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## REVIEW ARTICLE

# The competitive advantage of countries and the activities of transnational corporations

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### Introduction

The dynamic interplay between the competitive advantages of countries and those of companies of a particular nationality is a subject commanding increasing attention by students of the transnational corporation (TNC). Indeed, it has been suggested that a fuller understanding of the nature, content and determinants of that interaction, as it affects the globalization of production and markets, may provide the basis for one of the next advances in the theory of foreign value-added activity<sup>1</sup> [Dunning, 1990].

Since the mid-1970s, the focus of scholars interested in explaining the existence and growth of the TNC has been directed to identifying and evaluating the relative costs and benefits of organizing the cross-border transactions of intermediate products by hierarchies or markets. Since the early 1990s, however, renewed attention<sup>2</sup> has been given to explaining the origin and composition of the resources and capabilities<sup>3</sup> of corporations to engage in production outside their national boundaries and to the determinants of their success in managing and organizing the international portfolio of resources they own or control. Faced with the same eco-

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<sup>1</sup> Defined as production financed by foreign direct investment or controlled by foreign-owned TNCs.

<sup>2</sup> We say "renewed attention" as some of the earlier explanations of the foreign value-added activity of firms focused largely on their ability to engage in such activities (e.g., Vernon, 1966, Caves, 1971).

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conomic conditions and prospects, why are some firms significant global players and not others? Why is the share of international direct investment accounted for by companies from Japan rising so rapidly? Why is Europe claiming a larger share of United States-based TNC activity than it used to? What explains the rapid growth of the participation of foreign-owned firms in the United States? What determines which developing countries will emerge as important international investors? Why do firms conclude strategic alliances with some firms, but avoid them with others? Why is foreign direct investment (FDI) in services rising more rapidly than that in goods?

Those are just some of the questions now demanding answers by TNC researchers. What is their response? Well, one response by the scholar of the TNC, *qua* TNC,<sup>4</sup> is that only part of the explanation for the growth of foreign-owned production may have to do with the increasing propensity of firms to internalize their cross-border transactions. For example, a particular competitive advantage that may help to explain the capability of a firm to supply a particular market, or set of markets, is not, in itself, a sufficient reason for that firm to create or add value to that advantage from a foreign-located facility.

Take for example, a pharmaceutical patent as a competitive advantage of a United Kingdom TNC. The *origin* of that advantage is likely to be determined by a combination of factors, including the amount of resources the company allocates to innovatory activities, the quality and motivation of research and development (R&D) personnel, the organization and technical efficiency of the

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<sup>3</sup> Amit and Schoemaker [1990, p. 8] distinguish between "resources" and "capabilities" in the following way: "Resources consist of proprietary know-how (e.g., patents and trade secrets), financial or physical assets (e.g., property, plant and equipment), human capital, government licenses etc. Capabilities, in contrast, are tangible or intangible (invisible) assets that are firm-specific and are created over time through complex interactions among the firm's resources. They can be thought of as 'intermediate goods' generated by the firm to provide enhanced productivity of its resources as well as flexibility and protection for its final product or service. Capabilities are based on developing, carrying, and exchanging information through the firm's human capital".

<sup>4</sup> For a distinction between the theory of the TNC and the theory of TNC activity, see Dunning (1992).

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R&D department and the successful commercialization of that R&D. The *outcome* of that advantage is that it may enable the United Kingdom firm to increase its penetration of the world drug market. Is the possession of that advantage an explanation for any increase in foreign production which might directly arise from such an advantage, or is it simply to be taken as an exogenous variable which may or may not lead to such production?

Supposing that it can be shown that it is more profitable for the United Kingdom firm to produce the new pharmaceutical product for world-wide distribution from its German plant rather than to export it from its United Kingdom plant. Is that an explanation of international production, or is it rather an explanation for the location of economic activity *given* its ownership? Or is the explanation of TNC activity only concerned with the circumstances of why a firm engages in foreign production *relative* to the other possible options open to it, *given* the resources and capabilities it possesses and the locational opportunities open to it?

If the latter is regarded as the main focus of interest, then Michael Porter's latest book, entitled *The Competitive Advantage of Nations* [Porter, 1990], will be of limited appeal (at least as an explanation of the growth of the TNC). If, however, it is perceived that, for example, part of Japanese direct investment in the United States auto industry is due to the success of Japanese-owned firms in producing highly saleable motor vehicles, irrespective of the mode by which that advantage is exploited, and that the reasons for such a success are, themselves, part of the explanation for their foreign activities, then much of the Porter monograph is highly relevant to the student of the TNC.

Porter has rendered a major service in identifying many of the explanatory variables that help us better appreciate some *country-specific* explanations of the changing pattern of international production by TNCs. In particular, his extensive field research has advanced our knowledge of why corporations domiciled in some countries have been successful in penetrating foreign markets in some product areas but not in others, and also why some countries have been able to attract the participation of foreign-owned firms in some value-added activities but not in others. The book also offers a penetrating insight as to why, in some countries and sec-

tors, the activities of TNCs help stimulate the technological and organizational efficiency of local firms, while in other cases they may inhibit it. More generally, many of the ideas and concepts articulated by Porter enrich our understanding of the dynamic interplay between the strategy of TNCs and the competitive advantages of countries in which they operate.

## **The “diamond” of competitive advantage**

By now, most readers of *Transnational Corporations* will be familiar with the main analytical tool used by Porter in his latest book, that is, the diamond of competitive advantage. By competitive advantage, Porter means the ability of a country—or, more specifically, local firms of a country—to use its location-bound resources in a way that will enable it (them) to be competitive in international markets. Porter likens the determinants of that ability to a diamond that comprises a set of attributes which “shape the environment in which local firms compete, that promote or impede the creation of a competitive market” [Porter, 1990, p. 71]. He goes on to argue that the diamond is a naturally reinforcing system, with each of its determinants being contingent on the state of the others [ibid., p. 72].

According to Porter, the strength, composition and sustainability of a nation’s competitive advantage will be revealed in the value of its national product (more particularly, the part that enters into international transactions), and/or the rate of growth of that product, *relative to that of its leading competitors*. The extent to which a country is successful in achieving that goal then depends on the kind of goods and services produced by its enterprises, and the efficiency at which they can be supplied. That, in turn, Porter suggests, rests on the extent and quality of, and the interaction between, four sets of attributes:

- The quantity and quality of demand for goods and services by its domestic consumers;
- The level and composition of its natural resources and created factor capabilities;<sup>5</sup>
- The domestic rivalry of wealth-producing agencies, that is, the nature and extent of inter-firm competition;

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- The extent to which its firms are able to benefit from agglomerative or external economies by being spatially grouped in clusters of related activities.

Surrounding and influencing those variables are two others, that is, the role of Government and chance. Excluding the International Business Activity (IBA) component (to be discussed later), figure 1 sets out Porter's depiction of the "structure" of the diamond.

The main objective of Porter's work is twofold. First, it is to show that those facets of the diamond and the interaction between them will vary between countries. Secondly, it is to suggest that the principal ways in which countries may improve their competitiveness are to upgrade the quantity or quality of their resources and capabilities and to utilize their existing resources and capabilities more efficiently.

Much of Porter's treatise, which extends to over 800 pages, is concerned with providing the reader with examples of the ways in which the various facets of the diamond of competitive advantage interact with each other as a *system*. Indeed, one of the author's main contentions is that the way in which the facets of the diamond are coordinated with each other is as important a national capability as the value of the facets themselves. To that extent, there is, in Porter's mind, a parallel between the efficiency of the governance of resources and competencies by firms, and that by countries, as a competitive advantage in its own right.

In one sense, there is nothing particularly original in Porter's analysis. Throughout history, a succession of scholars have attempted to identify and evaluate the supply and demand conditions necessary for a country to be competitive in world markets. Indeed, most have been more comprehensive than Porter, who identifies only four sources of competitive advantage and who, for example, pays no attention to such variables as investment and entrepreneurship.<sup>6</sup> The scholars include those who focus on the so-

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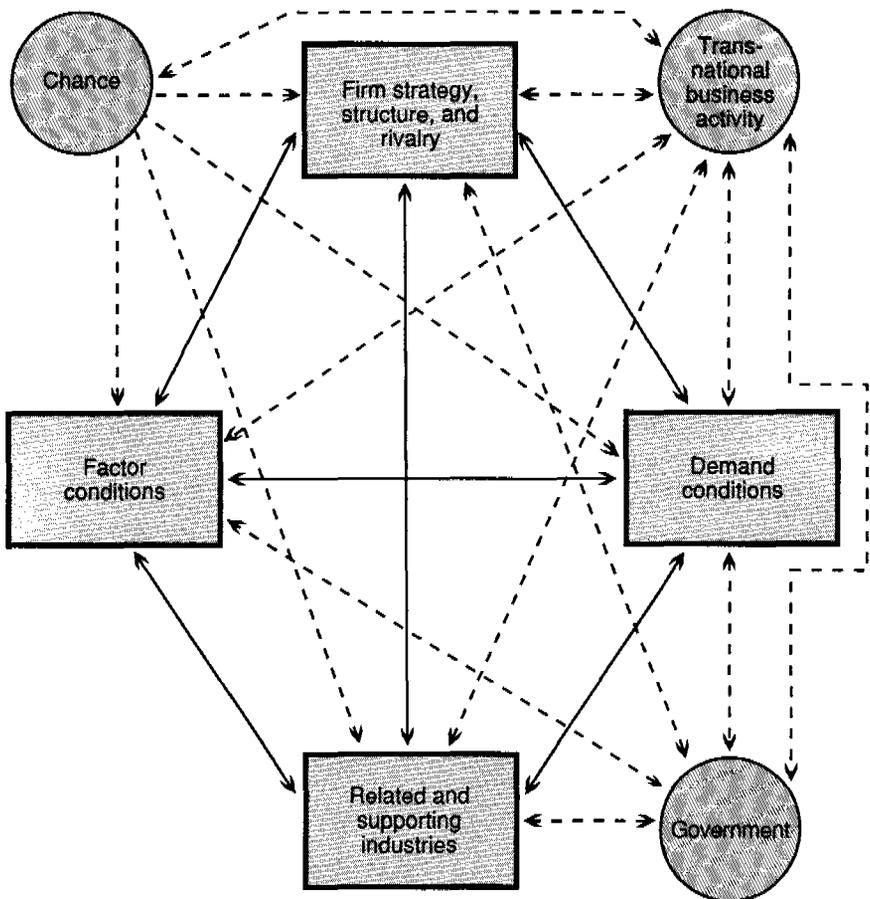
<sup>5</sup> Natural factor endowments are defined as the stock of unimproved resources and the uneducated labour force of a country. Created factor endowments or capabilities are the difference between those and the actual wealth-creating assets of a community. Those include not only its *ability* to create wealth, but also its *willingness* to do so.

<sup>6</sup> Even though Porter's approach is essentially Schumpeterian.

called ESP paradigm, which suggests that economic prosperity of a country rests on its environment (factor endowments) and markets (E), its economic system (S) and the economic and social policies pursued by its Government (P).<sup>7</sup> Most of Porter's analysis can be subsumed under one or another of those headings.

What Porter does do, however, and very successfully, is first to set out a paradigm within which the determinants of national competitiveness may be identified, and the way in which they interrelate

**Figure I. The complete system**



<sup>7</sup> For an elaboration of the ESP paradigm, see, for example, Koopmans and Montias (1971).

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with each other; and second, to offer some hypotheses on the reasons why the significance of those parameters may vary between countries and sectors. The monograph contains eight country case-studies<sup>8</sup> and four industry case-studies—each of which is addressed to these issues.

*The Competitive Advantage of Nations* is full of short case-studies, persuasive illustrations and intriguing anecdotes of why the structure of competitive advantage, for example, between industrial sectors, differs between countries, although Porter makes no attempt to substantiate his propositions by any formal econometric (or for that matter any other) testing. Indeed, on several occasions, the reader feels that the author comes near to rationalizing his arguments and that, had he chosen to do so, he could have provided examples that point to the opposite of the conclusions he draws.

One of the most interesting chapters of the book concerns the role of Governments. Porter prefers to consider Governments not as an attribute of the diamond, but as a fashioner of its structure and efficiency. That is probably correct. Although, as producers or consumers, Governments may directly affect the supply and demand of both immobile and mobile resources and capabilities affecting competitiveness, they alone have the ultimate responsibility for shaping the framework or system under which resources are organized. They set the “rules of the game” and control the signals that trigger a response by firms, which, in turn, determine whether national competitiveness is advanced or not. Moreover, in a variety of ways, Governments affect the ability and motivation of citizens and firms (for example, to save, to be entrepreneurial, to work efficiently, to accept new ideas and attitudes and to upgrade human and technological capacity). By affecting exchange rates by participating (or not) in supranational trading schemes, and by their policies and regulations towards FDI, they may influence the extent to which, and the form in which, a country is involved in international commerce.

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<sup>8</sup> Seven from developed and one from a relatively advanced developing country (Republic of Korea). It is interesting to speculate on the relevance of Porter's analysis and conclusions to the great majority of developing economies. For a recent analysis of the interaction between the international competitiveness of developing country firms and government policies, see Agarwal and Agman (1990).

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It is not the purpose of this review article to give a detailed critique of Porter's work, but rather to examine its relevance to our understanding of international business activity. In several places in the book, the author addresses himself to the way in which outward and inward direct investment by TNCs may affect both their own competitiveness and that of the countries in which they operate. In general, however, he believes that the main thrust to improving national competitiveness must come from a better use of indigenous resources and capabilities by domestic corporations. Indeed, Porter frequently cautions against reliance by Governments on the affiliates of foreign TNCs to fulfil that task.

Without taking issue with Porter on this point, the fact is that between 30 per cent and 40 per cent of the sales of the leading industrial TNCs are now produced outside their national boundaries, and that the value of those sales now considerably exceeds that of international trade. This suggests that more explicit attention should be given to the ways in which the transnationalization of business activity could affect the nature and character of the diamond of competitive advantage of the countries involved. Certainly, there is ample evidence to suggest that the technological and organizational assets of TNCs may be influenced by the configuration of the diamonds of the foreign countries in which they produce, and that this, in turn, may impinge upon the competitiveness of the resources and capabilities of their home countries.<sup>9</sup>

Indeed, in the global economy of the 1990s, it may be entirely appropriate to consider a country's involvement in foreign trade as a distinctive exogenous variable affecting the facets of the diamond in the same way in which Porter treats the role of Government. For the purpose of the present review, however, only the foreign production of domestic-owned firms and the domestic production of foreign-based TNCs as they affect the shape of particular national diamonds will be considered.

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<sup>9</sup> To give one (admittedly rather extreme) example, 95 per cent of the sales of Nestlé is accounted for by its foreign affiliates. It follows that the diamond(s) of competitive advantage of foreign countries within which Nestlé operates may be more important to determining the contribution of Nestlé to the Swiss GNP than the equivalent diamond within which Nestlé operates in Switzerland.

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## The activity of TNCs as an additional exogenous variable affecting the diamond

Let us then treat the foreign business activities of TNCs, that is, the foreign output of domestic TNCs and the domestic output of foreign non-resident-owned companies, as an exogenous factor, along with chance and Government, affecting the diamond of competitive advantage. Figure 1 introduces this new component, that is, transnational business activity, into the Porter schema. How might that affect the strength and composition of a nation's competitive advantage?

First, let us briefly remind ourselves of the distinctive features of TNCs, that is, those which might be attributed specifically to their transnationality. Consider, for example, some of the unique characteristics of *inward* direct investment. First, it is likely to provide a different package of resources and capabilities (for example, finance capital, technology, management skills etc.) from that provided by domestic investors. That is partly because it is importing these from a country that has a combination of competitive advantages different from its own, and partly because some of those assets, at least, are likely to be specific to the firm that owns them. Japanese-owned subsidiaries in the United Kingdom, for example, draw upon a different set of resources and capabilities (or the same resources and capabilities at different prices) than do United Kingdom-owned firms. Put another way, the sourcing and marketing opportunities and the production and organizational capabilities of the two groups of firms are likely to be different.

Second, the uses made of those assets are likely to be different, partly because of the foreign ownership of the firm and partly because of the distinctive effects of transnationality *per se*, such as those that relate to the international arbitraging of resources and capabilities and the spreading of risks of environmental volatility [Kogut, 1985]. Among other things, this suggests that decisions taken by the local subsidiary of a TNC might be different if it were domestically owned, and that a decision on local resource allocation by a unational firm might be different if that firm operated a global network of subsidiaries. It is the balance between the asset transfer and the control of the use of those assets that is the essence

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of the distinctiveness of TNC activity, although, depending upon the macroeconomic situation in the home and host countries and the assumptions made about government macro-organizational policies, it is possible that inward investment might also affect the *level* of economic activity.

Consider next some unique features of *outward* direct investment. There are at least three distinguishing attributes of TNCs compared with uninationaI (or international trading) firms. The first concerns the additional options open to TNCs in the geographical configuration of their value-added activities. Second, TNCs have the opportunity to diversify their assets and economic activity to reduce exchange and other risks of producing in different countries. Third, TNCs have access to foreign resources, markets, economic systems, business relationships, infrastructure and forms of competition. Indeed (borrowing from Porter's terminology), an important competitive advantage of TNCs is their unique ability to draw upon and make use of different national diamonds of competitive advantage.

Given those (and other) distinguishing characteristics of transnational business activity, how might it affect the competitiveness of countries? The answer will mainly rest on the values of three contextual variables. The first relates to the *nature* of the TNC activity. Here, the relevant questions include: Is it market-seeking, resource-seeking, efficiency-seeking (for example, cost-reducing) or strategic-asset-seeking in its intent? Is it primarily to protect or exploit an existing competitive advantage or to acquire a new advantage? Is the investment a greenfield investment or an acquisition of existing assets? Is it a 100 per cent subsidiary or a joint venture? Is it an initial or sequential investment? Is it a stand-alone or an integrated investment?

The second group of variables relates to the content and structure of the *existing* competitive advantages of a country. Is domestic rivalry, prior to outward or inward investment, weak or strong? Are its factor endowments plentiful? Are domestic consumers demanding more differentiated products? What role do Governments play in upgrading or standardizing product quality? And so on.

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The third main variable, which affects and is affected by the second, is the economic signals provided by Governments. To what extent, and in what way, might (or do) Governments, directly or indirectly, influence both the competitiveness of the resources and capabilities within their jurisdiction and the actions of their own, and foreign, TNCs?

Clearly, the significance of each of these three variables will depend on (home and host) *country* (or region), *firm* and *activity* specific circumstances; and while, at any given moment of time, they might be independent of each other, over time they are closely interlinked. For example, FDI may both affect the technological capabilities of rival domestic firms and be affected by them. For the purpose of our analysis, however, it may be appropriate to consider the impact of a change of inward or outward investment on *the existing competitive advantages of firms and industries*.

One further introductory point needs to be made. In most analyses of the impact of transnational business activity on national competitiveness, inward and outward direct investment are considered independently of each other. Although there are unrelated effects of each kind of investment, there is some merit in considering these as opposite sides of the same coin. This is especially so when looking at the macro-organizational dynamics of competitiveness. Though there is no necessary connection between a change in inward investment and the propensity of domestic firms to engage in outward investment (that is, it may affect only domestic resource allocation), in practice, in a world in which four fifths of TNC activity is within the advanced industrial countries and is primarily intra-industry in character, the volume and structure of outward and inward direct investment are likely to be closely interwoven and very much governed by the factors identified by Porter.

Research suggests, however, that the relationship between the two is by no means straightforward [Dunning, 1985]. Indeed, a fascinating area for additional research (and one not really tackled at all by Porter) is the identification of the circumstances under which changes in the level and structure of outward and inward transnational business activity move in similar directions (that is, are

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complementary to each other), and those in which they move in opposite directions (that is, are substitutable for each other).<sup>10</sup>

For the purpose of the present review, it will be sufficient to analyse some of the implications of a spontaneous or induced change in outward and inward TNC activity for each of the four facets of the diamond of competitive advantage, both directly and indirectly through their repercussions on the actions of Governments. Again, the analysis will concentrate on just one or two aspects of each of the four facets. As a reminder, it should be reiterated that the facets are closely interlinked and that the more one takes a dynamic perspective of the impact of TNC activity, the less useful it is to consider each competitiveness-related variable separately.

### **The conditions of demand**

Porter argues that the *structure* of domestic demand may affect the competitiveness of firms in the international market by providing an impetus for domestic firms to produce high-quality, well-designed, reliable and differentiated goods, relative to those supplied by their foreign competitors. Assuming that such an emphasis on product consistency or differentiation, rather than a cost-reducing strategy, is the most effective strategy for firms to pursue (although the two are not necessarily exclusive alternatives), to what extent is TNC activity likely to affect, or be affected by, such demand conditions?

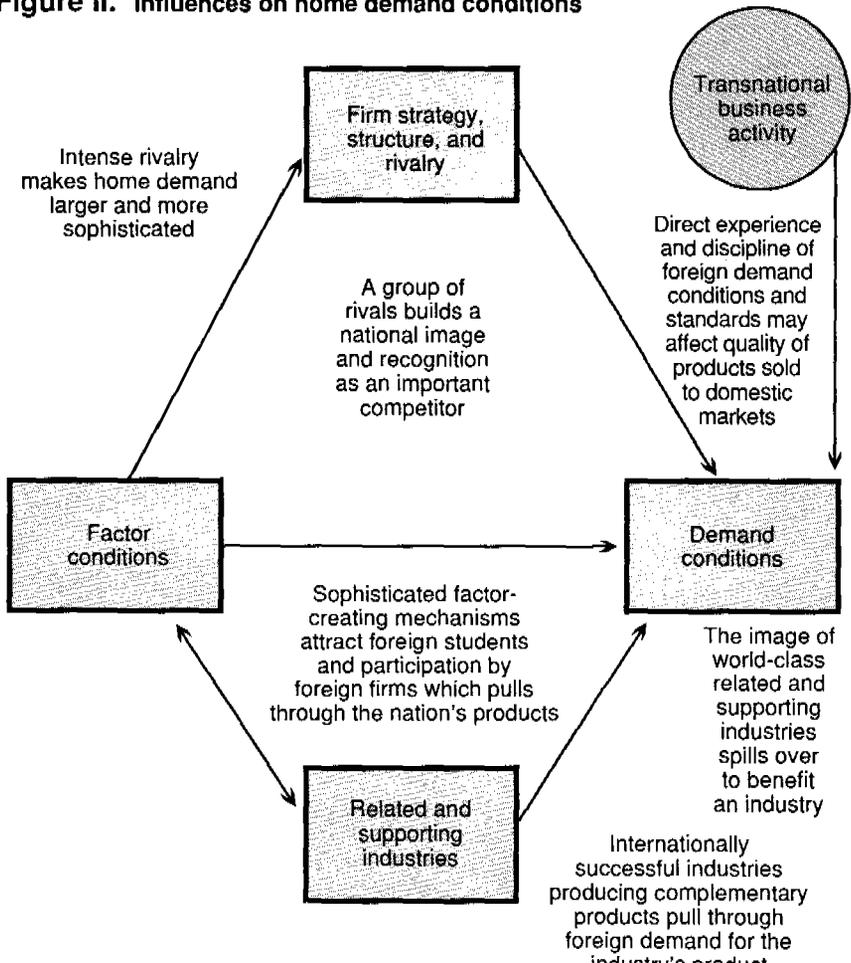
Consider first the likely interaction between local patterns of demand and *inward* investment. Here, the impact of such investment is likely to depend on the pattern and quality of the existing demand and how it compares with that of the investing nation and that of other countries in which the TNC produces. It is also likely

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<sup>10</sup> To give an illustration, first at an industry level: inward investment in the United Kingdom motor industry might rise (fall) with outward investment; or inward investment might rise (fall) as outward investment falls (rises). Second, at a meso-level, inward investment in the United Kingdom industry might rise (fall) with outward investment in *other* sectors; or the total outward investment might fall (rise) in sympathy with outward investment. The net effect on competitiveness of all those movements is highly ambiguous and dependent upon the configuration of the contextual variables identified on pp. 143-145.

to depend on the product strategy of the investing firms and the extent to which they perceive that product quality and reliability are, themselves, critical competitive advantages. Another relevant variable is the extent to which a country's citizens have been previously exposed to the products of the investing company (for example, through exports), and/or to what extent the products have been produced for export markets by indigenous companies. Much will also rest on whether the investment is a take-over of an existing firm or a greenfield investment. Finally, over time, the effect on demand quality will rest on the impact of FDI on other facets of the diamond, for example, domestic rivalry and indigenous technological capability.

**Figure II. Influences on home demand conditions**



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One can conceive of a number of possible scenarios. Take, for example, the case of a foreign chocolate producer that acquires a domestic firm in the same line of business, with a view to gaining access to the local market. Assume, next, that the acquired firm produces high-quality chocolate, but that the acquiring firm's competitive advantage lies in producing standardized low-cost chocolate. Assume, too, that the acquiring firm has chocolate-producing facilities elsewhere in the world and that it does not intend to export from the country of the acquired firm. Then, in such cases (and unless the acquiring firm simply adds to the product range of the acquired firm), there could be a *lowering* of the standards of demand by the citizens of the host country. This is not to say that the investment may not be beneficial, as it could stimulate domestic rivalry and raise efficiency in the production of low-cost chocolates!

Consider next an alternative scenario in which an investing firm considers its main competitive advantage to be the consistency of the quality of its colour television sets. Assume that some impact on domestic consumer demand (via informing consumers about defect-free products and raising their purchasing standards) may have been made by the exports of the investing country, but that the presence of local production facilities increases that awareness. Then, given the other facets of the diamond, the upgrading of consumer expectations might force other firms to improve the quality, or lower the costs, of their products, which might, in turn, help them to become more internationally competitive. That is, in fact, what appears to have happened as a result of Japanese investment in the European and United States motor vehicles and consumer electronics industries.

Earlier, it was suggested that the impact of inward investment on the diamond of competitive advantage might depend on the purposes of that investment. As far as the impact on *domestic* demand is concerned, that is clearly most likely to be felt where the intention of the investment is to service the domestic, and sometimes adjacent, markets, that is, import-substituting investment, although whether this is the case depends, in part at least, on the extent to which the Government of the host country may influence

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the conditions of demand either directly or by affecting the demand of consumers.<sup>11</sup>

Indirectly, demand conditions in the home country, including the influence of the host Government over them (for example, via the level and structure of direct and indirect taxation, their control over quality of public goods and services, the harmonization and upgrading of technical standards, such as in the procurement of information and telecommunication systems, and the imposition of rigorous safety, health and environmental regulations), may affect the extent to which foreign firms are willing to invest in the host country and hence their contribution to other parts of the diamond.

Consider next the way in which foreign activities of domestic TNCs affect, or may be affected by, the structure and content of domestic demand. Take the case of an investment by a company from a country in which consumers are relatively unsophisticated (perhaps because they are protected from foreign competition) operating in a country in which consumers are highly demanding. Assume for the moment that such an investment is possible because the investing companies perceive it as some kind of competitive advantage. Then, in so far as consumer expectations and requirements in the foreign market affect the comparability, quality or cost of the product supplied to that market, they may, in turn, influence the kinds of products sold in the domestic market. Alternatively, "easy pickings" in an important foreign market could make a firm less cognizant of, or less willing to cater to, the more stringent demands of domestic consumers and, indeed, even lower the product quality and reliability of its locally produced output.

On the other hand, the ability of a firm to become an outward investor may be influenced by the extent to which domestic consumers have forced indigenous firms to provide more differentiated or higher-quality products than those normally accepted by foreign consumers. A classic case is that of Japanese outward investment in the motor vehicles and consumer electronics sectors.

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<sup>11</sup> In India, for example, the priority of the Government has been to encourage self-sufficiency of output rather than raise the quality of domestic demand.

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So much for extremes and generalities. To what extent can one identify the conditions necessary for TNC activity to act as a vehicle for upgrading consumer demand? The answer may be comparatively simple. Look, first, at the demand conditions of the home country of the inward investor, or the host country of the outward investor, and compare these with those of the countries in which the inward or outward investor already produces. Second, consider whether or not such knowledge about those conditions, or the impetus to create them, could be, or is being, achieved at lower cost, through alternative means. Third, consider whether or not consumers are likely to embrace such conditions. How sensitive are they, for example, to foreign purchasing customs and standards? Fourth, consider the *power* of consumers to influence the quality of products supplied by competitive firms. For example, how significant are they in relation to all consumers?

Finally, consumer awareness, or pressure for quality improvement, is not always a necessary (and rarely is it a sufficient) condition for the upgrading of consumer demand. Nor is it necessarily desirable if it results in a reduction of economic welfare in other directions (for example, by driving out competition and making possible monopoly pricing). One of the best examples that comes to mind is the quality of in-flight facilities provided by international airlines. Customers, irrespective of their nationality, applaud the quality of food and in-flight service offered by such airlines as Singapore, Thai, Cathay Pacific and Swissair and almost unanimously believe that the calibre of the equivalent amenities provided by many United States airlines is inferior. Why then, it might be asked, do United States air travellers not insist on higher quality on their domestic airlines?

The answer seems to be twofold. First, the United States airlines tend to compete on the basis of (indirect) price reductions, for example, through generous frequent flyer mileage programmes, which may appeal even to the most discerning business traveller. Second, there is no competition from the best foreign airlines on *domestic* United States routes, which still account for the majority of business by United States airlines. Thus, whether inward or outward investment raises quality standards depends very much on variables apart from consumer reaction *per se*, although it would

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be difficult to deny that such foreign investment offers options to consumers which might otherwise not be available. Similarly, if the United States airways were open to foreign competition, almost certainly the quality of air travel would improve.

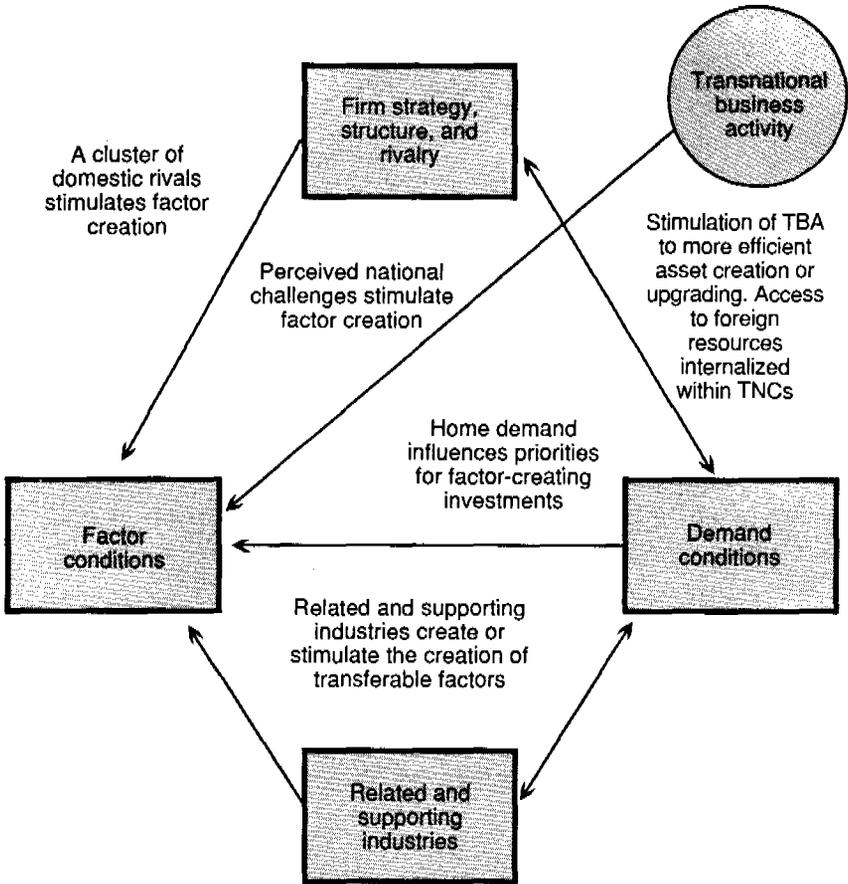
### **The level and structure of natural endowments and created capabilities**

Traditionally, the main benefit of inward indirect investment has been perceived in terms of the resources it provides (at lower real cost than by the best alternative modality) and its distinctive impact on the productivity of indigenous resources. This productivity may be achieved in two ways: first, by the redirection of resources (both along and between value-added chains) to where they can be more productively employed; second, by improving the quality of existing resources and capabilities, or by putting them to more effective use. This latter objective may be accomplished by the injection of more dynamic and successful entrepreneurship and/or by the provision of superior technology and managerial and organizational skills. At the same time, inward direct investment has been criticized on the grounds that it may lead to a lowering of the value of indigenous resources and capabilities, for example, by means of a socially unacceptable rate of depletion of natural resources, or by the repatriation of assets, for example, technological capacity, which a foreign firm might have acquired from a domestic firm at a socially unacceptable price.

Outward direct investment may also be viewed in two ways. On the one hand, it may extend the ownership of assets by the investing companies beyond their national boundaries and, by opening up new markets or protecting existing markets, enable domestic resources and capabilities to be used more efficiently. On the other, it may transfer such resources and capabilities, notably finance capital and technology, which might have been deployed more productively in the domestic market.

Again, the balance of those costs and benefits, and the interaction between them, will depend on the motives for, and types of, TNC activity; the existing level, pattern and competitiveness of indigenous resources; and the economic environment in which the in-

**Figure III. Influences on factor creation**



vestment is made. It will also rest on the alternatives to acquiring resources by FDI.<sup>12</sup> For example, Japan has managed to obtain many of the benefits that inward investment might have provided by way of non-equity transfers of technology and human skills (including the conclusion of strategic alliances with foreign firms) and by importing knowledge-intensive products. Smaller European countries, such as the Netherlands, Sweden and Switzerland, could not have improved or retained their competitive position without their companies' producing much of their output outside their

<sup>12</sup> For example, is it prompted by market distortions, or a response to market forces? Is it part of a defensive oligopolistic reaction or a result of the increased efficiency of cross-border hierarchies?

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home countries. By contrast, some commentators [Gilpin, 1975] have argued that, by exporting its advanced technology through outward direct investment, the United States has eroded its competitive position and reduced the capability of its own companies to maintain their innovating advantages *vis-à-vis* European or Japanese counterparts.<sup>13</sup>

The distinctive impact of TNCs on the international allocation of natural resources and created capabilities depends not only on their ability and desire to internally transfer such assets between countries, but on the control exerted over the deployment of other resources and capabilities under their control. This is mainly reflected in the type of economic activity undertaken, which, in turn, will affect the kind and productivity of resources used, and the ability of the economy to adapt to changes in world supply and demand conditions. Moreover, in so far as foreign firms may affect both the sourcing of inputs and the destination of outputs, they may have consequences for the stability of domestic resource deployment.

In examining the specific impact of FDI, it is important to distinguish between short-run and long-run consequences. It is quite possible that, in the short run, by producing more efficiently than its indigenous competitors, a foreign firm may increase domestic output. If in so doing, however, it competes out of existence a competitor that, overall, has a higher domestic value added per resource used, that could lead to a resource downgrading, rather than upgrading, in the long run.

Such a consequence, however, might still be acceptable to the host country, if the actions of the foreign firm reflected its response to competitive market signals and the resources released could be used more productively elsewhere in the economy. To that extent, it is important not to take too partial an approach in examining the consequences of FDI. Two scenarios can illustrate this point. Take first a situation in which outward investment is directed to activities

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<sup>13</sup> A somewhat more sophisticated argument is that, rather than investing overseas to protect or advance its competitiveness in high-technology products, the United States might have had more productivity in the long run if its firms had devoted more resources to product innovation or to improving production efficiency in their domestic plants.

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which require resources and capabilities in which the investing country is comparatively disadvantaged or is losing its comparative advantage, or where the purpose of the investment is to acquire resources and capabilities, which will add to the competitiveness of the existing assets of the investing company. Suppose, next, that, owing to appropriate structural adjustment policies and the willingness of firms to reallocate resources, the resources released were taken over by foreign investors, who, by combining those with other foreign assets (for example, entrepreneurship, technology, organizational capability), were able to use them more productively. Then, in such a case, transnational business activity would be likely both to increase and to upgrade indigenous competencies.

Now let us consider a second scenario. Assume that a foreign firm responds to import controls imposed by the Government of the host country, or has a defensive oligopolist reaction to produce goods which require resources, valued at international market prices, in which the home country has a comparative advantage. Suppose, too, that, to avoid unwelcome industrial or penal fiscal policies pursued by their own Governments, domestic firms choose to increase their foreign rather than their home investments. Then, in such cases, although overseas production might be a second or third best solution, the first best solution, in terms of domestic factor endowments, might be for the Government to modify its macroeconomic policies so that the prices of domestic inputs and outputs better reflect their true opportunity cost.

Finally, the net effect on factor endowments and created capabilities of TNC activity is likely to rest on the price paid for the inward investment and the gains accruing from outward investment to the investing country. For example, it may be calculated that a take-over of a domestic firm might reduce the competitiveness of the resources used by the acquired firm (although it might help to improve the competitiveness of those used by the acquiring firm). From the perspective of the host country, however, the take-over should be discouraged only if the agreed price is insufficient to compensate for those (possible) adverse effects. Here, the distinction between the social and private price of an acquisition is of critical importance [Dunning and Steuer, 1969].

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Similarly, the returns from outward investment should include not only the income earned by the affiliate, but the other possible benefits of operating a foreign presence, for example, the feedback of technological or managerial know-how and the increased market it makes possible for domestic resources. Various studies have shown that, in some sectors and by some countries, transnational business activity has made a significant contribution to the restructuring and upgrading of domestic resources.<sup>14</sup> Indeed, the foreign activities of Japanese TNCs have played an integral part in the restructuring and upgrading of the Japanese economy since the mid-1960s [Ozawa, 1989].

### **Domestic rivalry**

Porter also argues that the extent and degree of competition between domestic rivals are an important variable affecting national competitiveness. In particular, he points to the larger number of firms in Japan than in the United States which are competing with each other, as a factor making for the higher industrial competitiveness of the former country.

The optimum structure of a market for competitive and innovative stimuli has always been a matter for debate. Certainly, it would be erroneous to argue that a greater population of firms necessarily means more *effective* competition. The Canadian experience—and that of other countries with small markets—completely belies this. There can be little doubt, however, that the number and type of competitors are an important variable affecting the strategic conduct of firms, and that some forms of market structure are more conducive to the promotion of short-term or long-term competitiveness than others. Lawrence (1987), for example, views an optimum market structure as one which allows neither cut-throat and destructive competition, on the one hand, nor lethargy on the part of the constituent firms on the other.<sup>15</sup>

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<sup>14</sup> See especially those contained in Dunning (1985) and Reddaway, Potter and Taylor (1968).

<sup>15</sup> To quote from Lawrence: "An industry needs to experience rigorous competition if it is to be economically strong. Either too little or too much competitive pressure can lead an industry to a predictably weak economic performance characterized by its becoming inefficient and/or non-innovative." [Lawrence, 1987, p. 102.]

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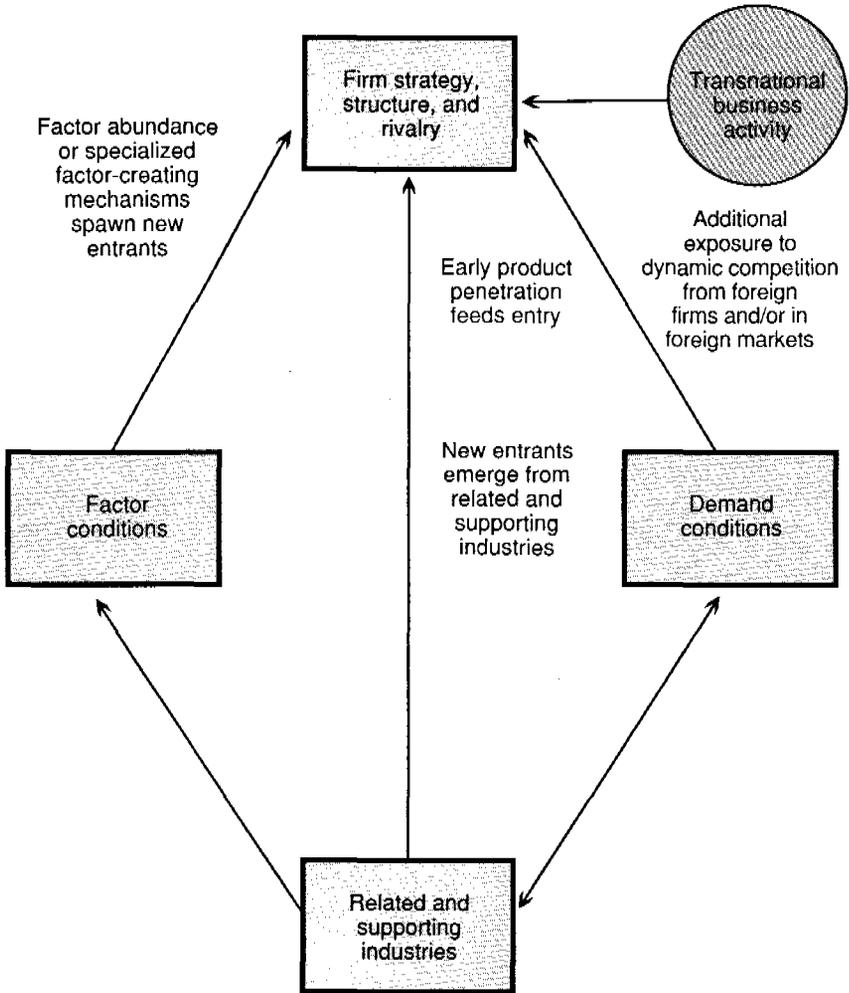
The literature also suggests that TNCs are likely to have an impact on domestic market structure both by the resources, capabilities and markets they can provide and by the control exerted over those assets, and any other means germane to their jurisdiction. In turn, these effects may impinge on the behaviour of their competitors and the structure of the industry in which they operate.

Again, it may be helpful to illustrate from two extreme scenarios. The first is where a foreign firm takes over an existing producer and uses its global power to drive out local competitors. Furthermore, assume that this power is being used not to advance efficiency, but to promote a monopoly position. In such a case, domestic rivalry will obviously be adversely affected by such investment—although whether or not that reduces overall economic competitiveness will depend upon the other consequences of the take-over. The second scenario is where a foreign firm injects a new element of competition into a market supplied by a local monopolist, or where, as a result of an acquisition, it revitalizes an industry which otherwise might have perished because of insufficient or inappropriate competition.

A major drawback of most analyses of the optimum market structure of firms is that they tend to limit their attention to domestic or national markets. In a world in which the bulk of activity in many sectors is dominated by TNCs, that is unacceptable. Competition between the major pharmaceutical, consumer electronics, banking, oil, tyre and motor vehicle companies is mainly played out not in national markets, but in world markets. Porter cites the greater number of Japanese firms in several industries as an illustration of competitive rivalry. Yet, at the time of Porter's research, the Japanese market was largely closed to foreign competition. Not only that, but until recently the majority of the output of Japanese companies was sold to domestic consumers.

The situation is very different in the case of some smaller advanced industrialized or industrializing economies, which are also well up in the competitiveness league table, notably the Netherlands, Singapore, Switzerland and Hong Kong. It is unlikely that the chief executives of Nestlé, Philips or Volvo would accept that the competition they encounter is any less intense than that faced

**Figure IV. Influences on domestic rivalry**



by their Japanese or United States equivalents. The difference is that the former is almost exclusively provided by foreign competitors. What is more important is that, as markets become more globalized and cross-border trading barriers are relaxed, the international dimension of inter-firm rivalry is likely to increase.

Indeed, one may go further by suggesting that a persuasive case can be made that, in the right circumstances, rivalry by foreign firms might offer greater benefits than that between domestic firms. At the same time, domestic firms that also produce outside their

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national boundaries are, for the most part, likely to face tougher competition than those that only supply domestic markets— particularly if the latter markets are protected in any way.

The conclusion may be, then, that there are consequences on domestic rivalry which are distinctive to transnational business activities. It may be accepted that, a priori, it is difficult to predict whether, in the long run, these are likely to be beneficial or not. However, it is possible to argue that both inward and outward FDI do have the potential for increasing healthy domestic rivalry—and hence for improving this particular facet of the diamond of competitive advantage. Whether the potential is translated into reality depends on the existing domestic and international market structure, the type and form of FDI and its impact on that market structure,<sup>16</sup> and the role played by national Governments in facilitating the appropriate signals for rivalry.

### **Agglomerative economies and the clustering of related industries**

The prospect of economies external to the firm, but internal to a network or cluster of firms located in a particular geographical area, is a familiar competitive advantage articulated by economists since the time of Alfred Marshall. The fact that clusters of related activities do exist and confer considerable benefits to the participating firms has been spelt out in various regional studies, notably those on the City of London [Dunning and Morgan, 1971], California's Silicon Valley [Scott and Angel, 1987], the location of government research establishments in south-east England [Hall, et al., 1987], the Greater Grenoble area in France [Boisgontier and de Bernardy, 1986], several districts in northern Italy [Malerba, 1990] and the Ibaragi Prefecture in Japan.<sup>17</sup> Moreover, those studies suggest that the need for firms to draw on resources and capabilities that have to be geographically concentrated to be efficiently supplied is increasing. The advantages of clusters, as described by

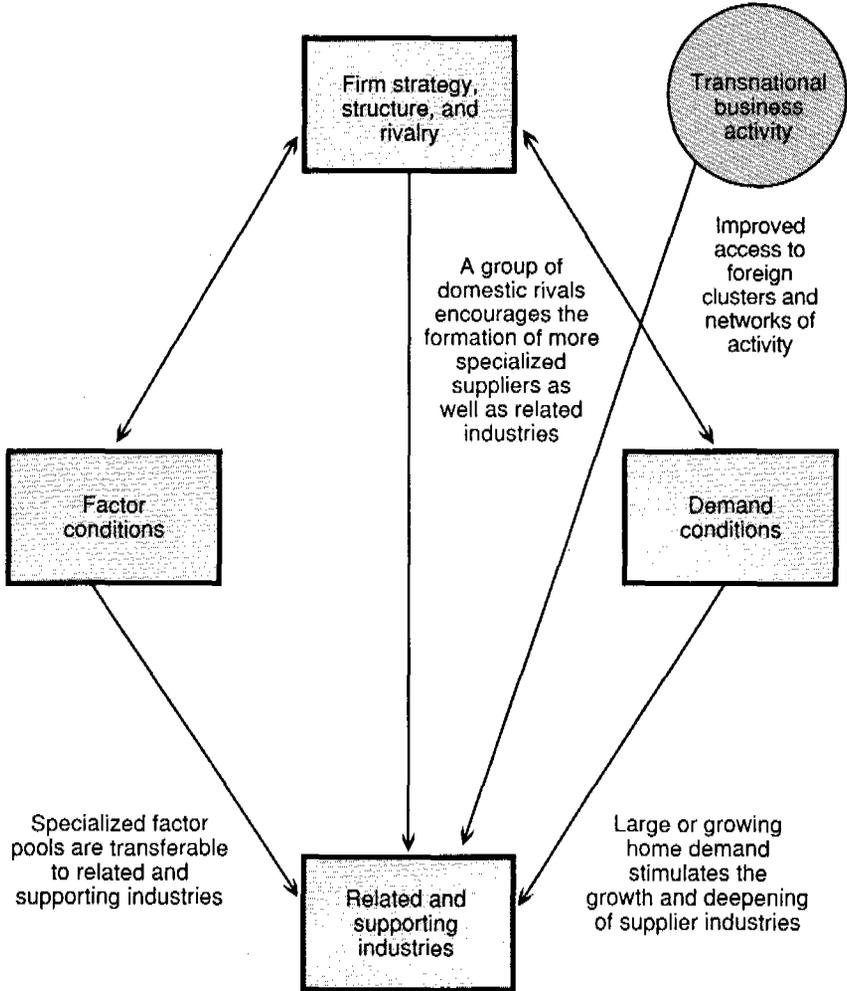
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<sup>16</sup> For example, it is possible to envisage transnationalization leading to international cartelization; or helping to inject competition into markets dominated by a single producer or a few producers.

<sup>17</sup> Where a new science city at Tsukuba already has the reputation as a world-class centre for R&D [*Japan Update* (Winter 1990)].

Porter, are that firms benefit from a shared culture and learning experience, supply capabilities and local infrastructure, and that the resulting economies give them a competitive edge in both domestic and international markets.

**Figure V. Influences on the development of related and supporting industries**



Geographical clusters or networks of economic activity may take various forms. They may be between firms producing related products across value-added chains, or between firms at different

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stages of the same chain. The related presence is assumed to benefit all firms within the cluster to some extent and, hence, protect or advance their competitiveness.

In his book, Porter does not attempt to measure the significance of clusters as a facet of the diamond, or whether it has become a more or less important facet with the passing of time. Nor does he give much attention to the conditions that make for successful clusters. Clearly, not all firms need to be part of a network of vertical or horizontal linkages. Moreover, not all linkages need to be in the same or similar locations.

Let us now consider the extent to which efficient clustering is likely to be affected by transnational business activity in either home or host countries. In what way does it respond to, or affect, the propensity of firms to cluster differently from business activity conducted by non-TNCs?

Perhaps the first point to be made is that the TNC (and more especially, a large, diversified TNC) is *par excellence* a network of interrelated activities. Indeed, one of its strengths derives from the external economies associated with particular types of activities, which it, as coordinator of those activities, can capture. Corporate integration makes possible the economies of common governance. Sometimes those economies are best exploited in the same location (in which event one has the case of hierarchical clusters), and sometimes in different locations.

At the same time, there is some suggestion that TNCs may create their own clusters of foreign-based activity. Indeed, F. T. Knickerbocker observed this as a phenomenon of TNC activity two decades ago [Knickerbocker, 1973]; in the 1980s and 1990s, there is ample evidence that Japanese motor vehicle and consumer electronics firms, behaving as a group, have been pursuing a "follow my leader" strategy in investing in Europe and the United States. More than this, the presence of such firms is encouraging investment by Japanese component suppliers and subcontractors, and new intra-industry value chain networks are being established.

The evidence is mixed, however, on the geographical distribution of those activities. Currently, 75 per cent of the output of colour television sets of Japanese affiliates produced in the United

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Kingdom are from factories located in South Wales. The mid-Lothian industrial conurbation in Scotland attracts two thirds of all foreign-owned firms producing semi-conductors in the United Kingdom. More than one half of Japanese direct investment in German manufacturing industry is sited in the Düsseldorf area. And there are suggestions that north-east England may become an important new centre for the production of motor vehicles and their components. At the same time, the Japanese investors were not initially attracted by a cluster of existing activities; indeed, they have helped create new clusters.

But there are other examples that point to the contrary conclusion. The examples of clustering centres cited earlier in the present article have all attracted foreign-based companies that have generally reinforced the value of existing agglomerations of activity. On the other hand, outward investment might be expected to lead to a reduction in domestic-cluster intensity. An exception, perhaps, is in R&D and other high-value activities of TNCs, which tend to be concentrated in their home countries. The critical issue is to identify the optimum cluster of firms to gain the maximum external net economies at the lowest cost; for after a point, diseconomies of agglomeration arise. Such evidence as exists on the effect of foreign firms on clustering does not permit us to come to any generalized conclusion.

Again, however, it is not difficult to point to cases where foreign-owned firms might enhance or inhibit particular types of clusters. For example, if such firms replace domestic firms and transfer their R&D activities to their home countries, that could reduce the agglomerative economies of R&D. If, on the other hand, affiliates upgrade factor endowments and the quality of output by increasing the demand for the products of the host country, that could lead to an increase in new kinds of networking economies. Much would seem to depend upon the type of activities in which a foreign affiliate engages (compared to domestic firms) and the extent to which it buys from local suppliers or sells to local consumers.

The effect of outward investment on the domestic networking of activities is equally ambiguous. There is some suggestion that the Continental European investment of United Kingdom motor vehi-

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cle component firms was prompted by the better agglomerative economies offered by regions of concentrated industrial activity in the Ruhr Valley and in Belgium; and that this investment decreased the viability of the corresponding clusters in the United Kingdom [Cowling, 1986]. At the same time, the competitiveness of the investing firms may well be improved by their investments in foreign clusters, and that may have other beneficial effects on the home economy.

### **TNCs, Governments and competitiveness**

Although Porter addresses a whole chapter to the role of Government as a shaper and monitor of economic activity, he has very little to say about the extent and way in which government policy is itself influenced by global economic forces and, in particular, those which are the result of the internationalization of production.

The interaction between TNCs, Governments and competitiveness is a complex subject that is only now being addressed seriously by scholars.<sup>18</sup> Yet it is known to be extremely important, particularly in some developing and smaller developed economies. For the purpose of the present review, it is sufficient to focus on two issues that need to be incorporated into an analysis of the competitive advantages of nation-states.

First, one of the distinguishing features of TNCs is their ability to shift value-added activities across national borders more easily than can uninational firms; indeed, this is a *sine qua non* for their existence. In the past, the spatial strategies of TNCs have been based primarily on the size of domestic markets and the relative competitiveness of national resources. In today's global economy, in which international sourcing and markets are as important as, if not more important than, their domestic equivalents, the configuration of TNC activity (particularly within the Triad) is less dependent upon the availability and cost of unimproved natural resources, and more upon the knowledge base and infrastructure facilities of economies in which they are producing or contemplat-

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<sup>18</sup> For an analysis of this interaction, see Dunning (1990, 1991a, 1990b) and Behrman and Grosse (1990).

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ing producing. At the same time, Governments can and do strongly influence the extent, quality and cost of those factors by their education, science and technology, industrial, trade, environmental, transport and communications and fiscal policies. Indeed, in a variety of ways, nation-states are increasingly competing for resources and capabilities offered by TNCs.<sup>19</sup> The combination of the footloose nature of much modern industry (especially within integrated regions, such as the European Community) and the increasing significance of government influence on the transaction costs of such activity—and especially of high-value activities in which TNCs tend to have a competitive advantage—is something which deserves more attention than Porter has chosen to give it in his book.

Second, TNCs can themselves influence government behaviour, including that which directly impinges on the diamond of competitive advantage. In most industrial economies, TNCs account for an increasing proportion of value-added activity. Encouraged by the recent wave of cross-border acquisitions and mergers, such activity is also concentrated in the largest percentage of firms. In their emphasis on wealth-creating activities and competitiveness, Governments are being forced to acknowledge the views of the leading wealth creators. At the same time, such firms do not always (or solely) have their home country's interests at heart, as an increasing proportion of their sales and profits are earned outside their national boundaries. Thus, Governments may be prompted to take action which may affect the competitiveness of their location-bound assets in a variety of ways, as described by Porter. In some instances, such action can lead to more competitiveness and a synergy of goals between the long-run interests of corporations and those of nation-states; a good example is the initiative taken by some leading European TNCs to push forward the completion of the Community's internal market programme. In others, the interests of TNCs may be best served (or perceived to be best served) by urging Governments to adopt policies which, far from promoting

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<sup>19</sup> Witness, for example, the strenuous efforts by state legislatures in the United States to attract inward direct investment. On the interaction between the strategy of resource usage by Governments and TNCs, see an interesting paper by Stopford (1990).

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dynamic competitiveness, may inhibit it by giving shelter to inefficient or non-innovatory firms.<sup>20</sup>

There can be little doubt that policy rivalry between nation-states is a feature of the late twentieth century, and is likely to continue to be so for the foreseeable future. Until now, most attention has been paid to the merits and demerits of strategic trade policy.<sup>21</sup> However, this may be just the tip of the iceberg; the real battle is being fought in the area of competitive strategy, which embraces not only the facets of the diamond identified by Porter, but also the ability of firms to reallocate and/or upgrade their human and physical resources to the changing needs of the market-place with the minimum adjustment cost. In each of those areas, as Porter acknowledges, Governments have a critical role to play both in setting the framework within which market forces and/or hierarchies can operate and in counteracting practices, either by the participants of the market or by other Governments, of rigging the workings of the market to their own benefit.

In analysing the behaviour of particular national Governments, however, an understanding both of the international forces affecting that behaviour, and of the likely consequences of their actions on the goals of other Governments, is essential. In their role both as instruments of the globalization of economic activity and as links between the strategic policies of the Governments of the countries in which they operate, TNCs are likely to have a distinctive impact on the shaping of a whole range of government-related actions which, directly or indirectly, affect the shape and quality of national diamonds of competitive advantage. The nature and implications of that impact merit more consideration than Porter has given to them.

## Conclusions

The answer to the question of whether foreign inward and outward direct investment is likely to affect the diamond of competi-

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<sup>20</sup> For an analysis of the interaction between the politically oriented strategies of firms and the likely response of Governments, see Rugman and Verbeke (1990).

<sup>21</sup> See Stegemann (1989) for a review of the literature on this subject.

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tive advantage must surely be “yes”. Transnationality does confer its own unique characteristics and bring about a distinctive impact on resource allocation and usage. Similarly, the evidence set out in the present review suggests that the significance of that impact, particularly in the industries in which the industrialized nations are seeking to promote their competitive advantages, is sufficiently noteworthy for the transnational business variable to be considered as a separate factor affecting the configuration of those advantages.

In answer to the question: will foreign inward and outward investment improve the competitive advantage of host or home countries?, the answer that is all too frequently (but justifiably) given by economists is “it all depends”. The most (but this should not be belittled) an economist can do is first to set out the conditions under which, and the ways in which, domestic or foreign TNCs are likely to benefit national competitiveness (either in an industry or in an economy) in the short and/or long run; and second, to indicate what might be done (and at what cost) to optimize the impact of outward and inward investment (and associated activities, for example, strategic alliances) on that competitiveness.

The interaction between the globalization of economic activity and national competitiveness provides a rich agenda for the scholar of the TNC. The present review has particularly sought to identify the ways in which national diamonds of competitive advantages are linked to each other by the operations of TNCs. While Porter provides a useful paradigm for identifying the main determinants of national competitiveness, his lack of attention to the ways in which such competitiveness may be affected by the ownership structure of firms and the way cross-border markets are organized weakens both the content and force of his thesis. But the good news is that Porter has left international business plenty of interesting research to carry out! ■

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