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The Importance of Domestic Capabilities for FDI-assisted Development: Lessons from Asia and Latin America

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Abstract

This paper argues that the rapid growth of certain emerging economies over the last two decades is not only due to liberalised markets, MNEs and laissez-faire policies, but also to the effects of industrial development strategies that continue to share several similarities to the import-substitution industrialisation approach. The building up of capabilities in the domestic sector is crucial. At the same time, the heterogeneity in country experiences and their varying degrees of success at becoming internationally competitive indicates that understanding MNE-assisted development requires us to go beyond just improving absorptive capacities. We also need to understand the role of political economy and issues of path-dependency in both policies and resources. I illustrate my arguments by contrasting the experiences of East Asian and Latin American economies.

Keywords

MNEs, development, import substitution, policy, FDI, Latin America, Asia

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Introduction

One of the key features of policy liberalisation since the 1980s has been the need to attract FDI as a means to acquire or improve technological capabilities through MNE activity. The role of the MNE as an additional source of capital and technology is one of the key features of this openness. The failure of protected industries in developing countries to become competitive on global markets has highlighted the limitations of the arms-length technology transfer approach. Hence, in recent years, both governments and supranational organisations have increasingly come to focus on the role FDI and MNEs can play in development. This has been accompanied by a lifting of many types of regulations that previously limited the role of FDI and MNEs.

For much of the last 50 years (and for Africa and Asia, much of the post-independence period), developing countries followed an import-substituting model, with entry barriers towards FDI and imports. FDI was encouraged as a means to facilitate technology transfer to domestic partners; wholly-owned subsidiaries of multinational corporations (MNEs) were largely an exception. Broadly speaking, by the 1980s, most were undertaking either formal or informal structural adjustment programmes which dismantled tariffs and non-tariff barriers towards imports and FDI with a view to reducing inefficiencies in domestic economic actors.

Although World Bank and IMF policies did not originally explicitly incorporate FDI into their recommendations, structural adjustment had an implied FDI-dependent strategy. In the absence of domestic entrepreneurship, technology and sources of private capital, privatization effectively resulted in MNEs acquiring existing productive assets, and where necessary, rationalising their global activities across countries to achieve scale economies in a few locations, through greater intra-MNE efficiencies. This meant that inefficient local units were shut down, substituted with an increase in intra-MNE trade.

Despite the crucial role of FDI as part of the structural adjustment process, Governments – especially in least developed countries -have given little consideration to understanding the consequences of FDI on structural adjustment, beyond the recognition that MNEs are potentially a significant source of capital, technology and managerial expertise.

The biggest hurdle to growth has been the failure to build a private sector that might benefit from spillovers and linkages with MNEs (Corredoira & McDermott, 2014). Oftentimes there is no domestic sector, because of the constraints to building up a formal sector within many countries. Where domestic firms have existed, they often do not have the absorptive capacity to

benefit from the opportunities available to them (e.g. Alcacer & Oxley, 2014; Blalock & Simon 2009)

At the same time, there is a rather heterogeneous range of stories (of both success and failure) in MNE-assisted development even in countries that have built up absorptive capacities through import-substitution programmes. This heterogeneity is interesting because it indicates that there are complex reasons that go beyond thinking about absorptive capacities, and require us also to consider political economy and issues of policy and resource path dependency.

These differences have come to the forefront since the 1990s when - whether voluntarily or through World Bank-sanctioned structural adjustment programs –most economies that utilised an import substitution-based industrialisation (ISI) model have shifted towards promoting domestic industrial development towards policies promoting economic efficiency and the role of the market. Policies are oriented towards export-led growth and increased cross-border specialisation and competition, and most countries are now trying to promote economic growth through FDI and international trade – what has been referred to as the 'New Economic Model' (NEM) (Reinhardt and Peres 2000). The NEM draws some of its inspiration from the belief that the success of the East Asian economies derives from just such an approach.

This paper argues that the East Asian success stories do not owe their growth only to liberalised markets, MNEs and laissez-faire policies, but also to the effects of industrial development strategies that continue to share several similarities to the import-substitution industrialisation (ISI) approach. I illustrate this by doing a rough comparison between the Latin American and the East Asian experiences.

Many commentators and policy makers new to the MNE-assisted development fail to notice that there are also different variations within MNE-assisted development strategies. Indeed, the ISI approach adopted by Latin America and the model of FDI-assisted development that most East Asian economies utilised share many important and fundamentally important features in common. Both espoused the development of domestic industrial capacity through a concatenation of foreign technologies (through technology imports and FDI) and domestic competitiveness. Both sought to enhance absorptive capacity and promote infrastructure.

MNEs and economic development

MNEs have played and are likely to continue to play an important role in the structural upgrading of countries (Crespo & Fontoura, 2007). However, the extent and pattern of these benefits are

strongly dependent on the form of economic and social development desired by the host countries, and on the policies of host governments in pursuing these goals. Although not the only means available, MNE spillovers are regarded as one of the most practical and efficient means by which industrial development and upgrading can be promoted (Narula and Dunning 2000, 2010). While the *potential* for MNE-related spillovers is clear, as are the opportunities for industrial upgrading there from, it is increasingly acknowledged that the nature, level and extent of the benefits vary considerably. Even where MNEs do seek to transfer knowledge, they prefer to use technologies that are suited (first and foremost) to their own needs, and the purposes for which they have made the investment. MNEs tailor their investment decisions to the existing market needs, and the relative quality of location advantages (especially skills and capabilities that the domestic economy has a comparative advantage in (Lall and Narula 2004).

Once the decision to enter a given market through FDI is taken, the kinds of activity and the level of competence of the subsidiary are also co-determined by the nature of the location advantages of the host location. That is to say, while MNE internal factors such as their internationalization strategy, the role of the new location in their global portfolio of subsidiaries, and the motivation of their investment are pivotal in the structure of their investment, they are dependent on the available location-specific resources which can be used for that purpose.

The relative importance of the main motives of MNE investment partly reflects the stage of economic development (Narula, 1996, Narula and Dunning 2000). Least developed countries would tend to have mainly resource-seeking MNEs and countries at the catching-up stage mostly market-seeking MNEs. 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 (Ha & Giroud, 2015). 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 than 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 extent 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 R&D 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 (Criscuolo and Narula 2008, Meyer & Sinani, 2009).

Countries with an appropriate level of absorptive capacity have succeeded in attracting subsidiaries that provide suitable spillovers. These economies tend to have a threshold level of domestic capabilities and infrastructure, and have invested in developing their knowledge base. MNEs transfer 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 have 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 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 M&A are likely to have stronger links with domestic suppliers than those established by greenfield investments, since the former may find established linkages that are likely to retain 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 are broader, depending on the extent of intermediate inputs to total production and the type of production processes (Lall 1980).

Furthermore, the individual MNE's choice of mode of entry – whether to engage in a wholly owned subsidiary, a joint venture, or a minority ownership – plays a significant role in the extent to which spillovers and externalities accrue to host locations and firms. For instance, MNEs may be more likely to transfer sophisticated technologies and management techniques to their wholly owned subsidiaries than to partially owned affiliates (Javorcik and Saggi 2004).

MNEs and unrestrained flows of inward FDI may well lead to an increase in productivity and exports, but they do not necessarily result in increased competitiveness of the domestic sector or increased industrial capacity, which ultimately determines economic growth in the long run. FDI *per se* does not provide growth opportunities unless a domestic industrial sector exists which has the necessary technological capacity to profit from the externalities from MNE activity. To put it simply, FDI is not a *sine qua non* for development (Lall and Narula 2004).

Technology and industrial development: the limitations of FDI as a driver

Although it may seem that there has been a fundamental shift in the principles of industrial development, the view that technological development and upgrading is central to growth has not changed in more than 200 years, predating Schumpeter and Marx. Indeed, the concept that knowledge is easily transferable and is available through efficient markets is rather new, and forms the basis of the new orthodoxy reflected in the NEM. As Reinhardt and Peres (2000: 1546-7) note,

> "…supporters of the NEM generally pay little explicit attention to the long run dynamic consequences of the new productive structure. In particular, there is little consideration of the potential impact of on the accumulation of knowledge and technological capabilities, factors crucial in to sustained competitiveness in the new global economy. There is a tacit presumption that the new productive structure, because it rewards efficiency, will lead to a rapid process of 'learning-by-doing' and therefore an expanded endowment of skills and technological capabilities. Presumably relative endowments of capital, skill and technology will change each country's comparative advantage towards higher value added products."

Technology (used here as a synonym for knowledge) is cumulative in nature and occurs on a firm-level basis. Technological capabilities are developed by the gradual accumulation of skills, information and technological effort, and firms will develop their technological capabilities in response to market, supply and demand conditions, as well as from adapting and imitating other firms in the same or similar markets. Firms are boundedly rational, and prefer to engage in innovatory activities that minimise uncertainty of the outcome. Therefore, innovations tend to be related to its existing technological competences. Given this tendency, technology is said to be path-dependent, in that current technological competences are a function of its past technological competences (Nelson & Winter, 1982).

Furthermore, technology is localised in nature, not only at a firm-level because of its path dependency, but also on a country-specific basis, since cooperation between users and producers in the innovatory process is often specific to a given location, and every location has different supply and demand conditions. In addition, technology has a partly public good nature: although it is relatively less costly to acquire technology than to create it, because of its localised nature and its specificity to the innovating firm, there are costs associated for the recipient firm to efficiently utilise it in its own environment. In other words, technology is only partially appropriable by other firms, and the extent to which they can do so depends on the similarity of their environments and past technological capabilities.

It is increasingly acknowledged that technological capabilities of firms (and on an aggregated level those of countries) define the competitiveness of firms in any given industry. Technological capabilities include not only the ability to search and select the most appropriate technology to be assimilated from existing ones available- what is normally referred to as absorptive capacity- but also the creation of new knowledge through investment in R&D.

These assets can be acquired by several means: through licensing; by indigenous development; and through the modality of FDI. Import-substituting programmes in most countries have sought to combine arms-length technology imports with indigenous development (e.g., Korea, India), while others sought to combine indigenous development with FDI inflows (Taiwan, China, Thailand). In a globalising world it seems clear that there are potentially multiple and parallel opportunities for knowledge generation, learning and technological accumulation. This is because learning can occur through a variety of organisational means (both intra-firm and inter-firm). However, it bears repeating that learning and technological accumulation is not costless or instantaneous. Developing and sustaining a technological or a competitive advantage is slow, reversible and highly uncertain (Narula 2003). Likewise, capital can be acquired through other means than FDI. However, although inward FDI does not represent the only option

available to developing countries, given their urgency and limited resources it may represent the most efficient option (Narula and Dunning 2000). This is for at least four reasons. First, the costs of acquiring technological and organisational know-how through arms-length means is an expensive undertaking, and given the shortage of capital this option is not open to many developing country governments with limited resources. Second, liberalised markets means that firms, ceteris paribus, are likely to be more eager to maintain control of their assets and internalise the market for themselves, either through wholly owned subsidiary or in a joint venture. Exceptions exist, but only where either some strategic reason for the MNE allow for this, the host country has a strong bargaining position, or where the technology has reached the status of a commodity. Third, infant industry protection is *de rigeur* in creating a domestic sector from scratch, and protected markets are a limited option within the framework of the NEM. Fourth, the resources, complementary clusters and assets necessary to support a viable and strong domestic sector are also capital and knowledge intensive.

Thus, FDI is nowadays regarded as a primary – and explicit - means by which growth can be promoted, that the availability of foreign capital and technology is an important means for economic catch-up. It is not, however, a sine qua non for development, an idea implicit in the Washington consensus, which largely speaking still holds to the view that markets for knowledge are efficient, and thus that FDI is the same thing as technology imports (with the bonus of including capital flows), and that these technological imports will generate positive externalities and spillovers to domestic firms.

Classifying development stages and policies: some taxonomies

Comparing any two countries is a task fraught with complications. Comparing regions with individual countries as diverse and heterogeneous in and amongst themselves is even more complex.

We can distinguish between four stages of knowledge accumulation: the pre-catching up stage, the catching-up stage, the pre-frontier-sharing stage, and the frontier-sharing stage (Criscuolo and Narula 2008). Generally speaking, pre-catching-up countries are the least developed countries with low GDP per capita and poorly developed technological capabilities. These countries have yet to develop an "adequate" minimum level of technological capacity. Acquiring and sustaining this threshold level of absorptive capacity occurs in the 'pre-catching-up' stage. Catching-up countries have achieved the necessary threshold level of technological capacity (as

indicated by the presence of basic infrastructure, some level of knowledge infrastructure and a certain domestic industrial capacity), such as China, India, Malaysia, Brazil, Chile, Argentina. As any given country approaches the technological frontier,[1] the accumulation process proceeds at a slower pace ('the pre-frontier-sharing' stage). The assimilation of external knowledge becomes more difficult, both because of the increasing complexity and the quantity of knowledge, and the difficulties of acquiring this knowledge. Pre-frontier-sharing countries are in the process of converging on the frontier, and are mainly the so-called Asian NICs, and include Taiwan and Korea.

It is necessary too, to distinguish between policy orientations, with regards to developing and upgrading domestic competitiveness. Although there is a tendency to regard economies within a dichotomy of either an outward-oriented, export-oriented policy orientation (OL-EO), or an inward-looking, import/substituting orientation (IL-IS) (Ozawa 1992, Narula 1996). This is naturally an oversimplification of reality, since in reality there tends to be a hybrid policy orientation.

For the purposes of this paper, I utilise a taxonomy based on Lall (2002), who distinguishes between for different approaches, which are not exclusive. The East Asian experience can be classified into three different types:

East Asian model (1): Autonomous strategy

This is the model undertaken by Korea, and to a lesser extent, Taiwan. The primary objective was the upgrading of domestic firms, by selective restrictions on FDI (in the case of Taiwan), and the use of technology imports (in the case of Korea). In other words, foreign participation was largely limited in targeted sectors, with complex industrial policies that encouraged upgrading. The yard stick for industrial development – and indeed, the objective – was to promote competitiveness in exporting, and this determined which sectors were targeted, and the extent to which subsidies and incentives were provided.

East Asian model (2): Strategic FDI dependent strategy

This strategy is best exampled by Singapore, which due to the restrictions due to its limited size, could not pursue an efficient domestic industrial base. It sought instead to attract MNE activity, and then made strong efforts to upgrade the quality of FDI towards higher value-adding activities.

[1] We define the technological frontier as the set of all production methods that at any given time are either most economical or most productive in the world.

East Asian model (3): Passive FDI dependent strategy

In this model, FDI was also the primary driver, but instead to intervening to encourage upgrading (as with strategic FDI dependency), it relied on market forces to encourage the upgrading process. Although policies to encourage the development of 'generic' location advantages were implemented (such as infrastructure development, incentives for exports, skilled cheap labour), the development of complementary domestic industrial capacity was not developed in tandem with FDI upgrading. This model has been followed by Malaysia, Philippines, Thailand and Indonesia.

Since the mid-1980s, those countries that followed an ISI approach to upgrading, have taken up what can best be described as an '**ISI restructuring model**'. This is a hybrid model based on a rapid transition from ISI to NEM, having undertaken trade liberalisation and export incentives, often as part of a structural adjustment programme. Some countries have relied on MNEs to drive their growth strategy, while others have depended almost entirely on domestic firms, and the inflow of technology through arms-length arrangements such as licensing.

As I have emphasised earlier, these are by no means exclusive. Several countries have used different models for different sectors, as well as switching between different models over time. There is considerable overlap between these models.

Why did Latin America not catch-up like Asia?

There are important lessons to be learnt from the gap between the Latin American countries and the East Economies, and the different path these two groups of countries have taken over the last 50 years. Although Latin American economies are individually very different, with different languages, geographies, histories and resource endowments, they share a few common features. First, they have all pursued an import-substituting, inward looking policy orientation for the several decades prior to the current trend towards liberalisation, roughly until to the early 1990s. Indeed, the ideas and principles behind the Dependencia School are native to Latin America. Second – but not entirely unrelated to the first point – there has been a long love-hate relationship between the US and Latin America stretching back to the late 19th century. The US has regarded the South American continent as its backyard, and has been its largest trading and investment partner for over a century now. In addition, it has intervened politically and militarily on numerous occasions to maintain its economic and political dominance of the region. Third, most countries in the Latin America have been politically independent for over a 100 years, insofar as they are self-governing. Fourth, they have had a historical dependence on natural

resource and extractive industries, a trend which the import-substitution policies implemented in the 1950s and 1960s were to have helped reduce. These issues have– intentionally or not – coloured the attitudes of government policies towards industrial development, as well as the kinds of FDI that have been received by Latin American countries within the current wave of economic liberalisation.

At the risk of oversimplifying a complex set of developments,[2] the doctrine of import substitution took hold in the post-World War II era, whereby leading economists of the day rejected the market solution as a means for the under-developed south to catch-up with the developed north, by moving away from exporting primary commodities and importing manufactures, towards developing a domestic industrial base. This, it was argued, would capture the rents that derived to the developed economies from value adding to the primary commodities imported from the south, and the resulting structural change would spur economic development, as well as promoting economic independence. The implementation of impost-substitution generally involved a high degree of central planning, combined with protection. Protection was undertaken through tariffs, exchange rate manipulation, quotas and exchange controls. Although one of the main objectives was to decrease manufactured imports, the net effect was also to discourage exports, in both manufacturing and agriculture, inter alia, because of overvalued exchange rates.

Domestic industry was to be developed by seeking capital and technology from abroad, since it was largely accepted at the time that physical capital and know-how could be transferred relatively easily through the flow of aid, turn-key projects and the provision of technical experts from the north to the south. Indeed, this view was widely held with agencies such as the World Bank promoting these technology transfer programmes (Bruton 1998).

The role of MNEs was seen as a means to actualise the process of technology transfer (Corredoira & McDermott, 2014). Investments in most countries were permitted in targeted sectors with the explicit understanding that control, ownership and technology would gradually transfer to the domestic sector. In addition, intermediate inputs were to be phased out as domestic suppliers acquired the competence to meet the (graduated and increasing) local content stipulations that were generally included in the investment agreements. FDI was largely undertaken with the intention of supplying the local market, since neighbouring countries had implemented their own import substitution programmes. Captive markets meant that MNEs were able to pass on the costs of producing at an inefficient scale. A considerable share of

[2] See Bruton (1998) for an excellent overview, and which forms the basis of the discussion on import substitution here.

productive assets were in state ownership, either as a part of the belief in central planning, or to support large capital intensive and scale-intensive projects which the private sector could not afford to maintain.

Import-substitution policies did lead to economic growth in most developing countries during the 1950s and 1960s, and even in the 1970s, although the anticipated growth of domestic manufacturing sector did not go quite as planned. This in part reflected the application of a similar ISI program in most countries, despite the considerable differences in the initial economic structure and industrial development between the various countries. ISI schemes were not adjusted to reflect differences in comparative advantages, but sought to duplicate the same breadth of industrial sectors regardless of their initial specialisation and resource endowment. It would seem axiomatic with hindsight that the import-substituting experience of countries at different stages of economic development would necessarily be different, but this was not acknowledged at the time. Countries as varied as Argentina and Peru, for instance, attempted to build up domestic expertise in automobiles and chemicals, despite it being the case that less developed countries have – in addition to a lower income level – have lower technological capabilities and an economic structure that favours resource-intensive and primary sector activities. The focus on import substituting meant that little effort was made to export manufacturing output. Even in 1985, manufacturing exports from Latin America were just 25.1% of all exports, less than half the level in East Asia where manufactures were about 51.7% of exports in the same year. It is worth noting that manufacturing value added as a percentage of GDP was roughly equal in the two regions in 1985. This suggests that domestic acquisition and transfer of technology and managerial know-how to the domestic sector was less successful in bringing Latin America up to world levels than in East Asia, and productivity of the domestic sector persistently lagged that of the Asian countries. Furthermore, although import reduction was one of the primary goals of the import substitution programmes, imports continued to be significant, as intermediate and capital goods still had to be imported (Bruton 1998). As late as 1985, manufacturing imports were 61.7% of total imports in Latin America, almost identical as the same figure for East Asia and the Pacific (61%).The one exception was Brazil where manufacturing imports accounted for just 37.9% of imports. Despite increasing awareness of the problems of import substitution and its effective implementation, however, many countries continued to pursue these policies, in many instances increasing the role of state ownership as a means to increase efficiency and to promote social welfare.

The majority of East Asian economies also implemented similar infant industry programs in the 1950s, discouraging foreign ownership wherever possible, and encouraging the development of

domestic enterprise in much the same way as had Latin American and South Asian countries. While maintaining the basic objective of building up domestic manufacturing capacity, Taiwan modified its import substituting regime in the late 1950s, and Korea followed suit in the mid-1960s, seeking to encourage exports *alongside the primary goal of building domestic industrial capacity*. These included establishing a realistic exchange rate, and creating incentives to export (including subsidies, credit allocation, trade restrictions, and reduced or duty free access for imported inputs). Singapore went much further, dropping import substitution policies almost completely. Malaysia and Thailand began to move toward a greater export orientation and friendliness towards FDI from the late 1970s onwards, although still maintaining a strong orientation towards building domestic capacity. They were later followed by Indonesia, Philippines, China, India and eventually most of Asia. The point here is that all these countries (and later Philippines) pursued industrial policies that maintained significant elements of import-substituting regimes until (and in some cases, beyond) the 1990s, very much as Latin America has done.

Thus, it is possible to say that the East Asian countries adopted a *more* outward-looking, export-oriented policy orientation at a much earlier period in time than Latin America. I emphasise the 'more' in the last sentence because, as I have highlighted earlier there is considerable variation. With the possible exception of pre-1997 Hong Kong, almost all economies in the region have actively sought to intervene to support the growth and competitiveness of their domestic sector, alongside their export-orientation.[3] This was done through a variety of means, both by promoting domestic sectors as well as restricting imports. At 23.5%, tariff rates were only marginally lower in East Asia than Latin America (28.1%) during 1978-80, and by the period 1981-1985, were almost identical. Non-tariff barriers were in fact almost twice as high in East Asia than in Latin America as late as 1989-1994 (Hoekman 2002). During this period, East Asia can therefore be said to have been both *export oriented and import-substituting (EO-IS) at the same time*.

Latin America, however, adopted the so-called neoliberal framework championed by the World Bank at roughly the same time, known as the known New Economic Model (NEM) or the Washington Consensus, but they did so only reluctantly. Unlike the East Asian economies, Latin America did not voluntarily seek to move towards promoting an outward orientation in tandem with its import-substituting regime, but was pressured into structural adjustment programmes due to problems with macroeconomic stability and the ensuing economic crises that engulfed them in the 1980s. To be sure, the large state-owned sector many countries was highly

[3] For a succinct discussion of these policies see Amsden (2001), as well as Lall (1996).

inefficient and in dire need of reform. However, considerable industrial development had occurred in some of these countries. This made the reformation and opening up of the economy an exercise undertaken with some reluctance. Nonetheless, the NEM, which emphasises the free play of market forces both domestically and economically, was introduced as part of sweeping policy reforms beginning in the mid-1980s. The NEM is part of the new, received wisdom that is focused on tackling the deep-rooted causes that underlie market distortions, explicitly reducing state intervention such that it is applied exceptionally. The emphasis thus moved away from developing domestic capability to enhancing economic efficiency and discipline that market forces were supposed to provide (Reinhardt and Peres 2000). They therefore moved much further away from import-substitution and domestic capability enhancement, and much more rapidly so than did most East Asian economies. The NEM entailed large-scale privatisation of public sector activities, rapid dismantling of import and FDI restrictions, and the termination or attenuation of state incentives and public goods aimed at enhancing the competitiveness of domestic firms. Thus, the ISI programmes shared much in common with the autonomous strategy of Korea and Taiwan, except that in the Asian economies strong state intervention was clearly targeted and coordinated to enhance domestic technological capabilities and competitiveness, while at the same time emphasising international markets as a benchmark. On the other hand, the NEM and the so-called ISI restructuring strategy went to the other extreme: they emphasised international markets and export competitiveness, *but withdrew the support structure that allowed firms to internalise the spillovers that derived from international competition.*

One of the goals of import substitution was to reduce the dependence on natural resources, as well as to increase economic independence. The NEM has also not been able to reduce the primary sector dependency of the Latin American region, with only marginal changes in the share of the primary sector in value added. Most primary commodities are associated with highly volatile and cyclical markets, as has been the case with coffee and copper (among others) in the last decades, and this makes countries extremely vulnerable to external shocks due to this volatility.

Although it is difficult to speak with certainty in this matter, much of the evidence suggests that the ISI-to-NEM shift resulted in an intermediate shock of transition, and did not re-oriented Latin America towards the 'autonomous model' or the 'strategic-FDI dependent model' of East Asia, *but away from it*. As ECLAC (2001) emphasised, export growth did not necessarily resulted to *export-led* growth.

The role of political economy in MNE-assisted development

The role of foreign capital and foreign capitalists – as early MNE activity was referred to in the earlier literature prior to the 1950s - has historically been seen with some suspicion, and is often linked to the work of Marx, Lenin, and Luxembourg (see Evans 1979), and rests in part on the association of MNEs with imperialism, consequential dependent development, and political and economic intervention by the home countries of MNEs on their behalf (see Evans 1979).

This body of work is closely linked to dependency theory (see e.g., Prebisch, 1962), which building on the core-periphery argument addresses the challenges for development and catch-up for the countries in the periphery – who are, by definition, economically or otherwise poorer or less technologically advanced than countries of the core. These theories focus on political, sociological and economic challenges that derive from the domination by the core, of the periphery, and have greatly influenced policies towards MNEs, particularly in developing countries. This has played an important role in determining the regulation and control of MNE activity, as well as determining the nature and evolution of MNE-nation state relationships in the developing world.

Even in nation states for whom the ideological aspects of MNE activity has not been important, MNE activity has often been inhibited as a result of protectionism, techno-nationalism and the support of domestic industry against the possible negative effects of MNEs on domestically owned firms.

Although economic liberalisation – whether voluntarily adopted, imposed as a condition for lending by international institutions, or as a pre-condition for membership of a regional integration programme – has led to a sea change in the policies of many countries. However, although *policies* may have changed, the underlying attitudes have not. The *politics* of state-MNE relationships have remained strongly associated with national interests, domestic interest groups and the importance of protecting the state as a politically and economically sovereignty (Spar 2001).

The role of governments

Governments play several important roles. The work of Lall (see for instance 1996, 1997a, 1997b, 2002) 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. The provision of certain basic location advantages is perhaps most significant to note, especially for pre-catching up and catching-up economies, where firms (foreign and domestic) rely on governments to make available public and quasi-public goods. First, they have a passive role in developing the appropriate public and quasi-public goods that are the background to economic activity. As countries reach a threshold level of technological capabilities and become catching-up economies in earnest, governments need to provide more active support through macro-organisational policies. This implies developing and fostering specific industries and technological trajectories, such that the location advantages they offer are less 'generic' and more specific, highly immobile and such that they encourage mobile investments to be locked into these assets. In other words, their role as market facilitator and provider of complementary created asset-based location-specific advantages has become more critical (Dunning 1997, Stopford 1997, Narula and Dunning 2010).

Another fundamental lesson from the Asian miracle countries tends to be lost amidst the focus on openness. Much of East Asia has enjoyed considerable stability in economic policy, and this has much to do with political stability. Political stability implies long term continuance of economic policy. As Freeman and Lindauer (1999: 20) note (for the case of Africa, but which applies equally to other countries and regions),

> 'The reason returns to schooling are low..., 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 other words, it has not necessarily been strong regulation that has detracted the development of domestic industry but the lack of *consistent* regulation.

Sustaining absorptive capacity

For an FDI-assisted development strategy there needs to be an appropriate complementary domestic sector to support the FDI, and secondly, their need to be domestic firms with the capacity to learn from the MNEs. To paraphrase Lall (2002), an MNE-dependent export strategy needs a proactive element for dynamic competitiveness. Indeed, the presence and condition of the domestic sector is crucial. If no domestic sector were to exist (say, in an LDC) there can no opportunity to absorb spillovers from FDI: In a perfectly liberalised world, MNEs have no incentive to encourage the development of domestic firms in (say) an LDC to meet their needs because other MNEs may be able to do so more efficiently, either through imports or FDI. In an

extreme case, there may actually be no FDI inflow, because MNEs will prefer to locate production in a regionally optimal location, and simply import. Thus, FDI in a completely liberalised milieu does not necessarily lead to growth in the domestic sector. *The benefits of FDI only occur when there is domestic investment, and where the domestic investment has the ability to internalise the externalities from FDI.*

The lesson for developing economies is the need to invest in absorptive capacity (Fu, 2008). It is a necessary condition for MNE-assisted economic upgrading that a domestic sector exist which is capable of taking advantage of the linkages and spillovers that derive from MNEs. A second necessary condition is that the domestic sector (whether firm or non-firm) possess the necessary skills and competence to maximise the internalisation of the opportunities that become available through spillovers and linkages. In other words, firms must possess the necessary absorptive capacity. Absorptive capacity is about the *ability to absorb* available knowledge (Cohen and Levinthal 1989), and on an aggregate level, it represent define national absorptive capacity as "the ability to learn and implement the technologies and associated practices of already developed countries" (Dahlman and Nelson 1995).

Absorptive capacity supports further accumulation of technological knowledge, and technological advances support the further development of absorptive capacity in a cumulative, interactive and virtuous process during the catching-up stage. However, this virtuous circle of technological accumulation takes place only if an "adequate" minimum level of absorptive capacity is initially present. This threshold level of absorptive capacity is most significantly associated with the development of what Rasiah (2002) terms 'basic infrastructure', which represent 'generic' location advantages. Acquiring and sustaining this threshold level of absorptive capacity occurs in the 'pre-catching-up' stage (Criscuolo and Narula 2008).

However, progress towards more technology-intensive manufacturing activities depends on the existence of 'high tech infrastructure' (Rasiah 2002). This type of infrastructure is key if firms are to be able to internalise and absorb externally generated technologies, and to create their own. Such infrastructure plays an important role in promoting the innovatory and absorptive capacity of firms. It also acts as a mechanism to 'direct' technology strategy and as a mechanism to overcome market failure. It is important to understand that while learning and absorption takes place at the firm level, the success or failure of individual firms occurs in orchestration with an entire 'system'. Within any system, there exists a broader non-firm-specific knowledge base within what might best be described as 'non-firm actors' that are crucial to a country-level understanding of the process of technological accumulation. Non-firm actors determine the knowledge infrastructure that supplements and supports firm-specific innovation. I define

'knowledge infrastructure' in the sense proposed by Smith (1997) as being 'generic, multi-user and indivisible' and consisting of public research institutes, universities, organisations for standards, intellectual property protection, etc. that enables and promotes science and technology development. They account for a certain portion of the stock of knowledge at the national level which may be regarded as 'general knowledge' in the sense that it has characteristics of a public good, and potentially available to all firms that seek to internalise it for rent generation. Thus, it is possible to speak of *national* technological or competitive advantages, which is not simply the sum of the firms, but the synergistic effect of all these players within a given industry within boundaries of a *de facto* region or country (Criscuolo and Narula 2008).

Absorptive capacity is also about the creation of the appropriate quality and quantity of human capital. However, while human capital represents a core aspect of absorptive capacity, its presence *per se* is not a *sine qua non* for knowledge accumulation. Human capital represents a subset of absorptive capabilities. While both physical and human capital are necessary inputs for catching-up, the lack of appropriate incentives for production and investment can compromise the success of the technological upgrading (Lall, 1992). The availability of a large stock of suitably qualified workers does not in itself result in efficient absorption of knowledge. This requires the presence of institutions and economic actors within industry which defines the stock of knowledge in a given location, and the efficient use of markets and hierarchies, be they intra-firm, intra-industry or intra-country. This knowledge is not costless, and must be accumulated over time. Important externalities arise which impinge on the ease of diffusion and efficiency of absorption and utilisation of external knowledge.

Absorptive capacity is therefore also concerned with the efficient use of knowledge acquired. Firms need the ability to use prior knowledge in the solution of practical problems that are commercially viable. Thus, absorptive capacity implies problem-solving skills that emerge directly as a result of attempts to assimilate external knowledge. These efforts represent a potential for learning how to undertake different activities through investing in R&D, i.e. to create new knowledge, and is referred to as the process of 'learning to learn'. Absorptive capacity accumulates only if an effort to internalise the external knowledge is exerted and in particular if the prior-knowledge has been applied to the solution of problems.

An important point that is often lost to policy makers is that *absorption is not purely about imitation*. Firms cannot absorb outside knowledge unless they invest in their own R&D, because it can be highly specific to the originating firm and be partly tacit in nature. In addition, absorptive capacity is assumed to be a function of firm's R&D efforts, as well as the degree to

which outside knowledge corresponds to the firm's needs, and the general complexity of external knowledge.

Absorptive capacity is not constant along the converging path: it evolves with the level of technological development (Criscuolo and Narula 2008). Different countries at different distances from the frontier acquire and assimilate technological spillovers using different modalities. During the catching-up phase, absorptive capacity is predominately directed at assimilating spillovers originated from trade and/or inward FDI. This strategy was fundamental to the rapid growth of the Asian newly industrialising economies during the 1970s and 1980s, and countries such as India and China more recently. At the pre-frontier-sharing phase (as well as at the frontier) increases in the knowledge base occur primarily through an active engagement in accessing to foreign located technological spillovers, through outward FDI-related R&D, joint ventures and strategic alliances. This has been the strategy of the Asian NICs since the 1990s.

As they approach the frontier, countries must have the capacity not just to absorb and imitate technological development created by others, but also the ability to generate inventions of their own. This requires technological capabilities that are non-imitative. In other words, learning-by-doing and learning-by-using have decreasing returns as firms approach the frontier, and in-house learning and learning–by-alliances become more efficient options.

Conclusions

Developing countries have largely liberalised their policies towards FDI, but this is not the same as developing FDI policies. Most take a passive approach to attracting FDI flows, and pay insufficient attention to the nature of the benefits and costs associated with embedding subsidiaries and exploiting externalities. The adoption of neoliberal policies as part of structural adjustment programmes in many developing countries has meant that few have an explicit or well-considered industrial policy, often applying principles that belong as part of a more closed, import-substituting era. This is increasingly at odds with the economic realities of a post-WTO, interdependent world. Specifically, policies towards MNEs need to be closely linked and integrated with industrial policy. MNE activity needs to be evaluated by considering the kinds of externalities that are generated; whether and how domestic actors can internalise them; and what kinds of L advantages may be required to achieve this. Indeed, the 'success stories' of MNE-assisted development have sought to attract MNEs, but have also built up domestic absorptive capacities in tandem.

The increasingly blurred identity of the nation-state affects how state-MNE relationships are evolving (Narula 2003). On the one hand, countries remain sovereign and independent, while on the other hand, they are increasingly swayed by extra-national developments. At the same time, there are clearly defined characteristics and patterns that are history-dependent and idiosyncratic, such as areas of specialisation, technological competences, structure of markets, consumption patterns and culture. Government policies have to tread a thin line between responding to extra-national developments and to domestic priorities. This has led to what is best described as *de facto* economic integration. That is to say, unintended national-level economic integration has occurred, and this has gradually been acknowledged by *de jure* integration.

The growing intensity of MNE activity has followed a natural co-evolutionary path with that of *de facto* economic integration, which in turn has been reinforced by *de jure* integration. Supra-national agreements such as the EU, NAFTA, WTO have reinforced, accelerated and created standardised regulation for economic activity, acting as a virtuous circle with regards economic integration that had been occurring as a matter of course.

The growing complication of MNE-state relations was addressed by Stopford and Strange (1991) who suggested that industrial policy relations required to be modelled as a 'trilateral diplomacy' that involved not only state-state relations, but also the relations between states and firms and bargaining that occurs between firms. These ideas have evolved further, for instance, by Ruigrok and Van Tulder (1995) among others. More recently the debate has begun to address the limitation of such model since they exclude the growing prominence of civil society as an additional important node that affects state and MNE interaction and bargaining.

On the policy front, attempts to address the increasingly complex role of states and firms have focused on both bilateral and multilateral agreements. There have been several efforts to establish multilateral agreements to govern the interaction between states and MNEs. These have included the Multilateral Agreement on Investment (MAI) first by the OECD, and later, after this attempt failed, within the Doha Round.

Although early attempts to establish multilateral investment rules date back to the 1940s (Brewer and Young 2000), investment came back on the GATT agenda with the Uruguay Round Agreements in 1995. As part of a package that led to the establishment of the WTO, a number of agreements with explicit investment content were approved, namely, the Agreement on Trade-Related Investment Measures (TRIMs), the General Agreement on Trade in Services (GATS), the Agreement on Trade-Related Intellectual Property Rights (TRIPS), and the Agreement on

Subsidies and Countervailing Measures (SCM) (Brewer and Young, 2000). Attempts have made to follow this up towards a broad and comprehensive multilateral agreement on investment. These have included the Multilateral Agreement on Investment (MAI) proposed by the OECD, and later, after this attempt failed, within the Doha Round negotiations, as one of the 'Singapore issues'. Broadly speaking the developed countries are for MAI-type policies, and the developing countries against (Ostry, 2001). In general, the argument against the MAI is driven by the shrinking policy space that nation states face in leveraging MNE activity in their economies for FDI-assisted industrial development (Chang, 2004; Malhotra 2006)

The argument against is driven by the concern that while *de facto* integration and economic growth allow countries to catch-up, there are a wider set of issues to do with reciprocity and being politically peripheral in the international arena. This is most obviously noted within supra-national organisations such as the WTO. Agreements such as SCM, TRIMs and TRIPS have severely limited the policy space for countries, as issues such as tariffs, subsidies, incentives, and so forth are decided in a supra-national arena. Malhotra (2006) argues that multilateral and bilateral investment agreements have dubious benefits since they restrict the policy autonomy of developing countries, and may increase transaction costs, while simultaneously increasing opportunity costs.

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