POLICIES TOWARDS FOREIGN DIRECT INVESTMENT IN DEVELOPING COUNTRIES: EMERGING BEST-PRACTICES AND OUTSTANDING ISSUES

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Abstract

Governments in developing countries are increasingly looking for best-practice policies towards inward Foreign Direct Investment (FDI). FDI can bring positive effects (market access, technology, finance, skills), but also negative effects and hence a substantial quantity of FDI alone is not sufficient to generate economic growth and poverty reduction. The positive effects are not automatic for host countries and depend on policies in place and other factors. The policy factors can be divided into 1) specific industrial policies and 2) macro-economic policies and into whether they are used to 1) attract FDI 2) upgrade FDI or 3) enhance linkages and spillovers to domestic firms. Which policies are important in which country depends on how they fit in with the development strategy to achieve pre-defined objectives taking into account specific country characteristics. However, they are likely to be some combination of policies in each of the above categories. Whilst many of the richer countries with more public resources and local capabilities can employ a risky and costly pro-active stance towards FDI (e.g. Singapore and Ireland), poorer countries are left behind with relatively fewer local capabilities. This is particularly worrying since local capabilities play a dual role of attracting FDI *and* absorbing positive spillovers associated with FDI.

[1] I am grateful to ODI colleagues Simon Maxwell and Sheila Page, to John Fitz Gerald, Khalil Hamdani, Sanjaya Lall, Frances Ruane, Henry Wai-Chung Yeung, Ganeshan Wignaraja and other academics and officials during my visits to Ireland, Singapore, and UNCTAD, and to participants at the conference "Policies towards Foreign Direct Investment in developing countries. Emerging best-practices and outstanding issues", held at ODI, London, 16 March 2000, see http: /www.odi.org.uk/. The UK Department for International Development supports policies, programmes and projects to promote international development. DFID provided funds for this study as part of that objective but the views and opinions expressed are those of the author(s) alone.

Contents

1. Introduction

Governments in developing countries are increasingly looking for best-practice policies towards Foreign Direct Investment (FDI).[2] Renewed confidence in the positive benefits of FDI has led many countries that were restricting FDI in the 60s, 70s and 80s to be more open towards FDI in the 90s (Safarian, 1999) and beyond. Governments are liberalising FDI regimes as they associate FDI with positive effects for economic development and poverty reduction in their countries (e.g. Lall, 2000a, and Borensztein *et al.*, 1998). Of course, in actual practice objectives to attract FDI differ by country (technology, market access, growth, poverty alleviation) and the effects of FDI may not always be desired (neglect of local capabilities, environmental damages, inequality between individuals or regions).

Increased liberalisation and technological advances have led to a rapid growth in FDI flows over the last three decades. FDI gained in share of domestic investment and GDP in many countries (UNCTAD, 2000). However, while some countries attracted large FDI flows, others were less successful, even though they had liberalised FDI regimes. Intensified competition for FDI (Oman, 2000) has led many organisations to look for benchmarks of policies towards attracting FDI (see e.g. IPAP (2000) in the ASEM meetings, or CBI, 1999, in the case of African countries). Countries are almost forced to be more open towards FDI. The emerging environment (including WTO rules, importance of technology transfer, etc.) implies that it is difficult to build up an industrial capacity behind closed doors, even if countries have an effective government (as in Korea).

Whilst for some countries there is concern about the quantity of flows, there is a shift in other countries towards the quality of FDI. The term quality usually refers to high-value added FDI and/ or to FDI with positive linkages and spillovers effects for the domestic economy. Countries that have had successful development based on FDI need to continue to upgrade FDI, either by encouraging existing multinational affiliates to develop into strategic independents, or by targeting higher value added FDI. With WTO rules limiting domestic policy options we will look at what policies a government can still use.

[2] Foreign Direct Investment has the objective of obtaining a '*lasting interest by a resident entity in one economy in an entity resident in an economy other than that of the investor*', with lasting usually defined as a 10 per cent stake in the entity.

Relying on high quality FDI does not guarantee (and sometimes prevents) the improvement of local capabilities. We will review whether FDI has positive spillovers for the local economy in terms of growth and productivity. Theoretical developments (Cohen and Levinthal, 1989; Blomstrom *et al*., 2000b) and empirical evidence (e.g. Borensztein *et al*. 1998) show that the development of local capabilities is crucial in benefiting from FDI. The encouragement of linkages between local suppliers and foreign multinationals may also be important in developing local firms, e.g. through a linkage programme or in a cluster development strategy.

Governments wanting to use FDI as part of achieving a development objective will therefore have to think of policies towards attracting FDI, upgrading FDI and encouraging linkages between foreign multinationals and local firms. Some governments want FDI more than others and may try harder accordingly. Governments can base their FDI promotion strategy on industrial policies (promotion, incentives, etc.) and/or on macro-economic policies (skills, infrastructure, etc.) taking into account external factors which are only partly under their control (natural resource endowments, international agreements, etc.). This paper helps to classify such policies into more concrete building blocks.

It is important to discuss best-practice policies to make openness work for development (e.g. DFID, 2000) and the role policies towards FDI plays in enhancing economic growth and poverty reduction. We examine whether certain best-practices policies are emerging. The structure of this paper is as follows. The next section discusses the benefits of FDI in theory and practice, what is successfully attracting FDI and whether there is a role for policy. The third section discusses the need to see policies towards FDI as part of a development strategy to achieve pre-defined objectives. In the fourth section, we classify policies into different categories and discuss implementation of policies. The fifth section examines country experiences in more detail on the basis of the classification of policies, in particular the experience of Ireland and Singapore. The sixth section presents the conclusions.

2. The benefits of FDI in theory and practice

A search for emerging best-practice policies in attracting foreign direct investment would usefully start by examining the role of policy in attracting FDI in successful developing countries. However, although there are examples where foreign direct investment has made a positive impact on domestic economies, it is not straightforward to pinpoint exactly which countries have been most successful in attracting FDI conducive to economic development in terms of growth and productivity. FDI flows to developing countries are concentrated in a handful of emerging markets (China, Brazil, Mexico, Singapore, Thailand etc.; table A1 (appendix A) indicates that 11 emerging markets attracted 80 per cent of FDI flows in 1998), suggesting that these countries are successful in attracting FDI. However, these countries usually have a large domestic market and, crucially, there seems to be no measure of the ultimate impact of FDI on their economies. This section discusses the impact of FDI in theory, indicators of FDI conducive to economic development and econometric evidence of the impact of FDI on growth and productivity.

Foreign multinationals are different from local firms, as multinationals need to overcome the extra costs of operating under different circumstances in another country. The difference is termed an ownership advantage (Dunning, 1993) as shown in tangible (technology) or intangible (brandnames) assets. The studies reviewed in Dunning (1993) and Markusen (1995) show that foreign multinationals are indeed more productive, pay higher wages and are more export intensive than local firms. The distinctiveness and superiority of multinationals can in principle offer benefits to developing countries. FDI possesses a bundle of assets (UNCTAD, 1999; Lall, 2000a), including long-term finance (e.g. for the current account), new technologies, skills and management and market access. A government would like to maximise the tapping of these assets to the benefit of the indigenous industry. However, in practice the benefits in terms of economic development are by no means automatic or free, suggesting a role of complementary policy. FDI can also lead to undesirable outcomes such as rising inequality between (groups of) individuals (e.g. Te Velde, 2000a; Feenstra and Hanson, 1995; and Tsai, 1995[3]) or regions, direct or indirect crowding-out of local capabilities (e.g. there are concerns that

[3] However, these studies do not show the effects of FDI on the absolute wage level of the relatively more disadvantaged.

R&D takes place predominantly in multinationals in Mexico and Brazil), or an erosion of the tax base or labour and environmental standards (Oman, 2000).

Let us first consider some of the problems we encounter in finding indicators of FDI conducive to economic development. It has often been suggested that the share of FDI flows going to a country or region provides a good measure of successfully attracting FDI (see table A2, appendix A). However, FDI flows vary considerably from one year to the next and need to be related to the size of a country (China will undoubtedly receive more FDI flows than Vietnam). Perhaps a better measure is the stock of inward FDI as a per cent of GDP (see table A3). This measure accounts for the size of the country and stocks are better indicators (access to new ideas, technologies and market access) of long-run developments than flows. However, as with flows, stocks of FDI do not tell us anything about the ultimate impact or quality of FDI.[4] To this end it may be desirable to have some sectoral breakdown of FDI. Efficiency-seeking FDI in manufacturing is often thought to have a more desirable impact on economic development than FDI in natural-resources. However, detailed data on FDI in developing countries are often lacking. The direct employment effects of FDI are sometimes used as indicators of successfully attracting FDI for development (see table A4). However, even if data on employment generation were available on a cross-country basis, such an indicator would not contain indirect effects on employment and on technical efficiency. Perhaps a combination of the above indicators provides a basis of comparing successful cases in attracting FDI for development rather than any single indicator individually. But in general, it is not easy to rank countries by performance in attracting FDI conducive to economic development, as there are no simple indicators of direct and indirect impacts.

In order to identify countries that have been successful in attracting FDI conducive to economic development, it thus seems necessary to rely at least partly on anecdotal and/or econometric evidence on the impact of FDI. For instance the evidence shows that countries such as Ireland (Barry and Bradley, 1997) and Singapore (Lall, 2000c) have benefited from FDI e.g. in terms of growing exports. However, most of the anecdotal evidence does not provide evidence that FDI causes growth (either at national level or for local firms) and hence we need to turn to econometric evidence.

Table 1 provides a survey of the econometric evidence on the effects of FDI on growth and productivity, and this evidence is growing rapidly (though less is known about impact on specific

sectors, e.g. services, or on specific countries especially in Sub Saharan Africa). There are three types of evidence. First, there are country-studies that examine the effects of foreign presence on the average level of productivity in a sector (e.g. Caves, 1974; Globerman. 1979) or on productivity in the local industry (e.g. Blomstrom and Persson, 1983). These studies test whether there are intra-industry spillovers from FDI.

Secondly, there are country or cross-country studies exploiting (panel) data of countries over time (e.g. Borensztein *et al*. 1998). These studies generally find that a measure of FDI flows is positively related with per capita GDP growth or productivity, although some (Borensztein *et al*. 1998; Xu, 2000) stress the importance of minimal level of human capital in order to absorb spillovers. Balasubramanyam *et al* (1996) stress that countries with outward oriented FDI policies have greater benefits from FDI. However, such country level studies (and the earlier sectoral type of studies) suffer from the selectivity problem that foreign firms usually locate in the more productive segment of the sector or the national economy, and hence the results cannot be used to assess whether FDI improves national welfare because they are more productive or because they have positive spillover effects.

The third type of evidence (micro-econometric) tests first whether foreign firms are more productive than domestic firms and secondly whether foreign firms have positive spillover effects on domestic firms. The evidence (e.g. Haddad and Harrison, 1993; Aitken and Harrison, 1999; and Djankov and Hoekman, 2000) finds that the productivity level of foreign firms is higher than in domestic firms (as could be expected from the OLI model in that foreign firm need to have some firms-specific asset to overcome the disadvantage of investing in another country, see Dunning 1993), but that the effects on productivity growth in domestic firms is mixed. As a result of foreign firms in a sector, domestic firms in the same sector could be better off as (foreign) competition forces them to upgrade technologies (as in the case of Indonesia, see Blomström and Sjöholm, 1999), they could be worse off through the market-stealing argument (as in Venezuela, see Aitken and Harrison, 1999), or they could not learn at all as the productivity gap is too large too learn anything (as in Mexico, see Blomström, 1986). In Morocco, Venezuela and the Czech Republic, the presence of foreign firms lowers productivity growth in domestic firms.

[4] The inward FDI stock as per cent of GDP in 1998 was 21.1 per cent in Africa and similar to 23.3 per cent in South East Asia. However, FDI appears to have had different effects in these regions.

The overall effect of FDI on national welfare in the host economy is perhaps weakly positive, depending on whether the superiority of foreign firms compensates for the loss of profits (through repatriation) and for the potentially slower productivity growth in domestic firms. The micro-evidence would seriously call into question the widespread use of incentives (fiscal and financial) for foreign firms often justified on the basis of correcting a market failure that the social rate of return on multinational investment for the national economy is larger than the private rate of return.

However, this conclusion would be premature. For instance, Blomstrom *et al.* (2000a) and Borensztein *et al*. (1998) find that productivity spillovers of FDI are increasing with the level of policy-created, absorptive capacity (skills, R&D, infrastructure etc.), suggesting an important role of policy in shaping the ultimate effect of FDI. Hence, in situations of good policy (here defined as raising the absorptive capacity of the local economy) spillovers are more likely to occur than in situations of bad policy. This would lead to the conclusion that incentives may still be justified from a national welfare point of view if combined with 'good policy'. Defining what (FDI-) policies are required to maximise benefits from FDI is important and we will turn to that later in the paper.

Hanson (2000) argues that subsidies are likely to be warranted if multinationals are intensive in the use of elastically-supplied factors, do not lower the market share of domestic firms and generate productivity spillovers to domestic firms. Perhaps we could add a fourth pre-condition to Hanson's list, which is the level of productivity of the investor. Everything else equal, the higher the level of productivity and wages of the foreign investor, the higher the average level of wages in the economy, and the higher the level of justifiable subsidies. Hanson also finds these pre-conditions are unlikely to hold in practice (reviewing large electronics and automobile investments in Brazil/Costa Rica), and hence incentives seem unjustified in many instances.

However, policy can influence these conditions, as we find in the case of Ireland. First, whilst multinationals in Ireland are intensive in skilled labour which is usually an inelastic factor, the Irish government consistently raised the supply of skills, helped by other factors such as immigration of skilled workers from the UK and the US. Second, the Irish also deliberately attracted export intensive investment, thereby creating new markets such as software, without lowering the output of existing domestic firms. Thirdly, Ireland had several programmes in place to enhance communication amongst universities and local and foreign firms and upgrade local capabilities, thereby maximising spillover benefits. Fourthly, Ireland targets high-value added foreign firms.

Table 1 *Selected empirical studies on spillovers from Foreign Direct Investment*

Study	**Country / Level of analysis**	**Effects of FDI on growth and productivity**
Sectoral studies		
Caves (1974)	Australia, sectoral level, manufacturing, 1966	Positive correlation FDI presence and productivity in sector
Globerman (1979)	Canada, sectoral level, 1972	Positive correlation FDI presence and productivity in sector
Pain and Hubert (2000)	United Kingdom, sectoral level,	Inter and intra-industry spillovers from FDI on technical progress of domestic firms
Blomstrom and Persson (1983)	Mexico, manufacturing, 1970	Intra-industry spillovers from FDI on labour productivity progress of domestic firms
Macro studies		
Balasubramanyam *et al.* (1996)	46 developing countries, cross section over 1970-1995	Beneficial effect of FDI on real GDP is greater in export promotion (EP) countries than in import substitution (IS) countries
Barrell and Pain (1997)	UK and West Germany, 1972-1995	Positive effect of FDI on overall technical progress
Barrell and Te Velde (1999)	Ireland and UK, national level, 1975-1998	Positive effect of FDI on overall technical progress
Barrell and Te Velde (2000)	East Germany, national and industrial level, 1991-1998	Positive effect of FDI on overall technical progress
Borensztein *et al.* (1998)	69 countries, national level	Weak positive correlation between FDI and per capita GDP growth
De Mello (1999)	Panel of 16 developed and 17 developing countries over 1970-1990	FDI has positive effect on real GDP growth, but on productivity growth only in developed countries.
Xu (2000)	40 countries, national level	Positive technology transfer in developed countries, but not in developing countries and depends on minimum level of human capital
Firm or plant level studies		
Aitken and Harrison (1999)	Venezuela, manufacturing firms	Negative productivity spillovers on domestic firms
Aitken, Harrison and Lipsey (1996)	Mexico, Venezuela and Unites Sates, manufacturing firms	Positive spillovers on wages in United States, but not in Mexico and Venezuela.
Blomstrom (1986)	Mexico, 70s	Positive correlation FDI presence and productivity in sector, but firms with large technology gaps do not learn.
Blomstrom and Sjoholm (1999)	Indonesia, manufacturing firms, 1991	Positive effect on productivity of domestic firms, but only for 'non-exporters'.
Blomstrom *et al.* (2000a)	Uruguay, manufacturing plants, 1988	Positive spillover effects on domestic firms only with a small technology gap.
Djankov and Hoekman (2000)	Czech Republic, industrial firms, 1992-1996	Negative effect on productivity growth of purely domestic firms
Haddad and Harrison (1993)	Morocco, manufacturing firms, 1985-1989	Positive spillovers on level of productivity in domestic firms in low-tech sectors, but negative spillover effects on growth of productivity in dom. firms.

To conclude, we find that FDI can offer benefits and costs to a local economy. Governments want to attract FDI for the positive spillovers it can bring. However, spillover effects are not automatic and hence the presence of FDI is not sufficient to capture benefits for the local economy. Spillovers are also not free and depend on policy such as the presence of policy created local capabilities.

3. FDI policy as part of a strategy

It may be useful to discuss best-practice policy in terms of which policies deserve special emphasis in what type of countries under what circumstances. In other words, do countries at different stages in their development need different type of policies; do they need to transfer resources to promote inward FDI or should they improve economic fundamentals first, etc. For this purpose, we would need to turn to specific experiences of countries. However, there are also some common elements.

In this section, we look more closely at how FDI could link into a country's development strategy. Once a government's development strategy and objectives are defined it can decide whether FDI is an efficient way of achieving this and what type of FDI (greenfield or M&A) is needed. Hence, depending on the pre-conditions (presence of local capabilities; endowments of production factors such as labour, natural resources and capital; small or large economy, etc) and ideologies regarding the degree of state intervention, FDI policies can be part of a wider development strategy. Targeting FDI is not a strategy in itself, nor is the maximisation of benefits of FDI as such. A country has to ensure that using FDI is more efficient than pursuing a different strategy without using FDI or with FDI to a lesser degree. But once you decide to allow FDI and target FDI, there is a host of policies by which you can maximise benefits and minimise costs.

There are a variety of FDI strategies implying different degrees of interventionist policies. A host country needs to address two market failures with regard to FDI (Moran, 1998; Lall, 2000a). First, policies need to address information failures in the investment process. In general, all lumpy investment, foreign or domestic, suffers from uncertainty. But foreign investors are naturally at a disadvantage with regard to information on the host country and they prefer to wait until other investors have tested the grounds. To speed up the investment process, host governments may want to intervene by offering modest grants or other incentives, such as information, to potential foreign investors. Second, policies need to address the divergence in interest between mobile foreign investors and the host economy. A country can intervene in the market for skills and technologies, where market failures are most likely and gear the development of technologies and skills more towards the needs of multinationals.

There is however less agreement on the optimal degree of interventionism. Lall (1995) defines four different approaches: 1) Passive open door policy with limited policy interventions and no industrial policy, 2) Open door policy with selected interventions to improve supply conditions, 3) Strategic targeting of FDI and 4) Restrictive policy. Altenburg (2000) argues that while options 1 and 4 are not sufficient to exploit opportunities for technological learning, the optimum for many low-income countries will be near the second approach and only if local capabilities develop, a more strategic and targeted approach may produce better results.

This leads to an important point, namely that there is no single best-practice FDI policy or strategy. There is no unique implementation of all the possible policies. The FDI strategy, within which FDI policies are framed, depends partly on pre-conditions. For instance, a large country with few local capabilities and weak trading infrastructure is unlikely to benefit significantly from attracting high-tech FDI. A small country with no natural resources near a large market is more likely to benefit from export-intensive FDI. Countries with sufficient government resources and capabilities could use FDI more strategically and bear the risk of e.g. developing key sectors, spending on FDI promotion and preparing industrial estates, while those without may want to develop local capabilities first.

The importance of certain policies may also vary with the type of FDI. While greenfield investment is likely to stimulate competition, M&A are likely to lead to more concentrated sectors (UNCTAD, 2000). Hence, there is a different effect on competition, and the formulation and effective implementation of a competition policy deserves priority.

Once the country has embarked upon a development strategy that uses FDI it is also important to think about all policy options that are open, and possibly follow with action. For instance, if a country decides it needs FDI in the electronics sector, it may not enough to be open to FDI as such, or to promote the image of the country with investors in general, but perhaps it should target electronics firms abroad. Perhaps it should also link foreign electronic multinationals with local suppliers, and encourage the upgrading of existing FDI or the targeting of new, higher value added electronic firms, once wages have risen. The message here is simple. FDI policies should be part of a development strategy to achieve pre-defined objectives. Using FDI in this strategy in the first place should be based on the decision whether FDI is an efficient way to achieve the objectives. The strategy can be not to allow FDI, but also to allow FDI, or to actively promote FDI. Depending on the strategy, the government should think of a number of policies.

4. Classification and implementation of policies affecting FDI

Policies towards FDI should take effect within a development strategy. In this section we provide a framework for identifying which policies a government can use and analyse the impact of these policies. It will prove to be useful to distinguish between policies and other factors affecting the locational decision of foreign investors (section 4.1), policies and factors affecting established foreign investors (section 4.2) and policies and factors affecting domestic firms (section 4.3). In order to assess the importance of particular policies we cross-classify the type of policy by degree of domestic control. There are specific industrial policies (column 1, table 2), macro-economic policies (column 2) and other policies and factors beyond the control of domestic economic policy makers (column 3). This classification, a three by three matrix in table 2, imposes some structure on the myriad of policies and factors affecting FDI. There are some minor caveats. Some factors cannot be classified into a single cell, while factors in some cell may be dependent on factors in another cell. Further, whilst we identify policies and factors affecting FDI, this is not one-way, and FDI could also have an impact on each of these factors and policies. Taking this into account, the framework can help governments in developing countries to formulate an FDI –based strategy. It addresses the question what policies governments can pursue in order to attract beneficial FDI, besides ensuring favourable terms in international agreements. We first identify the main policies and factors in each of these cells, and examine the effects of policies (section 4.1-4.3), and finally discuss the implementation of policies (section 4.4).

4.1 Classifying policies: Factors affecting potential foreign investors

There are many reasons why foreign investors decide to invest in a particular location. Following Dunning's OLI paradigm (Dunning, 1993) multinationals invest abroad because they have an ownership (O), locational (L) and internalisation (I) advantage. In our analysis we assume that foreign multinationals have an ownership advantage (tangible and intangible assets) and that they want to internalise this advantage rather than e.g. license other firms. We thus analyse the policy framework, domestic as well as international, and the economic factors that affect mainly the locational advantages of multinationals. We should stress, however, that some policies, especially those related to the provision of information, can lead to more investment per se, i.e. making firms aware of there O-

advantage, rather than diverting investment from one country to the other. Other policies, such as R&D subsidies may also affect O-advantages of multinationals.

Table 2 *Policies and factors affecting inward foreign direct investment*

	Economic policies largely under domestic control		**Other policies and factors**
	Industrial policies	*Macro-economic policies*	
Affecting potential foreign investors **('determinants')**	- Financial and fiscal incentives and bargaining - Efficient administrative procedures and rules on ownership - Promotion, targeting and image building - Developing key sectors (agglomeration and clustering) - Developing export platforms (EPZs)	- Availability of infrastructure and a skilled workforce and good labour relations - Sound macro-economic performance and prospects - Privatisation opportunities - Development of financial market and debt position. - No impediments to trade of goods and services	- Global economic integration and transportation costs - International, regional and bilateral treaties, including BITs and WTO. - Insurance (ICSID, MIGA, ECGD, OPIC) and political risk ratings - Location near large and wealthy markets - Availability of natural resources - Historical ties and language-use - Absence of corruption - Financial conditions in home countries
Affecting established foreign investors **('upgrading')**	- Taxation - Performance requirements (TRIMS etc.) - Interaction with research institutions and other firms - Encouragement of R&D - Training of employees	- Labour market policy - Trade policies, export promotion and infrastructure - Competition policy - Development of financial market	- Regional and international investment treaties - Global economic integration - Civil society
Affecting the response of domestic firms **('linkages')**	- Encouragement of linkages with multinationals - Encouraging technological capabilities (R&D) - Encouraging human resources (training) - Supply side management	- Education and skill generation - Labour mobility - Competition policy - Export promotion	- Global economic integration

The determinants of FDI in developing countries can be divided into economic policies largely within the control of national governments, and other policies and factors. The first category can be sub-divided into industrial policies, specifically relating to FDI, and more general macro-economic policies. *Industrial policies* have been important determinants of foreign investment. Governments, often in the form of investment agencies, have promoted FDI and targeted multinationals abroad at a national, sectoral or even firm level by providing general information, advertising, undertaking matchmaking activities and sector promotion, organising site visits, supporting feasibility studies and project proposals and other activities. Wells and Wint (1990) show that FDI promotion is significantly and positively related with FDI inflows, though less so in developing countries. FDI promotion addresses a market failure related to imperfect information on the investors' as well as on the host government's side (Moran, 1998). However, promotion can be expensive and as table 3 shows, annual budgets differ considerably. On a per capita basis, Ireland spends nearly 100 times as much on FDI promotion than Malaysia.

Table 3 *Spending on FDI Promotion*

	Annual FDI promotion budget (US$ million)	Population (million, 1999)	Per capita budget (US$)
Ireland (IDA, 1999, including grants)	213	3.7	57.57
Ireland (IDA, 1999, excluding grants)	41	3.7	11.16
Singapore (EDB)	45	3.2	14.06
Costa Rica (CINDE)	11	3.5	3.14
Mauritius Export Development & Investment Authority (1996)	3.1	1.2	2.58
Thailand (BOI)	10	6.7	1.49
Dominican Republic (IPC)	8.8	8.4	1.05
Malaysia (MIDA)	15	22.7	0.66
Zimbabwe (ZIC, 1996)	1.2	11.9	0.10
Philippines (BOI)	3	76.8	0.04
Indonesia (BKPM)	2.8	207	0.01

Sources: IDA (1999); Lall (2000b) and World Bank and own calculations.

Governments have also offered special financial and fiscal incentives to governments through offering discretionary grants to multinationals (sometimes related to performance) and tax holidays or special tax rates on business profits in host countries and on dividends payments to home countries (bilateral tax treaties then determine total taxes paid in home countries). Hines (1996), reviewing a

number of studies, finds that taxation significantly influences FDI, corporate borrowing, transfer pricing, dividend and royalty payments, R&D activity, exports, bribe payments and location choices. The exact reasons are often complex in practice due to the complexity of multinational activity and the variation in home country taxation. Experience shows that incentives are most effective for foot-loose, export-oriented investment, in countries or regions that are similar to neighbouring countries or regions and in places where other aspects of the business climate are already favourable (Bergsman, 1999). Therefore tax incentives mainly play a role once the fundamentals are sufficient. The effects of taxation imply a tendency towards tax-competition for FDI amongst governments (Oman, 2000).

Less evidence is available on the effects of up-front grants on FDI. Grants implicitly lower effective tax rates and provide governments some discretionary powers during the negotiating process, which may lead to corruption if not monitored properly. They can also be used as part of industrial policy to stimulate certain sectors (as does the Singapore EDB and the Irish IDA).

Other industrial policies towards FDI include administrative procedures and rules on ownership. Administrative procedures can form a significant barrier to FDI, especially in developing countries (Emery *et al.*, 2000). Once the decision to locate has been made, the implementation process can be tedious. For instance, in Ghana and Uganda it can take one or two years to establish a business and become operational, 18 months to three years in Tanzania and Mozambique, 60 months to one year in Namibia, but only six months in Malaysia. The overly complex registration procedures, combined with a lack of institutional capacity in host countries, can lead to additional expenses to foreign investors, whose nature and size are difficult to predict and may lead to corruption along the way. In addition, it sends a wrong signal to other potential investors.

Governments are sometimes unaware of these cumbersome regulations, which can be the result of the past when government often relied on screening of new investment projects rather than on facilitating. The types of procedural hurdles include the general investment approval (processing times differ significantly among countries, from less than 3 weeks in Singapore to up to 30 weeks in Mauritius, see Lall, 2000b), approval for incentives, tax registration, company formation, expatriate work permits and business licenses as well as more specialised approvals for sensitive sectors and requirements and requirements to gain access to land, site development and utility connections. Whilst some regulations hinder foreign as well as domestic firms, some hit foreign firms particularly hard such as expatriate work permits and access to land. In many non-francophone African countries, freehold

ownership is prohibited or requires explicit approval, which may involve long delays varying considerably across countries (up to two years in Ghana, several years in Mozambique, no freehold ownership in Namibia, up to three years in Tanzania, up to 8 years in Kenya and up to six months in Uganda, see Emery *et al.*, 2000).

Competition amongst governments on administrative procedures (especially if they put FDI at a disadvantage) towards business investment is welcome and should eventually lead to the convergence of procedures towards best-practice, so that investors do not distinguish between countries on the basis of administrative procedures. This requires a move away from screening towards facilitation of FDI projects, if this is more efficient for achieving a government's objective. The Cross-Border Initiative (CBI, 1999) for African CBI countries recommends a benchmark in best-practice in procedures.

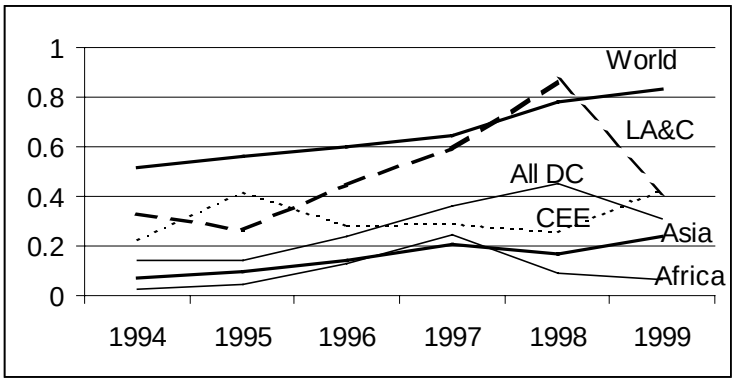
Governments also impose restrictions on ownership varying from outright bans to a maximum percentage of equity owned in joint ventures. Whilst an outright ban has not proven to be helpful (with the major exceptions of Korea and Taiwan, where the indigenous capacities have prospered instead), except for sensitive sectors, as this restricts the potential benefits from FDI completely, there is less evidence on whether restrictions on equity shares (minority stakes) are in the interest of host economies (see e.g. Blomstrom and Sjoholm, 1999). On the one hand, local participation may enhance technology transfer, but on the other hand imposed joint ventures may lead to less upgrading in affiliates as parents could keep secret their (in) tangible asset. In order to limit the powers of multinationals, a government can use competition policy if the institutional structure permits and so does not have to resort to rules on ownership.

Another industrial policy towards potential FDI is that of developing key sectors through e.g. clustering. Governments often target specific sectors (electronics, e-commerce, pharmaceuticals, etc.) not only because they are believed to be high value-added activities with linkage potentials for domestic firms, but also that they create clusters of firms which lead to agglomeration economies: firms benefit from other firms in the same cluster e.g. through knowledge transfer and the availability of particular supplier services. An incumbent firm in particular clusters has therefore an advantage to signal information to potential investors (Braunerhjelm *et al.*, 2000). Moran (1998) relates this to the bandwagon effect. If one star multinational decides to locate this provides a positive signal to other

potential investors and improves the image of a sector/country in general. A policy question is how and how much effort should be devoted to attract the first few firms.

Despite the impact of selective industrial policies, *macro-economic policies* that shape the underlying fundamentals of cost-competitiveness are also important in attracting mobile FDI. Lall (2000b, p.4) argues that "FDI location decisions will increasingly depend on economic factors (reflecting underlying cost competitiveness) rather than on policy interventions that temporarily skew such decisions". Policies can help to shape national competitiveness. Macro-economic policies should be sound and deliver a skilled workforce, an adequate infrastructure and could signal commitments to privatisation. FDI increasingly takes the form of Mergers & Acquisitions, which are fuelled by the privatisation of state assets. Whilst privatisation programmes increasingly attract FDI in Latin America and Central and Eastern Europe, Africa has been lagging behind (UNCTAD, 2000). Chart 1 compares total FDI with data on M&A. Whilst care should be taken in comparing the datasets (e.g unlike data on FDI, M&A may include domestic finance, suggesting that the share of M&A in chart 1 should be the upper bound), M&A have become more important as a source of FDI over time in most regions. However, levels and trends in the M&A/FDI ratio differ by region, and are generally lower in Africa.

Chart 1 *M&A as a ratio of FDI inflows*



Source: UNCTAD (2000): Africa excludes South Africa, , LA&C=Latin America and Caribbean, DC= Developing countries. Ratio can be seen as upper bounds as data on M&A and FDI are not strictly comparable.

An increasing number of surveys show that the lack of availability of skills and physical infrastructure is amongst the major impediments to investing in African countries (UNCTAD, 2000; and Businessmap, 2000). Whilst multinationals spread similar techniques across the world, and

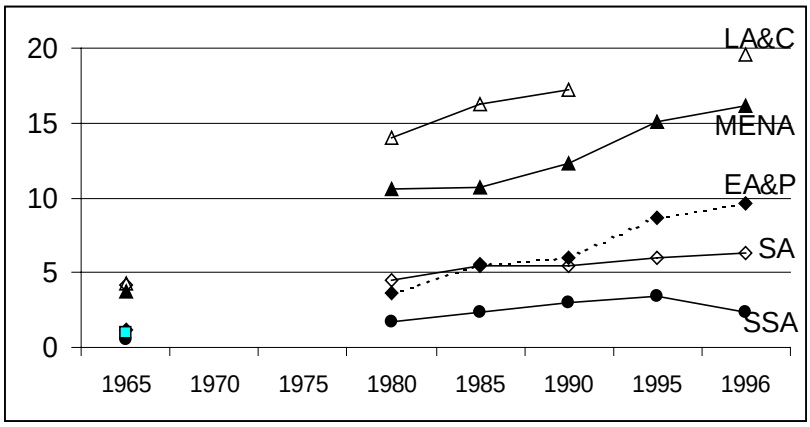
technical progress has been mainly skill-biased (see Berman *et al*, 1998 and Berman and Machin, 2000) countries increasingly diverge in availability of skills through diverging trends in education and R&D. Strategic asset-seeking multinationals have less to look for in countries with fewer skills and education. Chart 2 shows enrolment rates for developing countries, in first, second and third level education (such data has been analysed in greater detail in Wood and Ridao-Cano, 1999). Bearing in mind that enrolment rates do not include completion of degrees and do not take account of quality of education, they can only approximate skills. Importantly, the differences between country groups expressed as percentage points is clearly rising in second and third level education. Due to complete enrolment, enrolment rates have less scope to diverge at first level. Sub-Saharan Africa is particularly lagging behind at all education levels. After 1980, the spread between regions has been diverging at all levels of education.

Competitive wages (either for skilled or unskilled labour) are also likely to lead to higher inflows of efficiency-seeking FDI (e.g. Wheeler and Mody, 1992). Both Singapore and Ireland have a labour relations system that facilitates wage moderation and prevents excessive wage demands. Of course, the flip side of the coin is that the share of capital in total income has been rising dramatically over the past two decades in Ireland. But, good labour relations also prevent labour disputes, which Singh and Jun (1995) found to be important impediments to FDI inflows, especially in countries that receive relatively little FDI.

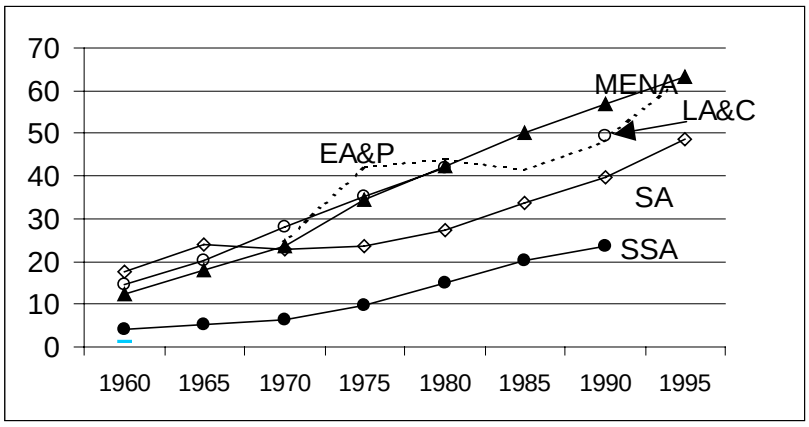
The importance of an adequate infrastructure system to attract FDI has also been underlined in many studies. For instance, in a much cited study of determinants of US FDI abroad for 42 countries in manufacturing and in electronics in particular, Wheeler and Mody (1992) found that 'infrastructure quality clearly dominates for developing countries', while specialised support services were a better determinant in developed countries who already have an adequate infrastruture. Tax incentives were not significant as determinants, and this contrast with other findings (e.g Hines, 1996) and can in part be explained by the use of different specifications.

Chart 2 ***Gross enrollment rates (Percentage of age groups)***

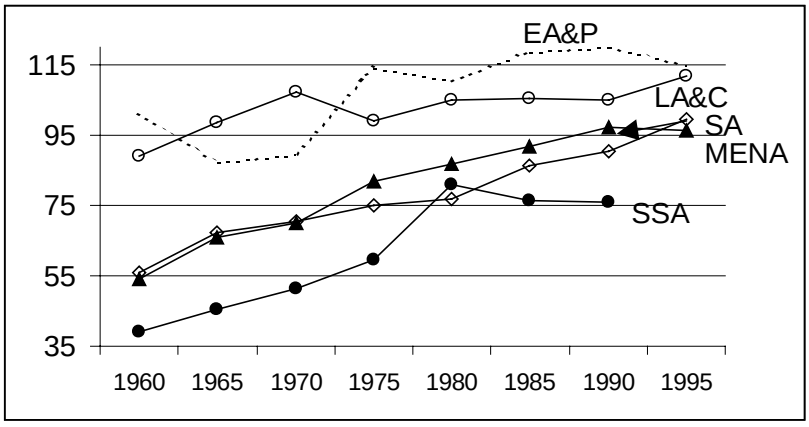
Third level



Second level



First level



Source: World Development Indicators (2000): SSA= Sub-Saharan Africa (incl. South Africa), MENA= Middle East and North Africa, SA=South Asia, LA&C=Latin America and Caribbean, EA&P= East Asia and Pacific. Gross enrolment rates are enrolment numbers divided by the number of people in respective age-groups, and hence can be greater than 100 per cent.

With regard to other macro-economic policies, multinationals are helped by the development of financial markets, although this is not crucial. If countries have a weak financial market it becomes more difficult to raise funds locally, but funds (especially in large firms) can be channelled from parents to affiliates. However, if weak financial markets in countries are coupled with a large external debt position, parents will be more hesitant to channel funds (e.g. in dollars) to their affiliates because of a threat of devaluation and the resulting possibility of default weakens the hard currency receipts of local sales. Of course the situation is more complex if the affiliate exports a large share of its output.

Impediments to trade in goods and services in the form of tariff and non-tariff trade barriers have in the past encouraged market-seeking FDI. In order to attract export-intensive FDI it is important to signal commitments to liberalise trade policy by concluding regional and global treaties. Multinationals often re-position themselves after the signing of regional integration agreements (e.g. the Single Market Programme resulted in more inward FDI, see e.g. Barrell and Pain, 1997b), showing that they are sensitive to regional aspects and not only to domestic markets.

As a trade policy instrument, the establishment of free-trade zones or export processing zones in countries with a stable economic environment and commitment to trade liberalisation has also attracted export-intensive FDI (Madani, 1999). Export-processing zones (EPZs) are often defined as fenced-in industrial estates offering free trade conditions and a liberal regulatory framework for firms exporting a minimum share of output. They are only one form of export platforms, with other facilities for exporters including tax incentives, duty drawback and exemption provisions, bonded warehouses, and duty compensation (all are present in countries such as Thailand). Many EPZs are now privately managed, with more competition between EPZs leading to improved services (Radelet, 1999).

Finally, there are *other policies and factors*, that affect locational decisions of multinationals, and which are beyond the direct influence of host-country policy-makers. They include global economic integration and transportation costs that have an impact on where multinationals source inputs. The conclusion of international, regional and to some extend bilateral agreements also falls into this category. Imposition of international agreements such as the WTO agreement on Trade Related Investment Measures, National Treatment and Most Favoured Nations should encourage FDI, though less is known about their ultimate developmental impact on host economies (see below). The explosion in bilateral investment treaties over the 90s (from 385 in the end of the 80s to 1857 at the end of the 90s, see UNCTAD, 2000) is also likely to further encourage FDI. Blonigen and Davies (2000) find that

bilateral tax treaties relating to US inward and outward investment for 65 countries over 1966-1992 raise FDI activity. Each additional year of a bilateral treaty raises outward US FDI activity in the partner country by 7 per cent (affiliate sales), 9 per cent (stocks), or 6 per cent (flows).

Insurance against political risk facing FDI in developing countries[5], whilst likely to facilitate FDI, may not be as important as economic variables in driving multinationals' locational decisions. While some argue that African countries are rated more risky than warranted by economic fundamentals (Collier and Pattillo, 1997 and 2000), and hence there is a potential role for political risk insurers, others suggest that economic variables are the primary determinants of risk ratings, and political variables merely reinforce the picture sketched by economic variables (Haque *et al*, 1998). The latter would imply that host countries should really think about improving *economic* conditions. On the other hand, banks cannot have high exposure in countries with high risk ratings, so that any insurance might help multinationals to raise finance. Unfortunately, this does not help domestic firms due to the nature of most insurance policies. Another advantage of public (bilateral and multilateral) political risk insurers is that such agencies can often prevent a dispute before it would go to the court or the ICSID (Moran, 1998). Collier and Pattillo (2000) show that Africa is sees as an unusually risky environment. Even if countries have reformed policies, they may still suffer from a 'bad neighbourhood' (an UNCTAD survey shows that actual business environment in many countries is better than the continent's image would suggest, see UNCTAD, 2000) or because risk rating are sometimes persistent both slowing down the impact of reforms. Hence, governments should make reforms as credible as possible. One way of doing this is by using domestic and international 'agencies of restraint' e.g. using risk insurance and entering in regional or international agreements.

Corruption of bureaucrats and other people poses another problem during the locational process and reduces inward FDI as well as affects the choice of entry, i.e. joint venture versus wholly owned subsidiary. For instance, Smarzynska and Wei (2000) using firm-level data in Eastern Europe and the former Soviet Union find that corruption makes bureaucracy less transparent, thereby reducing the probability to invest and raising the value of a joint venture. Hines (1995) shows that corrupt countries had lower US FDI flows equivalent to 6 per cent annual declines in host country GDP. 41 countries, over 1977-1982.

[5] Offered by e.g. MIGA, ECGD and OPIC in various countries and sectors.

Further, apart from 'being a large market' (an extremely powerful explanatory variable of market seeking FDI inflows!), geographical proximity to a large and wealthy country is also a likely to boost FDI but by itself is not sufficient. Take the examples of East Germany and Ireland (Barrell and Te Velde, 1999) and Mexico. Only after investment policies had been changed and trade policies were liberalised, did these countries attract significant levels of FDI (see also below). The presence of natural resources can also attract FDI. Historical ties and links also facilitate FDI. For instance, many commonwealth countries (e.g. Singapore) and other (e.g. Ireland) benefit from using English as one of the major language in attracting FDI. Finally, favourable conditions at home capital markets (low real interest rates, etc.) and unfavourable investment opportunities at home are likely to enhance FDI flows.

4.2 Classifying policies: Factors affecting existing foreign investors.

We can make a similar breakdown for policies and other factors affecting established foreign investors: industrial policies, macro-economic policies and other. Many factors are similar, since those factors that attract multinationals in the first place are also relevant during the operations of multinationals. However, factors in this 'row of the matrix' can be of crucial importance determining whether multinationals decide to exploit the static comparative advantage (e.g. low-wage workers, enclaves, natural resources) of their affiliates with little incentive to raise productivity and quality of products, or whether they decide to upgrade skills and products of their affiliates affecting their dynamic comparative advantage with potentially positive effects on capabilities of domestic firms. Or in the language of the business literature (e.g. Dunning, 1993), this row affects whether affiliates remain with their original basic manufacturing mandate or whether they become strategic independents.

As part of their *industrial policy* (if any), governments have offered permanent or temporary tax concessions to multinationals, imposed performance requirements, encouraged interaction between multinationals, domestic firms and research institutions, encouraged R&D, promoted exports and offered incentives to training of employees within firms.

Some corporate tax concessions are for a specific time horizon (tax holidays) but some tax concessions are permanent (as in many EPZs) thereby implicitly subsidising multinationals. Very often these tax concessions are not the major reason to attract FDI, but if they are, multinationals may well

leave or form a new company after the tax concession expires as argued in Bergsman (1999). Hence they may attract less-committed multinationals. Such tax holidays are not very useful in terms of upgrading.

There are other tax incentives that can be designed in such as way that they affect multinationals more than domestic firms and can be incorporated in a country's industrial policy. The tax system can be used to encourage R&D, or reduce import duties on machinery and equipment. Another tax incentive (in Singapore) is to encourage the production of innovative products through tax concessions to pioneering firms. These tax incentives affect multinationals (trade and R&D intensive) more than domestic firms, and encourage the development of capabilities in multinationals. In the business literature developing technological capabilities through R&D encouragement is generally seen as part of multinational subsidiary development. Many countries (including Ireland) struggle to maximise the high technology content in affiliates. Singapore has a regionalisation programme, encouraging firms to set-up skill intensive regional headquarters, with labour and land intensive production processes transferred abroad (see e.g. Yeung *et al.* , 2001).

Countries have also imposed performance requirements on foreign multinationals. These included local content, export, and trade balancing requirements (TRIMS- Trade Related Investment Measures). Here, we consider the effects on multinationals, while we return to the effect on the national economy later. Although difficult to monitor in practice, the performance requirements aim to minimise imports and maximise the use of local sources. Rules such as local content prevent imports of machinery and equipment, potentially of better quality. Moran (1998) argues that performance-requirements in protected local markets lead to less efficient production that does allowing foreign firms to set-up operations oriented toward global or regional markets.

The government can also encourage the interaction between multinationals, research institutes and domestic firms e.g. through linkage programmes (discussed below). Multinationals and local research institutes can both benefit from increased interaction (see e.g. the NUS in Singapore wins contracts from multinationals). However, if research institutes are below the standard required, multinationals will develop in-house capabilities.

The government can further design training schemes, where multinationals help to train their employees. Some countries offer incentives or impose a tax levy on firms to finance the training of

low-skilled employees (Skill Development Fund in Singapore established in 1979 and the Penang Skills Development Centre in Malaysia established in 1989). The training of employees enables the multinationals to upgrade production in a situation of skill-shortages. Firms have less incentive to train employees as firms may not capture all the benefits. Employees are mobile, can leave the firm and use their acquired skill somewhere else. In-house training thus benefits from additional incentives: such as own contributions in the case of richer employees. Governments concerned with bringing up national education levels may want to raise funds for the upgrading of poorer, unskilled workers who are unable to pay. Lall (2000b) argues that African firms use in-house training less than similar Asian firms.

Macro-economic policies, including labour market and trade policies, also affect established foreign investors. If multinationals can draw on a pool of skills, this stimulates the upgrading of their affiliates. Labour market policies can be geared to the needs in various ways (we discussed training above). For instance, the National Technological Park in Limerick, Ireland, enhances linkages between the university, multinationals and local firms, with multinationals relying on graduates from the university enrolled in courses geared at the needs of multinationals. With a forward-looking government that can predict skill requirements in the future, universities can deliver graduates to foreign multinationals and other firms thereby preventing the so-called cobweb effect.

Multinationals are generally more open to trade than domestic firms (e.g. UNCTAD, 1999), so that any improvement in exporting conditions will affect multinationals relatively more. This applies to tariff liberalisation (e.g. through regional agreements), and also to general export promotion. While multinationals generally have better exporting contacts (and export a large proportion to their parents anyway- so that one does not need to come up with trade fairs and the like), an improved infrastructure in terms of better roads and ports significantly reduces their transaction costs. Sometimes, multinationals decide to provide infrastructure themselves, but in other cases the government quickly decides to improve infrastructure as part of an investment deal (as with Intel in Costa Rica, see Spar, 1998).

A very important element in macro-economic policies is to avoid unfair competition or abuse of market power especially since foreign multinationals are usually larger firms and can dominate sectors through large mergers and acquisitions (UNCTAD, 2000) and due to their characteristics, locate in sectors that are usually concentrated (Caves, 1996). However, not all countries have an effective competition policy. It is nevertheless important to enforce competition among firms, which will induce

multinationals to compete strategically, thereby providing an incentive (to all firms) for upgrading (see Blomstrom *et al*., 2000b) while at the same time reducing the abuse of market power (Morrissey, 2000). A number of studies Moran (1998, p. 25) confirm that competition policy is crucial in determining the long-term effects of FDI on the host economy. Moran argues that "host actions in stimulating or retarding competition wherever foreign investors are located constitute the most important determinant of whether the host benefits or suffers from the presence of foreign firms".

Finally, as mentioned above, the development of local financial markets is important for affiliates to secure loans. With affiliates maturing, local finance becomes important and can help the affiliate to become a strategic independent (to the extend possible in developing countries).

Other factors affecting established multinationals include development of regional and international agreements, forces of global economic integration and civil society. The conclusion of multilateral treaties and adoption of WTO rules (e.g. TRIMS, state subsidies) limits the power of governments to impose performance requirements on multinationals. Multinationals have more freedom to choose their suppliers. The abolition of TRIMS (low-income countries have been given a grace period) can have a static effect by reducing supplies by local companies, but it could also have a dynamic effect on multinationals by improving the quality of inputs. Various regressions in Blomstrom *et al.*, (2000a) indicate that the presence of fewer performance requirements raises the payments of royalties and licence fees to US parents in 1982 in as sample of 32 developing and developed counties, and hence the abolition of TRIMs may encourage technology inflows.

While the government has less scope to enforce the use of local suppliers, foreign multinationals increasingly specialise in certain stages of the value added thereby intensifying contacts placing higher demands on partners upstream and downstream (Altenburg, 2000). As part of the process *global economic integration*, just-in-time techniques and the complexity of relationships between partners require proximity of location. Hence, while the regulatory framework allows foreign affiliates to source from abroad, they may not always choose so if local capabilities are up to standard. Having frameworks in place to let multinationals 'upgrade' local firms can be beneficial for the multinationals as well as local suppliers (see below).

Multinationals increasingly have to deal with organisations and groups from *civil society*. This occurs because multinationals are growing in importance, while effective governments defending the

needs or expressing concerns of local people are often lacking. For instance, there are concerns about the impact of multinationals on social development. Multinationals are increasingly expected to have a code of conduct, a social report or a partnership with civil society.

4.3 Classifying policies: Factors affecting the response of local firms

We now turn to the final row of table 2., which reviews key *policy areas and other factors determining the response of local firms to the presence of multinationals*. Factors in this row affect whether local firms benefit from foreign firms. A beneficial impact on the development of local firms should be crucial in designing incentive schemes for multinationals. Lall (2000a) and Blomstrom *et al.* (2000b) argue that the development of local capabilities and an absorptive capacity is an important factor behind spillover effects from multinationals to local firms. Productivity spillovers are not free and require basic capabilities to absorb spillovers, such as R&D expenditure, education and infrastructure.

The government can play a role in developing local capabilities in a number of ways. For instance, it can first *encourage general R&D* in local firms. As Cohen and Levinthal (1989) point out, R&D has two sides: it can raise the innovative capacity, but also the absorptive capacity.[6] Neary (2000) argues that governments in developing countries should raise the general level of research expertise rather than use targeted R&D subsidies, which would require picking winners. The government can also develop local capabilities by encouraging training in local firms and offering assistance and advice on how and what to supply to multinationals.

What has also become common in countries where FDI plays a significant role is to set-up linkage programmes. Such linkage programmes are designed to encourage linkages (mainly backward) between multinationals and small to medium sized local companies, which can subsequently lead to spillover effects. Often multinationals are willing to source locally, but do not have the information on local suppliers. Conversely, local firms are not always informed about opportunities or specific requirements by multinationals. Institutionalised linkage programmes combined with training (either through government or multinationals) can help to fill this informational gap. Examples of linkage programmes can be found in Thailand (Board of Investors Unit for Industrial Linkage, BUILD),

[6] Te Velde (2000b) finds that this also applies to US manufacturing sectors. Sectors with a higher R&D to GDP ratio have positive spillovers to prices and productivity changes over 1979-1994, whereas other

Ireland (National Linkage Programme, NLP, since 1983), Singapore (Local Industries Upgrading Programme, LIUP, since 1986), Taiwan (Center Satellite System Development Program, CSSDP, since 1984), and in other countries, see e.g (Battat *et al*, 1996). Linkage programmes in Latin America and Africa have been largely absent, though there is a Linkage Programme in Mozambique following the Mozal project. This non-regulatory role of government is more market oriented than imposition of TRIMS (which are not allowed in most circumstances) and is often implemented after realising that linkages and spillovers are not free or automatic. Less is known about the relative importance of these linkage programmes on the local economy making estimation of the effects of FDI difficult. Although it can be said that local sourcing of inputs by multinationals increased in Ireland after the beginning programme, it is not clear whether this is because of a linkage programme or because multinationals had been present for a number of years and began to know the local market. Nevertheless, Battat *et al*. argue that the above programmes (NLP, LIUP, CSSDP) have been successful.

There are also *macro-economic policies* that affect local firms. One is to encourage labour mobility between multinationals and local firms. Foreign-owned firms provide a good experience for new entrepreneurs who can then start up new firms. Labour mobility is often seen as an important mode through which spillovers occur. Governments can also raise the local absorptive capacity through general education. A skilled workforce is not only an important attractor of FDI, as argued before, but it is can also facilitate spillovers by creating an absorptive capacity to assimilate new techniques. From this perspective it is particularly worrying that education levels are lagging in Sub-Saharan African countries (see chart 2).

Another factor behind the variation in absorptive capacity between countries or regions is the quality and quantity of the infrastructure. Table 4 shows that Sub-Saharan Africa and East Asia are falling behind as regards telephone mainlines and the percentage of roads that is paved. The infrastructure is not only an important determinant of FDI inflows, but can also raise the absorptive capacity in countries to benefit from FDI. Easier transport and communication will facilitate operation by multinationals but also the linkages between multinationals and local firms.

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sectors with lower R&D had negative spillovers. In order to benefit from FDI, the R&D intensity of value added should be at least 5.7

Table 4 *Indicators of infrastructure by region*

	Telephone mainlines per 1000 inhabitants				% road paved		
	1975	1985	1995	1997	1990	1993	1996
World	62.37	85.95	122.45	118.43	39.05	40.90	44.40
Sub-Saharan Africa	6.90	7.74	10.65	16.13	16.60	15.00	15.75
South Asia	2.30	3.83	11.83	18.35	37.50	38.85	40.75
Middle East & North Africa	12.97	28.16	56.30	74.90	67.00	69.35	50.20
Latin America & Caribbean	28.57	51.44	92.02	110.20	21.90	21.60	25.95
East Asia & Pacific	2.18	4.48	31.35	50.16	17.20	11.60	9.85

Source: World Development Indicators, World Bank. See footnote chart 2.

Finally, small and medium sized companies often lack the expertise and contacts to sell products abroad. Exporting enhances competitiveness of suppliers which would otherwise supply to multinationals only. Multinationals are less in need of exporting assistance and other training, as they already possess exporting contacts and produce high-quality products. In the Mauritian case, small and large firms are different especially in exporting performance and technical capabilities, and are in need of different types of assistance (e.g. Wignaraja, 2000).

Global economic integration will also force many local suppliers out of the market. Nevertheless, those firms that survive competition with imports are generally well equipped to supply to multinationals or export abroad.

We summarise some of policy options discussed in this section and estimated effects using econometric studies in table 5.

Table 5 ***Selected econometric evidence of policy-effects on attraction and effects of FDI***

Study	Type of policy	Effects and other comments
Attracting FDI		
Wells and Wint (1990)	FDI promotion	The presence of a promotional presence in the US raises total inward FDI flows in developing countries by 30 per cent. Using cross-country study in 1985.
Hines (1996), table 1	Tax policy	-0.11 to –1 elasticity of US capital demand/ investment/assets abroad to local tax rates or after tax returns. Mostly using cross-section studies
Blonigen and Davies (2000)	Bilateral Investment Treaties	Each additional year of a bilateral treaty raises outward US FDI activity (65 countries over 1966 – 1992) by 7 per cent (affiliate sales), 9 per cent (stocks), or 6 per cent (flows).
Jaspersen *et al.* (2000)	Corruption	Corruption reduce FDI as per cent of GDP
Smarzynska and Wei (2000)	Corruption	Corruption reduce the probability to invest but raises the possibility of a joint venture.
Hines (1995)	Bribery	Corrupt countries had lower US FDI flows equivalent to 6 per cent annual declines in host country GDP. 41 countries, over 1977-1982.
Maskus (2000), table 3	Intellectual Property Rights	A one per cent increase in degree of patent protection in host economy raises US investment stock by 0.45 per cent.
Morisset (2000)	Trade openness	Trade as per cent of GDP raises FDI business climate and FDI inflows in Africa, but note endogeneity problem.
Wheeler and Mody (1992)	Infrastructure quality	The provision of infrastructure is most important determinant (with highest elasticity) of US capital expenditure abroad in manufacturing and electronics in 42 countries over 1982-1988.
Upgrading		
Blomstrom *et al.* (2000a), Chapter 13, Table 13.2	Performance requirements (import, local content and local employment), competition and education	Various regressions indicate that the share of relevant age-groups with third level education, the presence of fewer performance requirements, and a rising to investment-output ratio (to proxy competition) raise the payments of royalties and licence fees to US parents in 1982. Using 32/33 developing and developed counties.
Hines (1996), table 3	Tax policy	0.1 to 0.3 elasticity of R&D with respect to royalty withholding taxes
Linkages and absorptive capacity		
Borensztein *et al.* 1998	Raise human capital	
Xu (2000)	Reach minimum level of human capital	Raise average (male) educational attainment to above the range 1.4-2.4 to obtain positive technology transfer effects

4.4 Implementation of policies

Table 2 classified policies and factors by control and by where they have an impact. Industrial and macro-economic policies are largely under the control of domestic governments, while other factors are under indirect control at most. Industrial and macro-economic policies can attract multinationals, target existing multinationals, and target domestic firms. There are several questions related to this: Who implements these policies, and how much effort and resources should be devoted to implement policies in each cell?

4.4.1 Who implements?

Almost all developing countries have one or more investment promotion agencies (IPAs) responsible for dealing with multinationals (Wells and Wint, 1990; Wells, 1999). There are different forms of organisation, ownership and funding arrangements, and can be grouped into 1) government organisations, 2) more autonomous, quasi-governmental organisations, and 3) private organisations. These organisations provide four different type of services: 1) image building, 2) investment generating, 3) investor services (see Wells and Wint, 1990) and 4) policy advocacy (Wells, 1999).

While government organisations often lack the skills and experience to facilitate FDI and were used to screen and approve investments, quasi-autonomous organisations (IDA Ireland, EDB Singapore) are often better in touch with the business side. They can sometimes set their wages according to business standards, and are therefore better able to attract people with the necessary business skills. With sufficient power (high level, single ministry) such quasi-autonomous organisations can help to get business approvals (e.g. building permits) and advocate with other government departments to provide university graduates, etc. This is frequently called a one-stop shop, where one agency deals with screening, approval of and obtaining permits for foreign investors. Private investment agencies would have the contacts with business, but lack adequate contacts with government departments. It is also important to have a director of the organisation who understands businesses, and to have a board or council that contains members of the private sector. This helps to understand the future needs of businesses.

However, IPAs are not the only organisations responsible for implementing policies related to FDI. Many policies can be done by other ministries or government agencies, or in conjunction with

other organisations. To maximise benefits from FDI, different types of policies should be in place to attract multinationals in the first place, to upgrade existing multinationals, and improve linkages with multinationals. Research institutes and training centres are examples of organisations that are usually not under the control of IPAs. This is not to say that IPAs should necessarily broaden the scope of their task, but that policies implemented by IPAs can be part of many policies acting to maximise benefits from FDI.

The way of implementation is also important in attracting FDI. IPAs that follow FDI-policies consistently, but can also respond in a flexible way to demands by potential investors are often successful. The EDB Singapore is generally seen in providing all the necessarily information in a business way and obtain all permits within a limited time period (Lall, 2000b). The example of Intel in Costa Rica also shows that the flexibility of decision making (offering quick provision of infrastructure and training courses) affected the decision to locate positively (Spar, 1998). The implementation of policies in a consistent way over time is perhaps even more important. Uncertainty deters investment, and hence consistent implementation of financial and fiscal incentives by IDA Ireland (Ruane and Gorg, 1999) and consistent skill upgrading (Fitz Gerald, 2000) have signalled a long-term commitment to improve the business climate for multinationals in Ireland.

4.4.2 How much?

An important question is how to decide how much effort to spend on implementing policies towards FDI, after was decided whether to rely on FDI in the industrial strategy. A country can use FDI as part of their long-term development strategy, but with a strong government it can also rely on local capabilities (as in Korea and Taiwan, see Lall, 1996) and encourage technology inflows e.g. by reducing import duties on machinery and equipment.

Implementing policies towards FDI requires financial resources, either through up-front grants, promotion activities and institutional reform or through tax concessions (although many times part of the revenues of taxing multinationals are additional revenues). Rodrik (2000) argues that 'opening up' is not a simple matter of revising tariff codes and removing barriers to foreign investment, but requires institutional reform, which needs financial, bureaucratic, and political resources. He also argues that many of these institutional reforms do not directly target economic growth, improved governance, industrial and technological capability, poverty alleviation, but may divert attention from

them. While institutional reforms aimed at maximising trade and capital flows may produce broader benefits, they are not necessarily the most effective way to enhance development. Hence, all costs associated with policies towards FDI should ideally be weighed up against the benefits of attracting FDI. Similarly, the cost-effectiveness of fostering development using FDI needs to be compared with the cost-effectiveness against other strategies. We discuss the role that FDI plays in a country's development strategy in the next section.

4.4.3 Is there still scope for domestic policy towards Foreign Direct Investment?

Table 2 classified host country policies and other factors affecting the attraction and impact of Foreign Direct Investment. However, in the emerging context of multilateral trade negoationas, new rules brought into the WTO following the Uruguay Round, such as TRIMs, TRIPs and GATS, limit domestic policy options. This begs the question how much scope still exists in the implementation of domestic policies and an industrial policy aimed FDI in particular, putting aside the question whether indeed you want to treat multinationals differently.

There are three categories of policies in this respect: those that specifically target FDI and are still possible (e.g. employment requirements, tax incentives), those that targeted foreign multinationals but are disallowed or will be disallowed in the near future (TRIMS such as e.g. local content, trade balancing) and those that target all firms but have special effects on foreign multinationals due to their characteristics (trade and R&D related measures, provision of information on investment opportnities and local). Hence, there is still some scope (e.g. category 1 and 3) for an industrial policy to target multinationals, although multilateral agreements do limit the number of options (category 2). It is more a question of whether a government is able or wants to conduct one.

5. Country experiences: Ireland and Singapore

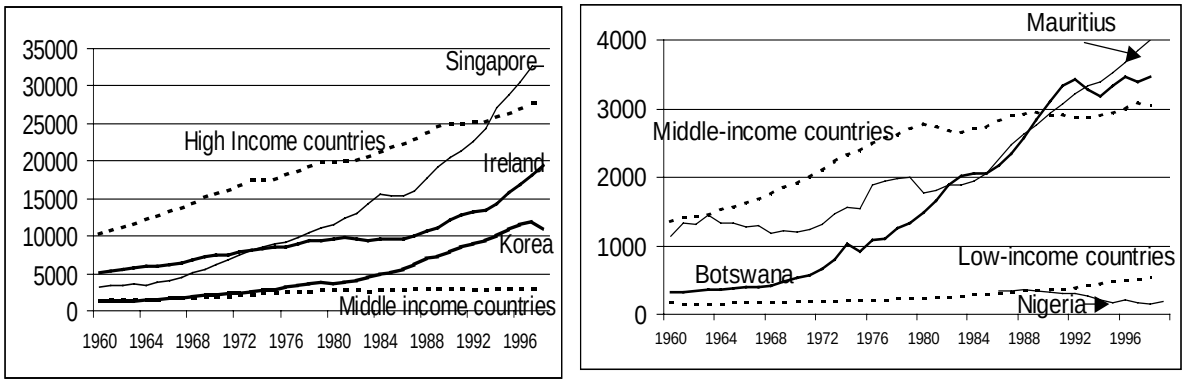
We will now discuss the experience of several countries in attracting FDI and making FDI work for development through the lens of table 2. Have countries put in place a policy framework to maximise the benefits of FDI and how did this fit in with a country's strategy. We will look at a number of countries with different backgrounds and different FDI policies.

Ireland (section 5.1) and Singapore (section 5.2) are two interesting cases and both are often suggested as best-practice policies towards attracting FDI, not only because are top of the league in table 3 in terms of per capita spending on FDI promotion but because they have put FDI to productive use. We plot GNP per capita for both countries in chart 3. In the past 40 years Ireland and Singapore developed from middle-income to high-income countries. We also plot GNP per capita of reference groups. The same chart also shows that FDI alone is not a necessary condition for economic development, see e.g. Korea (little FDI, rapid economic development). Further, FDI is not a sufficient condition for economic development, see e.g. Nigeria (lots of natural resource FDI, no economic development) in contrast to e.g. Botswana (lots of natural resources FDI, rapid economic development, see Pigato,2000).

Singapore is often dealt with in the literature on developing countries while Ireland is more often discussed in the literature on FDI in the EU. Here we find interesting similarities between the two case studies (section 5.3). We will then consider implications for some other countries briefly, but also stress that this requires more detailed work on individual countries (section 5.4).

Chart 3 *Economic development for selected countries: 1960-1998*

GNP per capita in constant 1995 US dollars



Source: World Bank Indicators 2000

5.1 Ireland

There have been various reviews of Irish FDI policy and the impact of FDI on the Irish economy (see e.g. Barrell and Te Velde, 1999; Braunerhjelm *et al.* 2000; Ruane and Gorg, 1999; O'Connor, 2001), but these have not been aimed specifically at generating lessons for developing countries or looked at policy through the lens of table 2. We first discuss the importance of FDI in the Irish economy briefly, and the role played by policy in attracting and upgrading FDI and enhancing linkages between multinationals and local firms.

Economic commentators agree that FDI has played an important role in the economic development of the Irish Republic (see for instance the chapters in the edited volume by Barry, 1999). As we will see below, FDI has helped to transform a largely agricultural society into one of the fastest growing economies in Europe with one of the highest per capita GDP. FDI has created jobs in *new* sectors, raised investment and enhanced overall and local productivity. In 1995, foreign affiliates in Irish manufacturing were responsible for 47.1 per cent of the total number of employees, 76.9 per cent of value added[7], 52.6 per cent of wages and salaries, 68 per cent of R&D expenditure (in 1993), 82.3 per cent of exports and 77.8 per cent of imports (OECD, 1999). Value added per employee in foreign-owned firms was 63.3 per cent higher than in domestic firms, pointing to superior productivity in foreign-owned firms. Barrel and Te Velde (1999) estimate the impact of FDI on overall technical progress and find it to be significant and positive.

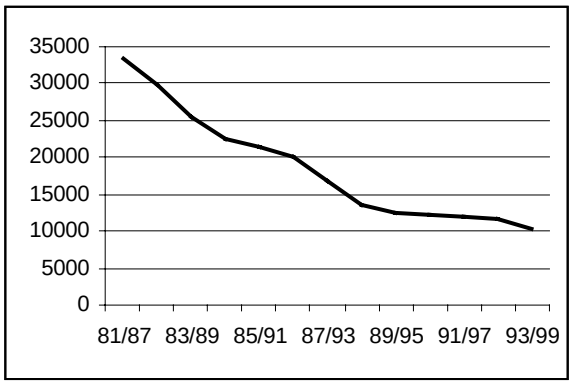
Much of the recent literature that has emerged as a consequence of the visible influence of FDI in Ireland has stressed the importance of policy, industrial (Ruane and Gorg, 1999) and macroeconomic (Fitz Gerald, 2000), as well as other factors (Ruane and Gorg, 2000) such as its location near the EU in attracting FDI. There has also been attention to upgrading FDI and linkages between multinationals and local firms (O'Malley, 1998).

Industrial policy (column 1, table 2) towards FDI has been implemented by Irish Development Agency (IDA). Initially established as part of the Department of Industry and Commerce in 1949 with powers to issue grants that covered the costs of land and buildings, IDA was established as a separate state agency by the Industrial Development Act 1969 as an organisation having responsibility for national industrial development. IDA expanded quickly in terms of staff (230

initially) and location of operation with IDA staff operating world-wide including Japan, Taiwan, South Africa and Australia. IDA targeted aggressively and firm specifically involving telephone calls, presentations, provision of research, visits, and other meetings. The IDA identified electronics and pharmaceuticals companies from the US to as offering the best opportunities for Ireland's drive to industrialise through FDI. These sectors now form the basis of industrial clusters (cell 1,1; table 2). In 1999, 15 per cent of employment in foreign companies (IDA supported) was in phamaceuticals/healthcare and 49 per cent in electronics/engineering, confirming that much FDI in Ireland has been in high-tech industries. Financial services had gained in importance and now accounts for 27 per cent.

The IDA was also able to award grants to firms covering part of their initial capital expenditure and these were later coupled to employment generation. Nowadays, grants are higher the more benefits the Irish economy can reap, but grants also need to be consistent with EU and WTO rules on state aid (in low-income regions state-aid grants are still allowed). Chart 4 indicates that all IDA expenditure is decreasing per job (even though the FDI stock as per cent of GDP is raising, see table A3). Total expenditure of IDA Ireland in 1999 amounted to IR£160 million, with IR£129 million paid in grants and IR£21 million paid towards promotion and administration (of which IR£5 million directly towards marketing, consultancy, promotion and advertising), see IDA (1999).

Chart 4 *Cost per job sustained, 1981-1999, per seven year periods*
IR£, 1999 constant prices



Source: Forfas Employment Survey 1999.

[7] Data on output and value added are inflated by the practice of transfer pricing, as discussed in Barrell and Te Velde (1999).

Fiscal incentives have been (and still are) perhaps more important in attracting FDI (Ruane and Gorg, 1999). There was a 15-year (zero) tax holiday on profits from new *export* profits from the 1950s, which changed into a 10 per cent corporate tax to *all* new firms (compared to around a standard 50 per cent corporate tax rate by that time) from 1982 to be consistent with EU rules. Under further international pressure Ireland is now committed to a 12.5 per cent corporation income tax for all firms from 2003, with some concession until 2010. It is generally thought that fiscal incentives are the single most important reason for the recent surge in FDI. However, it is not clear whether Ireland must maintain an absolute tax level that is as low as it is today, or whether a relative tax incentive is more important. Firms that began to pay 10 per cent taxes in 1990 as opposed to 0 per cent generated a lot of fiscal resources, while there is no evidence that firms have left because of the tax increase.

Fiscal incentives helped to stimulate investment in export-intensive manufacturing. Thanks to specific targeting, the IDA was in the position to develop key export-intensive sectors (electronics and pharmaceuticals) leading to bandwagon and agglomeration effects. Existing firms act as attractors for new firms. The IDA plans visits to existing firms as part of their promotion strategy for potential investors. A cluster of firms can yield important externalities not captured by individual firms, by sharing the same knowledge, facilities and by developing efficient local suppliers. An FDI-friendly image is now apparent after 40 years of aggressively promoting FDI.

While specific industrial policies have been very important in attracting FDI, there are also *macro-economic policies* (cell 1,2) and *other important factors* (cell 1,3), without which it would have been difficult to attract FDI. The government has followed consistently a policy of skill-upgrading by providing education (FitzGerald, 2000). The availability of skills was further enhanced by significant immigration of Irish and other nationals to Ireland. While the physical infrastructure was initially neglected until the late 80s, EU structural funds (6 per cent of GDP in early 90s) have helped to develop the infrastructure since then. IDA Ireland also develops land and industrial parks for foreign investors.

Other important factors have been strong historical ties with the US (through emigration of Irish), which helped to attract US investment, the use of the English as the official language (the only country in the EURO area) and more recently the boom in the US and the electronics sector in particular.

Last but certainly not least, proximity to the EU has been extremely helpful. Geographical proximity to the EU is helpful because of the large size of the market, but it is not sufficient to attract FDI. As Ruane and Gorg (2000) find, Portugal and Greece are also close to the EU, but have been less successful in attracting FDI.[8] Geographical (as opposed to economic) distance becomes less important as transportation costs fall and the 'weightless' economy (software and the like) gains in importance.

Nevertheless, the opening-up of the Irish market has been of crucial importance behind the development of Ireland as an export platform to the EU (Barry and Bradly, 1997). Following the foundation of Ireland in 1922, it followed a closed-door policy as regards trade and investment. By the 1950s the limits of protectionism were seen, culminating in the Anglo-Irish Free Trade Agreement in 1965, EU membership in 1973 and Euro Area membership in 1999. This involved dismantling of (tariff and non-tariff) trade barriers and while local firms suffered as a result from intensified competition through imports, it facilitated the attraction of export-intensive manufacturing investment.

Ireland focussed initially (up to early 90s) more on attracting quality FDI rather than on *upgrading* existing FDI (row 2, table 2). Firms in high-value added sectors were targeted (e.g. through higher grants) more because they added new, high-value added exports, rather than that they could link in with existing (read non-existing) local manufacturing capabilities. Now there is also concern about developing affiliates (as 'strategic independents'), and as an example of policy advocacy the IDA can lobby to produce more university graduates. However, there is concern about the level of R&D in foreign as well as domestic firms. While R&D as a per cent of GDP has been rising since the mid 1980s from a very low level, it appears to be concentrated in a few large firms.

While attracting multinationals that produce different goods leads to less fears of crowding-out of existing operations, there was considerable concern that the distance between local and foreign firms was too great to lead to significant spillovers and *linkages* (row 3, table 2). Many economic commentators pointed to the lack of linkages in the 80s. This was recognised and forced a policy response. Three state agencies (IDA, a marketing agency - CTT, and a science and technology agency - EOLAS) formed the National Linkage Programme (NLP) aimed at improving organisational and marketing skills as well as quality and productivity to bring it up to the standard required by

[8] The Ruane (2001) shows that the share of US capital expenditures in the EU as a ratio of the share of GDP in the EU has been the highest for Ireland since 1983. This ratio was 6.3 in 1995 compared to 0.5 for Portugal, 0.1 for Greece and 1.6 for the UK.

multinationals. Multinationals helped to upgrade local suppliers by providing technical know-how. Partly as a result of the NLP, but also because multinationals were present in the market for a longer time, Irish raw material purchases rose from 1988 to 1998 (see table A5).

Ruane and Gorg (1998) examined purchases of raw materials (as a measure of backward linkages) in the electronics sectors using a panel of firms over 1982-1995. They confirmed earlier evidence that foreign firms have lower backward linkages than domestic firms, and found that larger and expanding firms have lower linkages but also that backward linkages improve over time.

While the IDA was involved in the NLP in the beginning, it was recognised after the 1992 Culliton report found that multinationals and local firms required different attention. CTT, EOLAS and the part of IDA responsible for local firms formed Enterprise Ireland. IDA became IDA Ireland and was responsible for foreign multinationals. A key strategy for developing local capabilities is to develop sub-supply industries along the value added chain, not only for multinationals in Ireland but also for exporting, thereby also reducing the dependence on multinationals. Many local companies have reached a critical scale to be able to compete internationally.

The development of the Shannon area in the West of Ireland is a good example of the influence of policy (mainly through a regional agency) by attracting and benefiting from foreign multinationals (see e.g. Callanan, 2000). The Shannon experience can also be important in generating lessons for developing countries. The Shannon Development Company (SDC) is the state agency responsible for the economic development of the Shannon region, for attracting FDI to Shannon, and the negotiation and provision of investment incentives.

The SDC originated from a regional initiative to revitalise the area surrounding Shannon airport in 1957. This was needed because airplanes flying between the US and Europe that usually landed at Shannon to refuel, no longer had to this after the development of long-haul jets. A significant initiative was to extend the concept of a duty free shop to establish the first Free Trade Zone in the world that developed an industrial estate with factories (cell 1,1; table 2) and infrastructure provided. The idea was to import, process and re-export without customs duties or formalities (1958 Customs Free Airport Bill). This should help to attract the air traffic and associated business. The SDC offered land and grants to investors and send out brochures to the US. Significantly, it also built factories, and after one investor took one, the ball was finally rolling – an example of the bandwagon effect. While

fiscal incentives (low corporation tax) have been important for Shannon as they have been to the rest of the country, of additional importance has been a deferral system of taxes on imports until they leave the Customs Free Zone, leading to opportunities such as packaging. Nowadays taxes in the Free Zone are equalised (or will become soon) with the rest of the country, with the Shannon Free Zone used as a marketing tool .

The importance of the Shannon area was evident from the fact that around 25 per cent of Irish manufactured exports came from the area by the late 60s. However, statistics also show that it was a risky undertaking with costs (grant payment and infrastructure etc.) exceeding the benefits (adjusted value of net exports) in the period 1960-1964. Callanan (2000) approximated the benefit/cost ratio as 0.4 for 1960-1964, 2.4 for 1965-1969, 6.1 for 1970-1974, 11.8 for 1975-1979, 9.2 for 1980-1984 and 21.7 for 1985-1989. It therefore took at least 5-10 years before the regional agency was profitable for the Shannon region.

Table 6 presents data on finances of the SDC and clearly shows that the importance in capital expenditure diminished from 72 per cent in 1960 to 30 per cent in 1985.This indicates significant start-up costs of the Shannon programme and increasing difficulties obtaining public finance from the central government later. Instead, running expenses and promotion activities (offices in the US etc) gained in importance from 15 per cent in 1960 to 38 per cent in 1985. The table also shows that SDC's operating costs were financed out of grants (from the exchequer) and increasingly self-generated income (38 per cent by 1985) from selling and renting property.

The SDC (while also responsible for other issues such as tourism) has various schemes in place to upgrade local capabilities and enhance linkages between local firms, foreign multinationals and local research institutes and universities. One such initiative is the National Technological Park based upon technical capabilities in the University of Limerick. The university (and other technical institutes) provides the graduates needed in local firms and in multinationals. Conversely, the presence of multinationals has spillovers on the entrepreneurial efforts in start-up companies.

Table 6 *SDC income and expenditure (1000£ current prices or shares of total)*

	1960	1970	1985
Income			
Grants			
- running expenses (share)	0.63	0.24	0.26
- grants to industry (share)	0.35	0.50	0.33
- housing advances (share)	0.00	0.04	0.02
Self-generated (share)	0.02	0.21	0.38
Total income (1000£)	158	1715	17065
Expenditure			
Operating (1000£)	117	1685	16840
- running expenses/promotion (share)	0.15	0.09	0.38
- grants to industry (share)	0.14	0.15	0.26
- housing repayments (share)	0.00	0.06	0.06
Capital expenditure (share)	0.72	0.70	0.30
Total expenditure (1000£)	411	5549	24136

Note: The difference between total income and total expenditure was paid by the exchequer in the form of capital expenditure. Source: Table 33 from Callanan (2000).

5.2 Singapore

The development path of Singapore is truly remarkable. Per capita GDP has grown dramatically from 1960, a struggling colony, to a modern and 'developed' high tech country (see chart 3). There are not many countries that have seen such a rapid development as Singapore. GDP growth rates have continued to be 10 per cent on average over the past 4 decades. At the same time, the accumulated stock of FDI as a per cent of GDP has risen from 5.3 per cent in 1965, 17.1 per cent in 1970, 51.8 per cent in 1980, 87.2 per cent in 1990 and 98.4 per cent in 1998 (see Yeung, 2001)[9]. The share of non-manufacturing FDI has been rising from 46.7 in 1980 to 63.4 in 1997. In 1997/1998, foreign firms employ 50.5 per cent of workers in manufacturing, 29.1 per cent in trade and 25.7 per cent in finance. There is clearly a story to tell on how these changes came about. The Singapore story is one of strong leadership, pro-active industrial strategy, a consistent and favourable FDI-policy, continued industrial upgrading and also of risk taking, but not one of rich natural resources or proximity to large economic markets.

An outward-looking approach based on FDI was inevitable. Singapore became independent after a two –year stint with Malaysia failed in 1965. Singapore, though traditionally an important trading port, was now isolated from its hinterland, as Indonesia (Confrontation policy) refused to

import goods and Malaysia wanted to cut out the middle-man Singapore in its trading activities (e.g. rubber). This made an import-substitution strategy virtually impossible for Singapore, and unlike in other developing countries this was never an ideology. Singapore also lacked the natural resources and an entrepreneurial business elite (Honk Kong did have an influx of Chinese entrepreneurs) and there was a time lag before domestic entrepreneurs would be sufficiently capable. Further, there was the impending withdrawal of the British armed forces, which contributed an estimated 20 per cent to the economy. Singapore had no policy option, but to industrialise and because of a lack of indigenous capabilities, the industrial strategy had to rely on foreign multinationals bringing their expertise and technologies.

An industrial strategy was designed under the capable and authoritarian leadership of Lee Kuan Yew (prime-minister from 1959 until 1990) and Goh Keng Swee (economics minister), and was partly based on an UNDP-study (1960), prepared by Albert Winsemius (served as economic adviser until 1984), on the future of Singapore. Winsemius recommended the establishment of an Economic Development Board (founded in 1961) to be responsible for industrialisation of Singapore. The EDB got a budget of around USD 25 million (over 4 per cent of GDP), a hundred times more than its predecessor, the 1957 Industrial Promotion Board. Winsemius also recommended that EDB be a one-stop agency (cell 1,1; table 2), sorting out all investor's requirements, and focusing on ship repair, metal engineering, chemicals and electrical equipment and appliances.

The EDB has acted pro-actively (developing sites, seeking promotion) and responded to market forces ever since it began operations. The EDB's aim was to promote industries (mainly foreign after 1965) in Singapore and began to build up offices abroad. It had four divisions: investment promotion, finance, projects and technical consultant service and industrial facilities. It was set up as an autonomous government agencies, could set its own wages, had a board comprising business and other agencies, and had an international advisory board comprising executives of major foreign companies located in Singapore, and hence the EDB was 'in contact' with business. While in the initial stages the notion of a one-stop centre was helpful to attract FDI, the operations became more complex over time and resulted in the specialisation towards FDI promotion while other activities were left to other agencies: e.g. finance into the Development Bank of Singapore (1968), technical and project consultant

[9] According to UNCTAD data, Singapore has attracted more FDI relative to its size than other countries in the South East Asian region, see table A4.

service into the Productivity and Standards Board (1968) and industrial facilities into the Jurong Town Corporation (1968) to name a few. The EDB has maintained close links ever since.

The EDB decided to use a significant share of its money on the development of the Jurong Industrial Estate (cell 1,1; table 2). An uncultivated piece of land was quickly transformed into an industrial estate with adequate infrastructure and factories and new port was built. However, the estate was unsuccessful in the early years and with 12 pioneering firms in 1961 it had a slow start (activity remained sluggish until 1965). The EDB had invested vast sums in joint ventures, some of which had failed. Nevertheless, there have never been real doubts about the FDI-led industrialisation industry as Singapore was forced to rely on multinationals (including foreign staff), an unusual vision at the time compared with other developing countries' views that multinationals only exploit developing countries. The real breakthrough came when a star multinational at the time (Texas instruments), decided to set-up a plant to assemble semiconductors of USD 6 million. The contract was won by EDB in four months and due to providing facilities ahead of demand it was able to start production 50 days after the decision to invest was made.

A fully prepared industrial estate reduces an investor's search and transaction costs. The Jurong Town Corporation (JTC), spun-off from the EDB in 1968, has since maintained responsibility for preparing industrial sites. By leasing and renting industrial sites it was able to more than pay to conduct a pro-active stance and prepare sites ahead of demand. Over time the JTC has began to spread activity over Singapore, with wafer fabrication in dust and vibration free area, employment intensive activities where people live and pollution intensive industries in the West of the Island away from people.

The industrial strategy proved to be successful by the late 1960s and early 1970s and was able to reduce the unemployment rate fairly quickly. Whilst in the 1960s and early 1970s, employment was a major focus, later in the 1980s it was capital intensive projects, and in the 1990s knowledge intensive sectors were targeted (upgrading, row 2, table 2). The incentive structure is complex and has developed over time. No effort is made to go over all the incentives here, but just a few important ones will be mentioned. A significant incentive was the Pioneer Industries Ordinance of 1959, with firms exempted (or significantly reduced) from the 40 per cent corporation tax for a fixed period of time provided that firms developed 'new' products (the share of manufacturing output by firms with pioneer status increased from 7 per cent in 1961 to 51.1 per cent in 1971 and 69 per cent in 1996). There were many

other tax incentives, among them the Economic Expansion Incentives, reducing the corporation tax for approved firms to 4 per cent. The minimum level of capital or sales required for approval was quickly raised in 1970 after realising that Singapore needed capital intensive rather than employment intensive firms. Over time wages rose, especially in the period 1985-1986, and Singapore realised that it could only survive by upgrading FDI (cell 2,1; table 2) and upgrade the work force (cell 2,2; table 2)[10] to be able to compete with neighbouring low-cost locations. The EDB began to target knowledge intensive industries that could pay higher wages. To tackle the emerging skill shortages, firms were encouraged to recruit foreign workers. Recently the EDB has begun to attract foreign universities. The EDB's regionalisation programme to encourage the use of regional headquarters while letting the lower-value added processes go to other countries further adds to the quality of operations in Singapore.

The period 1985-1986 was Singapore's first post-war recession. The recession changed labour relations and initiated or accelerated new schemes to link local firms with multinationals (row3, table 2). Singapore could only cope with rising wages if local firms developed capabilities (technical and human resources) and if foreign multinationals continued to upgrade (using R&D incentives, incentives to set-up high skilled head quarters and encouraging joint research institutes through government funding). The EDB also sought to upgrade local industries through the establishment of a Local Industry Upgrading Program (LIUP) in 1986, under which multinationals were encouraged to enter into long term supply contracts with local firms, leading to upgrading. Local firms benefitted most in the electronics sector by supplying maintenance services, components and equipment to the semiconductor multinationals. Initiatives such as LIUP also embed FDI more in host economy, with mutual benefit and dependence. Other initiatives from the EDB for local firms included the Local Enterprise Finance Scheme, but has been transferred to the Productivity and Standards Board (the PSB) in 1996.

Beside a number of relevant skill-upgrading schemes (see Lall, 1996), the PSB is responsible for the Skill Development Fund. Set up in 1979, it first imposed a 4 per cent levy on the payroll on employers for every worker earning less than a pre-determined amount. It is an efficient way to enhance within firm skill upgrading of unskilled workers. Firms themselves do not have sufficient incentives to do that. After the 1985 crises, the levy was reduced to 1 per cent, but it still plays an important role in the upgrading of skills.

[10] Upgrading by raising the quality of inputs into multinationals

More recently, the EDB has followed a cluster approach, targeting firms around the electronics/semi-conductor, petrochemicals and engineering industries. The cluster approach is an instrument of industrial policy which attracts FDI (cell 1,1; table 2), but which also leads to enhanced linkages and spillovers (cell 3,1; table 2). Focusing industrial development policies on clusters of activities, with each step in a value-adding chain feeding into other steps, is practiced by only few investment promotion agencies. A cluster is a geographic concentration of interconnected firms, specialised suppliers, service providers, firms in related industries, and associated institutions in particular fields that compete but also co-operate (Porter, 1998). Firms with the same functions compete, stimulating further productivity grow. Firms co-operate along the value-added chain. The fundamental concept that holds together a cluster of firms is that of the 'value chain' that links downstream to upstream industrial activities. The EDB's cluster-oriented approach seeks to determine which are the value chains that dominate and where gaps can be identified and potentially filled. Government policy can avoid what is essentially a market failure, and can support services (The EDB began a S$ 1 billion Cluster Development Programme in 1994, and has recently tripled in size) or prepare infrastructure that is for joint use. The JTC has prepared special wafer fabrication parks and a reclaimed Jurong Island (a S$ 6 billion project) for the petrochemical cluster. By also investing in R&D centres, the government further enhances the value of the cluster and with it the locational advantages (the dynamisation of the L factor in the OLI paradigm was originally underestimated).

While the above indicates a strong role for industrial policy, macroeconomic policies have also played a role, albeit in support of multinationals. Infrastructure has been built with regard to the needs of multinationals. Trade policies have always been very liberal compared to other countries, with very low tariffs and thanks to an increase in ISO certificates also low non-tariff trade barriers. Besides training, general education has also been important (Lall, 1996).

However, there are also 'external' factors (column 3, table 2), which have shaped polices towards FDI or have been important in attracting FDI, and which may make the case of Singapore less general in its application to other countries. Singapore is a city-state with a relatively authoritarian state that can formulate policies without much resistance from either other levels of government, or from civil society. This makes the country almost unique, and enables the government to be rather technocratic. Further, Singapore never runs government deficits, which is helpful to find capital for (profitable) investment (in part financed out of a high statutory pension levy). Perhaps another factor of

attracting FDI is that despite a multi-ethnic society, the working language is English. Further, the location in the time zone enabled the financial services to fill the gap between the US and Europe during the 24-hour day.

5.3 Comparing Singapore and Ireland

The Irish Model of policies towards FDI is aggressive in its targeting, is pro-active in developing a favourable business climate offering large incentives and above all has been consistently implemented by a strong investment agency (IDA) which is flexible and good at policy advocacy. Industrial policy has been supported by consistent macro-economic policies (trade liberalisation and skill upgrading) and favourable external factors. Nevertheless, there have also been periods of doubt (e.g. when FDI flows decreased by the late 80s, and in the early stage of the Shannon initiative). A linkage programme appears to have been successful, but arguably came late after 20 years of neglect of local firms since the 1960s. More recently IDA Ireland split from Enterprise Ireland and agencies assumed different responsibilities, thereby recognising that different firms need different support.

The Singapore story is one of strong leadership, pro-active industrial strategy, a consistent and favourable FDI-policy, continued industrial upgrading and also of risk taking, and of a small size with an authoritative society. It can be argued that the EDB is one of the most efficient and effective promotion agencies in the world, and that the EDB together with the organisations that spun-off, have put in place policies that upgraded FDI. However, the smallness of Singapore and the survival strategy based on FDI, enabled the government to implement easily whatever policy it thought was best for the country.

There are some interesting comparisons to be made between Singapore and Ireland, which may help to formulate best-practice policies in the next section (mostly relating to column 1, table 2). Both countries:

- had an aggressive investment agency, effectively a one-stop agency with ample political power to swing policies towards foreign investors (row 1 and column 1, table 2)
- began to target firm-specifically in the 60s, tagged into the globalisation phase of the electronics sector, and followed a pro-FDI consistently throughout , now benefiting from agglomeration economies (row 1 and column 1, table 2)

- had a strong pro-active industrial policy approach (perhaps not always explicit in policy documents) with fiscal incentives and grants (share of equity investment in Singapore) (row 1 and column 1, table 2)
- did not suffer from direct crowding-out as the targeting of export intensive multinationals created new markets, but
- suffered from indirect crowding-out as multinationals pushed up factor prices (land and/or skilled labour)
- are beginning to develop cluster approaches (row 1 and column 1, table 2)
- realised that local capabilities did not develop sufficiently, and put in place linkage programmes between multinationals and local firms (row 3 and column 1, table 2)
- had a supportive macro-economic environment (column 2, table 2)
- had favourable external factors, which were not decisive towards FDI (column 3, table 2)
- experienced a time lag before pro-active policies (e.g. preparing industrial estates) to attract FDI were successful, and hence can be considered risky policies.

5.4 Other experiences

We can test the framework in other countries and we may find that policies on different rows and columns are more important in some settings than in others. The relative importance of different policies is likely to differ by country. But in general, not all countries can afford a pro-active industrial policy (first column, table 2) as e.g. in Singapore, where the government invests ahead of demand and plans clusters by filling in the gaps. Even if some countries were to do this, they may run the risk that local firms do not benefit, as the literature and empirical evidence in section 4 suggests the presence of substantial local capabilities is crucial for this. It thus seems that for countries with relatively few local capabilities, improving local capabilities deserves some priority (column 2, table 2). However, again it depends on the type of country, its strategy and the type of investment in wants to attract.

But in this respect it is also interesting to note that some econometric and survey evidence (in section 4) shows that macro-economic factors (infrastructure, skills, etc.) are important determinants of

FDI flows to developing countries. Such evidence seems to be supported by the account of two investments. First the decision of Intel to locate in Costa Rica was influenced by the availability of a skilled and trainable workforce (it needed 800 engineers) and the speedy response of the government to improve the infrastructure affecting the large volume of exports (Spar, 1998). Second, according to Shiels and Spar (2000) the fact that Botswana had a stable non-corrupt political and economic environment, and the availability of primary and secondary pupils to provide a basis for specialised (and funded) training were important considerations of Owens Cording to locate in Botswana. By contrast, special incentive programmes were excluded from the feasibility study (on which basis the decision was made). Hence, there seems to be an important dual role of local capabilities: 1) to attract FDI and as mentioned before 2) to benefit from FDI.

A more detailed account of such countries would provide a more definite insight into the relative importance of different policies. This could also provide insights into whether a country focuses on the attraction of FDI only, or whether governments also devote effort to design after care programmes and upgrade existing multinationals, and whether they help to link local suppliers and foreign multinationals. The experience of Singapore and Ireland finds that the government has taken a role in all areas over time, with emphasis on column 1 (and row 1 first) initially and with policies in column 2 lagging. However, this strategy may be viable for other countries for the reasons mentioned in the beginning of this section.

6. Conclusions

We began this paper by saying that governments in developing countries are increasingly looking for best-practice policies towards Foreign Direct Investment (FDI) based upon the positive effects associated with FDI. Whilst FDI can bring positive effects (market access, technology, finance, etc.), it can also bring negative effects. Moreover, the positive effects are not automatic for host countries and depend on policies in place and other factors. This suggests that ensuring a large quantity of FDI alone is not sufficient for the objective of generating growth and poverty reduction.

Which policies are important in which countries depends on the specific country characteristics, the objective of the country and the derived FDI strategy. However, there are some common elements in all countries. FDI policies are likely to be some combination of policies in each of the categories identified in table 2 and should fit in with a country's development strategy to achieve certain objectives.

An important contribution of this paper was to classify policies towards FDI. As can be seen in table 2, policy factors were divided into 1) specific industrial policies and 2) macro-economic policies and into whether they are used to 1) attract FDI 2) upgrade FDI or 3) enhance linkages and spillovers to domestic firms. There is a host of policies possible to make FDI for development, and these do *not* stop with attracting FDI alone, and do *not* stop with incentives. Realising this is a first step into making FDI work for development.

A survey of some econometric studies on the effects of policies can be found in table 3. Whilst richer countries with more financial resources and local capabilities can afford a risky and costly pro-active stance towards FDI (e.g. Singapore and Ireland), and can use FDI strategically e.g. in cluster formation, many poorer countries are left behind with relatively fewer local capabilities. This is particularly worrying since local capabilities play the dual role of attracting FDI and enhancing positive spillovers associated with FDI.

On the basis of the survey of policies towards FDI in theory and practice and on the basis of country case studies (Singapore and Ireland in particular) a number of steps for developing countries

wanting to attract FDI seem appropriate.[11] These steps are stated generally but need to be implemented on a country by country basis

- Determine whether FDI fits in with your country's development strategy and if so, what type of FDI. Is FDI and efficient and effective way at promoting current or future objectives? As a country with high wages and ample local capabilities, you may not want clothing FDI, but you do need high-tech investments, and *vice versa* as a poor, agricultural country, you may not want high tech investment from the start.
- Build up local capabilities (R&D, education, etc.) and infrastructure to establish economic fundamentals, which were found to be relatively important especially for lower-income developing countries. Local capabilities are also crucial in benefiting from the FDI, for instance to bring-up the level of local suppliers. There is evidence that in many low-income countries local capabilities are left behind, thus lowering FDI inflows *and* lowering the absorptive capacity to capture spillover effects.
- Put a sound macro-economic policy in place and reduce corruption as the literature indicates that corruption reduces FDI inflows.
- The facilitation of trade in goods and services is useful for foreign investors, as they are usually more trade intensive.
- Establish an investor friendly climate by first opening up to foreign investment and then by following with the implementation of administrative reforms at lower levels, without discriminating against local firms. Follow this policy consistently over time as it may take time to convince investors.
- Target specific firms that fit in your development strategy. This should be co-ordinated by an investment promotion agency that can act as a one–stop shop, i.e. that can do promotion, negotiation, facilitation and perhaps policy advocacy (see e.g. IDA Ireland, EDB).
- Be flexible enough to change the targeting of FDI to upgrade FDI to other, higher value added activities.

[11] Appropriate policies stated by other researchers can be found in appendix B.

- Encourage the development of multinational affiliates through linkages with local research institutes and competition policy.
- Encourage training of employees within foreign multinationals (see e.g. Singapore).
- Encourage linkages between foreign multinationals and local suppliers through linkage programme (see e.g. Ireland, Singapore and others), which could help during (or after) the phasing out of TRIMS.
- Implement an effective competition policy. Competition policy is particularly needed when FDI is through M&A. Whilst M&A are not (yet) very important in all regions when expressed as a per cent of FDI flows, this does not tell anything about the effects on a host country.

Much more research is needed to formulate appropriate development policies in developing countries and the role that FDI should play. For many countries this is likely to involve the adequate formulation of an industrial strategy, a competition policy, a trade policy, and a strategy to enhance local capabilities.

While some of the characteristics of a successful industrial FDI policy are beginning to be better understood by looking at successful examples, perhaps we should also focus attention to studying countries that have adopted an open, (expensive) industrial FDI policy, but where this has not led to economic development. Such policy failures would yield new insights. Is such policy too fragmented, or too risky, or does it lack economic fundamentals?

There are many other outstanding issues relating to who and what gains from FDI within societies. Does the environment gain or lose from the presence of FDI, do poor people benefit as much as the rich, men as much as women, rural areas as much as urban, small firms as much as large firms etc. These are important questions but were beyond the scope of this paper. Governments first need to ensure that FDI fits within their development strategy and could employ other instruments to mitigate negative effects. Finally, more research should also look at the scope and effects of future multilateral investment agreements (competition policy, etc.) for developing countries

References

Aitken, B., A. Harrison and R. Lipsey (1996), "Wages and Foreign Ownership: A Comparative Study of Mexico, Venezuela, and the United States", *Journal of International Economics*, 42, pp. 345-371.

Aitken, B.J. and Harrison, A.E, (1999). "Do Domestic Firms Benefit from Direct Foreign Investment? Evidence from Venezuela", *American Economic Review*, 89, pp. 605-618.

Altenburg, T. (2000), "Linkages and Spillovers between Transnational Corporations and Small and Medium-Sized Enterprises in Developing Countries – Opportunities and Policies", *in* UNCTAD, *TNC-SME Linkage for Development. Issues-experiences-best practices*, UNCTAD, Geneva.

Balasubramanyam, V.N., M. Salisu, and D. Sapsford (1996), "Foreign Direct Investment and Growth in EP and IS countries", *Economic Journal*, 106, pp. 92-105.

Barrell, R., and N. Pain (1997). 'Foreign Direct Investment, Technological Change, and economic growth Within Europe', *Economic Journa*l, 107, pp. 1770-1776.

Barrell, R. and D.W. te Velde (2000), "Catching-up of East German Labour Productivity in the 1990s", *German Economic Review*, 1, pp. 271-297.

Barrell, R., D.W. te Velde (1999), "Labour productivity and convergence within Europe: East German & Irish experience", *NIESR Discussion Paper 157*.

Barry, F. (ed) (1999), *Understanding Ireland's Economic Growth*, MacMillan Press, London.

Barry, F., and J. Bradley (1997), "FDI and Trade: the Irish host-country experience", *Economic Journal*, 107, pp. 1798-1810.

Battat, J., I. Frank and X. Shen (1996), *Suppliers to Multinationals. Linkage Programs to Strengthen Local Companies in Developing Countries*, FIAS Occasional Paper 6.

Bergsman, J. (1999), "Advice on taxation and tax incentives for Foreign Direct Investment", FIAS.

Berman, E. and S. Machin (2000), "Skilled-Biased Technology Transfer: Evidence of Factor-Biased Technological Change in Developing Countries, Boston University, Department of Economics.

Berman, E. J. Bound and S. Machin (1998). Implications of Skill-Biased Technological Change: International Evidence. *Quarterly Journal of Economics*, 113, pp. 1245-1280.

Blomström, M. (1986). 'Foreign investment and productive efficiency: the case of Mexico.' *Journal of Industrial Economics*, vol. 35, pp. 97-110.

Blomström, M. and F. Sjöholm, (1999), 'Technology transfer and spillovers: does local participation with multinationals matter?', *European Economic Review*, vol. 43, pp. 915-923.

Blomstrom, M. and H. Persson (1983), "Foreign direct investment and spillover efficiency in an underdeveloped economy: evidence from the Mexican manufacturing industry.", *World Development*, 11, pp. 493-501.

Blomstrom, M., A. Kokko and M. Zejan (2000a), *Foreign Direct Investment. Firm and Host Country Characteristics*, MacMillan Press, London.

Blomstrom, M., S. Globerman and A. Kokko (2000b),."The Determinants of Host Country Spillovers from Foreign Direct Investment" *CEPR discussion paper 2350*.

Blonigen, B.A. and R.B. Davies (2000), "The effects of bilateral tax treaties on US FDI activity", *NBER working paper 7929.*

Borensztein, E., J. De Gregorio, and J-W. Lee. (1998), "How Does Foreign Direct Investment Affect Economic Growth?", *Journal of International Economics*, 45, pp. 115-135.

Braunerhjelm, P, R. Faini, V. Norman and P. Seabright (2000), *How the right policies can prevent polarisation*, CEPR, London.

BusinessMap (2000), *SADC Investor Survey: Complex Terrain*, BusinessMap, Johannesburg.

Callanan, B. (2000), *Ireland's Shannon Story*, Irish Academic Press, Dublin.

Caves, R. E. (1996). *Multinational Enterprise and Economic Analysis.* 2nd edition, London, Cambridge University Press.

Caves, R.E. (1974), "Multinational Firms, Competition and Productivity in Host-Coubtry Markets", *Economica*, May 1974, 41(162), pp. 176-193.

CBI, Cross-Border Initiative (1999) *Road Map for Investor Facilitation*, Paper for consideration at the Fourth Ministerial Meeting in Mauritius, October 1999.

Cohen, W.M. and D.A. Levinthal (1989). Innovation and learning: the two faces of R&D. *Economic Journal*, 99, pp. 569-596.

Collier, P. and C. Pattillo (1997), "Private Investment, Risk and the Policy Environment in Africa", *African Development Bank Economics Research Papers*, No. 29.

Collier, P. and C. Pattillo , eds., (2000), *Investment and Risk in Africa*, MacMillan Press, London.

De Mello, L.R. (1999), "Foreign direct investment-led growth: evidence from time series and panel data", *Oxford Economic Papers*, 51, 133-151.

DFID (2000), *Eliminating World Poverty: Making Globalisation Work for the Poor*, White Paper on International Development, DFID.

Djankov, S. and B. Hoekman (2000), "Foreign Investment and productivity Growth in Czech Enterprises", *World Bank Economic Review*, 14, pp. 49-64.
Dunning, J. (1993) , *Multinational enterprises and the global economy*, Addison-Wesley Publishing Company.
Emery, J.T., M.T. Spence, L.T. Wells and T. Buehrer (2000), *Administrative Barriers to Foreign Investment. Reducing Red Tape in Africa*, FIAS Occasional Paper 14.
Feenstra, R.C and G.H. Hanson (1995), "Foreign Direct Investment and Relative Wages: Evidence from Mexico's Maquiladoras", *NBER working paper 5122*.
Fitz Gerald, J. (2000), "Ireland's Failure – and Belated Convergence", First Draft, September 2000, The Economic and Social Research Institute.
Forfas employment survey, see http:/www.idaireland.com/
Globerman, S. (1979), "Foreign Direct Investment and "Spillover" Efficiency Benefits in Canadian Manufacturing Industries", *Canadian Journal of Economics*, 12, pp. 42-56.
Graham, E.M and E. Wada (2000, "Domestic Reform, Trade and Investment Liberalisation, Financial Crisis, and Foreign Direct Investment into Mexico", *The World Economy*, 23, pp. 777-798.
Haddad, M. and A. Harrison (1993), "Are there positive spillovers from direct foreign investment? Evidence from panel data for Morocco.", *Journal of Development Economics*, 42, pp. 51-74.
Hanson, G. (2000), "Should Countries Promote Foreign Direct Investment?", paper prepared for G24 research Program.
Haque, N.U., N. Mark and D.J. Mathieson (1998), "The Relative Importance of Political and Economic Variables in Creditworthiness Ratings", *IMF Working paper WP/98/46*.
Hines, JR, (1996) "Tax Policy and the activities of Multinational Corporations", *NBER working paper 5589*.
Hines, JR. (1995), "Forbidden Payment: Foreign Bribery and American Business after 1977, *NBER working paper* 5266.
IDA Ireland (2000), *Annual Report 1999*, IDA Ireland, Dublin.
IPAP (2000), see http: //www.mofa.go.jp/policy/economy/asem/asem3/statement.html
Jaspersen, F.Z., A. H. Aylward, and A.D. Knox (2000), "Risk and Private Investment: Africa Compared with Other Developing Areas", in Collier and Pattillo, eds. (2000), MacMillan, London.
Lall, S. (1995), "Industrial strategy and policies on foreign direct investment in East Asia", *Transnational Corporations*, 4(3), pp. 1 – 26.
Lall, S. (1996), *Learning from the Asian Tigers*, MacMillan Press, London.
Lall, S. (2000a), "FDI and development: research issues in the emerging context", *Policy Discussion Paper 20*, Centre for International Economic Studies, University of Adelaide.
Lall, S. (2000b), "Evaluation of Promotion and Incentive Strategies for FDI in Sub-Saharan Africa", First Draft, January 2000, *Oxford University*.
Lall, S. (2000c), "Export performance, technological upgrading and foreign direct investment strategies in the Asian newly industrializing economies. With special reference to Singapur", *ECLAC serie desarrollo productivo* 88, Santiago, Chile.
Lall, S. and G. Wignaraja (1998), *Mauritius: Dynamising Export Competitiveness*, London, Commonwealth Secretariat, Economic Papers 33.
Madani, D. (1999), "A review of the role and impact of export processing zones", *Policy Working Paper 2238*, World Bank, Washington.
Markusen, J. R. (1995). 'The boundaries of multinational enterprises and the theory of international trade", *Journal of Economic Perspectives*, 9, pp.169-189.
Maskus, K.E. (2000), "Intellectual Property Rights and Foreign Direct Investment", *Policy Discussion Paper 22*, Centre for International Economic Studies, University of Adelaide.
Moran, T.H. (1998), *Foreign Direct Investment and Development*, Institute for International Economics, Washington, DC.
Morisset, J. (2000), "Foreign Direct Investment in Africa. Policies Also Matter", *Transnational Corporations*, forthcoming.
Morrissey, O. (2000), "Investment and Competition Policy in Developing Countries: Implications of and for the WTO", *CREDIT Research Paper*, 00/2.
Neary, J.P. (2000). "R&D in developing countries: What should governments do?", *Centre for Economic Performance Discussion Paper*, July 2000.
O'Connor, T.P (2001), "Foreign Direct Investment and Indigenous Industry in Ireland: Review of Evidence", Report to ESRC.
O'Malley, (1998), "The revival of Irish Indigenous Industry 1987-1997", *Quarterly Economic Commentary*, ESRI.
OECD (1999), *Activities of foreign multinationals*, OECD, Paris.

Oman, C. (2000), *Policy Competition for Foreign Direct Investment: A Study of Competition among Governments to Attract FDI*, OECD Development Centre, Paris.
Pain, N. and F. Hubert (2000), "Inward Investment and Technical Progress in the United Kingdom Manufacturing Sector", *NIESR Discussion Paper 175*.
Pigato, M. (2000), *Foreign direct investment in Africa: Old tales and new evidence.* World Bank Draft, June 2000.
Porter, M. (1998), "Clusters and the new economics of competition", *Harvard Business Review*, 76, pp. 77-90.
Radelet, S. (1999), "Manufactured Exports, Export Platforms, and Economic Growth", *CAER Discussion Paper 43*, Harvard Institute for International Development.
Rodrik, D. (2000), "Can integration into the world economy substitute for a development strategy?", Note prepared for the World Bank's ABCDE-Europe Conference in Paris, June 26-28, 2000.
Ruane, F. and H. Gorg (1998). "Linkages between Multinationals and Indigenous Firms: Evidence for the Electronics Sector in Ireland", Trinity Economic Papers Series, 98/13.
Ruane, F. and H. Gorg (1999). "Irish FDI policy and investment from the EU", Chapter 3 in R. Barrell and N. Pain (eds.), *Investment, Innovation and the Diffusion of Technology in Europe.* Cambridge University Press.
Ruane, F. and H. Gorg (2000). "European Integration and Peripherality: Lessons from the Irish Experience", *World Economy*, 23, March 2000, pp. 405-421.
Safarian, A.E (1999), "Host country policies towards inward foreign investment in the 1950s and 1990s", *Transnational Corporations*¸.8 (2), pp.
Shiels, D. and D. Spar (2000), "Establishing a Manufacturing Plant in Africa: Owens Corning&Botswana.", *Draft FIAS Occasional Paper.*
Singh, H. and K.W. Jun (1995), "Some new evidence on Determinants of Foreign Direct Investment in Developing Countries", *World Bank Policy Discussion paper*, 1995.
Smarzynska, B.K. and S.J. Wei (2000), "Corruption and Composition of Foreign Direct Investment: Firm-Level Evidence", *NBER Working Paper 7969*.
Spar, D. (1998) *Attracting High Technology Investment: Intel's Costa Rican Plant*, Washington DC, Foreign Investment Advisory Service, IFC and World Bank, FIAS Occasional Paper 11.
Teece, D.J. (1977), "Technology transfer by multinational firms: the resource cost of transferring technological know-how", *Economic Journal*, 87, pp. 242-261.
Tsai, P.L (1995), "Foreign Direct Investment and Income Inequality: Further Evidence.", *World Development*, 23, pp. 469-483.
UNCTAD (1999), *World Investment Report*, UNCTAD, Geneva.
UNCTAD (2000), *World Investment Report*, UNCTAD, Geneva.
Velde, te D.W. (2000a), "Foreign Direct Investment and Unskilled Workers in US manufacturing, 1973-1994, paper presented at RES conference in St-Andrews, July 2000, downloadable from http://www.st-andrews.ac.uk/~res2000/
Velde, te D.W.(2000b), "Foreign Direct Investment and Factor Prices", draft mimeo, Birkbeck College and ODI.
Wells, L.T. (1999), "Revisiting Marketing a Country: promotion as a Tool for Attracting Foreign Investment", *Harvard Graduate School of Business Administration.*
Wells, L.T. and A.G. Wint (1990), *Marketing a Country: Promotion as a Tool for Attracting Foreign Investment*, Washington, D.C. International Financial Corporation.
Wheeler, D. and A. Mody (1992), "International investment location decisions: the case of US firms", *Journal of International Economics*, 33, pp. 57-76.
Wignaraja, G. (2000), "Firm Size, Technological Capabilities and Market-Oriented Policies in Mauritius", Revised Draft, December 2000.
Wignaraja, G. (2001), "FDI promotion in Sri Lanka and Mauritius", Presented at ODI conference on FDI, 16 March 2001.
Wood, A. and C. Ridao-Cano (1999), "Skill, trade and international inequality", *Oxford Economic Papers*, 51, pp. 89-119.
Yeung, H.W-C. (2001), "Towards a Regional Strategy: The Role of Regional Headquarters of Foreign Firms in Singapore", *Urban Studies*, 38, pp. 157-183.
Yeung, H.W-C. (2001), *Enterpreneurship and the Internationalisation of Asian Firms: An Institutional Perspective*, Cheltenham, Edward Elgar.
Xu, B. (2000), "Multinational enterprises, technology diffusion, and host country productivity", *Journal of Development Economics*, 62, pp. 477-493.

Appendix A

Table A1 Inward Foreign Direct Investment flows (million of US$) and rankings of developing countries ranked by percentage in 1998

	1970	1975	1980	1985	1990	1995	1996	1997	1998
World	11936.11	25893.87	54497.06	56789.29	209535.8	327901	357948.2	461840.1	640178.5
Developed countries	9799.361	17140.39	46539.02	41681.7	173804.5	208371	211118.9	273275.1	460429.6
Developing countries	2136.75	8753.48	7947.035	15092.59	35162.29	105263.6	134423.2	170032.6	162236.1
of which (in percentage)									
China			0.72%	10.99%	9.92%	34.06%	29.89%	26.02%	28.02%
Brazil	19.70%	14.87%	24.05%	9.55%	3.21%	5.20%	7.81%	11.02%	17.70%
Mexico	15.12%	6.96%	26.30%	13.15%	9.60%	9.05%	6.83%	7.55%	6.31%
Singapore	4.35%	3.33%	15.55%	6.94%	15.85%	6.85%	5.86%	5.71%	4.45%
Thailand	2.01%	0.98%	2.39%	1.08%	7.29%	1.96%	1.74%	2.20%	4.30%
Argentina	0.51%		8.53%	6.09%	5.22%	5.02%	4.85%	4.76%	3.51%
Korea, Republic of	3.09%	0.65%	0.08%	1.55%	2.24%	1.69%	1.73%	1.67%	3.17%
Poland			0.13%	0.10%	0.25%	3.48%	3.35%	2.89%	3.16%
Chile	-3.70%	0.57%	2.68%	0.96%	1.88%	2.83%	3.51%	3.19%	2.95%
Venezuela	-1.08%	4.78%	0.69%	0.45%	1.28%	0.94%	1.62%	2.99%	2.30%
Malaysia	4.40%	4.00%	11.75%	4.60%	6.63%	3.97%	3.78%	3.00%	2.30%
Colombia	2.01%	0.42%	1.98%	6.78%	1.42%	0.92%	2.32%	3.35%	1.84%
Other	53.57%	63.43%	5.16%	37.77%	35.20%	24.05%	26.70%	25.65%	19.99%
Memorandum *developing regions*									
Africa	14.99%	4.53%	4.00%	18.93%	6.65%	3.94%	4.39%	4.50%	4.89%
Asia	30.59%	49.37%	0.63%[12]	35.29%	63.54%	64.72%	61.03%	56.17%	52.32%
Eastern Europe			0.14%	0.10%	1.62%	13.55%	9.23%	10.90%	10.79%
Lain America and Caribbean	53.57%	45.63%	93.26%	44.81%	28.79%	30.36%	33.66%	38.67%	41.88%

Source: UNCTAD Handbook of Statistics (2000)

[12] Includes a large disinvestment by Saudi Arabia

Table A2 **Inward FDI stocks, by region and country, million of US$**

	1980	1985	1990	1995	1999
Developed	373960	545243	1380827	1967538	3230800
Ireland	3749	4649	5502	11706	43969
Portugal	2863	3796	9769	17579	20513
Developing	121240	218114	377380	739499	1438484
Africa	19235	29240	44104	66430	93066
Botswana	698	947	1309	1126	1359
Egypt	2257	5699	11039	14096	18198
Mauritius	20	37	163	251	404
Nigeria	2405	4417	8072	14065	19649
South and East Asia	58843	96846	181434	417559	769541
China	6252	10500	24763	137436	306003
Korea	1140	2160	5186	9443	27984
Malaysia	5169	7388	10318	28732	48773
Singapore	6203	13016	28564	59582	79401
Thailand	981	1999	8209	17452	26539
Central and East Europe			2991	36355	102697
Czech Republic			1360	7352	16246
Hungary			569	10007	19095
Poland			109	7843	29979
Latin America and Caribbean	44095	62918	118300	204932	485604
Argentina	5344	6563	9085	27828	62289
Brazil	17480	25664	37143	42530	164105
Chile	886	2321	10067	15547	39258
Cost Rica	672	957	1447	2733	4651
Mexico	2090	1984	22424	41130	72016

Source: UNCTAD (2000)

Table A3 Inward FDI stocks, as a per cent of GDP by region and county

	1980	1985	1990	1995	1998
Developed	4.7	6.1	8.3	8.8	12.1
Ireland	19.5	24.5	12.2	18.6	32.7
Portugal	10.0	16.0	14.1	16.8	20.8
Developing	5.4	9.1	10.5	13.4	20
Africa	6	9.5	12.4	19.9	21.1
Botswana	67.4	78.1	38.6	24.6	26.1
Egypt	9.8	16.4	25.6	23.9	20.2
Mauritius	1.8	3.5	6.2	6.3	8.5
Nigeria	2.6	5.5	28.3	50	50.5
South and East Asia	7.9	9.7	11.2	15	23.3
China	3.1	3.4	7	19.6	27.6
Korea	1.8	2.3	2	2.1	6.1
Malaysia	21.1	23.7	24.1	32.9	67
Singapore	52.9	73.6	76.3	70	85.8
Thailand	3	5.1	9.6	10.4	17.5
Central and East Europe			1.5	5.2	12.1
Czech Republic			4.3	14.5	26.1
Hungary			1.7	22.4	33.2
Poland			0.2	6.6	15.1
Latin America and Caribbean	5.7	8.6	10.5	11.9	19.5
Argentina	6.9	7.4	6.4	9.9	13.9
Brazil	7.4	11.5	8	6	17.1
Chile	3.2	14.1	33.2	26.2	40.4
Cost Rica	13.9	24.4	25.3	30.3	40.3
Mexico	0.9	1.1	8.5	14.4	14.3

Source: UNCTAD (2000)

Table A4 Shares of employment in foreign affiliates in selected host economies

	Manufacturing	All industries
Brazil (1995)	13.4	3.5
Hong-Kong (1994)	16.0	12.8
Indonesia (1996)	4.7	0.9
Ireland (1995)	47.1	
Malaysia (1994)	43.7	
Mexico (1993)	17.9	3.3
Nepal (1998)	1.9	
Singapore (1996)	52.1	
Sri Lanka (1996)	54.4	22.1
Taiwan (1995)	21.1	11.1
Turkey (1990)	3.2	
Viet Nam (1995)	14.9	5.3

Source: UNCTAD (1999) and OECD (1999)

Table A5 Irish raw material purchases as a per cent of total raw material purchases foreign Irish multinationals

	Non-food manufacturing	Electronics
1988	15.4	13.2
1989	16.7	14.0
1990	18.5	16.3
1991	18.8	19.7
1992	18.3	19.5
1993	20.1	21.4
1994	19.7	20.7
1995	20.1	21.2
1996	18.2	17.7
1997	19.4	20.2
1998	21.0	22.8

Source: Forfas Annual Survey of Irish Economy Expenditure

Appendix B

A summary of best-practice policies or policy recommendations to attract and maximise benefits from FDI

Taking a narrow focus on good practices in tax and tariff systems, CBI (1999) suggests

- Good tax systems are those that cause a minimum of distortion in resource allocation, and are equitable and easy to administer.
- Taxes on international trade should play a minimal role. Import tariffs should have a low average rate and exporters should have duties rebated on inputs used for producing exports. Export duties should be avoided.
- The corporate income tax should be levied at one moderate rate. Depreciation allowances should be uniform across sectors. There should be little use of tax incentives.
- Tax and customs administration reforms should modernize systems and procedures. Simplification of the tax and tariff systems is a prerequisite for administrative reforms.

Taking a broader view of policies towards attracting FDI, Oman (2000) offers the following selected

policy recommendations on:

- Do not offer costly investment incentives if the "fundamentals" of the potential investment sites fail to meet serious long-term real investors' basic requirements, as this will tend to attract the "wrong kind" of investor.
- Do not engage in undiscerning use of investment incentives and other discretionary policies by governments as this will have a negative effect on FDI inflows.
- Policies to enhance local supplies of human capital and modern infrastructure, if successful, can be a powerful means to attract FDI — as well as to promote economic development — if the other "fundamentals" are sound.
- Policy makers must ensure that competition to attract FDI does not lower labour and environmental standards. Governments would benefit from enhanced international policy co-ordination on environmental and *core* labour standards.
- International regional-integration agreements can be a powerful policy tool both for attracting FDI (which requires relatively *open* regional agreements) and for enhancing co-operation among governments to limit the potential negative effects of policy competition.
- For developing economies, it is important to stress the value of moving away from discretionary incentives towards greater reliance on rules-based means of attracting FDI — national and international rules that maintain or strengthen environmental and labour standards and create stability, predictability and transparency for policy makers and investors alike.
- The prisoner's-dilemma nature of competition for FDI creates a permanent risk of costly beggar-thy-neighbour bidding wars and downward pressure on environmental and labour standards that cannot be fully addressed by national governments in the absence of strengthened international policy co-ordination.

Lall (1996, 200a, 2000b and 2000c) taking a more integrated policy approach suggest policy recommendations related to the transfer, diffusion and generation of technology in multinationals

Transfer of technology

- Change the competitive environment and incentives to promote the use of world class technologies and management methods.
- Improve the skill base and employee training. Policies have to both raise the quality of the labour force outside the firm and encourage greater and better training of employees within the firm or in special institutions.
- Offer incentives to existing investors to move into more complex technologies and upgrade the technological functions undertaken locally.
- Improve technology access for local enterprises, by providing information on foreign and local sources of technology.

Diffusion and generation of technology

- Improving extension and training services to strengthen the capabilities of SMEs.
- Concentrating on particular areas or clusters of enterprises or on particular activities where spillover effects from TNCs are especially valuable.
- Offering incentives to TNCs to develop local suppliers.
- Encouraging contract R&D with local research institutions and universities
- Setting up new research institutions in areas of special interest to TNC activity.
- Encouraging technology alliances between local firms and TNCs by offering fiscal benefits for the cost of the research or the exploitation of its results.
- Offering incentives for local R&D generally