CHAPTER

18

Foreign Direct Investment Policies

One of the most notable features of economic globalization has been the increased importance of foreign direct investment around the world. Over the past two decades, the international flow of FDI has increased by a factor of almost 10 (see Figure 18.1). To put this trend in perspective, it might be noted that, by comparison, international trade flows only doubled over almost the same period.

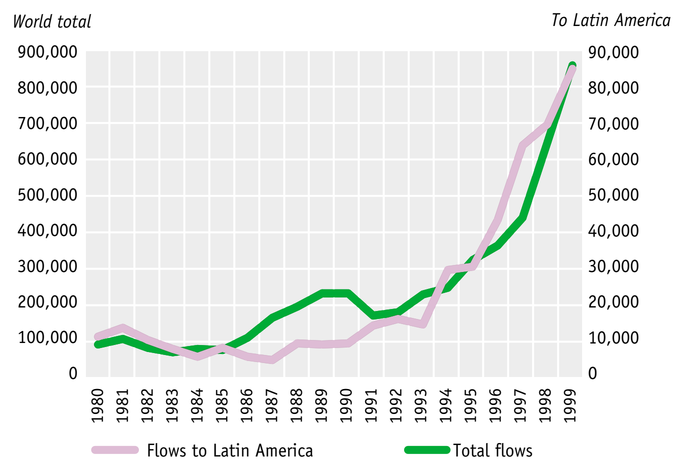
However, the increase in FDI has not been consistent over this time span. There were periods of stagnation—the first half of the 1980s and 1990s—followed by periods of explosive growth. During the second half of those same decades, the annual rate of growth of FDI was close to 25 percent.

Latin America did not take advantage of the first FDI boom of the late 1980s, primarily because of macroeconomic instability and restrictions on some sectors of FDI and on the repatriation of profits and capital. FDI inflows into the region remained fairly stable from 1980 through 1993, increasing at an annual rate of less than 2 percent. The FDI boom into Latin America began around 1993, when most of the restrictions mentioned above had been lifted, and infrastructure sectors were opened to private participation. Between 1993 and 1999, flows into the region grew at almost 30 percent per year. As a result of the latest boom, Latin America has regained the share in FDI flows it had lost during the late 1980s, and is currently receiving around 10 percent of all FDI flows.

Furthermore, while FDI flows to the developing world have increased spectacularly, other forms of capital flows have remained fairly stagnant. Thus, in recent years FDI has represented by far the most important source of private external financing for Latin America. In 1999, FDI represented nearly 97 percent of total net private capital flows into the region.

Figure 18.1 Foreign Direct Investment Flows, 1980-99

(Millions of US$ in 1996 constant prices)



Source: IMF (2000).

The question, then, is whether FDI has a positive effect on host countries, and if so, what can governments do to attract it? In principle, there are several mechanisms through which FDI can generate positive spillovers for an entire economy. If the foreign firm is technologically more advanced than most domestic companies, interaction by nationals with its technicians and engineers could bring about positive knowledge spillovers. Such a knowledge transfer also occurs if the foreign firm directly trains local workers, who may then be hired by domestic firms.

There is also the potential for development of new inputs or improvement in the quality of existing ones. This may well occur initially by way of the demand created by the foreign investment, but it could eventually become available for domestic firms as well.[1] Yet another source of externality is that multinationals that export their goods to foreign markets may induce domestic firms to follow suit, thus acting as catalysts for domestic exporters.[2] Some studies also have found evidence that FDI has a positive effect on growth, provided that human capital in the host country is up to the task. In other words, in order to benefit from the advanced technology introduced by foreign firms, the host country has to have capacity to absorb that technology.[3]

FDI can also lead, however, to negative spillovers. Domestic firms may be displaced by foreign ones, or they may find that the cost of factors of production increases as a result of the presence of foreign firms.[4] A recent study of FDI spillovers in Venezuela finds that, while foreign equity participation increases productivity, the presence of foreign firms has a negative impact on the productivity of domestically owned firms in the same sector.[5] This negative result may be due to the fact that this study focuses on intra-industry spillovers. Another study on Colombia finds that the effects of FDI are positive and quite large once inter-industry spillovers are taken into account.[6]

The answer to the question of whether FDI benefits the host countries may depend on the manner in which the investment is attracted into the country. If countries compete aggressively by offering subsidies to potential investors, net benefits generated by FDI projects might be competed away and ultimately accrue only to the foreign investors. Competing by offering subsidies, however, is not the only way for countries to court potential investors. Countries can compete in potentially harmful ways, such as by relaxing labor or environmental standards in such a manner that there are adverse effects on the welfare of the population. A more positive approach is for countries to make themselves more attractive to foreign investors by improving the quality of their institutions, labor force and infrastructure. As this chapter will show, although there are many variables beyond the control of policymakers that influence where FDI flows to, the quality of host country institutions clearly plays a prominent role in determining where that investment ultimately goes.

Foreign Direct Investment in Latin America

How does Latin America compare with other regions in terms of its success in attracting FDI? Which countries in the region have been more successful in this regard? From where do investment flows into the region originate?[7]

Developed countries received 70 percent of total FDI flows over 1997-99, while Latin America received 11 percent—quite a bit more than countries in East Asia, which received around 6 percent.[8] However, Figure 18.2 shows FDI inflows in proportion to the GDP of the recipient countries or regions, and by that measure, East Asia receives the most inflows—nearly 4 percent of GDP—closely followed by the developed countries. The corresponding value for Latin America is just above 2 percent. When all countries in each region are given similar weights in the average (rather than weighting them by GDP), Latin America is a close second to the developed countries, with East Asia third. The change in the ranking reflects the fact that some of the smaller countries in Latin America tend to have larger shares of FDI flows over GDP, while the contrary is true in the developed countries, as well as in East Asia.

The countries that have received larger flows are Brazil, with 38 percent of the total, followed by Argentina, Mexico and Chile. These four countries have received nearly 80 percent of total inflows. However, as a proportion of GDP, Trinidad and Tobago, which received FDI inflows averaging 9 percent of GDP, received the most inflows by far, followed by Panama, Bolivia and Chile. In Trinidad and Tobago, FDI has been associated primarily with large energy projects, particularly natural gas projects following deregulation of the sector. In Panama, the privatization of services and investments

[1] See Rodríguez-Clare (1996).

[2] See Aitken, Hanson and Harrison (1997).

[3] See Borensztein, De Gregorio and Lee (1998).

[4] See Agosín and Mayer (2001) for evidence on the crowding out of domestic investment in developing countries.

[5] See Aitken, Hanson and Harrison (1999).

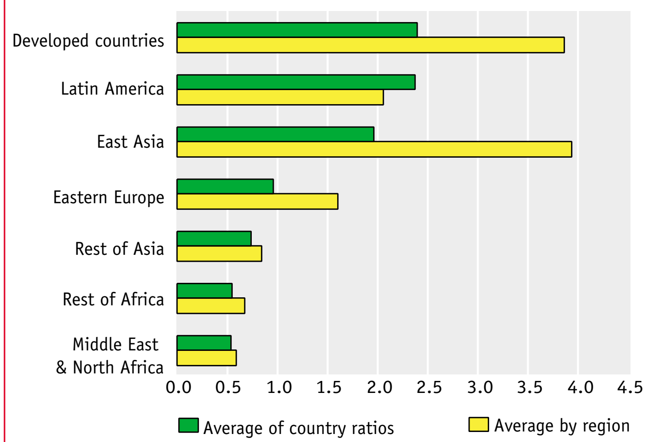
[6] See Kugler (2000).

[7] For a much more complete and detailed analysis of FDI flows into Latin America, see ECLAC (2000). For a similar analysis for FDI trends around the world, see UNCTAD Secretariat (2000).

[8] See IMF (2000).

Figure 18.2 Total Inflows of FDI by Region, 1997-99

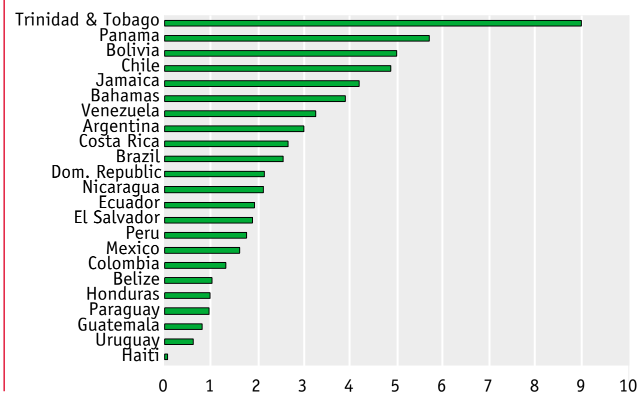
(Percent of GDP)



Source: IMF (2000).

Figure 18.3 FDI Inflows to Latin America, 1997-99

(Percent of GDP)



Source: IMF (2000).

in the administration of pension funds has played a major role. In Bolivia, the energy sector has been at the center of efforts to attract FDI.[9] Chile and Argentina have increased their ranking thanks to huge individual acquisitions by two Spanish companies, Endesa in Chile, and Repsol in Argentina.[10] In contrast, Brazil, Costa Rica and Mexico, which according to popular perception receive a disproportionate amount of FDI flows, in fact have relatively modest showings. Brazil and Costa Rica are only slightly above the regional average, and Mexico is in fact below it (see Figure 18.3).

While Latin America typically has been a recipient of FDI flows, some countries in the region have recently become more active as sources of FDI. In particular, Chile, Argentina, Brazil, Colombia and Venezuela have increased their share as sources of FDI. FDI outflows from Chile represented 38 percent of total outflows from the region, and almost 2.5 percent of GDP. Argentina is second as a source country, with outflows representing 28 percent of the regional total, although this only corresponds to 0.5 percent of GDP.[11]

Where do FDI flows to Latin American economies originate? Data on bilateral FDI flows in 1997 from the *International Direct Investment Statistics Yearbook* published by the OECD show, not surprisingly, that the United States is the principal source of FDI in Latin America.[12] Of note, however, is that Spain is already in second place. Common language and colonial links may be playing an important role here, as discussed below. Chile and Argentina, and to a lesser extent Brazil, have also become major sources of FDI inflows into Latin America.[13]

What Determines Where FDI Goes?

In examining the location of FDI flows, this section focuses on determinants that are amenable to policy action by host countries, particularly the quality of institutions.

There are, of course, a number of different potential determinants of FDI flows. As discussed earlier, FDI can be attracted by low tax levels on foreign firms, or by the aggressive use of subsidies. However, competing for FDI by lowering taxes or offering subsidies can lead

[9] See ECLAC (2000) for a discussion of FDI flows into Panama and Trinidad and Tobago (pp. 55-57), and for a detailed account of the strategy to attract FDI in Bolivia (pp. 88-97).

[10] See ECLAC (2000, pp. 139-77) for a detailed account of the aggressive expansion of Spanish firms into Latin America.

[11] Data on FDI outflows from Mexico, which also would be expected to be significant, were not available.

[12] See OECD (2000).

[13] While the OECD data only include investment flows that originate in OECD countries, the value of FDI outflows from individual Latin American countries to Latin America can be inferred by subtracting the outflows of FDI to each of the OECD countries from total outflows in each country (as reported by the IMF).

to what several authors have called a "race to the bottom," where the foreign firms end up appropriating all the benefits associated with their investment.

Alternatively, countries can try to make themselves more attractive by educating their labor force or improving the quality of their infrastructure or institutions. Oman (2000b) has called this type of competition a "beauty contest."

Evaluating the impact of the different policy options on the location of FDI requires having an effective benchmark against which the success or failure of countries in this regard can be measured. For example, a country could be receiving a large amount of FDI not because of its policies, but simply because of its size, or its proximity to an important source country. Or FDI might flow there for historical reasons, such as strong colonial links to a particular source country. The examples in this discussion suggest that focusing on explaining bilateral FDI, rather than aggregate FDI, may allow for a more appropriate benchmark for judging the success or failure of alternative policies. In order to establish such a benchmark, which controls for factors unrelated to actual policies, we use the gravity model. Borrowed from the empirical trade literature, this model has had an enormous degree of success in explaining bilateral trade flows.

In its simplest formulation, the gravity model states that bilateral trade flows depend positively on the size of both economies, measured by their GDPs and negatively on the distance between them. The analogy is to Newton's gravitational attraction between two celestial bodies. Typical variables added to the simplest gravity specification in the trade literature include GDP per capita or population, as well as dummies indicating whether the two countries share a common border, a common language, past colonial links, etc. Although most applications of the gravity model have involved bilateral trade flows, they have recently been used for FDI as well. In fact, these variables also seem to be natural determinants of FDI. For example, the fact that two countries share the same language may encourage FDI flows between them, since this reduces transaction costs (such as foreign executives learning the language of the host country, the need to hire bilingual workers, translation of contracts, etc.).

Empirical exercises by Stein and Daude (2001)—and summarized in Appendix Table 18.1—find that all the gravity variables have the expected effects and are statistically significant. According to the results, which are based on bilateral FDI stocks for 1996,[14] the coefficient for the host country size is close to one, suggesting that, all else being equal, an increase in the host country's GDP leads to a proportional increase in FDI. Consistent with the gravity idea, while size increases attraction, distance decreases it. The coefficients estimated for distance suggest that a 10 percent increase in distance between the source and the host country reduces bilateral stock of FDI by about 7 percent. Combining both effects, Mexico and Brazil are almost equally attractive as destinations for FDI from Canada. Although Brazil is a larger economy, that effect is offset by the greater distance to Canada. Common language, colonial links and adjacency all have positive effects that are also economically significant.

Isolating the influence of these variables allows for moving on to the main question: What can countries do to attract FDI? The variables amenable to policy action include tax rates on foreign corporations, and the quality of the labor force, infrastructure and, in particular, public institutions.

Taxes on Foreign Corporations

Can countries attract FDI by reducing taxes on foreign corporations? An analysis of data on withholding tax rates on dividends of foreign corporations suggests that higher tax rates on foreign corporations indeed have a negative effect on FDI.[15] Specifically, a one percentage point increase in the tax rate decreases the stock of FDI by about 4 percent.

In the event that tax treaties exist between the host country and some source countries, tax rates on foreign corporations will differ according to the nationality of the foreign owners. In order to account for these differences, bilateral data on tax rates were used taking into account the content of prevailing treaties.

The fact that tax reductions or incentives are effective in attracting FDI does not automatically mean that governments should pursue these policies. As has been discussed, such policies can ultimately have negative

[14] See OECD (2000). The information for 1996 is available with a breakdown of 18 source OECD countries and 58 host countries. Notice that we focus on FDI stocks rather than FDI flows.

[15] Based on Price Waterhouse (1997).

effects if competition for FDI leads to a "race to the bottom."

It would have been interesting to explore as well the effect of subsidies and other financial and fiscal incentives on the location of FDI. Unfortunately, given the fact that incentives are usually negotiated on a case-by-case basis and often lack transparency, the effects of subsidies cannot be systematically studied.

Quality of the Labor Force and Infrastructure

Governments may seek to make their countries more attractive to foreign investors by improving the business environment. One dimension of this environment often emphasized in business surveys is the quality of the labor force. For example, together with Costa Rica's proximity to the United States, the country's highly educated labor force was a key determinant in the decision by Intel to locate there.[16]

Anecdotal evidence aside, however, it is important to examine data that might establish whether governments can attract more FDI by improving the quality of the labor force. The Barro-Lee (2000) database contains several indicators of human capital stock, of which we use the percentage of the population older than 25 years of age with some post-secondary education. The conjecture is that foreign firms may locate based on the availability of skilled workers, but the results regarding the effects of this variable are not conclusive. While the education of the labor force seems to have positive effects on FDI, these effects are not particularly robust and in fact disappear when certain institutional variables are included, or when alternative measures of human capital are used. In cases when this variable is significant, the results suggest that a one percentage point increase in the population above 25 years of age with some post-secondary education results in about a 3 percent increase in FDI.

Similar inconclusive results were obtained with regard to the quality of infrastructure. In this case, a subjective indicator taken from *The Global Competitiveness Report* was used. It shows high correlations with several indicators of the availability and quality of infrastructure services.[17] But while this variable has significant positive effects on FDI when the institutional variables are excluded, its effect is diminished and is usually not significant once institutions are taken into account.

Quality of Institutions

Countries may become more attractive to foreign investors by improving the quality of the institutional environment in which businesses operate. Excessive regulation, corruption or political instability can discourage foreign investors, while respect for the rule of law, a government that honors its commitments, and a competent civil service may encourage such investment.

Institutions are important for two closely related reasons. They can reduce the cost of doing business, but beyond this "expected" effect, good institutions can substantially increase the predictability of the rules of the game within which firms conduct their business. Foreign investors may be discouraged by unpredictable rules as much as they are by costly ones. Political instability, the credibility of the government and respect for the rule of law all clearly affect that predictability. So does corruption, which would be just like a tax if it were predictable, yet is in fact "much more taxing than a tax" precisely *because* of its unpredictability.[18] As for regulation, when it is excessive, it tends to be ad hoc and unpredictable as well.

The governance indicators developed by Kaufmann, Kraay and Zoido-Lobatón (1999a and 1999b) were used to explore the role of institutional variables as determinants of the location of FDI. These indicators are constructed on the basis of information gathered through a wide variety of cross-country surveys as well as polls of experts, and are available for a large cross-section of countries. Each indicator represents a different dimension of governance: political voice and accountability, political instability, government effectiveness, regulatory burden, rule of law, and graft.[19]

Political voice and accountability, as well as political instability and violence, aggregate those aspects related to the way authorities are selected and replaced. The first variable focuses on different indicators related to the political process, civil rights and institutions that facilitate citizen control of government

16 See Larrain, López-Calva and Rodríguez-Clare (1998).

17 See Chapter 3.

18 See the study by Wei (1997) on the determinants of the location of FDI.

19 Larger values indicate better institutions. See Kaufmann, Kraay and Zoido-Lobatón (1999a, 1999b) for a detailed description of each variable, as well as the methodology used in their construction.

actions. An example is the degree of independence of the media. The second variable combines indicators that measure the risk of a destabilized government or the removal of the government from power in a violent or unconstitutional manner. The indicators clustered in government effectiveness and the regulatory burden are related to the ability of the government to formulate and implement policies. The first one aggregates indicators on the quality of the bureaucracy, the competence of civil servants, the quality of public service delivery, and the credibility of the government's commitment to its policies. The second brings together indicators related to the content of policies, such as the existence of policies unfriendly to the market (e.g., price controls and other forms of excessive regulation).

The last two variables, the rule of law and graft, consider aspects related to the respect that both citizens and the government have for the institutions that resolve their conflicts and govern their interactions. The first includes variables that measure perceptions of the effectiveness and predictability of the judiciary, as well as the enforceability of contracts, while the second aggregates different indicators of corruption.

While improvements in governance indicators would be expected to make countries more attractive for foreign investors, not all of these dimensions are likely to have similar effects. A foreign investor may be more worried about excessive regulation, corruption or disregard for the rule of law, and less worried about the independence of the media or the ability of citizens to hold their leaders accountable.

The results regarding the role of institutional quality are striking. Institutions *do* matter, and they matter a great deal. Figure 18.4 plots inflows of FDI as shares of GDP of the recipient countries for 1997-99 against the summary variable of institutions, defined as the average of the six individual indicators. The correlation is 0.49, and is highly significant.

The results of more systematic empirical exercises are presented in Appendix Table 18.1. All the governance indicators, with the exception of political voice and accountability, have positive effects on FDI location and are statistically significant. More importantly, their impact is quite large. The largest impact is the regulatory burden, which captures the quality and market friendliness of government policies. An improvement of one standard deviation in regulatory burden increases

Figure 18.4 Ratio of Foreign Direct Investment/GDP and Institutional Quality

Sources: IMF (2000) and Kauffman, Kraay and Lobatón (1999a).

the stock of FDI by a factor of 4.7. The magnitude of this potential impact is substantial, to say the least. For example, a one standard deviation improvement in this variable would take the quality of government policies in Mexico to the level of Australia.

Similarly, an improvement of one standard deviation in government effectiveness increases FDI by a factor of nearly three. Such an improvement would, for example, increase the index of Russia to that of Argentina, or the index of Morocco to that of Chile. Finally, improvements of one standard deviation for graft, the rule of law, and political instability would increase FDI by 140 percent, 100 percent and 57 percent, respectively. The corresponding impact of an improvement in the summary indicator of governance is an increase in FDI of nearly 130 percent.[20]

Since the difference between the averages for Latin American and OECD countries with regard to this summary indicator is larger than one standard deviation (in fact, it is equivalent to a 1.34 standard deviation), the results suggest that improving institutions from the Latin American average to that of the OECD countries would result in an increase in FDI by a factor of 2.8.

Three different sources for institutional data, in addition to those of Kaufmann, Kraay and Zoido-Lobatón

[20] See Appendix Table 18.1. Since the governance indicators are normalized to have a standard deviation of 1, their impact can be calculated as the exponential of the coefficient minus 1.

were used to check the robustness of these results.[21] Specifically, we used data on a variety of institutional dimensions from the International Country Risk Guide (ICRG), constructed on the basis of a poll of experts, an index of shareholders' rights developed by La Porta, López de Silanes and Shleifer (1998) and based on analysis of each country's laws and commercial codes, and data from the World Business Environment Survey focusing on major obstacles to the operation and growth of businesses.[22] While the results are not always as large quantitatively as those discussed above, the conclusion is exactly the same: institutions matter.

Implications and Policy Options

Discussion of policy options open to countries looking to attract FDI revolves around two strategies. The first is associated with the "beauty contest" approach. It involves improving the quality of national institutions, educating the labor force and developing infrastructure. The second entails aggressive use of fiscal and financial incentives to attract foreign investors. This is obviously a false dichotomy, as countries tend to follow a mixed strategy that combines both types of actions (see Box 18.1 for Costa Rica). Yet, organizing the discussion in terms of these polar strategies is useful for the purposes of presentation. The ultimate objective, of course, is not the maximization of FDI per se, but rather the maximization of society's welfare.

The "Beauty Contest"

One important difference between this strategy and aggressive incentives is that, regardless of how much FDI this approach attracts, the improvements it brings about will benefit society as a whole. In particular, domestic firms will clearly gain from improvements in infrastructure, education and the quality of the institutional environment. Empirical results suggest that, beyond these general benefits, improving the quality of institutions in particular has very significant potential to attract foreign investment. The results also suggest, however, that improving certain institutions matters more than improving others. The most promising policies in terms of attracting foreign investors are to reduce excessive regulation, enforce property rights, improve the quality of the bureaucracy, and reduce corruption. Other dimensions, such as independent news media or the ability of citizens to hold their leaders accountable, are clearly less of a concern to foreign investors.

On the other hand, the results regarding the effects of education and the quality of the infrastructure on the location of FDI are quite weak. This does not mean, however, that countries should not pursue these policies. Regardless of how effective they may or may not be in terms of attracting FDI, these policies may help maximize the societal benefits that can be derived from foreign investment.

Education of the labor force, for example, may have important effects on the benefits host countries derive from FDI through two different but related channels. First, educating the labor force may affect the *type* of FDI a host country receives.[23] Countries with an uneducated labor force will tend to attract foreign investment in mature industries that may come simply to exploit the availability of cheap labor. There are many reasons to expect the benefits of this type of investment to be smaller than those in more advanced industries, for which the availability of an educated labor force may be an important consideration. Knowledge spillovers are likely to be larger in more advanced industries. These firms tend to have a larger effect on the development of specialized suppliers, whose resulting better-quality products then become available to domestic firms as well. In addition, more advanced industries can generate positive feedback in the sense that when a foreign firm comes because the labor force is educated, it may play a role in fostering further education of the labor force. This has been the case with Intel in Costa Rica, where enrollment in engineering schools has doubled in only two years.

The second benefit is that, for a given type of investment, host countries may be better able to derive benefits from FDI if the labor force is educated. Regardless of the extent of potential knowledge spillovers, the ability to absorb knowledge, and to accumulate human capital through training, will depend on the existing stock of human capital. This effect is at the center of findings by Borensztein, De Gregorio and Lee (1998)

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[21] See Stein and Daude (2001).

[22] For a detailed description of the survey, see Lora, Cortes and Herrera (2001). A summary of the results is presented in Chapter 2 of this Report.

[23] Unfortunately, not enough quality and disaggregated data on this issue were available to explore this hypothesis.

Box 18.1 What Makes Costa Rica So Attractive to FDI?

Intel's decision to locate in Costa Rica—with an initial investment equivalent to 2.1 percent of the country's GDP—has called attention to the Central American nation's recent success in attracting high-tech foreign direct investment. There are several important lessons to learn regarding how a successful policy to attract FDI can be compatible with national development, maximizing the benefits from the presence of multinational enterprises to the host country.

What has made Costa Rica so attractive to foreign investors? Costa Rica does give tax exemptions to foreign or domestic firms through its Export Processing Zones (EPZ). But the government did not promise any special benefits to Intel or other foreign investors. Larrain, López-Calva and Rodríguez-Clare (2000) point out that such an approach involves less of a policy risk and in fact may have given the government more credibility than would have resulted from granting special fiscal benefits that could have resulted in unsustainable fiscal balances and doubts about the fairness of the rules of the game. Rosales, et al. (2000) find that Costa Rica has no comparative advantage in terms of fiscal incentives for FDI relative to its competitors. According to a 1999 survey of foreign investors, Costa Rica's principal strengths are perceived to be political stability, democratic government, good governance, and the quality of the labor force, as well as its relative proximity to the U.S. market. In the case of Intel, these factors seem to have played an important role. The country's institutional strengths seem to have offset the limited size of the local market as well as Mexico's advantage in terms of location (see Larrain, López-Calva and Rodríguez-Clare, 2000).

Does Costa Rica benefit from the presence of multinational enterprises? The direct effect of large amounts of FDI has been a substantial contribution to the short-run growth rate of the Costa Rican economy. Based on Central Bank data, Intel alone contributed 5 points of the 8 percent growth rate in 1999. Another macroeconomic effect has been a significant increase in exports, as well as the diversification in products and markets. From a fiscal point of view, the EPZ exemptions imply a fiscal cost. However, since the EPZ tax holidays are limited to 12 years, these effects will likely disappear over the long run. A major concern about Intel coming to Costa Rica was the possible effect on the price of certain inputs and wages. But the company's presence seems to have had a positive impact on the wages of skilled labor, particularly engineers, while the negative effect on domestic firms is seen as transitory and not very harmful. There has been a coordinated effort by the Ministry of Education, Intel and the Costa Rican Technology Institute to implement new educational programs, so an increase in the supply of skilled labor is expected over the medium term. Obviously, this process will benefit not only Intel but also domestic firms. And the connections between Intel and the Costa Rican Technology Institute, however incipient, may eventually help strengthen research and development links between businesses and national educational institutions. To date there is no evidence of informal knowledge spillovers related to the presence of high-tech enterprises in Costa Rica.

There has also been particular interest in backward linkages to domestic suppliers. According to Monge (2000), acquisitions of domestic inputs by firms in the Cartago EPZ in 1999 represented less than 10 percent of total inputs. These linkages have positive effects, since new inputs may become available, or the quality of existing inputs may improve substantially. Larrain, López-Calva and Rodríguez-Clare (2000) report that companies that compete with Intel in the input markets are already taking advantage of new and improved inputs. They would appear to consider the presence of Intel as highly positive for development of their own businesses. To further strengthen such positive effects of FDI, the government is implementing a program to support the development of suppliers for the high-tech sector. The program complements private initiatives by foreign companies to train input suppliers.

Recent bottlenecks regarding infrastructure, especially in the telecommunications and transportation (airports and ports) sectors have raised concerns among foreign investors and domestic authorities. The presence of high-tech enterprises clearly will prompt the need for more investment in infrastructure, an investment that will of course also benefit domestic firms.

It seems clear that Costa Rica's success in attracting FDI is related to its solid institutional environment, as well as to coordinated efforts to minimize the possible negative effects of such investments and to maximize the positive linkages and opportunities they provide.

that FDI has a positive effect on growth, provided that the host country has sufficiently high levels of human capital. The authors conclude that in order to benefit from the advanced technology introduced by foreign firms, the host country must have the capacity to absorb it.

Returning to the positive feedback issue discussed above, it is important to note that it has substantial political economy implications as well. A large foreign investor for which education is an important consideration will demand that the government improve the educational level of the labor force. The investor thus becomes a key constituent in favor of education. An investor that values the quality of infrastructure and the institutional environment will demand that the government develop infrastructure and undertake institutional reform. On the other hand, a foreign investor attracted to a country because of its cheap labor will likely demand that the government ensure the continuous availability of cheap labor, a scenario clearly less appealing as a development strategy.

If there is a downside to the beauty contest strategy, it is that improving the quality of the labor force, infrastructure and institutions is a long-term endeavor, the benefits of which may not be realized until long after the government that pursued this strategy has abandoned power. This long timeline from the perspective of short-term political considerations is precisely what makes the alternative strategy based on aggressive fiscal and financial incentives more appealing.

Competition in Incentives

While empirical results suggest that lower taxes on foreign corporations *do* have an effect on the location of FDI, these effects are much smaller than those associated with institutional quality. However, as in the previous discussion about the impact of an educated labor force, the key is not necessarily how much FDI comes into the host country, but rather the benefits the country derives from those investments.

The manner in which countries compete to attract FDI can affect who benefits from the foreign investment. It is clear that if there is heated competition between countries to provide incentives for FDI, the main beneficiaries of the investments will be the foreign investors themselves, since they will be able to extract most of the benefits that their investment has to offer. This is a key point because, as the discussion below will show, competition for FDI has heated up considerably in recent years. One striking example is in the automobile industry. Table 18.1 shows the escalation in cost of subsidies per worker for 14 FDI projects in the automobile sector in developed and developing countries from 1980-97.[24]

There are several reasons why the intensity of competition for FDI may have increased in recent years. One is the spectacular increase in the volume of FDI itself, which means that the stakes in the quest to attract FDI are now much higher. Another is the increased number of players in the game. Countries that used to discourage FDI, such as China, have become major players. Meanwhile, in other countries such as the United States and Brazil, subnational governments have become major players. The escalation of subsidies for FDI in the automobile sector shown in Table 18.1 for the most part resulted from competition among subnational governments within the same country, rather than competition among countries. Other factors that have intensified competition for FDI include reductions almost worldwide in trade barriers, and the appearance of new ways of conducting business such as e-commerce, which can provide similar services worldwide from any location.

To the extent that FDI produces positive spillovers, it makes sense for governments to offer incentives to potential investors to lure them to their countries. The problem is not one of efficiency—competing incentives help to direct investments toward locations where the social rates of return are highest. The problem is the distribution of the benefits. To the extent that social rates of return for an investment in different locations do not differ too much, foreign firms will be able to extract most of the benefits associated with the investment.[25]

Oman (2000a) reports evidence from business surveys and interviews with foreign investors that foreign firms often take a two-stage approach to deciding where to locate their large long-term investments. Competition in providing incentives only becomes relevant during the second stage of the decision process, after the firm has narrowed down the list of potential locations

[24] Taken from Oman (2000a).

[25] See Fernández-Arias, Hausmann and Stein (2001), who suggest that coordination among host countries to restrict competition would increase the benefits they derive from FDI.

Table 18.1 Investment Incentives in the Automobile Industry

Date of package	Country	Investor	Amount of subsidy[1] (US$)
1980	United States	Honda	4,000
Early 1980s	United States	Nissan	17,000
1984	United States	Mazda-Ford	14,000
Mid-1980s	United States	GM Saturn	27,000
Mid-1980s	United States	Mitsubishi-Chrysler	35,000
Mid-1980s	United States	Toyota	50,000
Mid-1980s	United States	Fuji-Isuzu	51,000
Early 1990s	United States	Mercedes-Benz	168,000
1992	Portugal	Ford-Volkswagen	265,000
1995	Brazil	Volkswagen	54,000-94,000
1996	Brazil	Renault	133,000
1996	Brazil	Mercedes-Benz	340,000
1997	Germany	Volkswagen	180,000
1997	India	Ford	200,000-420,000

[1] Estimated value of fiscal and financial incentives supplied by national and subnational governments to a particular investment project, divided by the number of jobs the project was expected directly to create.
Source: Taken from Oman (2000a.)

by looking primarily at "fundamentals" such as the quality of the institutional environment, political and macroeconomic stability, market access, availability of skilled workers, and the quality of infrastructure.

Other possible problems associated with incentive-based competition include temporary erosion of the tax base, particularly since the incentives typically are available to both foreign and domestic companies.[26] If it is costly for existing firms to qualify for the incentives, fiscal problems may be reduced, but the introduction of new incentives may put those firms at a disadvantage relative to new ones. In addition, since the negotiations are rarely transparent and open to public scrutiny, they could lead to arbitrariness and corruption.

Given the rules of the game, however, it is hard to imagine countries refraining from competition for FDI. In fact, even if foreign firms were to appropriate most of the externalities directly associated with their activities (such as knowledge externalities, training, development of suppliers, etc.), there remain other benefits of FDI that are less directly related to the productive activities of the firm. One is the positive feedback discussed above. Foreign investors can become a major constituent in favor of reform and tip the balance in that direction. Second, attracting a major investment may have a signaling effect, reducing the cost of marketing the location to other potential investors. Third, to the extent that there are economies of agglomeration, landing a large investment may make the location more attractive for other potential investors.[27]

In general, this discussion suggests that countries need to improve the fundamentals of education, infrastructure, institutions and stability in order to maximize the benefits they derive from the activities of foreign investors. There are no easy shortcuts to attracting FDI.

Or are there?

Export Platforms

Developing infrastructure, educating the labor force, dismantling trade barriers, easing regulation, and improving institutions represent a daunting task that may take prolonged efforts and produce slow results. One possible shortcut—not an alternative, per se, but rather a complement to these sustained efforts—is to establish export platforms such as Export Processing Zones (EPZs). If designed correctly, these platforms can serve as enclaves where the obstacles to business development in the rest of the country can be bypassed—or, in

[26] See Chapter 17 for a description of investment incentives in Latin American countries.

[27] In theory, in an environment of heated competition, a firm could even appropriate these externalities in the course of the negotiations.

other words, islands of good institutions and infrastructure in a country with bad fundamentals. Platforms clearly involve elements of both strategies to attract FDI: they can provide adequate infrastructure and reduce the bureaucratic burden, and at the same time they may offer tax incentives and reduced trade barriers, all factors which can contribute to making the country attractive to foreign investors.[28]

The evidence on the success of export platforms is mixed. Our analysis found no significant effect of export platforms on FDI or the growth of exports. Nor did EPZs have an effect in countries with weak institutions and infrastructure. The problem is that EPZs come in different shapes and forms, and while some have been enormously successful, others are tainted by corruption or excessive bureaucracy, and some have failed altogether. The data do not allow us to discriminate among different kinds of EPZs, which is probably the reason for the inconclusive results. Radelet (1999) argues emphatically, however, that no country has ever been able to rapidly expand manufacturing exports without an export platform.

Conclusions

Foreign direct investment has increased rapidly across the world in recent years, and Latin America has been no exception. However, different countries have had very different degrees of success in attracting foreign investors. This chapter studied what determines where FDI goes, with a particular emphasis on variables amenable to policy action by government. While competing for FDI by offering tax incentives can sometimes be effective in attracting investors, improving the quality of a country's institutions appears to have a much greater impact. Perhaps more importantly, competing by addressing such fundamental issues as educational and institutional development affects the *type* of FDI that comes into a country and the benefits the country derives from those investments. Countries should focus on the fundamentals that make them attractive to foreign investors: dismantling excessive regulation, enforcing property rights and the rule of law, improving the quality of the bureaucracy, reducing corruption, educating the labor force, and expanding infrastructure. Countries might also consider designing export platforms to complement these more long-term endeavors.

[28] See Radelet (1999) for a detailed discussion of export platforms.

Appendix Table 18.1 Determinants of FDI: Cross-Section Regression Results

Dependent variable: Bilateral FDI stock 1996 (log)

Independent variables	Reg. 1	Reg. 2	Reg. 3	Reg. 4	Reg. 5	Reg. 6	Reg. 7	Reg. 8
GDP (log)	0.917 (9.05)***	0.925 (8.66)***	0.959 (9.55)***	0.921 (10.31)***	1.156 (14.03)***	0.942 (9.16)***	0.967 (9.74)***	0.984 (9.90)***
Distance (log)	-0.61 (4.21)***	-0.587 (3.70)***	-0.556 (3.75)***	-0.598 (4.65)***	-0.619 (4.62)***	-0.582 (4.01)***	-0.554 (4.01)***	-0.511 (3.46)***
Common language dummy	1.338 (3.28)***	1.334 (3.24)***	1.284 (3.23)***	1.086 (2.94)***	1.113 (3.29)***	1.2 (3.09)***	1.122 (2.84)***	1.205 (2.97)***
Colonizer dummy	1.195 (2.48)**	1.225 (2.52)**	1.276 (2.68)**	1.282 (3.35)***	1.099 (3.00)***	1.277 (2.95)***	1.324 (3.18)***	1.35 (3.05)***
Adjacency dummy	0.903 (1.80)*	0.915 (1.83)*	0.937 (1.88)*	0.966 (2.13)**	1.013 (2.02)**	1.002 (2.04)**	1.015 (2.14)**	0.997 (2.05)**
Infrastructure index	1.055 (3.38)***	0.992 (2.70)***	0.55 (1.32)	-0.423 (0.94)	0.023 (0.06)	0.044 (0.08)	-0.089 (0.17)	0.082 (0.14)
Tax rate (%)	-3.541 (-1.48)	-3.69 (-1.49)	-4.095 (1.75)*	-4.682 (2.97)***	-3.542 (2.08)**	-4.675 (2.38)**	-4.362 (2.36)**	-4.633 (2.22)**
Higher education[1]	0.034 (2.86)***	0.031 (2.02)**	0.025 (2.07)**	0.008 (0.65)	0.001 (0.08)	0.016 (1.03)	0.005 (0.34)	0.008 (0.52)
Voice and accountability index			0.096 (0.38)					
Political instability index			0.449 (2.11)**					
Government effectiveness index				1.09 (5.20)***				
Regulatory burden index					1.549 (5.46)***			
Rule of law index						0.707 (2.48)**		
Corruption index							0.873 (3.28)***	
Quality of institutions index (average)								0.837 (2.61)**
No. of observations	846	846	846	846	846	846	846	846
R^2	0.69	0.69	0.69	0.72	0.72	0.7	0.71	0.7

Notes: t-statistics in parentheses.
[1] Percentage of persons older than 25 who have some tertiary education.
*** Significant at 1%.
** Significant at 5%.
* Significant at 10%.

Part VI References

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