



Industrial Development, Globalization and Multinational Enterprises: New Realities for Developing Countries

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ABSTRACT *Globalization has changed economic realities. First, the competences of multinational enterprises (MNEs) are becoming increasingly mobile and knowledge-intensive. MNEs thus give more attention to the availability and quality of the created assets of alternative locations. Second, among developing countries there are now considerable differences between the “catching-up” countries (e.g. newly industrialized countries) and “falling behind”, less developed countries. These developments have helped change the opportunity sets of both MNEs and host countries. Foreign direct investment (FDI)-based development strategies are now commonplace among less developed countries, but there is also increased competition for the “right” kinds of investment. In general, the balance in bargaining power has shifted in favour of the MNE, and less developed countries increasingly need to provide unique, non-replicable created assets to maintain a successful FDI-assisted development strategy.*

1. Introduction

Fundamental changes in political ideologies and economic systems among a large number of developing countries have led to dramatic shifts in the way governments of these countries perceive their interests and those of their constituents. As a result, there is now a wide variety of attitudes and policies of national governments towards the activities of multinational enterprises (MNEs). This heterogeneity of responses is not, in itself, surprising, given the different stages of development, political ideologies, cultural norms, history and institutional infrastructure of countries. It is, none the less, possible to generalize that the relations between national governments and MNEs in the 1990s, if still uneasy, are more favourable than they have been for many years (Dunning, 1998).

The present thrust towards MNE-friendly attitudes by governments dates back to the early 1980s, and corresponds to a variety of changes in the world economy which have been generically (although not always appropriately) described as “globalization”. Economic globalization refers to the increasing cross-border interdependence and integration of production and markets for goods, services and capital. This process

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leads to a widening of the extent and form of international transactions, and to a deepening of the interdependence between the actions of economic actors located in one country and those located in others (Dunning, 1997a). It is perhaps best demonstrated by the huge increases in the transnational flows of both portfolio and direct investment, and in the number of cross-border strategic alliances.¹

One of the primary consequences of globalization has been the growing convergence of income levels, consumption patterns and institutional structures, both among the industrialized countries, and between them and the more advanced developing countries; and also the increasing significance of their intra-firm trade in goods and services (Fukuyama, 1995; Landes, 1998). The two primary determinants of globalization have been: (i) the rapid and widespread implementation of new technologies, particularly information and computer technologies (ICTs), and the consequential fall in cross-border communication and organizational costs; and (ii) the renaissance of democratic capitalism and the liberalization of many domestic and international markets.

Globalization has influenced both the nature of the comparative or location-specific (L) advantages of countries and the competitive or ownership-specific (O) advantages of corporations, and also the opportunity sets facing the governments of the former and the managers of the latter. *Inter alia*, value adding activities have become increasingly knowledge- or information-intensive, not just in high-technology sectors, but also in those that were previously regarded as natural resource- or labour-intensive. Both firms and governments have thus adjusted their strategies and policies to the realities of the new global environment. First, the nature and content of MNE activity have undergone marked shifts, as their firm-specific intangible assets—especially intellectual capital—have become more mobile. Second, national governments now increasingly compete with each other to attract mobile investment. As the significance of immobile created assets² in influencing the competitive position of MNEs has increased, so too have the bargaining stakes of the two parties. However, globalization has not affected all countries and regions to the same extent or in the same way. Indeed, it has resulted in a widening in the created assets and income gap between the industrialized countries and a handful of wealthier developing countries on the one hand, and the poorer developing countries at the other. The focus of this paper is on the latter group of countries which have “fallen behind”. One of the consequences of this economic polarization is that the bargaining position (and the opportunity costs) of national governments *vis-à-vis* foreign direct investors has become more variable. For example, different kinds of L and O advantages are associated with inward MNE activity in (say) Taiwan, compared to Bangladesh. In addition, the motives, modes and extent of MNE involvement vary considerably as countries move along their development paths (Dunning & Narula, 1994, 1996; Ozawa, 1995, 1996). Such lacunae need to be examined more closely.

Foreign direct investment (FDI)-based development strategies are now commonplace among developing countries. Although there has been a growth in the global FDI flows, there is also increased competition among governments for such investment, particularly that which provides opportunities for indigenous spillovers of technology and organizational capability. In a global world, competition between core and peripheral economies for a finite number of discrete investment projects will, if the L advantages of the competing entities are similar, be “won” by the government with the biggest financial incentives and subsidies. Moreover, such tournaments have the potential to dissipate the net benefits to countries. The improvement of relatively immobile L advantages is the only feasible means for maintaining a sustainable FDI-assisted development strategy. One important means to do so is by optimizing the intra-country

spatial distribution of economic activity and by encouraging agglomeration of related activity to attract mobile investment. MNEs, in turn, are also looking for specialized locations that provide particular kinds of scarce assets to advance their own competitiveness.

This paper is organized as follows. The following section places this paper in context, by examining the need and plausibility for different frameworks for different groups of countries. We then discuss the relationship between the motives for foreign production and the changes in opportunity costs from the viewpoint of both developing host country governments and MNEs. Next, we proceed to explain how globalization has influenced the comparative advantages of firms and the locational attractions of countries, or regions within countries. The final section presents some policy implications and conclusions.

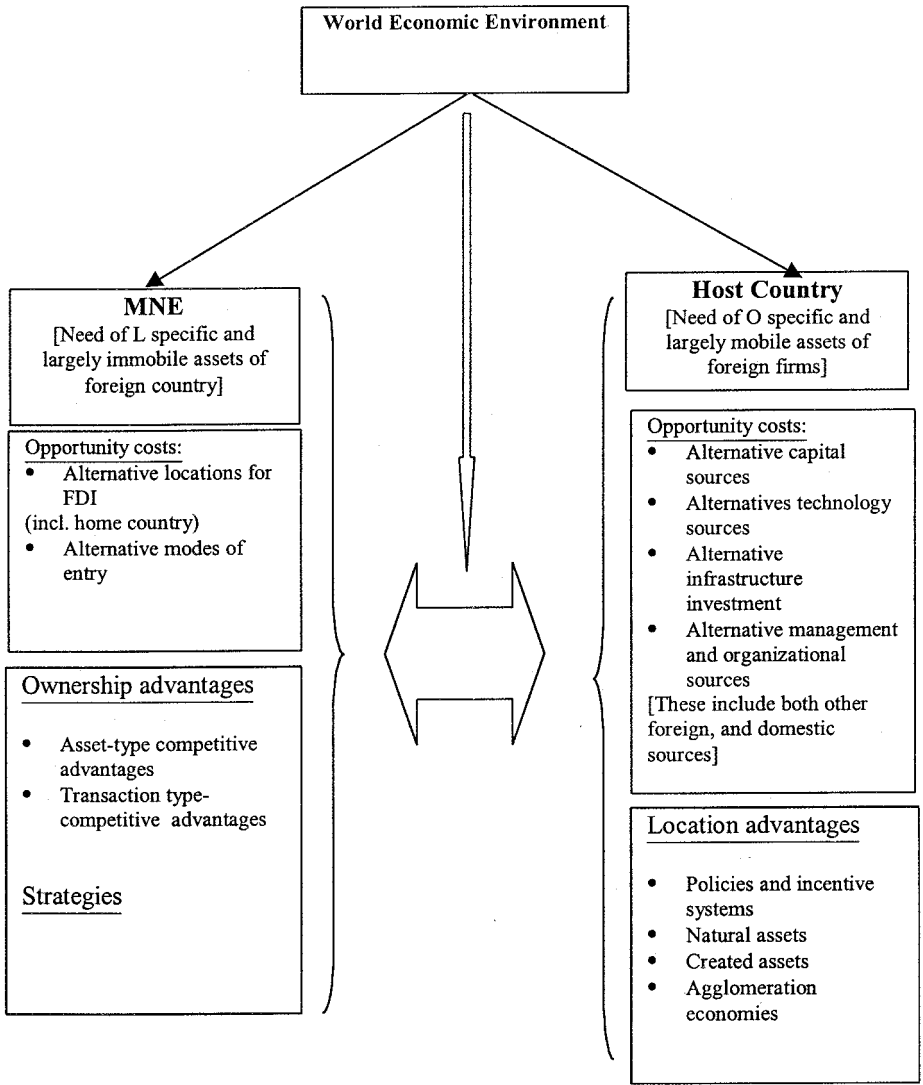
2. Analytical Framework

The economic relationship between MNEs and democratic national governments is governed by a fundamental difference in the objectives of each. The primary goal of MNEs, as with most private economic entities, is the maximization of the welfare of their owners—wherever they may be located—while national government wish to do the same for the constituents within its jurisdiction. Although not a zero-sum game—even where the relationship is not a confrontational one—the failure to find common ground often results in a sub-optimal outcome for both parties. None the less, there is a greater alignment in the interests of the two parties than there used to be. As both countries and firms seek to upgrade their resources and capabilities, by and large, the only real disagreements that remain concern the distribution of the costs and benefits of inbound FDI—including those of increased interdependence with the rest of the world. This remains a thorny issue, which, to some degree, is determined through negotiations between the two parties and their relative opportunity sets.

It is obvious that these issues go well beyond those of economics and business; and must necessarily include socio-political considerations as well. This is particularly the case with globalization, which has increased the vulnerability of hitherto relatively closed economies to the external shocks and influences from the world economy at large. This has long been the case for most Triad countries (North America, Japan and western Europe), and is becoming increasingly so for developing countries. In addition, as Stopford & Strange (1991) illustrate well, firm–government interaction is also influenced by the dynamics of government–government and of firm–firm relationships.

It is not our intention here to review the literature pertaining to the shifting political economy of MNE–government relations: this has been tackled elsewhere.³ In this paper, we are primarily interested in probing how globalization has changed the way in which developing country governments interact with MNEs, as the latter play an increasingly significant role in their economies (UNCTAD, 1998). For example, the share of outbound FDI stock directed to developing countries increased from 20.6% in 1990 to 30.2% in 1996; while the ratio of inbound FDI flows to gross fixed capital formation (GFCF) in developing countries rose from 3.2 to 8.7% over the same period (UNCTAD, 1998).⁴

Several attempts have been made to explain the bargaining relationship between MNEs and governments, the two most notable being Lecraw & Morrison (1991) and Rugman & Verbeke (1998).⁵ Essentially, the concept is that relative bargaining positions of the two parties are based on the opportunity costs as perceived by the MNEs of their O advantages, and that of the L advantages offered by the countries in which



Source: adapted from Dunning (1993) and Lecraw and Morrison (1991).

Figure 1.

they are contemplating an investment; and that of host countries of their L advantages and that of the O advantages offered by the foreign investors. The primary aspects of the relationship as proposed by Lecraw and Morrison are laid out in Figure 1. This model is not a dynamic one, in the sense that it does not examine the path of the changing opportunity sets of either party. For example, the liberalization of markets has had a particularly dramatic effect on most countries—both developing and developed—which have experienced massive deregulation, privatization and the reduction of trade and investment barriers over a span of a decade (or less). Nor does it dwell on a second dynamic, viz. the differences in the opportunity sets of countries as their economic structures and living standards change.

The point we wish to emphasize here is that the development path of a developing country is strongly dependent on the specific resources, institutions, economic structure and political ideologies and social and cultural fabric of countries. The kind of FDI

activity it might attract (or wish to attract), too, at different stages of development, are different. Indeed, these two issues are closely related. Globalization has made the differences between groups of countries become more rather than less noticeable, even though simultaneously they are becoming increasingly interdependent. Although every individual negotiation is a unique event, both the type of investment and the stage of economic development of the host country allow us to generalize that the situation currently faced by the least developed countries is fundamentally different from the catching-up countries such as the newly industrialized countries (NICs). The opportunity sets faced by the latter group, while similar to the Triad countries (and from whose perspective the bargaining framework was originally developed), also remains distinct.

We develop our argument regarding the existence of three distinct groups by relating it to the investment development path (IDP), a paradigm which postulates that the relationship between FDI and economic development of countries can be usefully analysed by categorizing their evolution through five stages (e.g. Narula, 1993, 1996; Dunning & Narula, 1994, 1996). Our primary interest throughout this paper will be the developing countries, with particular focus of the stage 1 and 2 countries of the IDP that have “fallen behind”. Throughout the rest of this paper, references to “falling behind” countries, “least developed” countries and “stage 1 and 2” countries will be used interchangeably.

2.1 Understanding the Heterogeneity of Developing Countries and its Influence on their L Advantages

In Figure 2 we present some bullet points of how the MNE/country bargaining situation has changed with globalization and how this has affected different countries. Developing countries do not represent a homogenous group, and this situation has been exacerbated by the effects of globalization. The heterogeneity and uneven development of countries may be explored from several perspectives. The literature on economic catch-up and convergence,⁶ for instance, tends to classify countries into three broad groups. The first consists of the wealthy industrialized countries which, over the last two decades, have experienced a convergence in their income levels, consumption patterns and technological capabilities. The second comprises the more advanced industrialized developing countries (primarily the Asian NICs), which are catching up and converging with the first group. The third category is made up of a large number of poorer developing countries, which, far from converging with the first and second group, are diverging from them, either because they have “fallen behind” relative to the first group, or because they have “stumbled back” in both a relative and absolute sense (Hikino & Amsden, 1994). Put another way, the rising income levels usually associated with globalization have occurred only partially, and in a very selective way.

Similar trends have been noted in the case of FDI. Studies on the relationship between inward and outward FDI and the economic development of a country suggest five stages of development, a brief description of which is given in Table 1. At a micro-level, it is now axiomatic that different motives underlie FDI, and that this is associated with the industrial restructuring process, which also follows a distinct pattern.⁷ Despite FDI flows to developing countries having grown several-fold over the past two decades, the relative share to developing countries (if one excludes the petroleum exporting countries) increased from 13.8% of the world total to 15.2%.⁸ Table 2 sets out some details of the changes in the GDP per capita and inward FDI stock per capita of countries, classified according to the World Bank income groups.

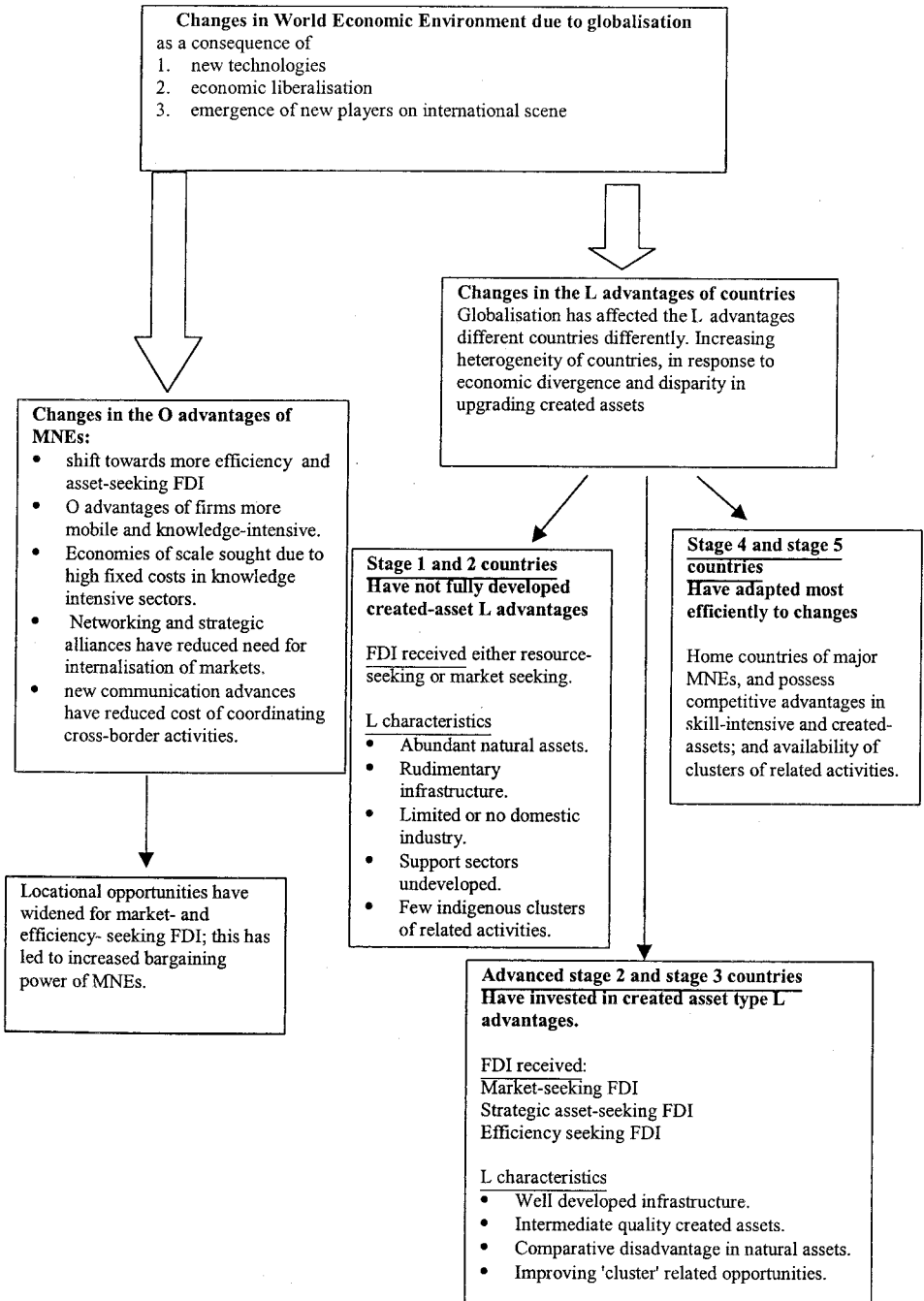


Figure 2.

Although this classification is not entirely consistent with the IDP stages, there is considerable overlap, sufficiently so to illustrate our thesis. These data confirm recent work (e.g. Narula, 1996; Dunning *et al.*, 1998) on the convergence and divergence phenomena in the case of FDI. While the inward FDI stock per capita of the low-income and lower-middle income countries increased by a factor of 3.6 between

Table 1. The primary relationships underlying the investment development path

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Level of FDI	Limited L advantages: little or no inward FDI. Few domestic firms with O advantages: no outward FDI	“generic” L advantages: growing inward FDI. Growth of domestic industry in support sectors: little outward FDI	Created-asset type L advantages are developed. Rising inward FDI Strong domestic industry, rising outward FDI	Strong L advantages in created assets Strong created-asset O advantages of domestic firms: outward FDI levels exceed inward FDI	As for stage 4, but fluctuating net zero or positive level of inward and outward FDI
Economic structure	Primary sector	declining	increasing	Manufacturing sector increasing	declining
Industrial upgrading and manufacturing comparative advantage evolution	Heckscher Ohlin sectors	Undifferentiated Smithian	Differentiated Smithian sectors	Innovation-intensive Schumpeterian sectors	
Motives for FDI	Resource-seeking investment-L advantages limited to natural resource endowments.	Resource-seeking FDI, but growing L advantages, particularly unskilled labour and infrastructure attracts labour-intensive manufacturing Growing presence of market-seeking FDI	Market-seeking FDI, and increasing efficiency-seeking FDI in manufacturing, as L advantages become increasingly created-asset-based	Efficiency-seeking FDI, market-seeking FDI and asset-augmenting FDI	

Table 2. Changes in GDP and inward FDI stock per capita, 1980 and 1995: evidence of divergence

	GDP per capita			Inward FDI stock per capita		
	1980	1995	1995/1980	1980	1995	1995/1980
<i>Low-income countries</i>	(<i>n</i> = 42)					
Mean	435.2	357.4	0.8	1.4	4.9	3.6
SD	320.1	163.9		1.7	6.1	
<i>Low-middle income countries</i>	(<i>n</i> = 36)					
Mean	1219.1	1818.3	1.5	10.4	37.4	3.6
SD	618.7	720.3		12.2	39.3	
<i>Upper-middle income countries</i>	(<i>n</i> = 20)					
Mean	3898.3	5340.2	1.4	40.4	179.5	4.4
SD	3576.6	1813.6		33.5	182.7	
<i>High-income countries</i>	(<i>n</i> = 32)					
Mean	11780.3	22081.8	1.9	353.7	1520.9	4.3
SD	7254.5	8381.4		1643.9	6777.0	
Ratio of high-income countries' FDI per capita to that of low-income countries.				259.0	307.5	
Ratio of high-income countries' FDI per capita to that of low-middle income countries.				34.0	40.7	
Ratio of high-income countries' FDI per capita to that of upper-middle income countries.				8.8	8.5	

Sources: GDP and population based on World Development Indicators CD-ROM, World Bank 1997 Inward FDI stock based on UNCTAD (1997).

Notes: All countries for which GDP was unavailable for 1980 and 1995 (or close proxy) were excluded. This excludes all former soviet bloc countries, but includes Vietnam and China.

Countries were classified according to World Bank criteria for 1995: low income < US\$765 GDP per capita; Low-middle income, US\$766–3035; upper-middle income, US\$3036–9385; high income: > \$9386.

1980 and 1995, that of the upper-middle and high-income groups rose by a factor of about 4.4 over the same period. As a result, the gap between the poorest countries and the high-income countries has increased: for example, the ratio of their average FDI stocks increased from 259 in 1980 to 308 in 1995 (Table 2). A similar trend is noted for the lower-middle income group. The majority of these countries are in stage 1 and stage 2. In addition, they have diverged as a group away from the industrialized countries (stages 4 and 5: high-income countries in Table 2), with only a handful of countries at stage 3 (upper-middle income countries in Table 2) experiencing convergence and catch-up, both in terms of income levels and FDI stocks.

With the increasing reliance of less developed countries on FDI as a source of capital, technology and knowledge (UNCTAD, 1998), further polarization of the world economy and widening of the gap between the Triad and the bulk of developing countries seems likely. In addition, despite the fact that the role of MNEs in some of the stage 1 and 2 countries is increasing—notably in Southeast Asia (Mason, 1998)—opportunities for sequential investments are limited, especially in higher value added activities and sectors which provide the most significant potential spillovers (Blomstrom, 1989). In an analysis of the effects of global integration on development, Gray (1996) predicts that as globalization proceeds, the marginal net benefits derived by the least developed countries from international involvement will decline. He suggests that

the costs of marginalization are self-reinforcing as much as the inability of these countries to attract the kinds of inward FDI which result in positive spillover effects is also accompanied by fewer opportunities for exports and inflows of portfolio capital.

It is important to note that the IDP is used here only as a general framework for identifying and evaluating the linkages between motives, kinds of FDI and the economic structures of countries; and of the differences between the bargaining positions of countries. Essentially, globalization has made many of the L advantages of countries and the O advantages of firms increasingly knowledge-intensive. Some of these advantages have become more mobile, others less so. Moreover, it would seem that these advantages have become more interdependent on each other. For example, a firm's O advantages in time $t + 1$ may be dependent on the locational profile of its assets in time t , while a country's L advantages in time $t + 1$ may be influenced by its ability to attract the O advantages of foreign firms in time t (Narula, 1996). While it is true that there is considerable variation in the international investment position of countries at the same stage of development, there are broad similarities that allow us to generalize.

It is to be noted, none the less, that these development stages may overlap precisely because of the various economic and industrial policy options implemented by governments. Industrial policy that targets selected industries for growth by means of intensive investment in created assets (e.g. education and technological capacity) can and does accelerate the movement of countries through the IDP (van Hoesel, 1999). Attracting specialized FDI to a particular sector can alter the sequence of industrial upgrading (Williamson & Hu, 1994) because specialized FDI may help to improve the created assets associated within a sector. Moreover, created assets in any one sector (e.g. consumer electronics) may have significant knowledge flow externalities in another (say microelectronics design), which, in turn, may represent significant input to another sector (say software development). But this presumes the presence of a virtuous circle and the development of appropriate clusters.

We accept, of course, that inbound FDI does not always play a decisive role in this process of industrial upgrading, or in the development of clusters. Clusters may develop without significant MNE intervention. The case of Korea illustrates this, where the large domestic conglomerates have acted as the main engine of growth. Similarly, in Sialkot Pakistan, clusters of indigenous *small firms* supplying surgical and clinical instruments to world markets have evolved without FDI-based knowledge inflows⁹ (Nadvi, 1996, 1999). However, although inward FDI does not represent the only option available to developing countries, it may represent the most efficient option. This is for at least four reasons. First, the costs of acquiring technological and organizational know-how through markets is an expensive undertaking, and given the shortage of domestic capital this option is not open to many developing countries. Second, liberalized markets mean that firms, *ceteris paribus*, are likely to be more eager to maintain control of their competitive advantages, either through the establishment of wholly owned subsidiaries or through joint ventures. There are exceptions, but generally only where strong strategic reasons and/or structural distortions exist, for instance where the host country has a strong bargaining position,¹⁰ or where the technology has reached the status of a commodity. Third, infant industry protection is *de rigueur* in creating a domestic sector from scratch, but protected markets are a limited option within the framework of the World Trade Organization (WTO). Fourth, the complementary resources necessary to support a viable and strong domestic sector are usually capital- and knowledge-intensive.

We wish to emphasize that the availability of foreign-owned capital (either portfolio or direct) for developing countries is not at issue here. There have been capital flows

of both kinds to viable projects in the less developed countries, particularly in extractive industries, and through privatization programmes. In addition, there has been some low value-adding, labour-intensive activities such as garment assembly, which come from attempts to circumvent the multi-fibre agreement. None the less, these activities do not, in general, provide much opportunity for technological spillovers and beneficial externalities. In other words, it is not FDI *per se* that is hard to attract, but rather the *right kind* of FDI. The next section discusses this assertion in some detail.

3. FDI, Motives and Opportunity Costs

It is generally acknowledged that there are four main motives for investment: to seek natural resources; to seek new markets; to restructure existing foreign production through rationalization; and to seek strategically related created assets. These, in turn, can be broadly divided into two types. The first three represent motives which are primarily asset-exploiting in nature: that is, the investing company's primary purpose is to generate economic rent through the use of its existing firm-specific assets. The last is a case of asset-augmenting activity, whereby the investing firm wishes to add to its existing assets.

Table 1 suggests that countries in stages 1 and 2 of their IDP are unlikely to attract much asset-augmenting FDI. Such investment is primarily an activity undertaken in stage 4 and 5 countries and, to a lesser extent, stage 3 countries. While there has been an increase in asset-seeking FDI in some developing countries during the last decade, this continues to be the exception rather than the rule. This is simply because the human resources, technological capabilities and organizational skills that these countries (or their firms) possess tend to be in relatively low-technology and/or natural resource-intensive sectors which have become "generic" over time. In the case of strategic technology partnering—an important means by which asset-augmentation is undertaken—Freeman & Hagedoorn (1994) and Narula & Sadowski (2000) both show that, with the exception of a few developing countries in stage 3 of their IDP, notably the Asian NICs and China, relatively little technology partnering involves developing country firms. Asset-augmenting MNE activities in stage 1 and stage 2 countries tend to be confined to adaptive R&D, except where the product or process is host country-specific. There are exceptions to this generalization, for instance where a MNE has established a location as a regional centre (such as Unilever's use of Thailand as a specialist regional R&D centre for personal products) or, in rare cases, where immobile L advantages take the form of a cluster of highly skilled but relatively inexpensive labour, as in the case of Bangalore in India for software design.

Let us now describe briefly the main kinds of FDI currently directed to the developing countries in stages 1 and 2 of their IDPs.

3.1 *Resource-seeking FDI*

One of the most significant kinds of FDI for developing countries continues to be natural resource-seeking FDI. Resource-seeking FDI is a case where created asset type L advantages do not play a significant role in determining FDI inflows. Simply put, where a region or country possesses an absolute advantage in a particular scarce resource, the government of that region or country is in a strong bargaining position. Where the resource sought is a natural one, the marginal cost of its extraction to both parties is close to zero. As such, the location is able to generate economic rent depending on the resource's rarity and accessibility in other locations. Most other

resources, where the advantage is a comparative one, do not maintain a low marginal cost to governments over time as the cost of utilizing such resources rises as a country moves along its IDP. Thus, they do not attract inward FDI with the same interest at all stages of the IDP. The case of unskilled labour is one example. The siting of labour-intensive production becomes gradually less attractive to potential foreign investors as the costs of this input rise; and this is particularly so where productivity improvements fail to match wage cost increases. The leverage in such cases lies increasingly with MNEs, as *inter alia* cross-market liberalization has compelled governments in several countries to offer similar “generic” and (easily) replicable L advantages (McIntyre *et al.*, 1996).

Its international nature means that, as far as resource-seeking FDI *per se* is concerned, there is relatively little difference in the bargaining positions between developing and developed countries. However, since resource-seeking investment generally (but not always) implies low value adding activity and low capital expenditure on plant and equipment (extractive industries being the exception), FDI is less “sticky”, i.e. more footloose. In general, a purely resource-seeking investment is not normally tightly integrated into the investing firm’s global strategy. Indeed, MNEs rarely engage in complete internalization of raw material markets, preferring instead to conclude long-term contractual agreements with suppliers or purchase their inputs at arms-length prices.

In general, FDI in stage 1 countries is likely to be almost entirely resource-seeking; this remains as true today as it did 30 years ago. Since there are few other L advantages to offer MNEs, this is often the only kind of FDI likely to occur. Where vertical forward integration and further value adding does occur (perhaps because of developments in L advantages as the country moves to stage 2), the “stickiness” of the investment increases, which strengthens the bargaining position of the host government. Both market-seeking and efficiency-seeking investment imply higher integration within the MNE, and a higher level of commitment as well as a higher degree of embeddedness.

3.2 Market-seeking FDI

Market-seeking FDI becomes significant either where there are substantial barriers to exporting from the home country, or where the local or adjacent markets offer potential investors significant opportunities to achieve production economies of scale. This situation is most often experienced in the latter part of stage 1 and from stage 2 of their IDPs. This requires not only a sizeable population, but also the ability of the market to support (within a reasonable time frame) the expected demand on which the investment is based. In addition, though, there is often a “follow-the-leader” strategic response by other firms, whereby a market that might have supported two or three competitors is inundated with a larger number of new entrants than the market can efficiently support. The case of both the Chinese and the Indian automobile markets are examples of such a scenario, where, despite the potential for high demand levels, few participants are actually able to make a profit. This is not the case with all sectors—investments in food and personal products, for instance, are much more likely to achieve economies of scale, since these products have a relatively low income elasticity of demand. Indeed, the automobile industry may represent a special case in these countries, for what is now described as aggressive market-seeking investments in developing countries in many cases began life as defensive import-substituting investments. These were only permitted under certain stringent conditions, but the MNE normally expected to have access to a captive protected market in return.

Market-seeking FDI, by its nature, is based on a single central L advantage. Its presence or absence is partly stage-dependent, but is essentially an exogenous event, with one exception. Membership of a free trade area allows countries that have small domestic markets to expand their *de facto* market size. In such situations, however, several formerly sovereign markets become integrated, and the choice of location then rests on other L advantages. This may have detrimental effects too: for example, once sanctions against South Africa were lifted, a certain hollowing out of market-seeking FDI in neighbouring countries was observed, as a result of their free trade agreements with South Africa.

3.3 Efficiency-Seeking and Strategic Asset-seeking FDI

These two types of investment are similar in that they both normally require a certain threshold level of created assets in the host country; and both tend to be fostered by the process of globalization. It is no surprise, then, that they are generally associated with countries at the latter end of stage 2 onwards and, especially in the case of asset-seeking FDI, with the more advanced industrialized countries.

As such, efficiency-seeking investment in the least developed countries is an ambiguous concept, although for many years MNEs have engaged in export-oriented resource-seeking investment, which is, *de facto*, efficiency-seeking FDI. Moreover, such investment—in the sense that different aspects of manufacturing activity are located in particular locations to exploit the economies of cross-border specialization and the uneven distribution of immobile created assets—is a relatively new phenomenon.

In both efficiency- and asset-seeking investments, the role of sub-national clusters and the agglomeration of related activities is particularly significant. The bargaining positions of countries that are home to centres of agglomeration, or indeed possess the necessary science and technology infrastructure necessary to attract asset-augmenting FDI, are considerably different from countries which primarily attract asset-exploiting FDI. It can be noted that even where centres of excellence or agglomeration exist in a given industry, this does not imply that further knowledge-intensive investments will be attracted to the same location unless clear spillovers or externalities exist. None the less, countries (or regions) that have (the basis for) agglomerative economies are the ones likely to be in a strong bargaining position. This was originally the case for export processing zones (EPZs). It now applies to higher value adding activities—even in stage 2 countries such as India—but only where such L advantages are perceived by MNEs to complement their own core competences.

4. How Globalization Affects O and L Advantages

In developing a clearer understanding of the changes deriving from globalization *per se*, it is necessary for us to highlight how the phenomenon has affected the L advantages of countries (both developing and industrialized) and the nature of the opportunity sets available to developing countries *in general*. At the same time, these same forces have influenced the nature of the O advantages of firms and their need and willingness to internalize these markets for them. To some extent, at least, the adoption of outward-looking, export-oriented policy stances by developing countries has been inspired by the success of relatively rapid industrialization by the Asian NICs. However, the circumstances under which these countries achieved their rapid growth are closely related to the geo-political and economic situation of the post World War II era. These circum-

stances cannot be easily replicated in this age of globalization and the current international political and economic climate.

The shifts in the bargaining powers of national governments *vis-à-vis* foreign MNEs are two interrelated phenomena directly associated with the economic changes associated with globalization, especially with the introduction and adoption of new technologies, as well as the renaissance of market-based capitalism.

Tables 3 and 4 summarize how these changes in the world economic environment are likely to have influenced the opportunity sets facing both MNEs and governments. However, as we have already emphasized, the heterogeneity of developing countries implies that the general picture set out in these tables disguises some important nuances pertaining to the changes in the nature of opportunity costs that have special reference to the least developed countries.

4.1 New Technologies

The growth of new technologies has had a significant impact on the locational preferences of MNEs. Of particular note are developments in the fields of new materials, biotechnology, aerospace technologies and optical technologies. ICTs¹¹ have shrunk dramatically the economic distance between nation states, and have fostered a series of generic productivity improvements. We outline below some of the ways in which these technologies have influenced and are influencing the competitive advantages of firms and countries.

4.1.1 New technologies and the O advantages of firms. Table 3 presents some of the primary effects of new technologies on the competitive advantages of firms. In particular, we would highlight two main issues: (i) improved co-ordination of intra-firm and inter-firm activities; and (ii) rapidity of innovation in new technologies.

Improved co-ordination of intra-firm and inter-firm activities. It is a fundamental feature of international production that cross-border market failure exists in the supply of intermediate goods and services, especially intangible assets. New advances in ICTs have reduced the cost of acquiring and disseminating knowledge and information in two main ways. First, information about both input and output markets is more easily accessible. This allows firms which previously could not engage in international business transactions to do so.¹² Second, MNEs are better able to integrate the activities of their foreign affiliates through the use of these technologies, and to respond more quickly to changing demand and supply conditions in the countries in which they operate. Taken together, these transaction cost-reducing processes are enabling international production to be more efficiently organized. They are also prompting more rationalized and strategic asset-seeking FDI.

While these new economies of common governance are of particular reference to MNEs which pursue global strategies (Porter, 1986), multi-domestic MNEs (i.e. ones which maintain essentially independent operations in individual countries of regions) are also able to utilize regional similarities and develop “hub and spoke” approaches, and exploit scale and scope economies between and within regions (Buckley & Casson, 1998). Such options allow firms to hedge investments, but are only possible as a result of the reduced monitoring costs associated with ICTs.

There have also been substantial cost-savings in the co-ordination and monitoring costs arising from inter-firm networks. This growing use of networks, both intra- and

Table 3. The changing nature of the world economic environment and the opportunity sets of MNEs

Changes in the world economic environment	Alternatives in location	Mode of investment	Asset-type Ownership advantages	Transaction-type
Liberalization	Growing use of efficiency-seeking investment, as MNEs locate better to exploit economies of scale and scope. More options for location of labour- and resource-intensive investment because of developing country liberalization	Easier to enforce non-equity agreements as well as arms-length transactions, especially within Triad	Improved property rights protection for firms due to WTO, WIPO. Overall growth of created-asset-based O advantages.	Improved transaction-type O advantages for firms that have rationalized within economic blocs (EU, NAFTA) relative to those which have not.
New technologies	Improved access to information leads to more efficient choice of location Need to be in closer proximity of related industries to reduce spatial transaction costs	Truncated product life cycles, need for multi-technology competencies also lead to increased use of alliances	Increasing mobility of asset-type O advantages New industries have in some instances provided an opportunity to extend product life cycle Higher share of knowledge content in O advantages.	Improved cross-border communication results in more optimal intra-firm co-ordination and integration.

Table 4. The changing nature of the world economic environment and the opportunity sets of host countries

	Alternatives for technology and capital	Policies and incentive systems	Natural assets	Created assets
Liberalization	More alternatives in terms of technology, as well as increased modes of transfer.	<p>Policies become increasingly standardized among countries.</p> <p>Subsidy limits from WTO membership reduces O advantages of domestic firms.</p>	<p>Natural assets increasingly a commodity, except where substantial comparative or absolute advantage exists.</p>	<p>Increasing mobility of highly skilled workforce.</p> <p>Created assets increasingly firm-specific.</p>
New technologies	<p>Opportunity for leapfrogging smaller stock of knowledge.</p> <p>Improved ability to find alternatives due to ICTs.</p>	<p>More inter-country and inter-region competition on incentive schemes.</p> <p>Easier for firms to transfer price due to ICTs, and reduce tax burden.</p>	<p>Truncated life cycles mean that L advantages may become obsolete. High fixed cost in upgrading technological infrastructure and national systems of innovation regularly.</p>	

inter-firm, is one of the primary features of contemporary capitalism (Dunning, 1995). The number of strategic alliances, joint ventures, R&D consortia and the like has experienced rapid growth over the last two decades, both within and between countries (Hagedoorn & Narula, 1996), but mainly among the Triad countries. One of the main advantages of improved intra- and inter-firm collaboration and co-ordination is the ease with which MNEs are able to respond to changes in both demand and supply conditions. In general, this has meant that firms pursuing multi-domestic strategies can now practise a policy of regional rationalization, which, in principle, should benefit both the participating countries and the MNEs.

Rapidity of innovation in new technologies. This has led to truncated product life cycles as new or modified products are more speedily innovated and manufactured. Firms need both to be able to undertake technological developments and to bring them to market much more quickly than was previously the case. Computer-aided design, “flexible” manufacturing systems and computer-aided manufacturing have further reduced the set-up costs and time taken to bring to market a new product. Although this has led to a reduction in fixed costs, these technologies are not costless. Shortened product life cycles, for example, often require a relatively high R&D expenditure if firms are to remain competitive. They also suggest that innovating firms need to recoup these fixed costs before their new products and processes become redundant,¹³ by expanding their markets. Once again, the target foreign markets tend to be the industrializing and industrial economies, rather than the poorer developing countries. In their penetration of these latter markets, MNEs may still pursue multi-domestic strategies; and supply products for which R&D costs have already been amortized.

4.1.2 New technologies and the L advantages of countries. Table 4 sets out some of the likely effects of new technologies on the L advantages of countries. Our objective here is to focus on the special case of the poorer developing countries, and we highlight some of these differences here.

One of the primary means by which the L advantages have been affected by new technologies has been the emergence and development of entirely new industries, which have generated new sources and kinds of employment. The extent to which these developments have affected the ability of developing country firms to catch-up is not as acute as with more established sectors. This is because in fundamentally new technologies there is not likely to be as large a “gap” between the lead and lag countries. Indeed, some stage 2 countries—like most of the stage 3 countries—have successfully engaged in a “niche” strategy by specializing in the production of very specific new technologies as a way of upgrading their competitiveness. The often cited example of India’s burgeoning software sector is one such case, and the focus of other nations on biotechnology (e.g. Cuba) is another (Acharya, 1996). However, the failure of the majority of developing countries to exploit these new technologies has acted as a centripetal force and encouraged the centralization of high value production by MNEs. It should be noted, however, that the opportunity costs of national governments in pursuing a strategy of promoting new technologies are quite high, both in terms of creating the necessary infrastructure—including clusters of related activities—and of sustaining the requisite macro-organizational policies and financial incentives over an extended period of time. In the main, the smaller and/or poorer developing countries cannot afford to invest in several niches simultaneously, and as such the question of technological targeting (i.e. picking the “right” sectors) becomes critical.

The relatively low costs to entry are not uniform for all new technologies, however. Most sub-sectors of ICTs, for instance, are highly capital-intensive and are built on well-established and highly competitive technologies. Indeed, these are the types of sectors which developing countries are keen to develop, and to do so by attracting inward FDI. Triad-based MNEs continue to dominate such sectors, and although such firms do engage in value added activities in developing countries, they tend to concentrate these in a few locations where the appropriate infrastructure and created assets are available. The failure of the majority of the stage 1 and 2 countries to supply the kinds of support facilities which MNEs need to complement their own O advantages underlies the limited extent to which affiliates in these countries have attracted efficiency-seeking FDI.

Reduced transaction costs due to ICTs has had a limited effect on the L advantages of the least developed countries. Much of the FDI in stage 1 countries tends to be natural resource-seeking. These sectors have not benefited greatly from advances in communications technologies. None the less, there are some such benefits. First, information about policies, incentives and procedures is much more widely disseminated. Second, they are better able to co-ordinate activities within their countries and between various arms of policy-makers and agencies through one-stop shopping (Wells & Wint, 1993).

The truncation of life cycles has meant that the least developed countries that have made investments in certain specific types of created assets may not be able to achieve a realistic return on their high fixed costs by the time (or if) the technology becomes obsolete. Furthermore, shifting to a new technological paradigm may take several years time, as country-specific changes must be made at all levels, from macro-organizational policy to educational systems, and the high fixed costs involved may not be a realistic option for developing countries.

4.2 Renaissance of Market-based Capitalism and Economic Liberalization

The 1980s were a decade of considerable ideological and economic upheaval. In particular, we would emphasize three interconnected events. First, the cold war ended. Since 1989 more than 30 countries have abandoned central planning as the main mode of allocating scarce resources. Second, over 80 developing countries have liberalized their economic policies from inward-looking, import-substituting regimes towards outward-looking, export-oriented policy regimes (UNCTAD, 1997). Between them, these two developments have led to a softening of attitudes of national governments towards inbound FDI, the privatization of state-owned enterprises and the reduction of cross-border structural market distortions. MNEs are now actively involved in and have access to an unprecedented number of countries. This trend is a continuing one that has deepened throughout the 1990s.

Third, there has been an across-the-board liberalization of cross-border markets due to the growth of regional and inter-regional free trade agreements and protocols, a range of bilateral arrangements and the establishment of new multilateral agencies such as the WTO. As a consequence, all forms of international transactions have increased markedly over the last decade. In addition, increasing attention is now being given to the establishment of a multilateral framework which will ensure a liberalized environment for the flow of FDI and for other forms of MNE activity.

4.2.1 Liberalization and O advantages. Table 3 presents a list of the main benefits which MNEs have gained from the renaissance of the market economy. Overall, liberalization has been very beneficial to MNEs. Privatization, in particular, has allowed foreign investors to acquire fully operational (albeit often inefficient) firms in countries at relatively low cost, due *inter alia* to depreciation of exchange rates of the recipient economies.¹⁴ At the same time, the foreign affiliates of MNEs are increasingly being accorded national treatment by their host governments. In addition, liberalization, the establishment of WTO and new protocols on intellectual property rights have improved the appropriability of intangible assets by MNEs. They have, *inter alia*, helped corporations to undertake and enforce more cross-border arms-length, non-equity-type agreements. In addition, however, these developments have allowed MNEs to enter markets using equity that was previously restricted to FDI.

4.2.2 Liberalization and L advantages. Although the effects of liberalization—some of which are set out in Table 4—are easily observed, the news is not as good for stage 1 and stage 2 economies as it is for industrial and converging countries. Saeger (1997) observes that trade liberalization has had a deindustrialization effect on the South. Competition between countries and regions to attract mobile investment has increased significantly. Technology-intensive and knowledge-augmenting investment flows seek out complementary created and immobile assets in the recipient countries (Tece, 1992; Dunning, 1995). It therefore tends to be directed to the technologically more advanced developed and developing countries.

In general, the L advantages of the least developed countries have been reduced, both because of absolute changes within countries and because of relative changes between countries. This is for several reasons. First, because of the widespread liberalization of foreign trade and investment regimes, so many more developing countries offer “generic” location-specific advantages such as access to natural assets, basic educational provisions and infrastructure. Furthermore, there is a growing tendency for these natural assets to be marginally priced. Second, national and sub-national governments are under pressure to offer ever-increasing incentives to attract the kind of FDI that they perceive will advance their development strategies (Mytelka, 1996). Given the financial limits these countries face as it is, this reduces the opportunities to invest in the upgrading of their assets and to overcome market failure. Third, several types of policy instruments used by developing countries to encourage MNEs to transfer skills and technology are either illegal (such as local content regulations, under the Trade Related Investment Measures (TRIMs) agreement) or are time-restricted (e.g. certain kinds of subsidies under the Subsidies and Countervailing Measures (SCM) agreements, implementation of the Trade Related Intellectual Property (TRIPs) agreement). Fourth, it is increasingly difficult to determine whether the financial subsidies provided by governments to MNEs are utilized for the purposes that they are intended. Subsidies are more easily re-routed by global firms and are hard to monitor, often defeating the objectives of governments.

This is not to say that there are no benefits of the WTO era. First, there is in principle an easier flow of technology and knowledge, and more alternative sources. Second, firms situated in less developed countries potentially have greater (and less impeded) access to important markets such as those of the OECD countries (Lall, 1997a). Third, there is the opportunity for binding arbitration and redress through the WTO. Brewer & Young (1999) point out that dispute settlement through the WTO is a preferable alternative to “the uncertainties of unilateralism”, particularly for develop-

ing countries. They note that 60% of requests for arbitration involved developing countries during its initial 4 years.

It would seem that an overhaul of regional free trade and bilateral agreements represents a necessary complement to global liberalization and may, in certain instances, improve the L advantages of countries (such as *de facto* market size), and bargaining position *vis-à-vis* important economic blocs. However, there is a vast difference in the benefits that accrue from (say) ASEAN and NAFTA (Baldwin, 1997).

It is also important to realize that the process of liberalization is increasingly an event over which governments of individual developing countries have less and less control. Let us elucidate. First, the deregulation or liberalization of any particular market in a country represents an *endogenous* event. However, the resulting benefits that accrue to the country is a function of how many other countries have also liberalized. Second, membership of supranational institutions such as the WTO (as well as free trade areas and other forms of economic integration) obliges the participating countries to conform their liberalization policies to a common standard. Third, membership of *de facto* trade and investment blocs can effect a change in policy since, with increasingly few countries still operating within a command economy or an import-substituting regime, the opportunities for engaging in economically sound non-market arrangements are reduced.

This erosion of the kind of L advantages associated with protected trade and investment regimes may have far-reaching consequences, particularly for industries not yet able to compete in world markets. Although the benefits of liberalization arising from increased inward FDI have been notable, some divestment has also occurred where the initial MNE activity was prompted by tariff and non-tariff barriers. Since the conclusion of NAFTA, for example, defensive import-substituting FDI in Canada has fallen sharply. Although there are few data on divestment in developing countries, it is likely that, since proportionally more FDI prior to liberalization was defensive market-seeking, this phenomenon might be a significant one.

Although liberalization should not, in principle, lead to a trade-off between the O advantages of firms and the L advantages of countries, this seems to be the case, or at least is the perception of many developing country policy-makers. Thus, for example, the OECD-sponsored Multilateral Agreement on Investment (MAI) is regarded by a number of developing country governments as being too focused on the needs of the investors and not sufficiently so on the development needs of the host countries (Ganesan, 1997).

5. Policy Implications and Conclusions

Globalization has fundamentally changed economic realities. Thirty years ago, a general approach towards understanding the bargaining relationship between countries and MNEs made a good deal of sense. This, we believe, is no longer the case. One of the primary effects of globalization has been a reconfiguration of countries into three groups: the least developed countries which have “fallen behind”; the catching up developing countries; and the developed or “converged” countries. The process whereby this has happened is a complex one. We have tried to outline some of the dynamics and what it has meant for the relationship between MNEs and developing country governments, and particularly to those of the “falling-behind” countries. We have explained how changes in L and O advantages, due to globalization, have influenced the nature and context of MNE-government relations, and why a distinction can and should be made between these groups of countries.

Over the last two decades, the opportunity costs of FDI for both host country governments and MNEs have changed significantly. From a MNE perspective, globalization has considerably influenced the nature and composition of the core competences of firms. In particular, these are more mobile, knowledge-intensive and geographically dispersed than they used to be. Moreover, MNEs are increasingly seeking to consolidate or advance their global competitive positions, by rationalizing their cross-border value added activities. *Inter alia*, this is shown by the continuing rise in intra-firm trade (UNCTAD, 1997). This has been helped, in no small measure, by the reduction in their cross-border transaction and co-ordination costs, which itself has been fostered by trade and investment liberalization.

In pursuing these objectives, MNEs—and particularly those within the knowledge-intensive sectors—are being forced to give more attention to the availability and quality of the largely L-specific created assets of alternative investment sites. Indeed, choosing a “right” portfolio of locations for their value added activities is a competitive advantage in its own right. Michael Porter has gone as far as to say that “anything can be moved or sourced from a distance is no longer a competitive advantage” and that “the true advantages today are things which are sticky, that is not easily moveable” (Porter, 1998, p. 29). Moreover, it is important to note that not all industries have become equally mobile or globalized. As Stopford (1997) notes, while the optimum size of production may have risen in some industries, making global integration desirable, in other cases new technologies have reduced the minimum efficient scale. This has meant that MNEs (particularly in industries where external economies through spatial linkages are critical) are becoming more embedded in local and regional milieus than was previously the case and, in consequence, they have become *less* mobile.

From the perspective of a national government both exogenous and endogenous changes in the global economic and political environment have necessitated a reappraisal of the benefits of openness. Indeed, over the last two decades, there has been an ideological shift away from the traditional inward-looking import-substituting model adopted by many developing countries, where the state was perceived to be the primary force behind the creation, utilization and dissemination of knowledge (Frischtak, 1997). At the same time, although the change in policy orientation and the subsequent privatization of state-owned enterprises have reduced the interventionist role of governments, their role as market facilitator and provider of complementary created asset-based location-specific advantages has become more critical (Dunning, 1997b; Stopford, 1997).

Industrial development options for the least developed countries hinge increasingly on leveraging foreign investment as a means of promoting technological upgrading. This requires that countries should attract the right kind of FDI. Specifically, these countries need to shift the emphasis of their inward FDI away from resource-seeking activities to market-seeking and other asset-exploiting activities. Breaking away from natural asset-based activity and encouraging MNEs to invest in higher value adding activities can only be achieved by improving their country-specific L advantages. A certain level of immobile created assets is an essential catalyst to the attraction of mobile investment. Even more so is the presence of domestic firms with the technological capabilities to absorb the spillovers pertaining from the activities of these firms. Governments have—sometimes passively—resorted to attracting inbound investment in two major ways, neither of which has necessarily improved their L advantages.

The first has been to step up or offer a new range of fiscal and other incentives. But simply to offer incentives is no substitute for the development of created assets which may be beneficial to the domestic sector as well. Indeed, such incentives

offered in isolation from other L advantages are not effective (Mudambi, 1995), although they may have an effect if they persist over time. At the same time, there is a danger that, due to the increased competition to attract MNEs, governments may give away more than the potential benefits that accrue from the MNE activity (Mytelka, 1996). This is all the more so since governments of developing countries (or regions within these countries) are increasingly competing with less prosperous regions in industrialized countries and with those of the former centrally planned economies whose infrastructure tends to be far superior and pockets much deeper than those of most developing countries. Given the costs of providing these incentives and the profusion of locations offering them there is a danger that, in an attempt to attract new “desirable” investors, not only may net benefits to countries become negative, but the new investors may be treated preferentially relative to existing (and embedded) firms (Mudambi, 1998). The limited resources of developing countries means that this does not represent a desirable long-term option.¹⁵

A second passive option that countries have taken—often as a condition for debt relief or rescheduling—has been the World Bank-administered structural adjustment programmes, which have tended to focus on the sudden and wholesale liberalization of markets, and other macroeconomic cures. The success of these programmes has been mixed at best, as is now acknowledged by the former chief economist of the World Bank, Joe Stiglitz. He has said that World Bank policies have hitherto placed too much emphasis on macroeconomic stabilization at the expense of institution building.¹⁶ In a seminal paper, Rodriguez & Rodrik (1999) have argued that open trade policies—such as lower tariff and non-tariff barriers—by themselves are not a primary determinant of economic growth. They demonstrate that, until a certain point, growth may actually be *enhanced* by barriers to trade, especially when countries are technological laggards and have comparative advantages in on-dynamic sectors.

On its own, liberalization—as with excessive protectionism—is insufficient as a driver of growth. The work of Lall (see, especially, Lall, 1997a,b) points to the need of a holistic approach to selecting and leveraging sectors for dynamic growth, for stable governments, transparent policies and the provision of basic infrastructure and skills. We will not reproduce his arguments here, but simply underline his main point that the presence of a certain minimum level of L-specific advantages is an essential catalyst to the attraction of mobile investment as is the presence of domestic firms with the technological capabilities to absorb the spillovers from the activities of these firms. Although some of the “traditional” means used by the NICs to encourage backward and forward linkages from FDI are no longer legal under the various multilateral agreements, there are, none the less, several exceptions made for the least developed countries.¹⁷ The use of incentives and subsidies is no substitute for the presence of created assets, not just because of the inability to absorb spillovers, but also because in locational tournaments involving richer countries, the poorer developing countries are almost certainly bound to lose. In any case, incentives, performance requirements and subsidies (whatever their legal status) have had a limited effect on encouraging actual technological transfer and creation of domestic capabilities. Local content rules, for instance, do not by themselves result in backward linkages, because learning requires domestic firms with the appropriate skills to internalize them, and the conditions which make this necessary. The use of FDI as a means to transfer technology is efficient only as long as sufficient absorptive capability of the technologies exists locally (Borensztein *et al.*, 1998). In addition, though, the “right” market conditions must exist for domestic firms to learn. Mytelka (1985) illustrates that where domestic firms have access to subsidized capital and privileged access to resources, they are less likely to adapt

imported technological inputs. But the shortage of domestic capital (both financial and intellectual) and the need to develop assets which are by definition knowledge- (and often capital-) intensive, point to the dilemma of limited resources. The creation of enclaves and clusters provides the answer to this, although such solutions are rife with political ramifications. By enclaves we mean selective and limited upgrading of the L advantages of countries, in terms of both particular industrial sectors and (more contentiously) particular geographical regions. Since countries have limited resources, it makes sense to develop and upgrade their immobile assets—using their limited resources—in enclaves, with an eye to particular sectors. Providing the necessary infrastructure to all parts of a country may be politically optimal, but economically inefficient. One alternative (or complement) to this is to consider FDI in infrastructural projects under a BOT (build–operate–transfer) basis. The fact that enclaves such as EPZs have not always been successful reflects the failure of host governments to appreciate properly the order in which events should have taken place, viz. the development of clusters of economic activity, from which might come welfare benefits, rather than vice versa. The limited nature of the L advantages offered to MNEs and the high costs of establishing these zones in remote areas where the necessary support industries were absent underlay their failure (McIntyre *et al.*, 1996). But simply to offer the kinds of advantages (e.g. in respect of education and transportation infrastructure) made available by competitive governments is not enough. What is needed is the provision of immobile created assets which are “custom made” to the incoming investors (Peck, 1996), or are specific to the country and region seeking the investment (Dunning, 1998). Often such assets are complementary to each other and need to be spatially clustered if they are to be deployed with optimum efficiency (Storper & Scott, 1995). In pursuance of this kind of strategy national governments such as Singapore and Ireland and sub-national governments, e.g. Wales, Northern Ireland, Shanghai, Bangalore, New South Wales, Baden-Wurttemberg and Piedmont to name just a few, have met with a great deal of success.

The basic idea of building enclaves is a sound one. After all, developing countries have limited resources to plough into created asset-enhancement, and a selective locational strategy for this task makes sense. Once countries have progressed beyond the threshold of their L-specific advantages, the gradual development of high grade clusters of economic activity becomes a high priority.

Selecting sectors is a task fraught with pitfalls, not least because selecting the “right” industry to target becomes more difficult the closer the country is to the technological frontier. When governments attempt to select preferred industries in which to focus some distance away from the technological frontier (say in differentiated Smithian sectors—see Table 1), the direction in which investment is to be made is fairly obvious since firms at the frontier (i.e. the technology leaders) have already done so¹⁸ in the past (Narula & Dunning, 1998). That is to say, the further a country is from the technological frontier, the easier it is to “pick” industries that will be successful. The relative success of MITI in picking winners in the 1950s and 1960s and their subsequent less successful interventions in the 1980s and 1990s well illustrates this point. Although there is a danger in investing limited resources in niche sectors which become obsolete, or are replaced by a new technological paradigm, this need not happen if broader sectors are targeted that are complementary to and help upgrade existing competencies and skills. The development of Singapore’s biotechnology sector illustrates this well (Lall, 1997a). As Stopford (1997, p. 473) explains:

To nurture clusters, work needs to be done to identify specific technologies

that can reinforce the position of existing leaders, or that suit the skills of the workforce or even that satisfy the demand that is particularly sophisticated in the nation. Investment in ‘market-friendly’ aspects of the underlying technologies can, as in Singapore, create a vital base for the building of firm-specific advantages by either local or foreign firms.

On the other hand, in the era of globalized production, it is easier to create production clusters from scratch. Because of the abilities of MNEs to locate different parts of their value added chain in several locations to achieve global efficiency, there is an increased opportunity for specialization, and to attract inbound FDI in niche areas. A complementary approach to improving L advantages is to engage in some form of economic integration on a regional basis. However, as Baldwin (1997) notes, with a few exceptions (e.g. MERCOSUR), most regional trade blocs and other forms of economic integration among developing countries have remained very much a matter of organization rather than substance.

It is clear that developing countries have evolved a myriad set of industrial strategies. However, since the economic structure of each country is very path-dependent and idiosyncratic, it is difficult to suggest any one “best” solution. Given the stakes involved and the pressures on developing countries to develop unique location-specific advantages to attract the kind of FDI they need, some sort of interventionist approach seems to be necessary. No self-evident solution exists, because the changing world economic environment makes some of these options impractical, or invalid for particular countries at particular stages of their IDP.

A central assumption to any economic prescription is the need for good governance and political stability. Political stability implies long-term continuance of economic policy. As Freeman & Lindauer (1999, p. 20) note, “The reason returns to schooling are low in Africa, that capital flight is high and the shift towards free trade has not created growth miracles is that schooling, investment and trade operate successfully only in a peaceful, stable, environment for economic activity”. In many cases, it has not necessarily been strong regulation that has detracted FDI, but the lack of *consistent* regulation.

The challenge to national governments lies in providing the “right” kind of immobile assets, and to encourage mobile investments to be locked into these assets. It should be said, however, that for less developed countries the question is more urgent, since there is a threshold level of assets which is required to attract even the most basic forms of FDI. In addition, though, if externalities are to accrue from FDI, these are most likely associated with those market or efficiency-seeking investments which need to be spatially linked to location-bound complementary activities.

Notes

1. These features are described in various publications, including UNCTAD (1997), Perraton *et al.* (1997) and OECD (1997).
2. Notably all kinds of knowledge, organizational and institutional capital.
3. Dunning (1993) charts the evolution of MNE–government interaction over a 30-year period, and in so doing demonstrates the way in which economic forces are influenced by, and influence, the nature of government–MNE relationships. See also Dunning & Narula (1994).
4. Where the inbound FDI stock as a percentage of gross domestic product (GDP) rose from 8.3 to 15.4% over the same period (UNCTAD, 1997).
5. The methodology proposed by Rugman & Verbeke (1998) focuses more on the strategic aspects of the relationship. It encompasses a broader analysis that provides the basis for a more dynamic approach, although it is a general model in that it does not address either

developing-country-specific issues, or how the situation varies between countries. Essentially, this model argues that the relationship between MNE and governments is determined *inter alia* by the degree of symmetry between inward and outward FDI in a given country, the dispersion of firm-specific advantages within MNEs, the strategic approach by MNEs to government policy, and the congruence between MNE and home and host country goals. They include the net direct investment position as a determinant, but do not consider the influence of the absolute levels.

6. See, for example, Dowrick & Gemmill (1991), Dowrick (1992) and Verspagen (1993).
7. See, for example, Dunning & Narula (1994, 1996), Narula (1993, 1996), Ozawa (1995, 1996) and van Hoesel (1999).
8. Africa and Latin America fell from 7.3% and 2.7% in 1980 to 5.5% and 0.8% in 1993, respectively.
9. They supply 10–15% of the world market for high-quality surgical instruments and 50% of the market in low-quality clinical instruments. For further examples see Nadvi & Schmitz (1994).
10. For instance, where the local market is large and the MNE can only get access to other sectors in exchange for technology, or lucrative turn-key or other sub-contracts are included.
11. Some scholars believe ICTs are initiating a new technological paradigm (see, for example, Freeman & Perez, 1988).
12. Several recent UN studies (UN, 1993; UNCTAD, 1997) have indicated that there is an increasing number of small and medium enterprises engaging in FDI.
13. It can either: (a) sell at a relatively high cost per unit; and/or (b) develop a production process with a low minimum efficient scale of production; and/or (c) recoup its investment by acquiring a large market for its products so as to spread its fixed costs; and/or (d) engage in an alliance with another firm (or firms) to speed up and share the costs of the innovatory process.
14. Over the period 1989–93, FDI from privatization accounted for US\$12.2 billion or 7.6% of all inflows to developing countries (UNCTAD, 1996). Over 75% of this was directed towards Latin America and the Caribbean, where privatization accounted for 16.9% of all inflows to the region. In the case of central and eastern Europe, FDI inflows to privatization schemes amounted to US\$7.5 billion, or 59.7% of the total FDI inflows to the region.
15. One of the benefits of the stalled MAI would have been a cap on such locational tournaments. However, the SCM agreement does provide some quantitative limits on these. For instance, subsidies cannot account for more than 15% of the value of a new plant, although there are a number of caveats and restrictions that apply (see Brewer & Young, 1998, for more details).
16. *The Economist* “Sick patients, warring doctors”, 18–25 September 1999.
17. For instance, less developed countries have 7 years from 1 January 1995 to eliminate illegal TRIMs, and extensions may be granted to the use of TRIMs to safeguard balance of payments or to protect an infant industry. TRIMs does not cover specification of minimum level of local employment, or minimum level of local equity participation. Less developed countries also have till 2006 to implement TRIPs. Likewise, less developed countries are SCM agreement covers loans, grants and taxcredits, but not pre-competitive R&D, or assistance to disadvantaged regions. In addition, SCM covers only those subsidies that are specific to elected enterprises, and not if applied to an industry in general. For countries below a US\$1000 per capita GDP level, export subsidies will not be countervailed. For more details, see Brewer & Young (1998).
18. It is, however, necessary to emphasize the difference between firms that are a distance from the technology frontier and those that are simply experiencing X-inefficiency. The latter group are simply using an inferior technology, while the former are operating at an earlier stage of the product life cycle.

References

- Acharya, R. (1996) *The Biotechnology Revolution* (Aldershot, Edward Elgar).
- Baldwin, R. (1997) The causes of regionalism, *World Economy*, 3, pp. 865–888.
- Blomstrom, M. (1989) *Foreign Investment and Spillovers: A Study of Technology Transfer to Mexico* (London, Routledge).

- Borenszstein, E., De Gregorio, J. & Lee, J.-W. (1998) How does foreign direct investment affect economic growth?, *Journal of International Economics*, 45, pp. 115–135.
- Brewer, T.L. & Young, S. (1998) *The Multilateral Investment System and Multinational Enterprises* (Oxford, Oxford University Press).
- Brewer, T. & Young, S. (1999) WTO disputes and developing countries, *Journal of World Trade*, 33, pp. 169–182.
- Buckley, P. & Casson, M. (1998) Models of the multinational enterprise, *Journal of International Business Studies*, 29, pp. 21–44.
- Dowrick, S. (1992) Technological catch up and diverging incomes: patterns of economic growth 1960–88, *The Economic Journal*, 102, pp. 600–610.
- Dowrick, S. & Gemmell, N. (1991) Industrialisation, catching up and economic growth: a comparative study across the world's capitalist economies, *The Economic Journal*, 101, pp. 263–275.
- Dunning, J.H. (1993) *Multinational Enterprises and the Global Economy* (Wokingham, Addison Wesley).
- Dunning, J.H. (1995) Reappraising the eclectic paradigm in an age of alliance capitalism, *Journal of International Business Studies*, 26, pp. 461–91.
- Dunning, J.H. (1997a) *Alliance Capitalism and Global Business* (London, Routledge).
- Dunning, J.H. (1997b) A business analytic approach to governments and globalisation, in: J.H. Dunning (Ed.) *Governments, Globalisation and International Business* (Oxford, Oxford University Press), pp. 114–131.
- Dunning, J.H. (1998) Transnational corporations: an overview of relations with national governments, *New Political Economy*, 3, pp. 280–284.
- Dunning, J.H. & Narula, R. (1994) Transpacific direct investment and the investment development path: the record assessed, *Essays in International Business*, March, No. 10, pp. 1–69.
- Dunning, J.H. & Narula, R. (1996) The investment development path revisited: some emerging issues, in: J.H. Dunning & R. Narula (Eds) *Foreign Direct Investment and Governments: Catalysts for Economic Restructuring*, (London, Routledge).
- Dunning, J.H., van Hoessel, R. & Narula, R. (1998) Third World multinationals revisited: new developments and theoretical implications, in: J. Dunning (Ed.) *Globalization, Trade and Foreign Direct Investment* (Oxford, Pergamon).
- Freeman, C. & Hagedoorn, J. (1994) Catching up or falling behind: patterns in international interfirm technology partnering, *World Development*, 22, pp. 771–780.
- Freeman, R. & Lindauer, D.L. (1999) *Why Not Africa?* (New York, NBER Working Paper No. 6942).
- Freeman, C. & Perez, C. (1988) Structural crises of adjustment, business cycles and investment behaviour, in: G. Dosi *et al.* (Eds) *Technical Change and Economic Theory* (London, Pinter).
- Frischtak, C. (1997) Latin America, in: J.H. Dunning, (Ed.) *Governments, Globalisation and International Business* (Oxford, Oxford University Press), pp. 431–454.
- Fukuyama, F. (1995) *Trust: The Social Virtues and the Creation of Prosperity* (London, Hamish Hamilton).
- Ganesan, A.V. (1997) Development-friendliness criteria for a multilateral investment agreement, *Transnational Corporations*, 6, pp. 135–142.
- Gray, H.P. (1996) Globalization and economic development, mimeo, Rutgers University, Newark.
- Hagedoorn, J. & Narula, R. (1996) Choosing modes of governance for strategic technology partnering: international and sectoral differences, *Journal of International Business Studies*, 27, pp. 265–284.
- Hikino, T. & Amsden A. (1994) Staying behind, stumbling back, sneaking up, soaring ahead: late industrialization in historical perspective, in: W. Baumol, R. Nelson & E. Wolff (Eds) *Convergence of Productivity: Cross Country Studies and Historical Evidence* (New York, Oxford University Press).
- Hoessel, R. van (1999) *New Multinational Enterprises from Korea and Taiwan* (London, Routledge).
- Lall, S. (1997a) East Asia, in: J.H. Dunning (Ed.) *Governments, Globalisation and International Business* (Oxford, Oxford University Press), pp. 407–430.
- Lall, S. (1997b) Policies for industrial competitiveness in developing countries: learning from Asia, Report prepared for the Commonwealth Secretariat, Oxford.
- Landes, D. (1998) *The Wealth and Poverty of Nations* (London, Little Brown and Company).
- Lecraw, D. & Morrison, A. (1991) Transnational corporation–host country relations: a framework for analysis, *Essays in International Business*, September, No. 9, pp. 1–49.

- Mason, M. (1998) FDI in the Mekong Delta, *Conference on FDI in Asia*, Macau, Institute of European Studies, April.
- McIntyre, J., Narula, R. & Trevino, L. (1996) The role of export processing zones for host countries and multinationals: a mutually beneficial relationship?, *International Trade Journal*, 10, pp. 435–466.
- Mudambi, R. (1995) The MNE investment location decision: some empirical evidence, *Managerial and Decision Economics*, 16, pp. 249–257.
- Mudambi, R. (1998) The role of duration in MNE investment attraction strategies, *Journal of International Business Studies*, 29, pp. 239–262.
- Mytelka, L. (1985) Stimulating effective technological transfer: the case of textiles in Africa, in: N. Rosenberg & Frischtak C. (Eds) *International Technology Transfer* (New York, Praeger).
- Mytelka, L. (1996) Locational tournaments, strategic partnerships and the state, mimeo, Carleton University, Ottawa.
- Nadvi, K. (1996) Small firm industrial districts in Pakistan, DPhil thesis, University of Sussex, Brighton.
- Nadvi, K. (1999) The cutting edge, collective efficiency and international competitiveness in Pakistan, *Oxford Development Studies*, 27, pp. 81–108.
- Nadvi, K. & Schmitz, H. (1994) Industrial clusters in less developed countries: review of experiences and research agenda, Institute of Development Studies Discussion Paper 339, University of Sussex, Brighton.
- Narula, R. (1993) Technology, international business and Porter's 'diamond': synthesising a dynamic competitive development model, *Management International Review*, 33, pp. 85–107.
- Narula, R. (1996) *Multinational Investment and Economic Structure* (London, Routledge).
- Narula, R. & Dunning, J.H. (1998) Explaining international R&D alliances and the role of governments, *International Business Review*, 7, pp. 377–397.
- Narula, R. & Sadowski, B. (2000) Technological catch-up and strategic technology partnering in developing countries, *International Journal of Technology Management* (in press).
- OECD (1997) *The World in 2020: Towards a New Global Age* (Paris, OECD).
- Ozawa, T. (1995) Structural upgrading and concatenated integration, in: D. Simon (Ed.) *Corporate Strategies in the Pacific Rim: Global versus Regional Trends* (London, Routledge), pp. 215–246.
- Ozawa, T. (1996) Japan: the macro-IDP, meso-IDPs and the technology development path (TDP), in: J. Dunning & R. Narula (Eds) *Foreign Direct Investment and Governments: Catalysts for Economic Restructuring* (London, Routledge), pp. 423–441.
- Peck, F.W. (1996) Regional development and the production of space: the role of infrastructure in the attraction of new inward investment, *Environment and Planning*, 28, pp. 327–339.
- Perraton, J., Goldblatt, D., Held, D. & McGrew, A. (1997) The globalisation of economic activity, *New Political Economy*, 2, pp. 257–277.
- Porter, M.E. (Ed.) (1986) *Competition in Global Industries* (Boston, Harvard Business School Press).
- Porter, M.E. (1998) Location, clusters and the 'new' macro-economics of competition, *Business Economics*, 33, pp. 7–13.
- Rodriguez, F. & Rodrik, D. (1999) *Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-national Evidence* (New York, NBER Working Paper No. 7081).
- Rugman, A. & Verbeke, A. (1998) Multinational enterprises and public policy, *Journal of International Business Studies*, 29, pp. 115–136.
- Saeger, S. (1997) Globalisation and deindustrialisation: myth and reality, *Weltwirtschaftliches Archiv*, 133, pp. 579–607.
- Stopford, J. (1997) Implications for national governments, in: J.H. Dunning (Ed.) *Governments, Globalisation and International Business* (Oxford, Oxford University Press), pp. 457–480.
- Stopford, J. & Strange, S. (1991) *Rival States, Rival Firms. Competition for World Market Shares* (Cambridge, Cambridge University Press).
- Storper, M. & Scott, A. (1995) The wealth of regions, *Futures*, 27, pp. 505–526.
- Teece, D.J. (1992) Competition, cooperation and innovation: organisational arrangements for routines and rapid technological progress, *Journal of Economic Behaviour and Organization*, 18, pp. 1–25.
- UN (1993) *Small and Medium-sized Transnational Corporations* (New York, United Nations).
- UNCTAD (1996) *World Investment Report 1995 Transnational Corporations and Competitiveness* (Geneva and New York, United Nations).

- UNCTAD (1997) *World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy* (Geneva and New York, United Nations).
- UNCTAD (1998) *World Investment Report 1998: Trends and Determinants* (Geneva and New York, United Nations).
- Verspagen, B. (1993) *Uneven Growth Between Interdependent Economies. An Evolutionary View on Technology Gaps, Trade and Growth* (Aldershot, Avebury).
- Wells, L.T. & Wint, A. (1993) Don't stop with the one-stop shop: foreign investment in a liberalising third world, *International Executive*, 35, pp. 367–384.
- Williamson, P. & Hu, Q. (1994) *Managing the Global Frontier* (London, Pitman Publishing).