

Understanding FDI-Assisted Economic Development

Edited by
**Rajneesh Narula and
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The publisher has gone to great lengths to ensure the quality of this reprint but points out that some imperfections in the original may be apparent.

This book is dedicated to Sanjaya Lall
(1940–2005)

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Foreign Direct Investment and its Role in Economic Development: Do We Need a New Agenda?

SANJAYA LALL and RAJNEESH NARULA

Despite globalisation, the essential role of foreign direct investment (FDI) in economic development has not changed. However, many mechanisms and dynamics of FDI-assisted development have changed: there is greater variation in the kinds of FDI, the benefits each offers, and the manner in which each interacts with the host economy. This introductory chapter attempts to place the discussions and issues raised in this volume within the wider literature on FDI and development. The various chapters analyse the role of multinational enterprises in industrial development in a 'learning system' perspective. They also analyse the policy tools available for using FDI for economic development in a liberalising, post-World Trade Organisation world, and the constraints to doing this. While this is a nascent debate, this volume points to a variety of 'soft' policy options that provide a pragmatic response to the complexities of globalisation.

Malgré la mondialisation, le rôle essentiel des investissements directs étrangers (IDE) pour le développement économique n'a pas changé. Cependant, de nombreux mécanismes et la dynamique du développement basé sur les IDE ont, eux, bien changé: les types d'IDE sont plus variés, de même les bénéfices offerts par chacun et la manière dont chaque type interagit avec l'économie locale. Cet chapitre d'introduction tente de placer les discussions et les thèmes soulevés

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dans ce numéro spécial du European Journal of Development Research dans le contexte de la littérature sur les investissements directs étrangers et le développement. Les chapters analysent l'importance des entreprises multinationales (EMN) pour le développement industriel à partir d'une perspective de «système d'apprentissage». Ils analysent également les instruments politiques qui, dans un monde de plus en plus libéralisé et «post-Organisation Mondiale du Commerce», pourraient servir à utiliser les IDE dans le sens du développement économique; les contraintes existantes sont également relevées. Alors qu'il s'agit d'un débat naissant, ce numéro spécial relève un nombre d'options politiques modérées qui donnent une réponse pragmatique aux complexités de la mondialisation.

1. INTRODUCTION

The past two or three decades have seen a significant policy shift in the developing world, from inward-looking import substitution to outward-looking, market determined strategies. The reasons for this shift are complex, but mainly have to do with the inefficiencies of import substitution, the growth of globalised production and the success of the export-oriented Asian newly industrialised economies (NIEs). One key feature of liberalisation has been greater openness to foreign direct investment (FDI) as a means of acquiring technologies, skills and access to international markets, and of entering dynamic trade and production systems internal to multinational enterprises (MNEs).

The role of the MNE as a source of capital and technology has grown over time, as other sources of capital have become scarcer or more volatile and technical change has accelerated. MNEs continue to dominate the creation of technology; indeed, with the rising costs and risks of innovation their importance has risen (with the exception of very new technology areas). They have also become more mobile, searching the world for lower cost, more efficient production sites and for new markets. The interaction of technical change (with its need for more and higher skills and better infrastructure) with greater FDI mobility has not reduced the need for local capabilities in developing countries. On the contrary, entry levels for attracting (non-resource-extracting) FDI have risen, and investors (especially in activities facing world competition) are focusing on countries with strong local capabilities. Mobile MNEs, in other words, seek strong complementary factors wherever they locate. There is no conflict over the long term between inward FDI and domestic capabilities.

With this realisation, and with the growing role of MNEs in economic life in most countries, most developing country governments have removed restrictions on FDI inflows. International donors and development agencies focus more on promoting private rather than public capital flows as catalysts of long-term

development. The international ‘rules of the game’ reinforce these trends, setting up a legal framework for minimising policy interventions in FDI. The main actions so far cover national treatment for MNEs and the removal of performance requirements on them (for example, on local content, technology transfer or export obligations).

However, liberalisation has not always increased FDI inflows into host developing countries. The reason is simple. The removal of restrictions on FDI does not create the complementary factors that MNEs need; it only allows them to exploit existing capabilities more freely. Thus, FDI response tends to be most vigorous where local capabilities are strong when liberalisation takes place, and feeblest where they are weak (of course, excluding resource extraction). Similarly, over time, FDI inflows rise where local capabilities are strengthened and new capabilities are created; they stagnate or fall where they are not. This still has not, surprisingly, been internalised in policy recommendations on FDI in developing countries – much of this still proposes liberalisation not just as a necessary but also as a sufficient condition for attracting FDI and extracting most development benefits from it.

There is thus a need to look afresh at the role of MNEs and FDI policies in developing countries. This is the objective of this volume, and one which the current chapter seeks to highlight by placing these contributions within the context of the literature on FDI and development. The chapters here indicate that much of what we already know about FDI in economic development remains valid. It is clear, for instance, that the creation of linkages and the internalisation of spillovers from MNE activities still depend on local absorptive capacity. However, we know more now on how these mechanisms work. Complementary assets in the host country reflect its stage of development, in turn influenced by its history, geography and business systems. Some chapters in this issue increase our understanding of the nature of absorptive capacities in a ‘systems of learning’ perspective.

This volume also analyses the FDI policy tools, constraints and options for host countries in the face of the changing global economy. How do countries respond to the limitations on traditional policy tools placed by World Trade Organisation (WTO) protocols such as the Subsidies and Countervailing Measures Agreement (SCM), Trade-related Aspects of Intellectual Property Rights (TRIPS) and so on? Several chapters point to the ‘soft’ policy options that may provide an appropriate response to the complexities of globalisation.

II. DEVELOPMENT CONSTRAINTS AND OPPORTUNITIES OFFERED BY FDI

The Washington consensus holds, in broad terms, that markets for knowledge are efficient, and that FDI flows will – *ceteris paribus* – generate positive

externalities for domestic firms. This presumes that all MNE activity offers similar spillovers and development benefits. Its focus is thus mainly on the *quantity* of FDI rather than its *quality*. There are four points here that we must qualify.

The Competence and Scope of Subsidiaries

The quality of FDI spillovers depends on the scope and competence of the subsidiary. These depend partly on factors internal to MNEs, including their internationalisation strategy, the role of particular affiliates in their global system and the motivation for their investment. Internal strategies interact with host country capabilities and resources [Benito *et al.*, 2003]. Affiliates undertaking complex activities need high levels of local competence: advanced specialised skills, strong industrial and service firms and clusters, and strong support institutions. Where host countries cannot provide high level local assets, MNEs will not set up high quality affiliates. For instance, research and development activities concentrate in the few locations that can provide the advanced resources and institutions.

However, once MNEs establish operations in a country, affiliates often develop new capabilities: thus, the sophistication of affiliates also reflects how long they have been in operation, as documented for East Asia [Rasiah, 1994, 1995]. However, such upgrading is not automatic or universal: affiliates have to build upon advantages *that already exist* in the host economy – local capabilities matter [Ritchie, 2002]. Over time, the upgrading of affiliates has generally responded to improvements in domestic capabilities. Mortimore and Vergara find that the nature of a foreign investment depends initially on the host country's technological, human resource and supplier capabilities. They examine the case of Intel in Costa Rica and Toyota in Mexico and argue that in the case of Costa Rica both the lead MNE and the host country were able to achieve their respective objectives. Mexico, on the other hand, was not able to capitalise on the opportunities provided by Toyota's investment.

While the scope of affiliate activities can be modified rapidly, developing new capabilities takes time. Foreign investments in high value-added activities (needing high competence levels) tend to be 'location-sticky'. MNEs undertake sequential investments (and building of higher levels of competences) in locations that provide sub-optimal returns but where they have prior experience [Hagedoorn and Narula, 2001].

Blomstrom and Kokko [1997] suggest that host country characteristics that influence the extent of linkages are market size, local content regulations and the size and technological capability of local firms. They argue that linkages increase over time as the skill level of local entrepreneurs grows, new suppliers emerge and local content increases [see also Driffeld and Noor, 1999; McAleese and McDonald, 1978; Gorg and Ruane, 1998; Scott-Kennel and Enderwick, 2001].

Nonetheless, there are many instances where upgrading, linkages and spillovers have not grown over time.

The Motive for the Investment

The motive for a foreign investment is crucial in determining how linkages and externalities develop. There are four main motives for investment: 1) seek natural resources; 2) seek new markets; 3) restructure existing foreign production; and 4) seek new strategic assets [Narula and Dunning, 2000]. These can be placed into two categories. The first category includes the first three motives: asset-exploiting, to generate economic rent by using existing firm-specific assets. The second category is the fourth motive: asset-augmenting, to acquire new assets that protect or enhance existing assets. In general, developing countries are unlikely to attract the second category of FDI; they primarily attract the first category.

The relative importance of each motive partly reflects the stage of economic development [Narula and Dunning, 2000; Narula, 1996, 2004]. Least developed countries would tend to have mainly resource-seeking FDI and countries at the catching-up stage mostly market-seeking FDI. Efficiency-seeking investments, with the most stringent capability needs, will tend to focus on the more industrialised developing economies (though three or four decades ago they went to countries with relatively low capabilities, e.g. the electronics industry in Southeast Asia in the 1970s).

Not all affiliates offer the same spillovers to host economies. A sales office, for instance, may have a high turnover and employ many people, but its technological spillovers will be limited relative to a manufacturing facility. Likewise, resource-seeking activities like mining tend to be capital intensive and provide fewer spillovers compared to market-seeking manufacturing FDI. During import substitution, most MNEs set up miniature replicas of their facilities at home, though many functions were not reproduced (they were 'truncated'). The extent of truncation, however, varied by host country. The most important determinants of truncation – and thus the scope of activities and competence of the subsidiary – were market size and local industrial capabilities [Dunning and Narula, 2004]. Countries with small markets and weak local industries had the most truncated subsidiaries, often only single-activity subsidiaries (sales and marketing or natural resource extraction). Larger countries with domestic technological capacity (such as Brazil and India) had the least truncated subsidiaries, often with research and development departments.

With liberalisation, MNE strategies on affiliate competence and scope have changed in four ways [Dunning and Narula, 2004]. First, there has been investment in *new affiliates*. Second, there has been *sequential investment* in upgrading existing subsidiaries. Third, there has been some *downgrading of subsidiaries*, whereby MNEs have divested in response to location advantages elsewhere or reduced the level of competence and scope of subsidiaries.

Fourth, there has been some *redistribution of ownership* as the result of privatisation or acquisitions of local private firms. In many, but certainly not all, cases this also led to a downgrading of activities.

MNEs are taking *advantage* of liberalisation to concentrate production capacity in a few locations, exploiting scale and agglomeration economies, favourable location and strong capabilities. Some miniature replicas have been downgraded to sales and marketing affiliates, with fewer opportunities for spillovers. Countries that receive FDI with the highest potential for capability development are, ironically, those with strong domestic absorptive capacities. The chapter by Lorentzen and Barnes on South Africa shows that domestic capacity – in the form of infrastructure or an efficient domestic industrial sector – is a primary determinant of high competence affiliates. They base their analysis on eight case studies in the South African automotive sector, and show that indigenous firms can compete with MNEs, and – given the appropriate domestic capabilities and infrastructure – can maintain and improve their competitive advantages through indigenous innovation.

Like South Africa, other countries have succeeded in attracting such FDI, notably Mexico and the Caribbean Basin [ECLAC, 2000, 2001; Mortimore, 2000]. In addition to providing a threshold level of domestic capabilities and infrastructure, these countries have invested in developing their knowledge base (although to a lesser extent in the case of Mexico). Mortimore [2000] argues that much of this FDI has created export platforms for MNEs with limited benefits for the host countries [ECLAC, 2001]. This is a point reiterated by Mytelka and Barclay here in the case of Trinidad, where FDI has not been leveraged to develop the skills and capabilities of local downstream and supporting firms. The state has largely failed to act as a facilitator to stimulate and support domestic absorptive capacities and linkages with MNE affiliates.

MNE Linkages

FDI transfers technology to local firms in four ways: backward linkages, labour turnover, horizontal linkages and international technology spillovers. Studies of backward linkages have identified various determinants, including those internal to MNEs and those associated with host economies. The ability of the host economy to benefit from MNE linkages has been found to depend crucially on the relative technological capabilities of recipient and transmitter: the greater the distance between them, the lower the intensity of linkages.

Again, MNE motives and strategies matter. Domestic market oriented affiliates generally purchase more locally than export-oriented firms because of lower quality requirements and technical specifications [Reuber *et al.*, 1973; Altenburg, 2000]. MNE affiliates are more likely to be integrated with host countries where they source relatively simple inputs [Ganiatsos, 2000; Carillo,

2001]. Rodriguez-Clare [1996] argues that MNEs create more linkages when they use intermediate goods intensively, communication costs between parent and affiliate are high and the home and host markets are relatively similar in terms of intermediate goods. Affiliates established by mergers and acquisitions are likely to have stronger links with domestic suppliers than those established by greenfield investment [UNCTAD, 2000; Scott-Kennel and Enderwick, 2001], since the former may find established linkages that are likely to be retained if they are efficient. Linkages vary significantly by industry. In the primary sector, the scope for vertical linkages is often limited, due to the use of continuous production processes and the capital intensity of operations. In manufacturing, the potential for vertical linkages is broader, depending on the extent of intermediate inputs to total production and the type of production processes [Lall, 1980].

Scott-Kennel examines linkage formation between foreign affiliates and domestic firms, as well as the resource flows from the parent MNE to the affiliate. Although she studies New Zealand, her findings are relevant to developing countries. New Zealand is highly dependent on natural resources, has moved away from import substitution relatively recently and is a small peripheral economy. On the other hand, it has well-developed infrastructure and high skill levels. Her results confirm that there are considerable opportunities for linkage formation when location advantages are appropriate, the extent of linkages varying by the type of FDI.

Bell and Marin suggest some caution in applying results such as Scott-Kennel's to developing and intermediate countries. They argue that methodologies to measure and evaluate knowledge spillovers in advanced economies depend upon a concrete understanding of the interactions between processes, industrial structures, resource endowments and the like, and these have been stylised in the spillover literature with advanced economies in mind. Using data from Argentina, they argue that a well-established domestic sector which has evolved independently of MNEs may mean that the traditional view that spillovers are largely one-way is simplistic. Co-location of domestic and foreign firms in intermediate economies has benefits for both groups of firms, and productivity growth in the domestic sector may not necessarily derive from MNE spillovers. Indeed, as also observed by Katrak [2002] in the case of India, knowledge creation mechanisms of MNE subsidiaries and domestic firms are sometimes largely independent. Better methods to measure and understand the direction and flow of knowledge is required before the controversy regarding the benefits of FDI and spillovers is settled.

Nature of MNE Assets

Although it is a reasonable assumption that MNEs have superior firm-specific assets, the assets they transfer to particular host countries are not always those

that the latter seek or are able to assimilate. MNE competitive advantages derive from three types of assets. The first is associated with technology (knowledge, capabilities or machinery and equipment). The second is associated with the conduct of transactions, based on superior intra-firm hierarchies within and across national borders. The third is multinationality itself, the advantages of 'common governance'. These are transaction assets – MNEs gain rent from their superior knowledge of markets and internal governance of transactions. Thus, MNEs may have similar technologies to domestic counterparts but still out-compete them. In such cases, technological spillovers will not occur, though other types of spillovers might occur (say, through employee mobility or vertical links to suppliers) [Narula and Marin, 2003].

Even where absorptive capacity exists, MNE assets may be very tacit and internal to the firms, as with transaction-type advantages. These assets cannot be acquired easily by local firms. This may go some way to explaining the findings of Bell and Marin and their persuasive discussion about the difficulties of measuring and evaluating spillovers. As they emphasise in their chapter, not all MNE subsidiaries in developing countries have the same capacity to act as *generators* of knowledge spillovers.

III. ABSORPTIVE CAPACITY

How does the nature of location advantages determine the ability of the domestic economy to absorb spillovers from FDI? As almost all the chapters in this volume illustrate, the presence of externalities does not mean either that the domestic economy can internalise them, or that the externalities are significant in quantity or quality. Absorptive capacity is significant for development because it allows domestic actors to capture knowledge that exists elsewhere. Where absorptive capacity is lacking in domestic firms, they may, instead of reaping technological benefits from FDI, be 'crowded out' [Agosin and Mayer, 2000].

Capabilities in the host country context matter for the magnitude and intensity of technological upgrading. As Portelli and Narula [2004] have shown in the case of Tanzania, FDI in activities that match the comparative advantage of the host country provides greater linkages. Wider technology gaps between domestic and foreign-owned activities tend to lead to fewer backward linkages and to lower technological content in the inputs sourced locally.

Several authors, such as Findlay [1978] and Perez and Soete [1988], have noted that a minimum level of scientific and technical knowledge is required to use innovation. Below this level, the cost of adoption can be prohibitive. This is particularly true for FDI. Borensztein *et al.* [1998] show that, at country level, a minimum threshold of absorptive capacity is necessary for FDI to contribute to higher productivity growth. At the firm level, Narula and Marin [2003] show that

only firms with high absorptive capacity are likely to benefit from FDI spillovers. Xu [2000] also shows that a country needs to reach a minimum human capital threshold level in order to benefit from technology transfer.

While insufficient absorptive capacity tends to lead to the inefficient use of technology inflows, knowledge accumulation is much more rapid once the threshold level of absorptive capacity is crossed. Simply put, technology absorption is easier once countries have 'learned-to-learn' [Criscuolo and Narula, 2002]. The cost of imitation increases as the follower closes the gap with the leader and the number of technologies available for imitation falls. This implies that there are diminishing returns on marginal increases in absorptive capacity as firms approach the frontier of knowledge [Narula, 2004].

Kokko *et al.* [2001] highlight the role of past industrialisation experience as a precondition for technology transfer. The absence of such experience is concomitant to lack of local absorptive capacity [Radosevic, 1999]. For example, in sub-Saharan Africa, the conditions that stimulate technological assimilation (such as developed human capital, adequate physical infrastructure and a dynamic business climate) are absent. This constrains the ability of African countries to master foreign technology and to compete in international markets [Mytelka, 1985; Lall and Pietrobelli, 2002]. The development of capacities and capabilities is key both to attracting FDI as well as to increasing MNE technological spillovers.

Narula [2004] decomposes absorptive capacity into four constituent parts: firm-sector absorptive capacity, basic infrastructure, advanced infrastructure and formal and informal institutions. Each is indispensable and each has different costs and benefits at different stages of development. Increases in absorptive capacity at earlier stages of development are associated with 'generic' basic infrastructure and increases in technological capacity generally have positive welfare effects. For example, increases in the percentage of population with primary and secondary education have numerous welfare benefits, as does the provision of infrastructure. Investment in such resources has large multiplier effects.

IV. TAKING A SYSTEMS VIEW TO ABSORPTION AND INDUSTRIAL DEVELOPMENT

Several contributions here (Mytelka and Barclay, Lorentzen and Barnes, Bell and Marin, and Rasiah) stress that industrial development and absorptive capacity must be seen from a 'systems' view. By this we mean that while learning and absorption take place at the firm level, the success or failure of individual firms occurs within a 'system'.¹ Within a system, there exists a broad knowledge base outside industrial enterprises; this base is central to technological accumulation by industry. Learning and innovation involve complex interactions between firms

and their environment. The environment consists of the firms' networks of direct customers and suppliers but it stretches much further. It also includes the broader factors shaping their behaviour and activities: the social and cultural context; the institutional and organisational framework; infrastructure; knowledge creating and diffusing institutions, and so on. This is the essence of the systems approach to technology.

'System' does not necessarily mean that the influences on industrial innovation are systematically organised [Narula, 2003]. To put it simply, 'system' means a regularly interacting or interdependent group forming a unified whole. A system is in most cases the serendipitous intertwining of institutions and economic actors that defines the stock of knowledge in a given location [Etzkowitz and Leydesdorff, 2000]. For instance, changes in the educational policies of the government are likely to affect other actors and institutions, and influence the process and extent of technological learning in the future.

In a system, the efficiency of economic actors – firm or non-firm – depends on how much and how efficiently they interact amongst themselves. The means by which interactions take place are referred to as 'institutions' in the economics literature, though sociologists prefer to speak of 'social capital'. Institutions are the 'sets of common habits, routines, established practices, rules, or laws that regulate the interaction between individuals and groups' [Edquist and Johnson, 1997]. Institutions create the milieu within which innovation is undertaken; they establish the ground rules for interaction between economic actors and represent a sort of 'culture'. Institutions are associated with public sector organisations, but are not exclusively so. It is not only the creation of new knowledge but also the diffusion of extant knowledge that determine the national knowledge stock and the accumulation of national absorptive capacity.

The role of formal institutions has traditionally been considered under the rubric of political economy and has been the focus of debate on the role of the state in establishing, promoting and sustaining learning. It is not our intention to review the debate on the role of industrial policy in industrial development, highlighted in a special issue of *Oxford Development Studies* (volume 31, number 1). The contributors to our volume largely believe that governments are essential to promoting inter-linkages between the elements of absorptive capacity and to creating the opportunities for economic actors to absorb and internalise spillovers.

The importance of building institutions cannot be overstated: Rodrik *et al.* [2002] argue that efficient institutions contribute more to economic growth than location or trade. Institutions can be formal or informal. Formal institutions include the intellectual property regime, competition policy, technical standards, taxation, incentives for innovation, education and the like. Informal institutions are more difficult to define, but are associated with creating and promoting links between the various actors. For example, the government may play a role in

encouraging firms to collaborate with universities or in promoting entrepreneurship.

Developing countries have switched reluctantly from inward-looking strategies with a large role for the government to market-friendly strategies that force them to face a new multilateral milieu, one in which they have little experience and with which they are often poorly prepared to cope. Institutions continue to remain largely independent and national. While formal institutions can be legislated, modifying and developing informal institutions is a complex and slow process, since they cannot be created simply by government fiat. The developed countries have taken 50 years to liberalise and adjust, but even they have faced considerable inertia. They have, for instance, yet to reform their agricultural sectors.

V. INDUSTRIAL POLICY AND FDI-ASSISTED DEVELOPMENT

The chapters in this volume all point to a basic paradox: with weak local capabilities, industrialisation has to be more dependent on FDI. However, FDI cannot drive industrial growth without local capabilities. The neo-liberal approach favoured by the Washington consensus which leaves capability development to free market forces provides few realistic answers. It can result in slow and truncated technological development, with gaps between countries rising. Some upgrading does take place, but is slower and more limited than with the promotion of local capabilities. Given the speed at which technologies are changing and path-dependence and cumulativeness in capability building, it can lead to latecomers being mired in low growth traps.

The policy needs of capability building have not changed much. They are *direct* – the infant industry case to provide ‘space’ for enterprises to master new technologies without incurring enormous and unpredictable losses – and *indirect*, to ensure that skill, capital, technology and infrastructure markets meet their needs. There is also a need to *co-ordinate learning* across enterprises and activities, when these are linked in the production chain and imports cannot substitute effectively for local inputs. At the same time, technical change makes it necessary to *provide more access to international technology markets*; it also makes it more *difficult to anticipate which activities are likely to succeed*. The information needs of industrial policy rise in tandem with technological change and complexity. The greater complexity of technology does not make selectivity unfeasible. Detailed targeting of technologies, products or enterprises may be more difficult because of the pace of change, but targeting at higher levels is feasible and more necessary. Technological progress may actually make industrial policy easier in some respects: information on technological trends and markets is more readily available, more is known about the policies in successful countries and benchmarking is easier.