy, rather than as an independent entity, the internalising advantages may be crucial to the locational decision of both leaders and followers.

VI

In the light of the above analysis, what might one expect the impact of the MNE to be on location of production, the international diffusion or transfer of technology and trade patterns?

There are many different views about the effect of MNEs on the international distribution of resources. Partly, these reflect differences in the perspective one takes, for example, that of a particular country or region, or that of all countries; or of the goals one is seeking to promote. We shall confine ourselves to economic issues viewed in a global context from two main viewpoints. The first is that MNEs promote a more efficient distribution of resources since, by internalising imperfect markets, they are able to overcome distortions in the economic system such as barriers to the transfer of technology, import controls and inappropriately valued exchange rates. Moreover, in a world of uncertainty and information imperfections, their more efficient scanning and monitoring processes, and their flexibility to respond better to market signals, is a useful competitive

stimulus. In short, this view extols the MNE as an integrating force in the world economy, surmounting national barriers, circumventing high transaction costs and improving the allocating of resources.

The second view asserts that, far from overcoming market imperfections, the MNEs are themselves a major distorting force in resource allocation; this is partly because they operate mostly in oligopolistic markets and partly because of their ability to bypass market mechanisms and/or government regulations (Hymer, 1970). As a result, it is argued, they engage in restrictive practices, raise barriers to entry and, by their internalisation and centralisation of decision taking, adversely affect the efficiency of resource allocation between countries. Far from promoting competition, the co-ordination of activities by entrepreneurs freezes existing production patterns, encourages agglomeration and makes it more difficult for countries to exploit their dynamic comparative advantages. Since MNEs *do* exert monopoly power, it is legitimate (on the lines of the optimum tariff argument) for home or host countries to impose restrictions on their activities.

The truth, in so far as it is possible to generalise, is obviously somewhere between these two extremes, with the balance steering one way or another according to (1) the efficiency of the resource allocative mechanism prior to the entrance of the MNEs and (2) the market conditions under which MNEs compete — which will vary *inter alia* according to industry and country.

But there are certain effects of MNEs, however they may be interpreted, which do seem to have been reasonably well established in the literature, and we will now touch on three of these.

- (1) In some instances, MNEs have been an integrating force and have taken advantage of existing factor endowments, thus promoting the more efficient use of resources. The best example is where mobile resources of capital and technology are transferred from a capital- and technology-rich country and combined with immobile resources of labour and/or materials in labour- and materials-rich countries, thereby helping these countries to exploit their dynamic comparative advantage. Other examples include what is currently happening in Europe as a result of the EEC, namely, that the MNEs are rationalising their activities to take advantage of the economies of specialisation. This is a slow process but no different, in principle, to the behaviour of multiregional (national) enterprises in the USA, which may well be one of the explanations of the greater specialisation in the US than within the EEC, as demonstrated by Hufbauer and Chilas (1974).

- (2) There is some evidence of a spatial specialisation of the activities of MNEs and, in particular, the centralisation of R & D activities in the home country. Something over 90 per cent of the R & D activities of

Swedish and US MNEs is undertaken in their home countries, and the proportion is probably not very different for most of the other leading investors. Hymer suggests that MNEs are encouraging the specialisation of activities, not for technological as much as organisational or strategic reasons, most of which enhance the incentive to internalise R & D in the home country. But it does not necessarily follow that, without MNEs, the distribution of innovative activities would have been any the less centralised. R & D among Japanese and European enterprises has certainly been stimulated by the competition from US MNEs. The impact on the UK pharmaceutical and semiconductor industries are classic examples (Tilton, 1971; Lake, 1976). In the LDCs, because of the lack of indigenous competitors, the Hymer hypothesis probably holds more weight, though even here there are examples of MNEs setting up specialised R & D facilities (Behrman and Fischer, 1980).¹⁹

- (3) In any analysis of the impact of MNEs on trade and location it is useful to distinguish between the different motives for foreign direct investment. Kojima (1978), for example, has distinguished between trade-oriented and anti-trade-oriented activities of MNEs. He suggests that current Swedish and Japanese investments are mainly made in areas in which the home countries are losing a comparative advantage and host countries are gaining it. These have been of two kinds; one to exploit natural resources not available indigenously, and the other to switch labour intensive activities from high labour cost to low labour cost locations. On the other hand, Kojima asserts that many foreign investments by US firms have been made to protect an oligopolistic position in world markets and in response to trade barriers, and have transferred activities from which they have a comparative advantage to where they have a disadvantage. Such investments, he claims, are anti-trade oriented and run against the principles of comparative advantage. Kojima cites here the extensive US foreign investments in the capital and technologically intensive industries.

The border between transferring a comparative advantage and creating a new one is a narrow one, and the Kojima distinction between trade-generating and trade-destroying investments is not altogether convincing. Moreover, his approach tends to be a static one and is couched in terms of first-best solutions. It also fails to consider vertical specialisation *within* industrial sectors. Assuming technology (as an intermediate good) can be sold for a competitive price between independent parties, one might reasonably expect non-skilled labour intensive operations of high technology industries to be transplanted to those areas which possess such labour in abundance, and countries with an abundance of materials to utilise such materials with technology developed by nations which have a

limited amount of materials. The Japanese and US patterns may be complementary to each other; their ownership and locational advantages may reflect country-specific characteristics.²⁰ Evidence collected about the trading patterns of US MNEs (Lipsey and Weiss, 1973) supports this view. The imports of US MNEs tend to be more capital intensive than those of other US firms, mainly because of the ability of MNEs to export capital and technology to undertake the labour intensive production processes of a capital intensive product in low labour cost areas.

From a normative viewpoint, the point of greater interest is the extent to which technology transfer through the co-ordination of the firm is preferable to that of the market, but, on this subject, there has been only limited research (Arrow, 1969; Williamson, 1979; Teece, 1979). Yet this, as has been suggested, is a crucial issue, which both helps explain the growth of the MNEs (relative to non-MNEs) and their effect on the spatial distribution of economic activity. Assuming perfectly competitive markets are not generally feasible (nor, from viewpoints other than economic efficiency, necessarily desirable), under what circumstances is it preferable for the resource allocative process to be decided upon by markets or governments, however imperfect they may be, and under what circumstances by the internal governance of MNEs? For there is no *a priori* reason to suppose one form of resource allocation is preferable to the other. In remedying the imperfections and alleged distorting behaviour of MNEs, should not as much attention be given to removing some of the distortions of the environment in which they operate, so that they have less incentive to internalise their activities? To give a recent example, the replacement of fixed by flexible rates has decisively reduced the impetus for MNEs to engage in speculative or protective currency movements across boundaries. The candidate most in need of attention at the moment is technology. It is here that the present system of rewards and penalties leaves so much to be desired (Johnson, 1970) and it is here that both the incentive to internalise by MNEs and the potential for distorting behaviour on their part in exploiting the benefits of that internalisation arise.

In the last resort, however, we must acknowledge that it is not efficiency, and certainly not efficiency viewed from a global standpoint, that is the standard by which the relative merits of internalisation of MNEs and imperfect markets of allocating resources is likely to be assessed. It is the effects of such patterns of resource allocation on the distribution of income between or within nations; on the relative economic powers of countries or of different groups of asset owners; on the sovereignty of one country to manage its own affairs. It is these matters which are at the centre of the arena of public debate at the moment; and it is on such criteria as these that the actions of MNEs are judged.

Some countries facing the choice offered above have clearly preferred to buy their resources in imperfect markets than through MNEs (Japan is the obvious example), while many LDCs are increasingly seeking to

depackage the package of resources provided by MNEs in the belief that they can externalise the internal economies. Within the advanced countries the non-market route is generally accepted. But here, too, there are murmurings of concern, articulated not only in such polemics as *The Global Reach* (Barnet and Muller, 1974) but in research studies done at the Brookings Institution (Bergsten, Horst and Moran, 1978) and by Peggy Musgrave (1975) on the effect of the (internalising) advantages of international production on the domestic economic power of US corporations.

This particular area of the debate on the role of MNEs in trade and the transfer of technology and the location of production is still in its infancy. It is an area hazardous and not altogether attractive for the academic economist; the issues are controversial; the concepts are elusive; the data are not easily subject to quantitative manipulation and appraisal; and the standard of debate is often low. But, intellectually, it presents a great challenge, offering much scope for the collaboration not only of economists of different specialities and persuasions, but between economists and researchers from other disciplines. For these reasons alone, it deserves to attract our ablest minds.

Notes: Chapter 2

- 1 The following observation by Williams (1929) about industries which had expanded beyond their political frontiers is of especial interest to our discussion.

They represent in some cases the projection by one country into others of its capital, technique, special knowledge along the lines of an industry and its market, as against the obvious alternative of home employment in other lines. They represent, in other cases, an international assembling of capital and management for world enterprises ramifying into many countries. They suggest very strikingly an organic inter-connection of international trade, movement of productive factors, transport and market organisation.

- 2 For further details see Chapter 3, p. 48.
- 3 Mainly enterprises: by a country's enterprises is meant those whose head offices are legally incorporated in that country.
- 4 Gross domestic product = incomes earned from domestic resources; gross national product = gross national product + income earned from assets abroad less income paid to foreigners on domestic assets.
- 5 Proximity to the point of sale may be treated as a location-specific endowment for these purposes; distance (implying transport and other transfer costs) is thus considered as a negative endowment.
- 6 See Lall (1980) for a discussion on the extent to which ownership specific advantages are mobile, that is, transferable across national boundaries.
- 7 For an elaboration of the complementarity between the neofactor and neotechnology theories of trade, see Hirsch (1974).
- 8 One of the most recent and stimulating contributions on these lines is contained in Swedenborg (1979). For a general reappraisal on the literature on internalisation see Rugman (1980), Calvet (1980) and Teece (1981).
- 9 To avoid being subject to imperfections of markets when they are the weaker party to an exchange but to capitalise on imperfections when they are the stronger party.

- 10 Such as particularly applies in the case of transactions involving non-standard technology or information, and which are infrequent and conducted under uncertainty.
- 11 For a recent study of the applicability of the eclectic theory and the markets and hierarchies paradigm to the acquisition activity of foreign firms in Canada and that of domestic firms in the USA see Calvet (1980).
- 12 The transition from regional to national railroads in the nineteenth and early twentieth century was paralleled by the transition from national to multinational airlines after the Second World War.
- 13 We have not the space to deal with the role of internalisation in prompting other forms of foreign direct investment; in some cases, the co-ordinating advantages of the firm clearly transcends that of the market for technological reasons, such as airlines; in others it is more to do with controlling information among interdependent activities, such as advertising, and tourism; or as a form of oligopolistic strategy. In many cases, an investment based on technological innovation has managed to create its own barriers to entry through economies of size.
- 14 Licensing and other forms of contractual arrangements of intermediate products.
- 15 The points made in this paragraph are extended and set out in a rather different way in Table 3.1 and Table 4.2.
- 16 This point is elaborated in Chapter 4.
- 17 Lall (1979) suggests that in cases where major technological efforts on products and processes are not crucially linked to each other, international experience and cost advantages tend to promote greater reliance on foreign R & D. By contrast, in those sectors where innovation centres around product development and testing it is much more difficult to separate any major part of R & D activity from the main markets and centre of decision taking. Michalet (1973), on the other hand, distinguishes between a specialised and imitative R & D strategy of MNEs, while Ronstadt (1977) adopts a more functional approach arguing that different types of R & D have different location needs. In a study of the overseas R & D activities of fifty-five US-based MNEs, Mansfield, Teece and Romeo (1979) found that such activities were increasing relative to those in the USA and were concentrated on product and process improvements and modifications rather than the discovery of new products and processes. The authors argued that one important reason – at least in the 1960s and early 1970s – for foreign R & D activities was that the cost of R & D inputs was considerably lower in Japan, Europe and Canada than in the USA.
- 18 See Chapter 5.
- 19 Mainly in material processing or product adaptation to meet specialised local needs. Behrman and Fischer (1980) note that US enterprises have some R & D facilities in Hong Kong, Argentina, Colombia, Egypt, Philippines and Taiwan, whereas Argentina, Hong Kong and Singapore are among developing countries attracting such activities by European MNEs.
- 20 This point is further explored in Chapter 4. Here it is worth pointing out that vertical foreign direct investment often precedes horizontal foreign direct investment (as it did in the UK and USA) and that the pattern of new Japanese investment in the late 1970s resembles much more that traditional US kind than it did in the 1960s.

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