Foreign Direct Investment and Poverty in Latin America

CESAR C. CALVO   MARCO A. HERNANDEZ

ABSTRACT

Most Latin American countries crafted market-friendly reforms during the 1990s. In particular, the political discourse often stressed the attraction of foreign direct investment (FDI) as a key component of the quest for development and particularly the fight against poverty. However, the precise link between FDI and poverty has been neglected by the literature, at least by that with an empirical focus on Latin America. We formulate a simple model, where capital is the limiting factor, and labor units are idle, in spite of well-functioning local factor markets. Poverty thus results from unemployment. Panel data from twenty Latin American countries support our view of capital shortage as a factor affecting poverty, and hence of FDI as a potential contributor to poverty reduction. Both domestic and foreign investment were found to be significant determinants of poverty changes. Importantly, the impact of FDI varies across countries, so that FDI reduces poverty only under certain circumstances, and fails in others.

Cesar Calvo
Department of Economics
University of Oxford
Wadham College
Oxford, OX1 3PN
cesar.calvo@economics.ox.ac.uk

Marco A. Hernandez
Department of Politics
University of Oxford
Jesus College
Oxford OX1 3DW
marco.hernandez@politics.ox.ac.uk

**Prepared to be delivered at the Globalisation and Economic Policy
Fifth Annual Postgraduate Conference**

Leverhulme Centre for Research on Globalisation and Economic Policy
University of Nottingham
April 21-22, 2006

FOREIGN DIRECT INVESTMENT AND POVERTY IN LATIN AMERICA

CESAR CALVO
MARCO A. HERNANDEZ
University of Oxford

Most Latin American countries crafted market-friendly reforms during the 1990s. In particular, the political discourse often stressed the attraction of foreign direct investment (FDI) as a key component of the quest for development and particularly the fight against poverty. However, the precise link between FDI and poverty has been neglected by the literature, at least by that with an empirical focus on Latin America. We formulate a simple model, where capital is the limiting factor, and labor units are idle, in spite of well-functioning local factor markets. Poverty thus results from unemployment. Panel data from twenty Latin American countries support our view of capital shortage as a factor affecting poverty, and hence of FDI as a potential contributor to poverty reduction. Both domestic and foreign investment were found to be significant determinants of poverty changes. Importantly, the impact of FDI varies across countries, so that FDI reduces poverty only under certain circumstances, and fails in others.

> *Foreign direct investment contributes toward financing sustained economic growth over the long term. It is especially important for its potential to transfer knowledge and technology, create jobs, boost overall productivity, enhance competitiveness and entrepreneurship, and ultimately eradicate poverty through economic growth and development* (Final Outcome, U.N. International Conference on Finance for Development, 2002).

The heads of government who gathered at the United Nations Monterrey Summit in 2002 concluded that foreign direct investment (FDI) ought to be considered as an ally in the effort to promote development and reduce poverty. Capital shortage, which leads to increased poverty in developing countries, has been frequently related to deficient, unstable financial markets that fail to accumulate and allocate resources efficiently, as Stiglitz (1998) and others have emphasized. The common belief that foreign capital can contribute to poverty reduction by making up for the shortfall has acted as justification for policy initiatives aimed at promoting FDI, and at strengthening its contribution to economic development. It is widely maintained that FDI has a significant impact on poverty reduction if only through the 'trickledown' effect of economic growth. Nevertheless, to our knowledge, no empirical study has verified and quantified this impact.

During the 1990s, an increasing optimism surrounded FDI. Besides its effect on capital formation, FDI was expected to improve productivity and accelerate technological change. It was also hoped that foreign investment projects would have important complementarities with local industries. Indeed such predictions were

supported by evidence which suggests that FDI has a positive effect on domestic firms' total factor productivity and on their propensity to export. However, this optimism is countered by many arguments, particularly the fear that FDI projects may create additional, lethal competition to the local industry.

Latin America during the 1990s provides a unique setting to test these beliefs, as most countries crafted FDI-promoting reforms. In the political arena, state leaders emphasized the attraction of FDI as a pivotal component for poverty reduction. Nevertheless, despite the substantial increase in FDI inflows, poverty remains a scourge for many in the region. In terms of the Millennium Development Goals (MDGs), Latin America lags behind most other regions.[1] The current prioritization of poverty reduction and the disappointing results from financial liberalization with regard to employment, have promoted a new interest in understanding the contribution of FDI to development.

Scholars studying FDI in Latin American countries have produced a stimulating and well-established literature. However, many of these works have left implicit the role of FDI in poverty reduction. In this paper, we narrow our focus down to the factors that influence *the impact of FDI on the income of the poor*. Consequently, we conduct an empirical test of the effect of FDI on poverty reduction, *rather than just considering its growth-enhancing effect*.

The link between FDI and poverty reduction is complex, and does not boil down to the combination of the 'average' effects of FDI on GDP growth and the 'average' effects of growth on poverty. This two-stage framework is used elsewhere, but it is clear that it can miss the specificity of FDI poverty-reducing effects. For instance, by creating jobs (perhaps low-paid if they demand unskilled workers), an FDI-project may improve the opportunities for the poor and reduce poverty, even though its impact on country-wide, average output may not be significant.

Unlike the available literature, we prefer to focus directly on the effect of FDI on poverty, as opposed to first exploring its impact on GDP, and then turning to the effect of GDP on poverty. The mechanisms whereby FDI reduces poverty would remain obscure otherwise. The assumption that poverty always reacts to GDP growth in the same manner, regardless of the specific drivers of such growth, clouds our view of the economic forces in place. We thus allow FDI to relate to poverty in its own particular way. When we reach our empirical findings, we shall see that furthermore, this relationship is itself far from 'uniform', and varies across countries.

In sum, this paper attempts to (1) provide a critical survey of the contested theories on the effects of FDI on local firms, and (2) test the direct (i.e. not necessarily growth-mediated) impact of FDI on poverty reduction in Latin America. We proceed in five steps. First, we further motivate our study by examining the evolution of poverty in Latin America during the 1990s, when FDI boomed. Second, we provide a theoretical framework and discussion of the linkages between FDI and poverty, in addition to reviewing the main empirical findings on the FDI-Growth and Growth-Poverty links. Third, we lay down our simple model and our empirical strategy, and discuss the data sources. Fourth, we present our main findings. Finally, we draw some conclusions.

---

[1] East Asia has already met the target (reducing extreme poverty by half), while South Asia (excluding India) is close to achieving it. However, half way through the time period from 1990 to 2015, and it seems that Latin America is likely to fail to reach the MDGs, unless some dramatic change occurs.

POVERTY, UNEMPLOYMENT, AND FDI
IN LATIN AMERICA

Poverty and Unemployment

Economic restructuring in Latin America arose from the inability of previous development strategies to deliver results. By the end of the 1980s, governments were hampered with fiscal imbalances and inefficient bureaucracies, while state-owned enterprises proved to be inefficient in the absence of competition. The search for solutions promoted a decrease in government intervention and a greater emphasis on fostering economic development through market forces. A renewed objective resulted in the reduction of distortions towards market liberalization, privatization, mergers and acquisitions, and FDI-promoting policies.

With regard to poverty, the results are not particularly positive. The 1990s only witnessed a slight reduction of the headcount of poverty: while 28.4% of Latin Americans were poor in 1990, the figure had fallen to 24.5% by 2001 (Chen and Ravallion, 2004). This limited progress is similar to the average reduction in the developing world, where the headcount also diminished by approximately 13% (from 60.8% to 52.9%). Nonetheless, living conditions for those remaining poor in Latin America failed to improve, as their daily income only increased during the first half of the decade, and fell thereafter. By the end of the decade, it finally settled around its initial average of $1.26 per day.

In the same period, GDP per capita rose by 13.7%. Like the average income of the poor, GDP growth also seemed to run out of steam halfway through the decade. Between 1997 and 2001, accumulated growth was as low as 0.6%. However, *the region is far from uniform*, and the link between GDP and poverty might seem less clear when one considers individual countries. Table 1 reports country-level figures for the end of the decade. For instance, Bolivia's poverty figures decreased during the first part of the decade, and grew steadily in the second half. Paraguay's poverty figures remained initially stagnant, and fell into a drastic recession spell from 1995 onwards. Likewise, poverty headcounts followed heterogeneous patterns: whereas it decreased from 38.6% to 20.6% in Chile, it rose from 39.8% to 49.4% in Venezuela.

At least to some extent, the link between poverty and GDP growth is mediated by unemployment rates. Many of the poor in the region blame their income shortfall on their joblessness, and furthermore, they consider that unemployment causes the loss of human and social capital, as well as psychological stress. The well-known World Bank study entitled *Voices of the Poor* documents these perceptions. In Brazilian *favelas*, for example, violence is understood as a consequence of unemployment: "Today they kill for any little thing, anything results in death. This happens because there are no jobs or occupation that produces income" (World Bank, 1999).

Table 1: *Poverty and Inequality in 15 Latin American Countries*

Country	Year	Headcount	Pov. Gap	%Urban	Gini
Honduras	1999	79.7	59.5	40.7	0.564
Nicaragua	1998	69.9	56.4	57.9	0.584
Bolivia	1999	60.6	55.4	50.5	0.586
Paraguay	1999	60.6	49.8	43.2	0.565
Guatemala	1998	60.5	48.3	30.1	0.582
Colombia	1999	54.9	46.6	56.8	0.572
El Salvador	1999	49.8	46.0	45.0	0.518
Venezuela	1999	49.4	46.0	78.5	0.498
Peru	1999	48.6	42.4	48.8	0.545
Mexico	2000	41.1	38.4	47.7	0.542
Brazil	1999	37.5	45.3	69.7	0.640
Dominican Republic	1997	37.2	41.1	55.4	0.517
Panama	1999	30.2	39.1	61.5	0.557
Chile	2000	20.6	34.5	84.4	0.559
Costa Rica	1999	20.3	39.9	42.5	0.473
Latin America	1999	43.8	-	-	-

Source: Economic Commission for Latin America (2002).

During the 1990s, in order to smooth the operation of the labor market, create employment and increase relative wages, liberalization, privatization, and other structural reforms were implemented across the region. However, despite these measures, unemployment rates in Latin America have risen in recent times (Lora 2003).[2] Moreover, it has been argued that in addition to an increase in unemployment during the 1990s, working conditions have deteriorated (Narayan and Petesch, 2002).[3]

Table 2 shows the evolution of unemployment rates. During the 1980s, the annual average of unemployment stood at 8.6%. Between 1990-1995, this figure dropped slightly (8.4%), and increased again between 1996-2000 to 9%. This is consistent with the evolution of the income of the poor, and of global GDP. However, it should be noted that averages overlook high heterogeneity across countries. In Brazil, for example, unemployment exhibited a three-fold rise during the 1990s. In contrast, unemployment in Mexico decreased by 30%.

---

[2] Likewise, there is evidence suggesting that wages may drop initially with liberalization and that some groups may suffer significant income losses (see Edwards, 1988).
[3] It seems clear that employment has not clearly followed the rate of economic growth. During the period 1990-1997, GDP growth in the region was approximately 4%, while the employment rate grew by 2%. Again, great heterogeneity arises at country-level comparisons. For instance, the Caribbean Basin traditionally has been characterized by having higher unemployment levels than the rest of the region. As for the reduction in unemployment rates between 1990 and 2001, there is a high variability for those countries where data is available.

Table 2: *Unemployment in Latin America, 1980-2002 (Percentage of Total Labor Force)*

Country	1980/9	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bolivia	10.0	7.3	5.9	5.5	6	3.1	3.6	3.8	3.7	..	7.2	7.4	5.2	..
Brazil	3.6	3.7	..	6.5	6.2	..	6.1	7	7.8	9	9.6	..	9.4	..
Chile	11.0	5.7	5.3	4.4	4.5	5.9	4.7	5.4	5.3	7.2	8.9	8.3	7.9	7.8
Colombia	10.8	10.2	9.8	9.2	7.8	7.6	8.7	12	12.1	15	20.1	20.5	14.7	17.9
Costa Rica	6.6	4.6	5.5	4.1	4.1	4.2	5.2	6.2	5.7	5.6	6	5.2	6.1	6.4
Dom. Republic	..	..	19.7	20.3	19.9	16	15.8	16.3	15.6	16	13.8	14.2	15.6	..
Ecuador	7.4	6.1	5.8	8.9	8.3	7.1	6.9	10.4	9.2	11.5	14	9	11	..
El Salvador	11.1	10	7.5	7.9	9.9	7.7	7.7	7.7	8	7.3	7	7	7	6.2
Guatemala	1.9	3.9	3.2	..	..	0.8	..	..	..	1.9	..	..	..	3.1
Honduras	10.3	4.8	4.6	3.1	5.6	2.8	3.2	4.3	3.2	3.9	3.7	..	4.2	3.8
Jamaica	23.8	15.7	15.7	15.4	16.3	15.4	16.2	16	..	..	15.7	..	..	..
Mexico	2.5	..	3	3.1	3.2	4.2	5.8	4.3	3.4	2.9	2.1	2.2	2.1	2.4
Nicaragua	5.6	11.1	14	14.4	23.3	18.6	16.9	14.9	13.3	13.3	10.9	9.8	11.2	..
Panama	11.9	..	16.2	14.7	13.3	14	14	14.3	13.4	13.6	11.8	13.3	13.7	13.2
Paraguay	5.9	6.6	5.1	5.3	5.1	4.4	3.4	8.2	..	5.4	6.8	..	..	..
Peru	6.0	8.6	5.8	9.4	9.9	8.9	7	7	7.7	7.8	8	7.4	7.9	8.7
Venezuela	9.3	10.4	9.5	7.7	6.7	8.7	10.3	11.8	11.4	11.2	14.9	13.2	12.8	..
Latin America	8.6	7.6	8.5	8.8	9.6	8.0	8.3	9.2	8.3	8.6	9.7	9.5	8.9	7.7

Source: World Development Indicators

Foreign Direct Investment

During the 1990s, liberalization and privatization have paved the way for a massive arrival of FDI. Between 1990 and 2001, accumulated inflows added up to US$ 632 billion, accounting for 41% of total FDI funds directed to developing countries. By 2001, FDI made up approximately 19% of gross domestic investment in the region.

The worldwide picture exhibits a rising trend. FDI net flows increased from a yearly average of US$ 275 billion during 1990-1997 to US$ 1,530 billion in 2000.[4] The increase in FDI flows recognizes the increasing importance placed on capital inflows by developing nations. Between 1990 and 2001, most of the FDI flows in developing countries were concentrated in Asia and Latin America.[5] Table 3 compares FDI inflows by regions.

Table 3: *Worldwide Regional Distribution of FDI Net Inflows, 1990-2001 (Billions of US$)*

	1990-97	1998	1999	2000	2001
Worldwide Total	**275**	**713**	**1,113**	**1,530**	**800**
Developed Countries	**170**	**474**	**837**	**1,229**	**553**
Developing Countries	**87**	**186**	**220**	**238**	**202**
Latin America	**32**	**83**	**107**	**98**	**88**
Africa	5	8	11	7	16
Asia and the Pacific	50	96	102	134	99
China	25	44	39	38	44
Eastern Europe	8	24	26	27	25

Source: Economic Commission for Latin America and the Caribbean (2004)

---

[4] China received FDI inflows of US$44 billion in 2001, leading all other recipients in developing countries.

[5] Despite the aggregate increase in FDI flows during this period, capital flows were directed to a small number of recipient countries including China, Brazil, Singapore, Indonesia, Mexico, Malaysia, and Argentina (IDB, 2001).

With respect to the decomposition of foreign investment by sector at the turn of the century, the UNCTAD finds that global FDI flows have increasingly leant towards services. Services accounted for 60% of all FDI flows in 2002, compared to 50% in 1990. Manufacturing, on the other hand, accounted for 34%, while the primary sector accounted for only 6% (UNCTAD, 2004). This trend correlates with the growth of regional headquarters and information technology services, which have become increasingly widespread in developing countries.

By and large, the same trends apply to Latin America. What is particularly noticeable is that the trajectory of FDI inflows in the region has been remarkably volatile. From 1990 to the boom in 1999, FDI inflows increased by 234%. The situation was reversed in 2001 as FDI inflows decreased by 18% (relative to 1999). In addition to the currency crises, the ECLAC (2004) considers the cause to be the failure to attract new higher 'quality' investments (whereby they imply higher technology manufactures, and research and development centers). During the 1990s, most FDI activity in Latin America was realized through Greenfield investment, organic expansion, privatizations, and M&A. However, there is a high degree of heterogeneity across the region in the orientation of FDI. In Argentina and Brazil, for example, FDI mostly involved the purchase of existing assets (privatizations and M&A), whereas in Mexico, FDI tended to be concentrated in new capacity, mainly in the export-oriented manufacturing sector (Voducek, 2001).

FDI inflows in South America have been higher relative to those in Mexico and the Caribbean, but also more volatile. By comparing the annual averages between 1990-1995 and 1996-2000, we see that FDI inflows increased by almost 400% (from US$ 11 to US$ 53 billion). This figure then fell dramatically to US$ 24 billion in 2002. On the other hand, in Mexico and the Caribbean, annual averages of FDI inflows doubled between 1990-1995 and 1996-2000 (from US$ 8 to US$ 17 billion), and further increased by 13% in 2002 (ECLAC, 2004).[6]

Again, we find *significant heterogeneity within the region*. Figures for 2002 clearly distinguish between countries with substantial increases in FDI inflows, and countries with sharp decreases. Among those showing an increment in FDI we find Trinidad and Tobago, El Salvador, Chile, Brazil, Mexico and Colombia. In contrast, Venezuela and Panama exhibited the opposite trend.

Patterns of corporate ownership throughout the region have been heavily influenced by the accelerating pace of FDI. Calderon (2001) finds that foreign ownership of Latin America's largest corporations rose markedly during the 1990s. By the end of the decade, 230 of the largest 500 companies were foreign, accounting for 43% of total sales for this group. With respect to the origin countries, most inflows to Latin America come from the United States (52%) and Europe (36%).[7] By sector of activity, the most important ones include motor vehicles (27%), telecom (15%), and oil and gas (10%). Moreover, the principal countries where top multinational corporations operated in 2002 include (in descending order): Mexico, Brazil, Argentina, Chile, Colombia, Venezuela and Peru (ECLAC, 2004).

---

[6] Table A-1 in the Appendix provides a regional overview of the net inflows of FDI to Latin America for the period 1990-2002.

[7] It is worth noting that between 1995 and 2000, the share of European countries increased notably (Voducek, 2001).

In sum, FDI inflows to Latin American countries have increased during the past decades, but they are highly concentrated as for their origin and exhibit great volatility over time. Moreover, there is great heterogeneity across countries. This diversity cannot be overlooked as we shortly turn to our econometric analysis – even though the behavior of 'total' FDI will be at the center of our work, we will bear in mind that FDI does not have the same effects always and everywhere.

To motivate this point further, we take the auto industry in Brazil as an example of variation *over time*. Cassiolato et al (2000) finds that cooperation between foreign and domestic firms gradually increased between the late 1980s and the mid 1990s, after the Brazilian government provided incentives to offset high start-up costs, as well as the centripetal forces of the Sao Paulo metropolitan area. The situation changed, however, as a result of the liberalization of the mid-1990s. First, a significant increase in the market share of foreign firms led to the disappearance of the largest domestic firms. As a result, the local vertical supply chain had weak mechanisms for technology transfers – the role of subsidiaries of both producers and input suppliers became simply to manufacture according to the specifications required, i.e. vertical cooperation became scarce (Vargas, 2001).

FOREIGN DIRECT INVESTMENT
AND POVERTY REDUCTION

Both FDI and poverty have motivated vast amounts of theoretical and empirical work. However, these streams of research have developed independently, with little effort to bring to the forefront any direct link between FDI and poverty. While some recent efforts to bridge this gap do exist (Jalilian and Weiss, 2001; Nunnenkamp, 2004), the need for further research is all too clear. In this section, we bring together some of the elements relevant to our main query.

While little has been written about the effect of FDI on *the income of the poor*, the literature has paid significant attention to the impact on *average, country-wide income,* as measured by GDP per capita. The main arguments may be classified as relating to (1) the expansion of the capital stock, (2) forward and backward linkages, and (3) knowledge transfers. We analyze each in turn in the next three subsections, with an explicit effort to discern their implications for poverty analysis. Channels distinct from these are considered separately later. We close this section with a review of the empirical findings on the FDI-growth, and growth-poverty links.

Expansion of the Capital Stock

Economic underdevelopment is often envisaged as a consequence of capital shortage. Such is for instance the spirit of the tradition inspired by Solow (1956), where growth follows from increases in the capital stock. The same view underlies more recent models where growth is supported by the expansion and mobilization of savings through the development of the financial system. From this point of view, FDI is in the first place an accelerator of economic growth, since it supplements domestic capital formation (as in Jalilian and Kirkpatrick, 2002).

As far as poverty is concerned, this effect of FDI acquires greatest relevance when the expansion of the capital stock translates into the appearance of new job opportunities (Aitken et al 1996; Rodriguez-Clare 1996; Kokko 1998). If the poor remain as such due to (involuntary) unemployment, then the arrival of new potential employers is certainly promising.[8] If the poor are instead committed to small and medium size enterprises, most typically peasant work in their own plots of land, then benefits arise through business-to-business interaction with the newly established firm.

The poor may also benefit from increased tax revenues, so long as additional government expenditure is directed to education, health services, and other forms of social spending. This channel is particularly important when national income rises significantly.

The literature points out that FDI inflows cannot be directly taken as increases in the local capital stock because there might be crowding-out effects at work (Markusen and Venables, 1999). FDI often comes by the way of M&A of existing firms. In fact, this was particularly the case in Latin America during the privatization processes of the 1990s (see previous section). Moreover, if newly-arrived inflows are returned abroad through the purchase of foreign assets (i.e. overseas savings and external debt repayments), the net effect on the local capital stock might be negligible (Markusen and Thomas, 2000).

Crowding-out effects may also operate through market mechanisms, as domestic firms may lose their market shares to new foreign firms. Markusen and Venables (1999) refer to this as the 'competition effect'. While this effect is less of a threat in the case of export-oriented FDI, its strength cannot be ignored when foreign firms supply the local market with services or non-tradable goods.[9] In addition to a competition effect, FDI also has linkage effects through intermediate-good producers (benefiting domestic final-good producers). If in the initial equilibrium there is no local production, then FDI can enhance local production for both intermediate and final-good producers.

From the point of view of the poor, the competition effect will be especially harmful if small (probably informal) businesses are among those withdrawing from the local markets. A further caveat relates to the labor intensity of foreign-owned projects – if FDI firms hire fewer workers than the domestic firms which they displace, there may actually be a negative impact on unemployment and poverty. Blomstrom and Kokko (1996) provide an empirical survey of the effect of FDI on the host country, and conclude that its impact on employment varies significantly across industries and countries. Moreover, Borenzstein et al (1998) argue that FDI will contribute more to growth and employment relative to domestic investment only when there is some threshold stock of human capital.

---

[8] In a world with market clearance, Findlay (1978) argues that the interaction between foreign and domestic investment enhances the productive capacity of local firms, but that the spillovers will depend on the differences between the two countries with regard to the degree of complexity of the technology transferred. According to Findlay, these positive externalities will improve growth potential in the host economy and consequently lead to increased employment.

[9] On the other hand, competition between MNEs and domestic firms may induce domestic firms to improve their export performance. Blomstrom and Person (1983) find that foreign corporations can increase the export competitiveness of local firms and help them enter the world markets by providing links to external buyers.

It cannot be overlooked that the poor, like all other consumers in the economy, benefit from falls in consumption prices. If foreign firms attain their position in local markets through price competition, then the poor will benefit (except of course for those losing their jobs). This channel however needs FDI to target production of goods in the consumption bundle of the poor.

Since partial effects are diverse and conflict with each other, the overall effect of FDI inflows on the capital stock remains an empirical question. We may expect it to be finally positive, but it might be significantly below the magnitude of the initial inflows. The following sections expand on the linkages that condition the study of the impact of FDI on poverty.

Forward and Backward Linkages

The case for FDI grows stronger when its linkages with the local economy are considered. The fact that new investments can potentially trigger positive, market-based side-effects has been formalized with models by Krugman (1991) and Matsuyama (1991). These models bring to the forefront the consequences of *increasing returns to scale*. Earlier seminal writings include Rosenstein-Rodan (1943) and Hirschmann (1981). Markusen and Venables (1999) provide an explicit application to the case of FDI.

Increasing returns to scale imply that perfectly competitive markets cannot operate. It is a commonplace in the development literature that coordination failures and other forms of poverty traps may result. The positive impact of FDI via an increase in the capital stock can thus be very significant, by releasing the economy, or clusters thereof, from their low-equilibrium traps. In practice, linkages can work either *backwards,* i.e. by means of an increase in the demand for intermediate goods whose production will expand and enhance efficiency through scale economies, or *forwards*. In this second case, foreign firms can provide domestic firms with cheaper inputs (and thus allow them to expand and exploit scale economies), or they can ultimately supply local consumers at lower prices.

With regard to poverty reduction, backward linkages (i.e. link between MNEs and local suppliers) are more important as an increase in FDI leads to an expansion in the local production of intermediate goods, and this may raise the productivity of domestic firms as well as wage rates. Therefore, the effect of FDI cannot be fully analyzed without reference to the economic sectors with which it interacts, particularly taking into consideration that the assumption of perfectly competitive markets in developing economies generally does not hold. The traditional view sees that the 'position in the production chain' is a crucial determinant of the occurrence of backward linkages. In the primary sector, for example, production processes are typically continuous and capital intensive, with limited scope for linkages between MNEs and local suppliers. The opposite applies to manufacturing and service sectors.

Strong evidence of backward linkages exists. In India, they include technical, financial and managerial channels (Lall, 1980). Lim and Eng (1982) provide similar findings in the electronic sector in Singapore, including price reductions. On the other hand, much has been written about foreign firms acting as '*enclaves*' in Latin America,

i.e. isolated spheres with little interaction with the national economy (see Thorp and Bertram, 1978).

As Markusen and Venables (1999) point out, a welfare loss will occur if FDI projects create smaller backward linkages than domestic firms, since the latter are then displaced by the competition effect. However, if multinationals export their output, then total welfare increases. Likewise, welfare gains occur when multinational entry acts as a catalyst for the development of local industry.

Knowledge Transfers

The transfer of knowledge (know-how) is a further, strongly emphasized, point in the FDI literature. It is expected that FDI will cause technology spillovers to take place through a number of direct and indirect channels, such as imitation by domestic firms, training of local workers, management skills, and enhanced social and environmental standards. Growth would thus speed up, *not as a consequence of a greater capital stock, but by virtue of technological development*. This is in keeping with the spirit of the 'new economic growth theories'.[10] In the context of a political discourse strongly tinted with concerns about globalization and 'second-mover' disadvantages, the attractiveness of this argument is clear enough.[11]

Knowledge spillovers may occur through the provision of machinery to suppliers, technical support, inspection, cost-reduction activities, and the introduction of new practices (e.g. financial, marketing). The extent of the technology transfer depends on the size of the MNEs and whether they are export-oriented. This observation is particularly important to the study of FDI in poor countries, since *potential suppliers might lack the minimum knowledge base needed to absorb new technologies*.

A number of empirical studies support the idea that foreign firms outperform their local competitors, and scope for productivity spillovers does exist. FDI has been found to help increase manufactured exports in the region, through efficiency-seeking strategies of multinationals, particularly in Mexico and the Caribbean (ECLAC, 2004). However, contrary views are not lacking. In the case of Latin America, Aitken and Harrison (1999) use data from Venezuela and conclude that spillovers are negligible, and that the productivity of local firms may even be hampered by the presence of foreign actors. Again, 'enclave' patterns can explain this result, at least to some extent.

Advanced technology typically requires skilled labor. This is crucial when our interest narrows down from overall productivity effects to the poor in particular. In fact, the 'skill-bias' is an accepted characteristic of FDI, such that unskilled workers might miss out in the distribution of the aggregate benefits. Empirically, wages paid by FDI firms are found to be about 20% higher than the average among local firms, with skills acting as the natural explanation for the gap (Lensink and Morrissey 2004). In the same vein, Nunnenkamp (2004) argues that countries with greater education and institutional development (i.e. the less poor) might benefit more from FDI than others.

---

[10] New growth theories treat capital as at least partly endogenous. In general, capital includes investments in knowledge, research and development of products, and human capital. Instead of assuming that the marginal product of capital is diminishing as in neoclassical models, new growth theories assume it to be constant.

[11] For an economic discussion of the dangers, see Rodrik (1997).

To an extent, a risk exists that the greater the technological component of overall FDI contributions to the domestic economy, the further such contributions might drift away from the poor. On the other hand, consumption prices can counterbalance this bias. We come across one more ambiguous channel calling for empirical answers.

Other Channels

The literature has contemplated other, less direct, channels whereby FDI could affect the poor. For instance, FDI is expected to raise labor standards, if only due to legislation in their origin countries, or pressures from anti-globalization groups (Martin and Maskus, 1999). Jacobson (1998) argues that NGOs have played an important role in monitoring the behavior of global corporations and their subcontractors in East Asia. Thus, (poor) employees of FDI firms would deem themselves fortunate to be hired by them. Moreover, higher labor standards may also spread to other domestic firms.

A similar argument can be applied in the case of environmental standards, since it would seem that a significant relation can be established between the living conditions of the poor and the quality of the environment. The *Voices of the Poor* study finds that inadequate water supply and pollution are frequently mentioned as relevant hazards. Gunnar and Harrison (1997) analyze the impact of FDI on the environment in developing countries and find that foreign firms are usually more energy-efficient that their domestic counterparts.[12]

Finally, Klein et al (2004) argue that social programs may benefit from the management expertise of foreign firms (and their local knowledge, if they settle in a rather isolated region, beyond the reach of the state). In fact, examples exist of foreign firms successfully running social development projects around their production sites.

In sum, our review so far suggests a number of questions determining the impact of FDI on the livelihoods of the poor: Is FDI effectively increasing the capital stock? How labor intensive are the sectors expanding by virtue of the backward and forward linkages? Do the poor benefit as consumers? Is there a skill-bias, such that unskilled workers are neglected by foreign firms? The literature indicates that FDI plays an important role in economic development. However, the suggestion that total investment promotes poverty reduction does not necessarily suggest that FDI has the same effect on poverty.

Empirical Effect of FDI on Growth, and of Growth on Poverty

A remark by Nunnenkamp (2004) may prove a convenient starting point: an abysmal difference exists between the amounts of domestic savings and FDI. Even if each unit of FDI had a strong effect on growth, its scale remains confined to a secondary stage. There is not much scope to doubt that the former remains the driving force of capital accumulation and development. By 2001, at its highest point, FDI accounted for only 19% of gross domestic investment in Latin America. Furthermore, when we turn to the empirical strength of the overall marginal ('unit-wise') impact FDI on growth, we come

---

[12] On a similar argument, Grossman and Krueger (1994) find no evidence that environmentally quality deteriorates with economic growth.

to disputable conclusions. While most studies do show a significant effect (e.g. Barrel and Pain 1997, Sun 1998), others report less encouraging findings (e.g. Graham 1995). Of course, the existence of conflicting results about the overall effect on growth is no surprise, since we have seen that there are several counteracting effects.[13]

Further insights come from the interaction between FDI inflows and some other country characteristics. In particular, Borenztein et al (1998) conclude that growth rises more noticeably when the country is endowed with a sizeable supply of skilled labor. While enlightening, this finding is but a confirmation that unskilled workers may not partake in FDI-led growth.

Having laid down the arguments about the effect of FDI on growth, we hereafter work under the assumption that such an effect is in fact positive. An expanding empirical literature exists on the *growth*-elasticity of poverty (e.g. Ravallion and Datt, 2002; Balisacan and Fuwa, 2004). It is self-explanatory that the behavior of the income distribution is important here and that we should take it into account, especially with regard to Latin America (see Table 1). Our question must refer to the conditions ensuring that FDI-led growth is in fact pro-poor growth, to use the term in Dollar and Kraay (2001).

As put by Ravallion (2002), a look beyond the averages is crucial. Even if poverty tends to decrease as the economy grows, it will decrease more dramatically in some cases, meanwhile less so in others or sometimes even not at all. We need to discern when each case arises, and how it relates to FDI. For instance, Ravallion and Datt (2002) find that the poor in India are more likely to prosper along with the rest of the economy if literacy rates are high, child mortality is low, farm productivity is high, and landlessness is not widespread.[14]

While the issue remains largely unexplored in Latin America, similar results can be expected. These results simply bring our attention back to afore-mentioned points. For the poor to take advantage of macroeconomic growth spells, education, skills and high productivity are needed, as well as land ownership and favorable terms of trade. These conditions will enable the poor to defend and preserve their businesses (mostly rural farms, in the studies at hand) at the same time as FDI firms expand locally.

With this theoretical framework in mind, in addition to the empirical overview of poverty, unemployment and FDI in Latin America, the following sections move on to develop our empirical strategy and findings.

METHODOLOGY

Model and Empirical Strategy

If poverty is related to joblessness, then the effect of FDI on poverty will come through the labor market, and in particular through job creation. By addressing the causes of unemployment, particularly with respect to those which hinder unskilled workers, FDI

---

[13] Certainly, estimations are pervaded by endogeneity problems, as FDI could also be seen as a consequence as opposed to a cause of growth.

[14] With the data from the Philippines, Balisacan and Fuwa (2004) add agricultural terms of trade and irrigation coverage as further conditions.

is able to improve the opportunities for the poor. This is the framework we adopt in this paper, and we motivate it with the following, admittedly simplistic, model. For the sake of the argument, we imagine a world where capital is the limiting factor, and labor units are idle, in spite of well-functioning local factor markets. Poverty will result from unemployment. In other words, from all the channels above, we focus principally on the effect through capital expansion.

Firms are owned by either domestic or foreign investors. In the first case, let $Q_D=Min(L_D/v_D, K_D)$, where Q, L, and K are output, labor and capital units, respectively; $v_D>0$ measures the relative intensity of labor usage. Among foreign firms, $Q_F=Min(L_F/v_F, K_F)$. All three factors are available in fixed supplies, $\underline{L}$, $\underline{K_D}$, and $\underline{K_F}$.

Labor demand functions are determined by $L_j=v_j\underline{K_j}$, where $j=D,F$. We assume parameters and endowments are such that $v_D\underline{K_D}+v_F\underline{K_F}<\underline{L}$. Consequently, excess supply obtains in the labor market, and wage rates fall to zero. This will be representative for low wages.

We may think of the poor as those failing to secure a job. In that case, the headcount of poor individuals (H) will be determined by the unemployment rate n. In this economy, $n=(v_D\underline{K_D}+v_F\underline{K_F})/\underline{L}$. Let lower-case letters stand for per capita levels, such that $k_j=K_j/\underline{L}$. Looking ahead to our empirical estimations, we can write

$$H_t = c + c_1 k_{D,t} + c_2 k_{F,t} + e_t \tag{1}$$

where $c_1=v_D$ and $c_2=v_F$.[15] Likewise, we may let the poverty gap act as the dependent (LHS) variable in (1). Labor earnings are the only source of income for the poor, and wage rates are determined by the labor demand.

In this prosaic model, any difference in the relative usage of labor will translate into a statistically significant difference between c_1 and c_2. For instance, if foreign firms locate in capital-intensive industries, then $c_1>c_2$, i.e. an increase in domestic capital will reduce poverty more noticeably. Needless to say, various other mechanisms may underlie c_1 and c_2.

In keeping with most of the empirical literature, our final model extends (1) and includes controls for recent experiences of hyperinflation (yearly inflation above 40%), the volatility of the real exchange rate (as measured by a rolling standard deviation), and the structure of the economy, through the GDP shares of industry and agriculture. We also control for fixed effects. For instance, such unobservable characteristics may refer to labor market regulations.

The use of a poverty lagged dependent variable had to be discarded due to lack of data. Instead, we use lagged variables to instrument both foreign and domestic capital stocks, including lagged per capita GDP, its square and country risk indices.[16] We use two-year lags, as well as a two-year dummy for hyperinflation.

---

[15] Of course, some of the poor may have a job, albeit for a very low wage rate. Likewise, some of the non-poor may be unemployed, or may profit from a hidden, informal income source.
[16] Risk indices for: government stability, socioeconomic conditions, external conflict, internal conflict, corruption, military intervention in politics, bureaucratic capacity, religion in politics, law and order, ethnic tensions, political violence, civil war threat, and party development.

Data Sources

We set up a panel data set, with information on 20 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Dominican Republic, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela. The data is primarily constrained by the availability of poverty indices, which are the World Bank's two-dollar-a-day figures. Data on macro variables were extracted from the World Development Indicators (WDI), the Penn World Tables (PWT), and the IMF's International Financial Statistics.

The infrequency of data on poverty confined us to an unbalanced panel, with notorious discontinuity for each country. However, we find no reason to expect any non-random pattern in the allocation of the missing data points. We thus expect the panel to allow us to account for heterogeneities among countries (Hsiao, 1986).

The time dimension was further constrained by the availability of indices of country risk. These were used as instruments, and proceed from the International Country Risk Guide (ICRG), for the 1984-1998 period. Inward data on FDI stocks were obtained from UNCTAD World Investment Report 2005. Domestic capital stock data were obtained both from Hofman (2000) and gross capital formation figures.

EMPIRICAL RESULTS

The benefits of FDI are not automatic, since a number of conflicting effects occur. For instance, they vary according to the strategies pursued by multinational firms and initial local conditions. This will prove relevant in the analysis of the trajectories of FDI inflows to Latin America.

Table 4 reports our results for equation (1), with both the headcount and the poverty gap as dependent variables. Both the stocks of foreign and domestic capital have a negative impact on poverty, but magnitudes differ noticeably.[17] Given our linear-log specification, this is only natural due to the greater domestic share in total capital stocks – on average, foreign stocks sum up to only 15.4% of domestic stocks. Should domestic capital double, the poverty headcount would fall by 25.7 percentage points. On the other hand, should foreign capital double, the poverty headcount would decline by 5.3 percentage points. Thus, accounting for the difference in absolute magnitudes of these two forms of capital, it is foreign stocks which cause a greater *marginal* reduction in poverty, i.e. per additional *unit* of capital.

All other signs are as expected. Recent experiences of hyperinflation are significantly related to greater poverty. An increase in exchange rate volatility has no significant effect on poverty measures (but the sign is always positive). Poverty is also lower where a greater share of GDP is produced in the industrial sector.[18]

---

[17] Again due to the small sample size, the Hausman test for the need to instrument these capital stocks was unavailable.

[18] Country fixed effects are everywhere significant. The Hausman test was unavailable due to the small sample size.

To explore heterogeneities, Table 5 allows the effect of foreign capital to vary across countries. First, by turning to regional groupings (as in the IADB classification), we find that it is in the Andean countries (Bolivia, Colombia, Ecuador and Peru) where the effect of FDI is greatest. In the Mercosur group and the Central American & Caribbean region, the effect is in fact not statistically significant.

Further insights can be drawn from Table 5. We find that empirical evidence *does not necessarily support the common view that by increasing the 'potential' to attract FDI inflows, more resources would be available in the fight against poverty*, so that poverty reductions would come about. Here, we use the UNCTAD indices to classify countries into two groups of high and low FDI potential. We find that, the latter group exhibits a stronger and significant relation between FDI and poverty reductions. Among high potential countries, however, the effect is not statistically different from zero.

Table 4

	P. Headcount	P. Gap
Log Foreign Capital Stock (IV)	-5.319**	-3.202**
	(2.82)	(1.563)
Log Domestic Capital Stock (IV)	-25.699**	-14.277*
	(14.75)	(8.176)
Hyperinflation Dummy	26.599**	13.336**
	(10.14)	(5.62)
Volatility of Exchange Rate	118.586	45.052
	(136.51)	(75.66)
Industrial Value Added (%GDP)	-0.943**	-.530**
	(0.33)	(0.186)
Agricultural Value Added (% GDP)	-.427	-.245
	(0.66)	(0.36)
Constant	119.537**	65.177**
	(32.91)	(18.24)
F-test on fixed effects	9.25**	8.63**
Wald χ^2	900.10**	542.81**
Number of Observations	99	99

Notes: *t*-stats are shown in parentheses. *, **, ***: significant at 10%, 5%, and 1% significance levels, respectively.

Naturally, the question arises as to what explains these differences in poverty effects across Latin |American countries. It is self-evident that FDI is not homogenous in the region. Loosely speaking, the 'quality' of foreign investment was greater in the Andean countries, as well as in those where paradoxically, FDI potential was *low*, as measured by the standard macroeconomic criteria (see above). In other words, these criteria miss part of the story, if by 'quality' we refer to the capability of investment projects to create jobs and contribute to poverty alleviation. Needless to say, this interpretation calls for an analysis of the pro-investment policies in place in the region – an analysis which remains a subject for future study.

Table 5

	P. Headcount	P. Gap	P. Headcount	P. Gap
Log K_F (Mercosur)	-1.996	0.959	-	-
	(6.91)	(3.98)		
Log K_F (Andes)	-7.402**	-5.189**	-	-
	(3.83)	(2.21)		
Log K_F (Caribbean)	0.522	0.635	-	-
	(7.81)	(4.50)		
Log K_F (Low potential)	-	-	-5.181**	-3.794**
			(3.207)	(1.85)
Log K_F (High potential)	-	-	-5.777	-1.234
			(5.777)	(3.34)
Log Domestic Capital Stock	-41.426**	-26.066**	-25.322**	-15.896**
	(23.26)	(13.42)	(15.35)	(8.870)
Hyperinflation Dummy	33.677**	19.303**	26.309**	14.581**
	(13.12)	(7.57)	(10.65)	(6.15)
Volatility of Exchange Rate	207.549	131.784	113.518	66.815
	(179.09)	(103.32)	(147.71)	(85.34)
Industrial Value Added (%GDP)	-1.027**	-0.571**	-0.940**	-0.541**
	(0.39)	(0.22)	(0.337)	(0.19)
Agricultural Value Added (% GDP)	-0.572	-0.352	-0.416	-0.293
	(0.723)	(0.42)	(0.67)	(0.387)
Constant	117.250**	61.794**	119.672**	64.596**
	(35.88)	(20.70)	(33.01)	(19.07)
F-Test	7.08**	6.16**	8.64**	7.47**
Wald χ^2	779.65**	435.58**	896.33**	497.92**
Number of Observations	99	99	99	99

Notes: *t*-stats are shown in parentheses. *, **, ***: significant at 10%, 5%, and 1% significance levels, respectively.

We can turn to our review in Section 3, where some conditions were identified as to when FDI may benefit the poor most noticeably. For instance, some points to explore are the degree of skill-bias in labor hirings, the particular local industries which foreign projects are linked to, as well as the markets that they cater. Any or all of these can explain differences in FDI 'quality'. Again, further empirical research is needed.

CONCLUSIONS

The purpose of this study is to assess the impact of FDI on poverty reduction and to generate empirical evidence from Latin America. Previous research has suggested that FDI plays a key role in GDP growth by increasing capital formation, improving productivity, and fomenting technical change, even though some studies have also argued to the contrary. It is surprising that this debate has overlooked the poor as potential winners or losers of the arrival of foreign capital.

We formulate a simple model to guide our empirical investigation, where capital is the limiting factor, and labor units are idle, in spite of well-functioning local factor markets. Poverty thus results from unemployment. Panel data from 20 Latin American countries support our view of capital shortage as a factor affecting poverty, and hence of FDI as a potential contributor to poverty reduction. Both domestic and foreign investments were found to be significant determinants of poverty changes.

Importantly, *the impact of FDI varies across country groups*. Thus, it follows that FDI reduces poverty only under certain circumstances, and fails elsewhere. The natural question for further research relates to the conditions whereby the desired impact can be achieved. The literature suggests a number of possible answers – labor intensity, strength linkages with the local economy, knowledge transfers, among others.

FDI is often seen as a strategic complement to local activities. Nevertheless, as far as poverty reduction is concerned, a qualification is required. Policies designed to attract FDI to the host countries do not guarantee a maximization of the economic benefits derived from the presence of multinational enterprises (MNEs) – general policies aimed at enhancing the fundamentals so as to absorb spillovers (i.e. education, training) are also necessary.

Further work should include a firm-level analysis for a more focused, micro-empirical analysis of how *specific sources* of foreign investment and sectoral policies can be set up as effective mechanisms for achieving poverty reduction in developing countries. The ECLAC has already emphasized that improving the 'quality' of FDI remains an outstanding challenge for Latin American countries. We believe that research along the lines that we suggest will prove useful in this task.

REFERENCES

1. Aitken, Brian, and Ann Harrison (1999), *Do Domestic Firms Benefit from Foreign Direct Investment?*, *The American Economic Review*. 89(3): 605-618.
2. Aitken, Brian, Ann Harrison, and Robert E. Lipsey (1996), *Wages and Foreign Ownership: A comparative Study of Mexico, Venezuela, and the United States*, *Journal of International Economics*. 40: 345-371.
3. Barrel, Ray, and Nigel Pain (1997), *Foreign Direct Investment, Technological Change, and Economic Growth within Europe*, *The Economic Journal*. 107: 1770-1786.
4. Blomstrom, Magnus, and Ari Kokko (1996), *The Impact of Foreign Investment on Host Countries: A Review of the Empirical Evidence*, *Policy Research Working Paper 1745*. Washington DC: World Bank.
5. Borenzstein, Eduardo, Jose De Gregorio, and Jong-Wha Lee (1998), *How does Foreign Direct Investment Affect Economic Growth?, Journal of International Economics*. 45: 115-135.
6. Chen, Shaohua and Martin Ravallion (2004), "How Have the World's Poorest Fared since the Early 1980s?", *World Bank Research Observer*, 19(2), 141-169.
7. De Ferranti, David, Guillermo Perry, Francisco Ferreira, and Michael Walton (2003), *Inequality in Latin America & the Caribbean: Breaking with History?*, Regional Studies, World Bank.
8. De Ferranti, David, Guillermo Perry, William Foster, Daniel Lederman, and Alberto Valdés (2005), *Beyond the City: The Rural Contribution to Development*, The World Bank.
9. Dollar, David, and Aart Kraay (2000), *Growth Is Good for the Poor*, Development Research Group, World Bank.

10. Dollar, David, and Aart Kraay (2000), *Growth is Good for the Poor*, Development Research Group, Washington, D.C, World Bank.
11. Dunning, John (1993), *The Prospects for Foreign Direct Investment in Eastern Europe*.
12. Economic Commission for Latin America and the Caribbean – ECLAC (2004), *Foreign Investment in Latin America and the Caribbean*, Final Outcome, 2004.
13. Economic Commission for Latin America and the Caribbean (ECLAC), 2002, *Panorama Social de América Latina, 2001-2002*.
14. Edwards, Sebastian. (1993). *Openness, Trade Liberalization, and Growth in Developing Countries*, J. Econ. Lit., 31:3, pp. 1358–93.
15. Fishlow, A. (1990), *The Latin American State,* Journal of Economic Perspectives, 1990.
16. Graham, Edward H. (1995). *Foreign Direct Investment in the World Economy*, *IMF Working Paper WP/95/59.* Washington, D.C, International Monetary Fund.
17. Graham, Edward, and ErikaWada (2000), *Foreign Direct Investment in Mexico. The World Economy*. 20(6): 777-797.
18. Hirschman, Albert, 1981, *Essays in Trespassing: Economics to Politics and Beyond*, Cambridge: Cambridge University Press, Ch. 4.
19. Jacobson, Marc (1998), *Alleviating Poverty Through Foreign Direct Investment: Company Case Studies (Nike and Levi Strauss),* Paper prepared for High Level Roundtable on *FDI and its Impact on Poverty Alleviation*, December, 1998.
20. Jalilian, H. and C. Kirkpatrick (2002), *Financial development and poverty reduction in developing countries,* International Journal of Finance & Economics, 2002.
21. Jalilian, H. and J. Weiss (2001), *Foreign Direct Investment and Poverty in the ASEAN Region*, Final Report of the First Gapresearch Sub-Project, 2001.
22. Klein, M., Carl Aaron, and Bita Hadjimichael (2001), *Foreign Direct Investment and Poverty Reduction*, OECD Global Forum on International Investment, Mexico City, 26-27 November 2001.
23. Kokko, Ari (1996), *Productivity Spillovers from Competition Between Local Firms and Foreign Affiliates*, *Journal of International Development* 8(4): 517-530.
24. Krugman, Paul, 1991, "History versus Expectations", in *Quarterly Journal of Economics*, Vol. 106, pp. 651-667.
25. Lall, Sanjaya (1980), *Vertical Interfirm Linkages in LDCs: An Empirical Study*, *Oxford Bulletin of Economics and Statistics*. 42: 203-226.
26. Lipton, Michael, and Martin Ravallion (1995), "Poverty and Policy", in *Handbook of Development Economics (3B)*, (Jere Behrman and T. Srinavasan, Eds.): Elsevier, pp. 2551-2657.
27. Markusen, James R., and Anthony Venables (1999), *Foreign Direct Investment as a Catalyst for Industrial Development*, *European Economic Review*. 43: 335-356.
28. Markusen, James R., Thomas F. Rutherford, and David Tarr (2000), *Foreign Direct Investments in Services and the Domestic Market for Expertise*, *Policy Research Working Paper 2413*. Washington DC: World Bank.
29. Martin, Will, and Keith E. Maskus (1999), *Core Labor Standards and Competitiveness*, Washington, DC: World Bank. Mimeo.

30. Matsuyama, Kiminori, 1991, "Increasing Returns, Industrialization, and Indeterminacy of Equilibrium", in *Quarterly Journal of Economics*, Vol. 106, pp. 617-650.
31. Narayan, D. and P. Petesh (2002), *From many lands,* Voices of the Poor Series, Oxford: Oxford University Press, 2002.
32. Nunnenkamp P. (2004), *To what extent can foreign direct investment help achieve international development goals?,* The World Economy, 2004.
33. Ravallion, Martin (2001), *Growth, Inequality and Poverty: Looking Beyond the Averages*, Development Research Group, World Bank.
34. Ravallion, Martin, and Shaohua Chen (2000), *How Did theWorld's Poorest Fare in the 1990s?*, Development Research Group, World Bank.
35. Rodriguez-Clare, Andres (1996), *Multinationals, Linkages and Economic Development. American Economic Review*. 86(4): 852-873.
36. Romer, D. (1996), *Advanced Macroeconomics*, McGraw Hill, New York, 1996.
37. Rosenstein-Rodan, Paul, 1943, "Problems of Industrialization of Eastern and South-Eastern Europe", in *Economic Journal*, Vol. 53, pp. 202-211.
38. Sen, Amartya (1966), "Peasants and Dualism with or without Surplus Labour", in *Journal of Political Economy*, 74(5), pp. 425-450.
39. Solow, R. (1956), *A contribution to the theory of economic growth,* Quarterly Journal of Economics, 1956.
40. Stiglitz, Joseph E. (1998), *More Instruments and Broader Goals: Moving Toward the Post-Washington Consensus, The 1998 WIDER Annual Lecture*, Helsinki, Finland, January 7, 1998.
41. Sun, Haishun (1998), *Macro-economic Impact of Direct Foreign Investment in China: 1979-96*.
42. Thorp, R. and G. Bertram (1978), *Peru, 1890-1977: growth and policy in an open economy,* The Mac-Millan Press, London, 1978.
43. UNCTAD (2004), Development Report 2004, United Nations Conference on Trade and Development, Geneva, 2004.
44. Voducek, Ziga (2001), *Foreign Direct Investment in Latin America*, Inter-American Development Bank, Washington, 2001.
45. World Bank (1999), Consultations with the Poor. National Synthesis Reports (Argentina, Bolivia, Brazil, Ecuador, Jamaica), Informal publications series prepared for Global Synthesis Workshop: Consultations with the Poor, Poverty Group, PREM, Washington, DC.

APPENDIX

Table A-1

FDI Net Inflows to Latin America, 1990-2002 (Millions of US$ Dollars)

	1990-95	**1996-00**	**2001**	**2002**
South America	**10,684**	**53,174**	**38,566**	**27,421**
Mercosur	**1,499**	**5,667**	**4,200**	**2,550**
Chile	5,923	36,760	24,979	17,867
Argentina	3,457	11,561	2,166	1,093
Brazil	2,229	24,824	22,457	16,590
Paraguay	99	188	84	9
Uruguay	138	187	271	174
Andean Community	**3,262**	**10,747**	**9,388**	**7,004**
Bolivia	137	780	705	677
Colombia	843	3,081	2,525	2,115
Ecuador	328	692	1,330	1,275
Peru	1,094	2,000	1,144	2,156
Venezuela	861	4,192	3,683	782
Mexico and Caribbean Basin	**7,628**	**17,421**	**32,229**	**19,621**
Mexico	**6,113**	**12,873**	**27,635**	**15,129**
Central America	**634**	**2,340**	**1,932**	**1,700**
Costa Rica	241	495	454	662
El Salvador	19	310	279	470
Guatemala	86	244	456	111
Honduras	43	166	190	176
Nicaragua	47	229	150	204
Panama	197	897	405	78
Caribbean	**882**	**2,208**	**2,662**	**2,792**
Jamaica	128	350	614	481
Dominican Republic	211	702	1,079	917
Trinidad and Tobago	275	682	835	791
Other	267	475	134	603
Latin America	**18,312**	**70,595**	**70,796**	**47,042**

Source: Economic Commission for Latin America and the Caribbean (2004)

Figure A-1

Decomposition of FDI by County of Origin and Sector of Activity, 2003 (Percentages)
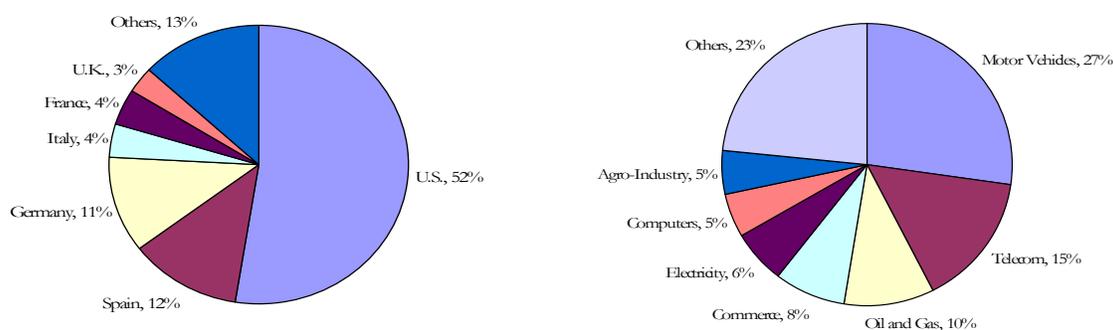
Source: ECLAC (2004). Based on countries of origin and sector of activity of the Top 50 multinational corporations by consolidated sales in the region.