Targeting Winners: Can Foreign Direct Investment Policy Help Developing Countries Industrialise?

MICHAEL MORTIMORE and SEBASTIAN VERGARA

The globalisation process provides opportunities for developing countries in the context of tighter international agreements that limit their policy instruments for promoting industrialisation. An option for governments in this new context is to 'target lead transnational corporations', whose corporate strategies are more attuned to their developmental circumstances and industrial aspirations, in order to locate nodules of their international systems of integrated production in their economy. This can have a clustering effect in the same host economy that can contribute significantly to the creation and consolidation of internationally competitive industries there. Here we examine the cases of two developing countries: one that achieved impressive results by following such a policy and another that missed a golden opportunity by not doing so.

Le processus de mondialisation offre de nouvelles chances pour les pays en développement dans un contexte de traités internationaux plus stricts qui limitent leurs instruments politiques destinés à promouvoir l'industrialisation. Dans ce nouveau contexte, les gouvernements ont la possibilité d'attirer des corporations internationales leader dont les stratégies corporatives sont plus en accord avec leur propre situation de développement et leurs ambitions industrielles, afin d'établir des nodules de leurs systèmes internationaux de production intégrée à l'intérieur de leur économie. Ceci peut entraîner un effet d'attraction à l'intérieur de l'economie nationale, qui peut contribuer à créer et à consolider des industries concurrentielles à niveau international dans le pays. Dans cet article, nous analysons les cas de deux pays en développement: l'un a obtenu des résultats impressionnants en suivant une telle politique, l'autre a manqué une chance unique de faire.

Michael Mortimore is Chief, Unit on Investment and Corporate Strategies, United Nations Economic Commission for Latin America and the Caribbean, Santiago, Chile and Sebastian Vergara is Consultant, Unit on Investment and Corporate Strategies, United Nations Economic Commission for Latin America and the Caribbean, Santiago, Chile.

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I. INTRODUCTION

In a globalising world, host countries can attempt to use foreign direct investment (FDI) to advance their industrialisation process into new activities and deepen existing ones. FDI policy-makers can attract selected transnational corporations (TNCs) – especially leaders[1] – whose corporate strategies are more attuned to their developmental circumstances and industrial aspirations in order to locate nodules of their international systems of integrated production (ISIP) in their economy. This attempt to extend and deepen industrialisation by way of a clustering effect of numerous ISIP nodules in the same economy can contribute significantly to the creation and consolidation of internationally competitive industries. This is considerably different from the 'picking winners' strategy based on converting rising national champion companies into world-class exporters which proved so successful for some East Asian countries, such as Japan, Korea and Taiwan [*Amsden, 1989*; *Wade, 1990*; *Chang, 2001*]. The success of the 'targeting winners' strategy depends on the interaction of the leader TNCs' decisions to shift comparative advantage from one investment site to another in the framework of their ISIP and the national policy-makers' ability to take advantage of those decisions from a developmental perspective within the constraints of the new multilateral rules and the competitive situation of specific international product markets [*Mortimore et al., 2001*; *Lowendahl, 2001*].

The idea of governments actively targeting TNCs is, of course, heresy for economic policy traditionalists. To a large extent, the traditional view was founded on the original economic literature on foreign investment 'spillovers'. The spillovers concept suggests that after a certain threshold is reached in terms of the level of inflow of foreign direct investment to a host country, a number of benefits in the form of technology transfer, production linkages, the training of human resources and local entrepreneurial development, among others, 'spill over' into the host economy, much like a glass that overflows when filled past the brim. For a long time, this view of automatic and effective benefits on the host country was the dominant view. That is *not* the case any more. Critical reviews of the literature and new empirical findings suggest that the FDI spillovers literature is, at best, exaggerated, at worst, unsubstantiated [*Gorg and Greenaway, 2001*; *Mortimore, 2004*].

This article focuses on evidence from Latin America and analyses two examples of the entry of leader TNCs in the region taking into account their corporate strategies and how host country policies, manifest in trade and investment agreements, industrial and technology initiatives, and incentives, influence the TNCs' siting decisions. The first section indicates that Latin America has been a major recipient of FDI, however, the impact has been weaker and less positive than generally expected. The second section looks at two noteworthy examples of the interface of leader TNC strategies and national policies in

the context of specific product markets: semiconductor leader Intel in Costa Rica, and automobile leader Toyota in Mexico. The final section provides conclusions that suggest that in the right circumstances the 'targeting winners' strategy can be quite successful, especially in comparison to previous strategies that simply passively depended on FDI inflows, rather than being actively co-ordinated with them.

II. LATIN AMERICA'S EXPERIENCE WITH FDI

The strong FDI inflows to Latin America and the Caribbean beginning in the 1990s have come to a screeching stop and that makes it a good time to evaluate the recent experience. Inflows to the region (excluding those to financial centres) rose from an annual average of $15.8 billion in 1990–94 to $60.6 billion in 1995–99 before collapsing from $88.2 billion in 1999 to just $44.4 billion in 2002 (all values here and throughout in US dollars). *Mexico*, *Central America* and *the Caribbean* more than doubled their average annual inflows from $6.8 billion in 1990–94 to $15.2 billion during 1995–99 and generally remained slightly above that average thereafter.[2] *South America* experienced more of a roller coaster ride when average annual inflows of about $9 billion during 1990–94 were multiplied by a factor of five to $45.4 billion during 1995–99 before declining steeply to $26.6 billion in 2002. These figures for South America hide two separate realities. On the one hand, the Andean Community tripled its average annual FDI inflows between the first and second period and more or less maintained that level thereafter. On the other hand, the Southern Cone (Mercosur plus Chile) experienced the roller coaster ride multiplying average annual inflows by six from $6.1 billion to $35.6 billion before seeing those inflows fall to below $20 billion in 2002. Thus, distinct subregional realities underlay the general picture described above.

The impact of FDI and TNC activities on Latin America has been dealt with in considerable detail elsewhere [*Mortimore, 2000; 2004*]. Table 1 interprets the logic of the corporate strategies driving FDI in the region. Here we concentrate on one particular corporate strategy that has been driving FDI during the recent period: the *efficiency-seeking* one [*UNCTAD, 2002*]. Effectively, this strategy has demonstrated more pronounced impacts on the recipient countries' productive structure, international competitiveness and industrial development than have the other principal strategies [*UNCTAD, 2000*].

The primary efficiency-seeking TNC activities in Latin America and the Caribbean are export platforms established to form part of international or regional systems of integrated production of the TNCs. These have attained a higher or more sophisticated level in the form of the automotive and electronics platforms in Mexico [*Mortimore, 1998a, 1998b*; *Dussel, 1999, 2000*; *Dussel et al., 2003*] and a lower or less sophisticated level in the form of the apparel

TABLE 1
THE PRINCIPAL FOCAL POINTS OF FDI IN LATIN AMERICA AND THE CARIBBEAN ACCORDING TO THE CORPORATE STRATEGIES DRIVING THEM

Corporate strategy/ sector	Raw materials-seeking	Market (national or regional) access-seeking	Efficiency-seeking	Strategic element-seeking
Goods	*Petroleum/natural gas*: Andean Community, Argentina, Trinidad and Brazil *Minerals*: Chile, Argentina and Andean Community	*Auto industry*: Brazil and Argentina *Food, beverage and tobacco*: Argentina, Brazil and Mexico *Chemicals*: Brazil	*Auto industry*: Mexico *Electronics*: Mexico and Caribbean Basin *Apparel*: Caribbean Basin and Mexico	
Services		*Financial services*: Brazil, Mexico, Chile, Argentina, Venezuela, Colombia and Peru *Telecommunications*: Brazil, Argentina, Chile and Peru *Retail trade*: Brazil, Argentina, Mexico and Chile *Electricity*: Colombia, Brazil, Argentina, Chile and Central America *Gas distribution*: Argentina, Brazil, Chile and Colombia		

platforms in Central America and the Caribbean [*Mortimore, 1999, 2002c, 2003*]. The efficiency-seeking strategy often begins with simple cost reduction in each production site, however, the more successful ones evolve to include efficiency concerns with regards to the interrelationship of each production location with the regional or international system of integrated production of the TNC. It is relevant to distinguish these two kinds of export platform because their developmental impacts are quite distinct in the region.

In *Mexico*, the efficiency-seeking TNC activities relate primarily to greenfield investment in new export platforms, many began in the context of the *maquiladora* scheme for export assembly. Some of the favourable impacts of this FDI were to increase exports and improve export competitiveness to the extent that Mexico became one of the ten 'winner' countries associated with the new international systems of integrated production [*UNCTAD, 2002*]. These export

platforms represent the dynamic part of the manufacturing sector, although the recent recession in the US market has taken some of the shine off it. The automotive cluster is particularly impressive, providing exports of $31.7 billion in 2001 (or 20 per cent of Mexico's total exports) and generating a favourable balance of payments in the order of $8.9 billion [*BANCOMEXT, 2002*] compared to exports of $10.8 billion in 1994 (and a deficit of $0.7 billion). Evidence on production impacts is quite limited; nevertheless, it seems probable that the configuration of the automotive cluster has produced significant upgrading of human resources and some production linkages, although the effects in terms of technology transfer or assimilation and enterprise development are less noteworthy [*Carrillo, 1995*; *Lara and Carrillo, 2003*; *Mortimore, 2004, 1998a, 1998b*; *Romo, 2003*; *Carrillo et al., 1998*]. Another positive impact is found in the apparel industry where the effect of the North American Free Trade Agreement (NAFTA) rules of origin is to generate new production linkages and facilitate some 'full package' providers [*Bair and Gereffi, 2003*; *Gereffi and Bair, 1998*].Thus, many of the export platforms in Mexico have produced very significant results, especially in terms of export competitiveness of the automotive and apparel industries.

Some negative impacts (or lack of positive ones) have also been attributed to the export platforms in Mexico. For example, the dynamism of the export sector has not been transmitted to the rest of the economy, suggesting that it is not well integrated into the economy as a whole [*Dussel, 2000*]. Exports grew at almost 18 per cent a year over the 1994–2002 period, while the gross domestic product (GDP) grew at only 3 per cent a year suggesting that the link between FDI inflows and GDP growth was not direct and the expected multiplier had not materialised. The electronics industry (dominated by Asian TNCs) possessed few of the positive production impacts – improved human resources, production linkages and enterprise development – associated with the automotive and clothing industries (dominated by US TNCs) and even the latter were mainly limited to foreign – not Mexican – suppliers [*Carrillo and Zarate, 2001*; *Contreras, 2001*; *Dutrenit and Vera-Cruz, 2001*; *Gomis, 2001*; *Gonzalez and Barrajas, 2001*; *Jaen and Leon, 2001*]. The NAFTA itself and many of the bilateral investment agreements signed by Mexico contained elements that put limitations on future policy choices to deal with some of these shortcomings.[3] Finally, the *maquiladora* format used by many exporters severely reduced the taxes paid by them, weakening the fiscal link between the export platforms and the National Treasury [*Dussel, 2001*]. One of the major shortcomings of the Mexican model is, then, that the huge export success is not reflected in the value added in the manufacturing sector [*UNCTAD, 2003*]. In other words, the export platform never evolves into a manufacturing cluster and, moreover, national policy is limited by bilateral, plurilateral and multilateral agreements.

In the case of *Central America and the Caribbean* (CAC) the benefits were even *more* limited. The apparel industry was the focus of TNCs operating in the subregion's export processing zones (EPZ), usually in the context the US production sharing mechanism (now known as US HTS 9802). The apparel industry produced over half of the exports of goods of many of these countries. A significant amount of new exports was generated by way of these TNC activities, both through FDI in new, more efficient plants and through buyers' contracts with foreign and local assemblers. The export competitiveness of the subregion demonstrated a marked improvement as a result. Other positive effects were the generation of new jobs (especially for women in non-urban settings), some upgrading of human resources, and some enterprise development as local companies bid for and won assembly contracts [*Buitelaar et al., 1999*; *Buitelaar and Padilla, 2000*; *Chacon, 2000*; *Gereffi and Memedovic, 2003*; *Mortimore et al., 1995*; *Mortimore and Zamora, 1998*; *Vicens et al., 1998*]. Thus, many of the export platforms in CAC generated a surge in exports from the apparel industry and this considerably improved the export competitiveness of the subregion.

Many negative impacts have been attributed to these export platforms. Unlike the situation in Asia where many EPZs often were converted into industrial zones and eventually became linked to science and technology parks [*UN-ESCAP, 1994*], the EPZs in CAC quickly got stuck in a rut. On the one hand, the US production sharing mechanism effectively limited the CAC contribution to an assembly stage of production utilising only US inputs since tariffs are applied to all value added outside of the US upon entry to the US market. This leads the TNC activities in this industry to focus primarily on low wages in CAC [*Mortimore, 1999, 2002c, 2003*]. On the other hand, the intense competition for plants and contracts in the context of US import quotas can lead to a 'race to the bottom' in terms of competitive devaluations, wage repression, and reduced social security benefits, and a 'race to the top' with respect to (over dimensioned) incentives, both of which severely reduce the national benefits deriving from such operations [*Oman, 2000*; *Mortimore and Peres, 1997, 1998*]. Extremely little in the way of production linkages or technology transfer and assimilation is forthcoming. CAC does not have the benefit of anything similar to the NAFTA rules of origin that work in favour of the further integration of the Mexican apparel industry.[4] To date, the CAC apparel export platforms have been limited to one market – the United States – and one function – simple assembly of US-made components. Any possible upgrading of these operations will have to take place very fast to be effective as the last part of the WTO Agreement on Textiles and Clothing will kick in as of 2005 and that will mean that CAC apparel producers will face a much harsher competitive environment in the US market owing to the increased presence of Asian, especially Chinese, competitors. Thus, the apparel export platforms enjoyed success with regard to export

competitiveness, however, the effect on the overall production apparatus was truncated by the principal mechanism used to gain access to the US market. Recent alterations in bilateral and multilateral agreements appear not to be sufficiently comprehensive or rapid to make much of a difference.

This evaluation of the main efficiency-seeking TNC activities in Latin America – those in Mexico and CAC – suggests that the indicators of success in terms of new exports and export competitiveness are truly impressive and much superior to the rest of Latin America; nonetheless, this success does not square with the lack of progress in Mexico and CAC with regard to extending and upgrading their industrialisation process. Evidently, the impacts of the transmission belts associated with the transfer and assimilation of technology, the construction of production linkages, the upgrading of human resources and enterprise development have turned out to be much smaller or different from what is generally assumed [*Mortimore, 2004*]. It would appear that, in the absence of an explicit development strategy defining national industrial objectives, the benefits generated from these kinds of TNC activities based on efficiency-seeking strategies *accrue primarily to the TNCs themselves and not the host countries*. There is a clear role for national policy in this regard.

III. CAN HOST COUNTRY POLICY MAKE A DIFFERENCE?

The globalisation process, which incorporates the progressive liberalisation of trade and investment, obliges TNCs to co-ordinate and integrate their distinct production sites in order to compete better in all markets. Efficiency-seeking TNC strategies usually rely on increased specialisation on core activities to make better use of economies of scale and implement policies to increase outsourcing. This means that the TNCs are continually evaluating their existing and potential new production sites for their international systems of integrated production from an efficiency-seeking perspective. The more far-sighted TNCs increasingly look beyond static comparative advantages, such as existing wage levels, toward dynamic comparative advantages, such as potential technological capacities, human resource capabilities, supplier networks and cluster formation, and enterprise development.

This section will present two concrete cases of countries that attracted considerable amounts of efficiency-seeking FDI, one using a 'targeting winners' strategy and one not. Unsurprisingly, the former did appreciably better than the latter.

Case One: Costa Rica Captures a Nodule of Intel's ISIP

Costa Rica took advantage of Intel's announcement that it wanted to geographically diversify its ISIP to include a site in Latin America, by designing and implementing a focused, targeted and active FDI policy that emphasised the coincidence between Intel's corporate objectives and Costa Rica's development strategy. This becomes apparent by examining Intel's global expansion strategy

and Costa Rica's national policy in the context of the competitive situation of the international semiconductor industry.

The Competitive Situation of the International Semiconductor Industry. The semiconductor industry is one of the principal economic activities in which efficiency-seeking TNCs are particularly active. It is the most important of the high-technology global production chains and is *technology*-driven [*UNCTAD, 2002*]. Semiconductors, broadly defined as SITC 7599, became the most dynamic products in world trade during 1985–2000 rising from 1.5 to 5 per cent of world imports. The demand for semiconductors is closely associated with the accelerated expansion of the information and communications technology (ICT) sector (computers, telecommunications and consumer electronics) and semiconductors accounted for 20 per cent of trade in high-technology non-resource based manufactures, which was the most dynamic category of world trade during 1985–2000.

The top ten semiconductor TNCs account for over 50 per cent of the total sales of the industry. The evolution of the semiconductor industry has been dramatic, with sales rising from $17 billion in 1983 to over $200 billion in 2000 before collapsing by 32 per cent as the recession took hold in the ICT industries. Intel was able to deepen its dominance of the industry, even during temporary meltdown of semiconductor sales in 2001. Intel alone accounted for 19 per cent of global semiconductor sales in 2001.

Intel's dominance of the semiconductor industry derives from very concrete competitive advantages of a technological nature. From its first microprocessor (4004) in 1971 to its Pentium 4 in 2000, Intel has been able to increase the speed of processing, pack more transistors on to each chip, squeeze more chips on to bigger wafers and raise the upper limit of its addressable memory. In November of 2003, Intel announced that it had developed a new material – high k – which would reduce leakage by 100 times over silicon dioxide chips (*New York Times*, 5 November 2003). This, naturally, gives it an immense lead over its rivals and allows Intel to innovate, based on the superior technological capacities of its products, to create new uses for its products and thereby increase demand. That lead was further strengthened by Intel's success in developing a brand name ('Intel Inside') that produced consumer loyalty, similar to that of Microsoft's 'Windows' operating system, and made Intel into a major stakeholder of the dominant 'Wintel' system, that is, the Microsoft operating system running on Intel microprocessors. Intel also has strengthened these competitive advantages by way of huge expenditures on research and development (equivalent to almost 15 per cent of sales in 2001) to maintain its technological lead, and by extending its ISIP to safe, qualified, lower cost production and assembly sites.

Intel's Global Expansion Strategy. Intel has consolidated its status as the global semiconductor leader by developing a global investment strategy to refocus its

international system of integrated production. This is reflected in the fact that its annual average investment rose from less than $500 million a year in the 1980s to $1,700 million during the early 1990s to about $4,600 during 1996–2002. Intel's international system of integrated production complements its technological lead.

Intel's global expansion has been in response to a number of different factors. Three stand out: security, logistics and cost reduction. The first has in fact restricted Intel's global expansion in order to avoid any leakage of its principal competitive advantage – its technology – to competitors. For that reason, over two-thirds of Intel's employees work in its home country, the United States, even after its recent global expansion. Security also explains why Intel's production system consists entirely of fully owned subsidiaries. Intel therefore is extremely careful when it takes a decision to expand internationally. The second factor – logistics – encompasses speed to market and market access. Intel reckons that each new generation of microprocessors possesses at the most a six-month lead time over competitors. Therefore its production sites must minimise time to market, so that it can keep its competitors at bay. Other logistical factors, such as transportation costs are less important due to the extremely high value to weight ratio of its semiconductors. The third factor – cost reduction – is gaining increasing importance as Intel's competitors continue to expand internationally to take advantage of lower cost production sites. These three factors combine to produce the particular characteristics of the Intel ISIP: a few huge operations in a small number of countries outside of the United States (Table 2). Intel, as a result, has become the principal exporter in countries such as Ireland, the Philippines and Costa Rica.

Intel's ISIP encompasses two types of plants: (i) those where the wafers are manufactured and the integrated circuits etched on them, and (ii) assembly and testing plants (ATPs) where the wafers are thinned to reduce internal stress, then cut into anywhere from 300 to 500 individual chips or microprocessors. These chips are mounted on to a lead frame and attached to thin gold wires that will eventually connect them with other elements of the computer. They are then encapsulated, revised and tested. Intel's ISIP consists of 18 wafer manufacturing and fabricating plants in the United States (14), Ireland (two) and Israel (two), and 12 ATPs in the United States (one), Malaysia (four), Philippines (three), Costa Rica (two) and China (two).

Security factors account for the fact that most of the wafer plants – especially the most modern ones using the most advanced technology, such as the 0.13 micron process technology – are located in the United States, where the danger of war, terrorism, and technology filtration is more minor. Even though a new wafer plant today can easily cost over $1 billion and, therefore, represents a huge financial exposure, Intel decided to locate its first wafer plant outside of the United States in Israel in 1985. Another new plant was added in 1999. The other

foreign site of wafer manufacture and fabrication is Ireland where a plant was established and upgraded during 1993–98 and another more modern one (300 mm wafers) is being constructed. European market access plays a role in that site selection. About 30 per cent of Intel's wafer manufacture and fabrication capacity is now located outside of the United States. In other words, other factors progressively became more important than the original security concerns for the siting of the capital-intensive wafer manufacture and fabrication plants.

Cost reduction is a primary factor in the siting of the labour-intensive ATPs. Intel's expansion in this regard began with the Manila plant in the Philippines in 1979, and was extended to incorporate the Penang plant in Malaysia (1988), the San José plant in Costa Rica (1997) and the Shanghai plant in China (1997).

TABLE 2
CHARACTERISTICS OF INTEL'S PRINCIPAL MANUFACTURING, ASSEMBLY AND TESTING PLANTS

Country/ region/year initiated	Functions/ products	Process technology (microns)	Wafer size (mm)	Programme post-2002 (microns)	Employeees
United States					44 164
Oregon					15 000
1978	Manufacture of motherboards	n.a.	n.a.	To be increased	
1992	Manufacture of logic and flash	0.25, 0.35	200	0.18, 0.13	
1996	Manufacture of logic	0.13	200	–	
1999	Manufacture of logic	0.13	300	0.10	
2003	Manufacture of logic (development)	n.a.	300	Under constr.	
Arizona					10 000
1996	Manufacture of logic	0.18	200	–	
1999	Assembly and testing	n.a.	n.a.	–	
2001	Manufacture of logic	0.13	200	–	
California 1988	Manufacture of logic, flash memory	0.13, 0.18	200	0.13 flash	8 500
New Mexico					5 500
1980	Manufacture of flash memory	0.35	150	Closing	
1993	Manufacture of logic and flash	0.18, 0.25	200	0.13	
2002	Manufacture of logic	0.13	300	Opening	

TABLE 2 *continued*

Country/ region/year initiated	Functions/ products	Process technology (microns)	Wafer size (mm)	Programme post-2002 (microns)	Employeees
Mass. 1994	Manufacture of logic	0.28, 0.35, 0.50	200	0.13	2 700
Washington 1996	Manufacture of production systems	n.a.	n.a.	–	1 400
Colorado 2001	Manufacture of flash memory	0.18	200	0.13	1 064
Israel					2 300
Jerusalem 1985	Manufacture of logic and flash	0.35, 0.50, 0.70, 1.0	150	–	
Qiryat Gat 1999	Manufacture of logic	0.18	200	–	
Ireland					3 400
Leixlip 1993–98	Manufacture of logic	0.18, 0.25	200	–	
Leixlip 2004	Manufacture of logic	n.a.	300	Under constr.	
Philippines					5 984
Manila 1979–95	Assembly and testing	Flash memory	50–200	–	
Cavite 1997	Assembly and testing	Logic	200	300	
Cavite 1998	Assembly and testing	Flash memory	200	–	
Malaysia					7 790
Penang 1988	Assembly and testing	Logic, comp. products	150–200	–	
Penang 1994	Assembly and testing	Logic, comp. products	150–200	–	
Kulim 1996–97	Assembly and testing, manuf. boards	Logic, comp. boards	200	Board design	
Penang 1997	Assembly and testing	–	200	300	
Costa Rica					1 845
San José 1997	Assembly and testing	Logic	200	300	
San José 1999	Assembly and testing	Logic	200	300	
China					1 227
Shanghai 1997	Assembly and testing	Flash memory	150–200	–	
Shanghai 2001	Assembly and testing	Logic	150–200	–	

Note: n.a., not applicable.
Source: based on http://www.intel.com and UNCTAD [*2002*].

Intel has deepened its presence in each of these sites by way of the construction of new ATPs to complement the original ones. In other words, one of the principal characteristics of the Intel ISIP is that it tends to grow in the few existing sites and that expansion to new sites is quite uncommon. The siting decisions usually are based on the availability of qualified technicians, construction costs, infrastructure quality, logistics, supplier capabilities and production costs. Thus, there exist important differences between the siting of wafer manufacture and fabrication plants and the siting of assembly and testing plants.

Intel's decision to invest in Costa Rica in the mid 1990s is remarkable when placed in the context of its existing ISIP [*Shiels, 2000*; *Spar, 1998*]. Intel's site selection team put together a long list of what they considered to be qualified sites,[5] including China, India, Indonesia, Singapore, Thailand, Argentina, Brazil, Chile, Costa Rica and Mexico. In the research and evaluation process that followed, Intel's interest in diversifying its geographic risk by extending its ISIP to Latin America began to play a more important role, reflected in the fact that the short list contained more Latin American (Brazil, Chile, Costa Rica and Mexico) than Asian (Indonesia, Thailand) countries. The on-site evaluation process eventually brought the choice down to two candidate countries: Costa Rica and Mexico. The latter possessed some very strong advantages, such as an existing and large electronics sector, labour availability, skills levels and cost, and proximity to the United States. Nevertheless, it was Costa Rica's well-organised and well-focused negotiating process in the context of its relevant competitive advantages[6] that most impressed the Intel site selection team.

Costa Rica's National Policy. The only country in Latin America in which the efficiency-seeking TNCs' activities are dominant and in which a new national developmental strategy explicitly defines the role of FDI is the exceptional case of Costa Rica [*Egloff, 2001b*]. This country had a developmental trajectory very similar to other countries of CAC in which the apparel export platform represented its principal link to the international economy [*Mortimore and Zamora, 1998*]. With the end of the civil wars in other parts of Central America, higher wage Costa Rica came under considerable competitive pressures. Instead of opting for the 'low road' to export competitiveness encompassing competitive devaluations, repressed wages, reduced social security benefits, and never-ending incentives, Costa Rica chose to design and implement a new development strategy based on attracting FDI to upgrade into more technologically sophisticated activities [*Robles, 2000*]. A considerable amount of success was achieved in electronics, medical devices and logistics by way of selective interventions using third generation FDI promotion techniques.[7]

Some of the major decisions that backed up the new focused developmental strategy were those related to improving domestic capabilities to attract FDI (i.e. investing heavily in education in the order of 6 per cent of GDP for decades and

emphasising technical and English language skills), designing and implementing an active and targeted FDI policy reflecting national developmental priorities, identifying the TNCs to be targeted and negotiating firm-level packages, and designing and implementing industrial policies to deal with some of the problems which arise from the TNC activities, especially weak technology transfer and assimilation and limited productive linkages [*Egloff, 2001a*]. Of particular importance was the explicit congruence among investment priorities, the package of advantages offered and the overall development strategy [*Gonzalez, 2002*]. TNCs' activities are evaluated in that light. In this sense, Costa Rica's development strategy possessed elements found in well-known success stories, such as Singapore and Ireland [*Mortimore et al., 2001*].

With regards to its efforts to get the Intel ATP investment, Costa Rica put together a negotiating team that included the foreign trade and investment promotion agency CINDE, the Ministries of Energy and Environment, Transportation, Finance, Science and Technology, and the Costa Rican Technological Institute. It had a high-level co-ordinator and direct access to the Costa Rican President, who took a direct interest in the negotiations, even travelling to Intel headquarters in Arizona to press Costa Rica's case. From the beginning, Costa Rica's message was to highlight the coincidence between the government's developmental objectives and Intel's corporate goals for a Latin American assembly and testing site. The practical problem-solving attitude of the negotiating team was particularly appreciated by the Intel site selection, legal, and tax teams that arrived to evaluate Costa Rica's 'fit' into Intel's ISIP. Once the 'nitty-gritty' details were worked out, such as the provision of electricity substations and several other infrastructural works (roads, etc.), more frequent flights, lower electricity rates for high demand, new consulates in the Philippines and Malaysia, and a dedicated call centre, among other things, Intel decided to commit to build its first Latin American ATP in Costa Rica, near the international airport in San José.

The impact of that decision on the Costa Rican economy was extraordinary. The export stream generated represented almost 30 per cent of the value of Costa Rica's exports to its principal market – the United States – in 2000, produced a trade surplus and represented the consolidation of the national trade strategy to diversify out of apparel and natural resources toward electronics. Furthermore, this huge investment produced a ripple effect throughout the economy in terms of related activities, especially software.[8] Benefits in terms of technology transfer and assimilation, production linkages, human resource upgrading and enterprise development have been registered [*Larrain et. al., 2001, Mytelka and Barclay, 2003*], in differing degrees, although it should be kept in mind that the functional activity remains assembly and testing, *not* manufacture, and the industrial cluster is in formation, it is not consolidated. Intel later decided to establish a second plant to assemble and test another line

of microprocessors (for servers) in Costa Rica. The Intel investment also represented a kind of 'stamp of approval' for Costa Rica's developmental strategy and CINDE's active and targeted FDI attraction policy [*Rodriguez-Clare, 2001*].

Costa Rica stands out as an example of what can be achieved by coupling the correct policy framework – one that reflects the priorities of the national development strategy – to a leader TNC's global expansion strategy. The case of Intel in Costa Rica thus demonstrates how national policy goals and corporate strategy objectives can coincide and is a good example of a targeting winners strategy, that is, the use of national policy to further industrialise by attracting the right kind of TNC activities in the best conditions.

Case Two: Mexico Misses Becoming Part of Toyota's ISIP

Mexico missed an excellent opportunity for FDI targeting in its automobile industry by limiting its national policy purview to horizontal and generally passive instruments, as well as depending on US auto TNCs in the context of the NAFTA integration scheme. That is demonstrated by the analysis of Toyota's global expansion strategy and Mexico's national policy in the context of the competitive situation of the international automotive industry.

The Competitive Situation of the International Automotive Industry. The automobile industry is another of the principal economic activities – along with electronics and apparel – where efficiency-seeking strategies of TNCs are most active in establishing new nodules of their ISIPs. It is the most important of the medium-technology global production chains and is *production*-driven [*UNCTAD, 2002*]. The continuing shift from market-seeking to efficiency-seeking TNC strategies that has accompanied the globalisation process in the auto industry has led to a situation of extreme international competition, one characterised by excess capacity (about 20 million units a year, or 25 per cent of the total) as a result of over investment. Auto TNCs must take market share from their rivals to survive in mainly stagnant markets. It is estimated that 40 plants will have to close in the near future, 12 of them in North America [*USITC, 2002*].

The global automobile market is concentrated in the sense that the ten principal producers account for about three-quarters of world output. For the past 30 or so years, Japanese, and more recently, Korean, auto TNCs have been gaining market shares at the expense of North American and European auto TNCs and have been working their way up the list of principal producers. Technological and organisational innovations in the form of lean manufacturing based on higher productivity, improved quality and innovations in inventory management allowed Japanese auto manufacturers to produce better passenger vehicles at lower prices [*Mortimore, 1997*]. Faced with superior production technology, the US and European auto TNCs originally enlisted protectionist

policies of their home governments to defend market shares in the face of surging imports from Asia. This obliged Asian auto TNCs to rely less on exports from their home base and more on extending their ISIPs, especially the new plants in the principal regional markets. While some of the Japanese (Nissan, Isuzu, Mazda, Subaru) and Korean (Daewoo, Samsung) auto TNCs faltered as a consequence of economic weaknesses in their domestic economies (and were wholly or partially acquired by US or European TNCs), the strongest continued their relentless advance on US and European market shares. Toyota's expansion in the US market is the best example of that.

The US automotive industry once again became the biggest in the world as the Japanese internal market shrank due to the financial bubble at the beginning of the 1990s; however, it produced a light vehicle trade deficit in the order of $114.4 billion in 2001 (exports of $75.4 billion minus imports of $189.8 billion) [*USITA, 2003*]. During 1997–2001 almost $25 billion was invested in new capacity and as a result US capacity has doubled since 1992. In 2001, production reached 11.4 million units while sales surpassed 17.5 million. The US market share of what are often referred to as the Big-3 US auto TNCs (General Motors, Ford and Chrysler – before Chrysler was acquired by Daimler Benz) has fallen from 95 per cent in 1965 to 72 per cent in 1986 to 61.3 per cent in 2002 and is expected to be in the range of 50 per cent within five years. That of the Japanese auto TNCs rose from 20.5 per cent in 1986 to 27.9 per cent in 2002 and is set to expand sharply due to the fact that they are fast moving into the last area of US domination: light trucks and sports utility vehicles. The Japanese share of US production has risen from 6 per cent in 1986 to 22 per cent in 2001, indicating that they rely increasingly on their North American plants than on exports from Japan. Overall, Japanese auto TNCs' brand sales from their plants in NAFTA countries rocketed from 11.8 to 67.4 per cent in 1996 (previous to the latest round of new plants which is predicted to raise their production capacity in the US to 4.7 million units). Evidently, the Japanese auto TNCs have been very successful in neutralising the NAFTA option of US auto TNCs (see below).

Toyota's Global Expansion Strategy. Toyota Motor Corporation (TMC) produced 6.3 million vehicles in 2003 and became the world's second largest auto TNC after General Motors (GM). It has a production system that consists of 12 manufacturing plants and 11 subsidiaries in Japan and 45 manufacturing plants in 26 other countries. It sells its products in 160 countries. TMC has managed to position itself as the technological and organisational leader of the automotive industry on the basis of the Toyota Production System. This lean production system helped TMC to elevate productivity, improve quality and motivate multifunctional work groups to such an extent that it became the heart of the 'Japanese challenge' to other auto TNCs [*Mortimore, 1997*]. Presently, Toyota's global expansion is extending these competitive advantages throughout its ISIP.

TMC production is still mainly in Japan (4.1 million units), although the foreign share is rising precipitously (2.2 million units). TMC's sales trend is more or less the opposite, that is, 2.2 million units in Japan and 4 million units in the rest of the world. Toyota exports 1.7 million vehicles from Japan.[9] Evidently, the dynamic part of the TMC system is now the international part.

TMC began to seriously develop its international system from the perspective of *integrated* production in the mid 1980s (Table 3). Previous to that it had established a significant number of market-seeking plants to serve national markets, such as Brazil (1959), Thailand (1964), Malaysia (1968), Portugal (1969), Indonesia (1970), Venezuela (1981), and Bangladesh (1982). As of 1985, Toyota developed a coherent strategy for establishing its competitive advantages within the most important regional markets, that is, first North America, then Europe (Figure 1). TMC grew its international production from 3.6 per cent of the total production in 1985 to 14 per cent in 1990, 28.3 per cent in 1995, and 38.2 per cent in 2002.

The North American market has been central to the TMC global expansion. Since 1971, TMC has possessed a plant for truck beds, catalytic converters and stamped parts; however, during 1984–88 its North American expansion began in earnest comprising the New United Motor Manufacturing Inc. (NUMMI) joint venture with GM, Toyota Motor Manufacturing Kentucky (TMMK) (Avalon and Camry models), Toyota Motor Manufacturing Indiana (TMMI) (Tundra, Sequoia and Sienna models) and Toyota Motor Manufacturing Canada Inc. (TMMC) (the Camry Solara, Corolla and Matrix models). A second round of major investments in components followed in the 1998–2003 period consisting of Toyota Motor Manufacturing West Virginia (TMMWV) (engines and transmissions) and Toyota Motor Manufacturing Alabama (TMMAL) (engines). Future investments include Toyota Motor Manufacturing Baja California (TMMBC) (truck beds for the Tacoma) and Toyota Motor Manufacturing Texas (TMMTX) (Tundra). Toyota is presently bringing forward its investment programme because of the success that it has enjoyed in the North American market.

Toyota's focus on and penetration of the North American market – originally based on exports from Japan – is now firmly founded on a local North American production system. The integrated production nodule in North America represents 21.4 per cent of TMC's global production capacity and accounts for 62 per cent of sales in that continent. TMC now undertakes significant research and development activities in that market. The Toyota Camry has been the best selling vehicle in the United States for a number of years. All this indicates the degree to which TMC has been able to lay down an effective regional production system in North America.[10]

In Europe TMC's presence began with a market-seeking operation in Portugal in 1968; however, the new nodule of its regional production system began to take form with Toyota Motor Manufacturing UK (TMUK)

TABLE 3
CHARACTERISTICS OF TOYOTA'S INTERNATIONAL SYSTEM OF PRODUCTION[a]

Sales (2003)/affiliate/year	*Country*	*Models/products*	*Export market*	*Production 2002*	*Exports 2001*
North American sales: 1 981 824				**1 205 500**	**156 045**
New United Motor Manufacturing Inc. (NUMMI) 1984	*USA*	*Corolla, Tacoma*	*Canada, Puerto Rico*	*310 300*	*2 703*
Toyota Motor Manufacturing, Kentucky (TMMK) 1988	*USA*	*Avalon, Camry*	*Taiwan, Canada, Japan, Middle East*	*490 591*	*17 831*
Toyota Motor Manufacturing, Indiana (TMMI) 1988	*USA*	*Tundra, Sequoia, Sienna*	*Canada, Oceania*	*186 573*	*8 022*
Toyota Motor Manufacturing Canada Inc. (TMMC) 1988	*Canada*	*Camry Solara, Corolla, Matrix*	*USA, Puerto Rico, Mexico*	*218 018*	*127 489*
Toyota Motor Manufacturing, West Virginia (TMMWV) 1998	*USA*	*Engines, transmissions*			
Toyota Motor Manufacturing Alabama Inc. (TMMAL) 2003	*USA*	*Engines*			
Toyota Motor Manufacturing, Texas (TMMTX) 2006	*USA*	*Tundra*			
Toyota M. Manufacturing Baja California (TMMBC) 2004	*Mexico*	*Tacoma truck beds, Tacoma (2005)*	*North America*		
European sales: 775 952				**344 600**	**168 113**
Salvador Caetano IMVT 1969	Portugal	Dyna, Hiace, Optimo	UK, Spain, Germany	3 587	87
Toyota Motor Manufacturing (UK) (TMUK) 1992	*UK*	*Avensis, Corolla, engines*	*Europe, Africa, South America, Japan*	*209 016*	*120 636*
Toyota Motor Manufacturing Turkey Inc. (TMMT) 2000	*Turkey*	*Corolla*	*Europe, Middle East*	*39 039*	

TABLE 3 *continued*

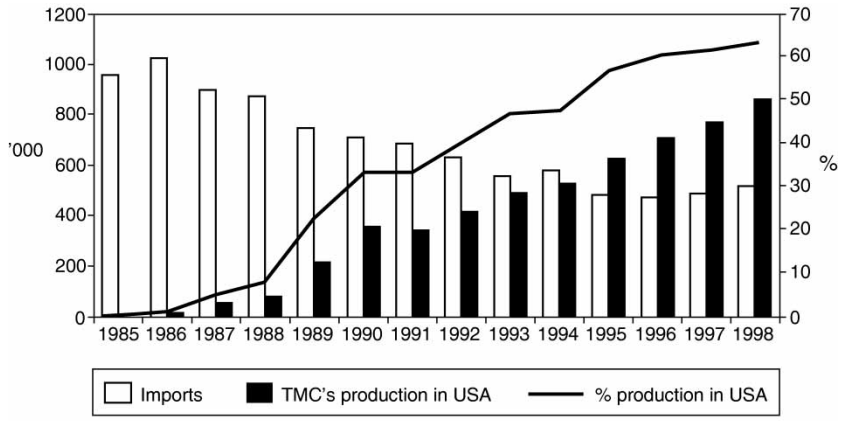
Sales (2003)/affiliate/year	*Country*	*Models/products*	*Export market*	*Production 2002*	*Exports 2001*
Toyota Motor Manufacturing France (TMMF) 2001	*France*	*Yaris*	*Europe*	*135 406*	*47 390*
Toyota Motor Manufacturing Poland (TMMP) 2002	*Poland*	*Transmissions*			
Toyota Motor Industries Poland (TMIP) 2005	*Poland*	*Engines*			
Toyota Peugeot Citroen Automobile Czech (TPCA) 2005	*Czech Republic*	*New small car (2005)*	*Europe*		
Asian sales (excl. Japan): 1 034 148				**497 368**	**130 284**
Toyota Motor Corp. Australia Ltd 1963	*Australia*	*Camry, Corolla, Avalon*	*N. Zealand, Thailand, Oceania, Middle East*	*86 558*	*59 231*
Toyota Motor Thailand (TMT) 1964	*Thailand*	*Camry, Corolla, Hilux, Soluna*	*Pakistan, Philippines, Singapore, Australia*	*140 246*	*11 800*
Assembly Services Sdn. Bhd. 1968	Malaysia	Avensis, Corolla, Dyna, Hiace		28 000	
P.T. Toyota-Astra Motor 1970	Indonesia	Camry, Corolla, TUV, Dyna	Brunei, etc.	84 864	22
Aftab Automobles Ltd 1982	Bangladesh	Land Cruiser		319	
Kuozui Motors 1986	Taiwan	Camry, TUV, Hiace, Corolla, Vios		67 495	
Toyota Philippines Corp. 1989	Philippines	Camry, Corolla, TUV		21 269	
Siam Toyota Manufacturing 1989	Thailand	Engines			
Indus Motor Company 1993	Pakistan	Corolla, Hilux		9 887	
Toyota Motor Vietnam 1996	Vietnam	Corolla, Hiace, Camry, Land Cruiser, TUV, Vios		7 138	

TABLE 3 *continued*

Sales (2003)/affiliate/year	*Country*	*Models/products*	*Export market*	*Production 2002*	*Exports 2001*
Sichuan Toyota Motor Co. 2000	China	Coaster, Land Cruiser			
Tianjin Toyota Motor Eng. Co. 1998	China	Engines			
South American sales: 160 971				**28 100**	**16 899**
Toyota do Brasil Ltd 1959, 2002	Brazil	Corolla	Argentina	16 074	1 350
Toyota de Venezuela 1981, 2002	Venezuela	Corolla, Land Crusier	Colombia, Ecuador	7 333	738
SOFASA 1992	Colombia	Hilux, Land Cruiser	Ecuador, Venezuela	7 823	8 159
Toyota Argentina SA 1997	Argentina	Hilux	Brazil, Uruguay	11 173	7 904
African sales: 65 665				**82 222**	**2 224**
Toyota south Africa Motors 1962	S. Africa	Corolla, Dyna, Hilux, Hiace, TUV		81 555	2 224
Sales outside Japan: 4 028 417				**4 138 873**	**1 749 041**
Sales in Japan: 2 21 7739					
Total sales: 6 246 156				**6 314 008**	

[a] The rows in italics indicate those parts of the Toyota ISP that can be identified with an efficiency-seeking motivation.
Source: Based on UNCTAD [*2002*] and http://www.toyota.com.

FIGURE 1
TOYOTA MOTOR CORPORATION: VEHICLE PRODUCTION IN AND IMPORTS TO US MARKET, 1985–98 (NUMBER OF UNITS AND PER CENT)



Source: based on www.toyota.com

(Avensis and Corolla models) in 1992, followed by Toyota Motor Manufacturing Turkey Inc. (TMMT) (Corolla) in 1994, Toyota Motor Manufacturing France (TMMF) (Yaris) in 2001 and Toyota Motor Manufacturing Poland (TMMP) (transmissions) in 2002. Future investments will be in Toyota Motor Industries Poland (TMIP) (engines) and a joint venture with PSA in Toyota Peugeot Citroen Automobile Czech (TPCA) (new small car) both of which will come on stream in 2005. Based on these investments in the European nodule of the TMC ISIP, Europe's share of TMC's total production is in the range of 6 per cent and its share of sales will be about 13 per cent. Thus, TMC's ISIP based on efficiency-seeking strategies in integrating markets of North America and Europe is gaining a larger presence within the overall Toyota international system, as the intra-regional exports from its Toyota Motor Manufacturing label subsidiaries there suggest.

There is clear evidence to suggest that TMC was centring its globalisation strategy on the North American and European markets and, in the former, Mexico could have played a significantly more important role. In North America, TMC undertook two rounds of significant expansion: the 1984–88 phase to establish the NUMMI, TMMK, TMMI and TMMC plants in the US and Canada and the 1998–2004 phase in which the TMMWV, TMMAL (and TMMBC and TMMTX) plants are being established in the US (and Mexico). The TMMBC plant as such represents somewhat of a curiosity in the sense that it is designed to assemble truck beds, later to be converted into a low volume (20,000–30,000 units a year) light truck producer. In other words, the TMMBC is *not* a significant element of TMC's

North American production system in spite of the fact that since 1994 the NAFTA has facilitated the incorporation of new Mexican plants in its regional production system in a similar way that the Canada–US Free Trade Agreement did for its plants in Canada. Given the competitive circumstances of the North American market and the clearly defined efficiency-seeking strategy of TMC to establish a North American nodule to its ISIP, the limited investment in Mexico stands out as an oddity, considering that the production capacity of the auto TNCs established in Mexico doubled between 1992 and 2002. Was it the lack of an active Mexican FDI policy that contributed to that mediocre outcome in the case of Toyota?

Mexico's National Policy. Mexico in the 1970s was somewhat of a prototype of the nationalistic developing country. Its bid in the mid 1980s to break with its previous development model based on overprotected import substituting industrialisation (ISI)[11] led it to implement a complete volte-face of its economic strategy and to adopt most of the central elements of the Washington consensus, that is, the reduction in the role and presence of the state, and the adoption of a more private sector-based orientation based on deregulation, privatisation and opening up to trade and investment. This new strategy included joining the General Agreement on Trade and Tariffs (GATT) and the Organisation of Economic Cooperation and Development (OECD) with all that this implied in terms of new and binding multilateral commitments. Mexico took it upon itself to negotiate a host of free trade agreements (FTAs) and bilateral investment treaties (BITs) to consolidate its internationalisation process. The principal FTAs were with Canada and the US in 1994 (NAFTA) and the European Union in 2002 but included over 30 countries altogether. The BITs covered over 20 countries. The policy framework supporting Mexico's new liberal strategy could be characterised as notably horizontal, in the sense of employing primarily across-the-board – not sectoral – policies, and exceptionally passive, from the perspective of the level of state participation or intervention in economic activities. It is relevant to focus on the changes in industrial policy in respect of the automotive industry and the influence of the new FDI policy.

The new horizontal and passive macroeconomic policy contrasted sharply with what had been the nature of industrial policy before the sea change in Mexican national economic policy and what continued to be for some time the situation in the automotive industry. It might be mentioned at the outset that the transformation of the Mexican automobile industry into an internationally competitive one is often considered to be one of the principal successes of Mexico's new economic policy, however, its success as an export platform actually began in the early 1980s. It was given a huge boost by NAFTA. During 1990–2000 alone the industry invested almost $15 billion and FDI inflows during 1994–2000 reached $8.4 billion, equivalent to 44 per cent of all FDI in the manufacturing sector. The Mexican automotive industry accounts for 2.8 per cent

TABLE 4
FUNCTIONAL ASPECTS OF THE MEXICAN AUTOMOTIVE DECREES AND NAFTA, 1962–2004

Aspect	1962	1972	1977	1983	1989	NAFTA
1. Import protection	Imports prohibited				Import tariff: 20%, only vehicle assemblers, within export and B of P limits	Import tariff: 1994: 9.9% 2003: 0% certain quotas apply
2. Local content or value added	60% local content; obligatory national components			Local content reduced to 30% for export lines (max. 25% domestic sales); for others: 50–60%	V/A for auto parts: 30%, for vehicles: 36%; obligatory national components eliminated	Auto parts: 1994–2003: 20% 2004: 0% vehicles: 1994: 34% 2003: 29% 2004: 0%
3. Trade balanc-ing/foreign exchange budget	–	Imports must be offset: 1973 by 30%; 1976 by 60%	Annual foreign exchange budget restraints	Sliding scale according to export or local content performance	100% compensation; wider definition allows for FDI to be included	Compensation: 1994: 80% 2003: 55% 2004: 0%
4. % auto parts in vehicle producers' exports	–	40%	50%			
5. Ownership restrictions (auto parts)	60% Mexican 40% foreign	60% Mexican 40% foreign	60% Mexican 40% foreign	60% Mexican 40% foreign	Limits ignored	
6. Product line or make limits	Production quotas	New limits	Limits softened	Limits hardened	Limits eliminated	

TABLE 4 *continued*

Aspect	1962	1972	1977	1983	1989	NAFTA
7. *Maquiladora* inputs	–	–	–	Maximum of 20% trade balance to be used for foreign exchange budget	Sold in national market: max. 20%	Maximum sold in national market: 1994: 55% 2000: 85% 2001: 100%
8. Regional content	–	–	–	–	–	Minimum content from NAFTA: 1995: 50% 1997: 56% 2001: 62.5%
9. Focus	ISI	ISI	ISI/auto parts exports	Auto parts and vehicle exports	Vehicle exports	Consolidation of North American auto industry
10. Favoured groups	Auto parts	Auto parts	Auto parts/ vehicles	Vehicles/ *maquiladoras*	Vehicles/ *maquiladoras*	US Big Three auto TNCs

Sources: de Maria y Campos [*1994*]; Mortimore [*2004*, *1998a*, *1998b*]; BANCOMEXT [*2002*]; CEESP [*2001*].

of GDP, 16 per cent of manufacturing GDP, employs 613,000 persons (15 per cent of the total), and generates 20 per cent of exports. The industry consists of 20 assemblers and 875 auto parts companies (60 Tier 1 and 815 Tiers 2 and 3). In 2002, it produced 1,821,447 vehicles, exporting 1,329,375 of them, 94 per cent to North America. In 2001, Mexico provided 18.7 per cent of US auto imports, up from 9.5 per cent in 1994. However, the road to this success was a bumpy one.

Table 4 provides an idea of some of the principal functional aspects of the Mexican Automotive Decrees and the NAFTA rules for that industry. In general, the policy shifts, while not linear, consisted of moving from an ISI focus favouring the auto parts industry to one more focused on exports, especially exports of vehicles that, in the context of NAFTA, heavily favoured the Big-Three US auto TNCs. The shift was from sectoral policies with heavy government intervention to more liberal policies accommodating auto TNC strategies to create an export platform in Mexico, all in the context of perennial balance of payments difficulties.

The initial period favoured administrative controls in terms of import prohibitions and high tariff protection, high local content requirements and the obligatory production of certain components, limits on product lines and makes, trade balancing, the promotion of auto part exports via vehicle producers and restrictions on the foreign ownership of auto parts companies. That focus produced some notable results in terms of establishing new automotive activities, especially auto parts, however, it was not achieved in an international competitive manner and the industry came to account for 58 per cent of the trade deficit of the Mexican economy in 1981 [*de Maria y Campos, 1992*]. Thereafter, a progressive shift toward the promotion of vehicle exports took hold of Mexican automotive policy in the form of export models that required lower levels of national content or value added, making more flexible the foreign exchange budget obligations of vehicle assemblers, ceasing to oblige vehicle producers to export auto parts, allowing for the progressive incorporation of *maquiladora* inputs, ignoring the ownership restrictions on auto parts firms and, finally, facilitating the consolidation of the North American auto industry according to the criteria of the US Big-Three auto TNCs. These auto TNCs led the push to negotiate and implement the NAFTA in order to restructure and consolidate their continental operations to compete better in the US market versus Asian auto TNCs from Japan and Korea. In other words, the focus of the Mexican automobile policy moved from establishing a strategic national industry to facilitating the regional strategies of certain auto TNCs. From the perspective of the dimension and international competitiveness of the industry, the result is clearly astounding, even though it has been criticised for the lack of success in evolving the export assembly platform into an integrated manufacturing centre.

FDI policy also did a sharp about face. A radically different orientation came with the implementation of the new economic model that put FDI at its centre

[*Mortimore, 1998c*]. Although the FDI law did not formally change until the early 1990s, Mexico's new orientation became evident as of the 1980s. Mexico threw out the welcome mat for FDI. In terms of the right to enter and establish activities, National Treatment and Most Favoured Nation became the new norms and most of the sectoral prohibitions and restrictions were abolished unilaterally or by way of multilateral (GATT/GATS/TRIMs/TRIPs) or bilateral agreements – be they investment treaties or free trade agreements – or simply ignored in practice. The conflict resolution mechanism of choice became the investor-state alternative of the FTAs and BITs. As a new member of the OECD, Mexico undertook new obligations in this regard and became a leader in promoting a FDI-friendly economic policy. The horizontal and passive aspects of the FDI policy squared well with the new economic policy, but had their costs.

One significant cost was that the government was not ideologically or functionally capable of reacting to the opportunity that the Toyota global expansion represented in terms of designing and implementing a targeted and active FDI policy. It might be mentioned in this context that in 2002 the task of attracting FDI to Mexico was passed to the state foreign trade bank BANCOMEXT. That institution is presently training its staff – particularly its 45 foreign representatives – to adopt more active attraction policies [*BANCOMEXT, 2003*]. Furthermore, this new policy initiative is being closely co-ordinated with the economic and industrial development offices of the different Mexican states. In other words, it would appear that a more targeted and active FDI policy is under consideration, however, it does not form part of a focused development strategy, as was the case in Costa Rica, rather it is an addition to the existing, basically horizontal, policy framework. Even so, this might prevent other 'Toyotas' from slipping through Mexico's fingers.

IV. CONCLUSIONS

Latin American countries have had rather poor industrialisation experiences with or without FDI in comparison to East and South East Asian industrialisers [*Lall et al., 2004*]. It would appear to be too late for them to attempt to follow the examples of Japan, South Korea and Taiwan in this regard as many of the policies that these countries employed are either no longer permissible under new multilateral rules or in some cases are no longer relevant for the more globalised international economy. Nor is it feasible to return to the Latin American style closed ISI model that generated few national champions and got the worst out of tariff-hopping, market-seeking TNCs. More recently, attempts to attract efficiency-seeking TNCs by way of horizontal and passive open economy policies have often produced the result that the TNCs obtain most of the benefits based on their use of the host countries' static comparative advantages. Latin American countries do not seem to be able to effectively use FDI to improve

their industrial competitiveness. A UNCTAD/UN-ECLAC regional seminar on FDI policies in Latin America held in January of 2002 arrived at the conclusions that i) in terms of the amount of FDI received, the region had done rather well, ii) with regard to the developmental impact of those FDI inflows the record was mixed, and iii) in comparison to the more active and focused policies of Asia and Europe, the FDI policies of Latin America were considered to be clearly inadequate [*Lall, 2002a, 2002b*; *Loewendahl, 2002a, 2002b, 2002c*; *Mortimore, 2002a*,*2002b*]. Might the use of 'targeting winners' strategies in an open economy be the answer?

The two cases in this article suggest that success depends on the interaction of TNC siting decisions and the national policy-makers' ability to take advantage of them from a developmental perspective within the constraints of the new multilateral rules and the competitive situation of specific international product markets. In the absence of national policies, TNC siting strategies tend to focus on existing sites and, when they evaluate new sites, they tend to prioritise static not dynamic comparative advantages of potential host countries and this can lead to 'illusory' not authentic competitiveness [*Mortimore, 2003*].

In the first case, *both* the leader TNC and the host country seem to have achieved what they were looking for. Intel diversified its geographic risk and Costa Rica provided the advantages they sought. Costa Rica advanced toward strategic development goals, such as diversifying into electronics in an internationally competitive way and laying the foundation for cluster formation. Here, the targeting winners approach worked because FDI not only was attracted to Costa Rica but it also was an investment that had a good 'fit' with the host country's development strategy.

The second case is less clear but perhaps more representative of the more typical Latin American experience in the sense that it represents a lost opportunity. Automobile leader Toyota was consolidating the North American component of its ISIP by way of major investments in new plants located in the United States and Canada. The objective conditions for incorporating Mexico into its North American production base existed for Toyota just as was the case for the US Big-Three (as well as other firms operating in Mexico, such as Nissan and Volkswagen) in the context of the NAFTA. Mexico probably would have done better by building its automotive export platform around the industry leader rather than the TNCs that had moved production to Mexico solely to reduce costs and thereby compete better in the US market with the likes of Toyota. Even the recent (and minor) TMC investment in Tijuana seems to fit into a mentality based on taking advantage of static comparative advantages in Mexico rather than extending its regional production system to incorporate Mexico in significant manner. In this case, national policy was clearly not up to the challenge and missed a unique opportunity to strengthen its industrialisation process

[*Mortimore and Barron, 2004*]. A targeting strategy in this case probably would have worked.

This suggests that a targeting winners strategy to attract efficiency-seeking TNC leaders could very well assist able Latin American (and other) governments to achieve strategic development goals, such as extending and upgrading industry. Numerous examples of the redefinition of TNC siting decisions in the context of globalisation suggest that huge opportunities exist for a small number of well-organised host countries [*UNCTAD, 2002*]. Increasingly, factors more susceptible to host country policies (market access, human resources, infrastructure, logistics, supplier networks, cluster formation, regulatory frameworks, investment incentives, and institution) are coming to the fore in TNC decisions on siting FDI to extend or consolidate their international systems of integrated production.

To work, the targeting strategy must, on the one hand, reflect the congruence among key national institutions about the role of FDI within the context of an explicit development strategy that defines sectoral and other priorities, and, on the other, coincide in a concrete way with the decisions of efficiency-seeking TNC leaders to shift comparative advantage from one investment site to another in the framework of their ISIP. In other words, a sectoral strategy must be coherent with the national development strategy. The TNCs' initial investment is usually framed in the context of the host country's *existing* technological, human resource and supplier capabilities. The idea is to implement national policies that will convince, cajole or incentivise the TNC into improving and upgrading those capabilities to sustain more technologically sophisticated industrial activities, producing more benefits for domestic companies and employees in the process. Thus, success depends not only on attracting the investment but also on deepening its presence in the host economy on the basis of dynamic not static comparative advantages. For that reason, government policy must permanently evaluate the impact of TNC investments in order to measure the degree to which both TNC objectives and host country developmental priorities are being met. This article has suggested that, at a minimum, some concrete idea of improvements in technology transfer and assimilation, human resources, production linkages, and enterprise development is a requisite to defining how FDI assists in extending and upgrading national industry.

NOTES

1. These are large TNCs with a strong global presence that are the principal innovators in specific industries. Their presence in any host country often has a multiplier effect in terms of attracting other of the participants of the global value chain in which they operate.

2. The year 2001 was distorted by the atypical purchase of a Mexican bank by Citigroup for $12.5 billion [*UN-ECLAC, 2003*].
3. The opportunity afforded foreign investors to litigate against state policy of Mexico produced uncertainty about the effectiveness of national policy. Moreover, the number of performance requirements prohibited by NAFTA was much greater than the Trade Related Investment Measures (TRIMs) agreement of the World Trade Organisation (WTO) and represented a harsher environment for policy-makers dealing with production effects.
4. While physical inputs for exports to NAFTA countries by NAFTA members can originate – indiscriminately – from the US, Canada or Mexico, the US production sharing mechanism effectively dissuades non-US cloth and other inputs and processing from CAC countries. The Caribbean Basin Trade Partnership Act of 2000 attempted to face up to that problem by doing away with some quotas, allowing for the incorporation of a certain amount of locally produced cloth and permitting some further local processing (cutting, stone washing, etc.). Furthermore, it is hoped that the Central American Free Trade Agreement currently under negotiation will provide NAFTA-like rules of origin for the apparel industry; however, the US textile industry seems set on maintaining the existing restrictions.
5. The main selection criteria at this stage included stable economic and political conditions, human resource availability and labour conditions, the operational cost structure, a 'pro-business' environment, logistics and manufacturing lead-time and 'fast track' administrative permit processing [*Shiels, 2000*].
6. Such as low cost and good quality human resources (workers, technicians and managers) with English language capabilities, an open economy, low levels of corruption, political and economic stability, transparency, a solid legal tradition and relevant incentives.
7. First generation FDI promotion usually does not go beyond opening up the economy to FDI. Second generation promotion is based on the active marketing of a location, usually by way of an investment promotion agency. Third generation FDI promotion incorporates a more focused promotion strategy centred on a defined subset of TNCs rather than FDI in general [*UNCTAD, 2002*]. The more successful countries have used a targeted approach to improve their chances of attracting the type of FDI more likely to assist them to advance towards defined industrial priorities and overall development objectives.
8. A significant number of Intel 'satellites' have set up in Costa Rica. These companies usually have few employees and contribute relatively little to the local cluster formation, however, they demonstrate Intel's attractiveness and reach.
9. See: http://www.japanauto.com/statistics.
10. TMC's regional production system was made consistent with the initiatives of the US automotive TNCs with regards to the Canada–US Free Trade Agreement in the sense that Canada became a significant part of the North American production system. That was not the case with the NAFTA, however, as Mexico does not play a role in any way similar to that of Canada within its regional production system.
11. A questionnaire administered to 63 of the largest 100 foreign manufacturing firms in Mexico in 1990 produced the opinion of 56 of the 63 that the success of the ISI model during 1973–82 was 'scarce' [*Mortimore and Huss, 1991*].

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