Foreign Direct Investment, Income Inequality and Poverty

Experiences and Policy Implications

Edited by
Dirk Willem te Velde

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Acknowledgements

Biographies

Mr Watipaso Mkandawire is Coordinator of the Regional Investment Agency Unit within the COMESA Secretariat. Mr Mkandawire, a holder of a Masters of Philosophy Degree in Economics from the University of Glasgow, was the Chief Executive of the Malawi Investment Promotion Agency before moving to the World Bank as Malawi Country Economist. He later joined the Multilateral Investment Guarantee Agency (MIGA) and worked as the Regional Advisory for Eastern Africa for MIGA Promote Africa. In June 2001, he moved to COMESA to start up the Regional Investment agency Unit, which will eventually become an autonomous COMESA institution with a mandate to promote COMESA as an investment destination.

Mr Michael Mortimore is Chief of the Unit on Investment and Corporate Strategies, United Nations Economic Commission for Latin America and the Caribbean. The unit produces the annual report on *Foreign Investment in Latin America and the Caribbean*. From August 2001 to September 2002, Mr. Mortimore worked for UNCTAD in Geneva, contributing to the thematic section ('TNCs and export competitiveness') of the *World Investment Report 2002*.

Dr Dirk Willem te Velde is a Research Fellow in the International Economic Development Group at the Overseas Development Institute in London. He holds a PhD from Birkbeck College, University of London. His work includes publications on trade and investment policy, and on the impact of foreign direct investment on development and labour markets in particular.

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FDI, Income Inequality and Poverty: Experiences and Policy Implications

Dirk Willem te Velde

The central theme of this book is Foreign Direct Investment and Development, including impacts on income inequality and poverty. The relationship between FDI and development remains hotly debated: proponents argue that FDI is much needed in poorer countries to increase technological growth and to finance development needs; opponents argue that FDI leads to a race to the bottom on social and environmental accounts. The debate is far from settled and this volume is one step in clarifying the impact of FDI on development, covering areas such as income inequality and poverty. The strength of this book is that it combines three different research approaches but with very similar policy implications backed up by new evidence. The chapters advocate an active policy stance towards FDI, one which accounts for how FDI fits in with development strategies of the country. This is more likely to produce a greater developmental impact and has greater potential to reduce income inequality and poverty.

This introduction deals with the chapters in this book in the debate on FDI and development from three angles:

- *New research directions.* Researchers are approaching FDI and development from different angles. There is an increasing demand for an understanding of how FDI relates to development, both in the micro and macro environment. What are developments in this area?
- *Research methods.* Researchers use different approaches to assess the impact of FDI on development. What are they? And what are the positive and negative sides?
- *Policy implications.* The main interest of policy-makers in this area is to understand the policy lessons from new research findings. Several types of policies affect FDI and development: unilateral policies by FDI sending and receiving countries, international policies, and voluntary codes of conduct.

1.1 Research directions on FDI and development

There are various research directions in the area of FDI and development.

Capital flows
One strand of thought that has existed for at least half a century regards FDI as an important component in international capital flows to developing countries. Researchers regarded FDI and other international capital flows as a useful means of closing the savings gap in developing countries (e.g. Chenery and Bruno, 1962). It was suggested that capital should flow from developed to developing countries, because capital is scarce in developing countries, leading to profitable investment opportunities. We would expect capital to flow from capital rich to capital poor countries, following the Heckscher-Ohlin approach to trade by Mundell (1957). However, FDI represents control of production as well as a flow of capital, and it may well be influenced by other factors as well. In the traditional trade

approach, trade and FDI might be seen as substitutes, but as other factors affect FDI (such as technology and firm-specific assets) they may also be complements (Markusen, 1983 and 1995).

FDI is seen by many countries as a major factor in financing current account deficits and alleviating balance of payment crises. This view was particularly influential in Latin American countries which, after the debt crisis in the 1980s, began to regard FDI (and any other capital inflows) as a useful means of alleviating balance of payments problems.

Beyond studying balance of payments implications of FDI, capital flow macro-economists examine the volatility of capital flows. Various IMF reports have suggested that FDI is a more stable source of external capital (or less volatile) than portfolio or bank lending. Proponents would point at the experience of the Asian crisis, when bank lending and portfolio to East Asia collapsed and reversed, whereas FDI flows to the region were relatively stable. However, more recently, researchers have begun to question whether FDI is still stable, observing that certain components of FDI, such as dividends and earnings, are volatile, and that FDI is increasingly hedged (Griffith-Jones and Ffrench-Davis, 2004).

Investment and production

Investment or production approaches have been developed by international business scholars. International business studies have had a long tradition of studying multinationals, using an eclectic paradigm for FDI, the Ownership-Location-Internalisation (OLI) framework (e.g. Dunning, 1993). Authors such as Caves (1974) and Dunning (1977) have emphasised that multinationals need to have some firm-specific asset that differentiates them from domestic firms to compensate for the extra costs in terms of local knowledge that a foreign firm must incur to operate in foreign markets. The firm-specific asset is called an ownership (O) advantage. Multinationals should also have an internalisation (I) advantage to internalise business contacts, and not to outsource. The reason why a multinational invests in one country but not in another depends on the country's locational advantage (L). The effects of inward and outward FDI on the host and home country economy can be analysed in an adapted eclectic paradigm, or OLI framework. The OLI framework explains FDI on the basis of ownership-specific advantages of the firm, internationalisation incentives and locational advantages. Dunning, using an integrated OLI framework, argues that the effects of FDI are likely to depend on the strategy (market-seeking, efficiency-seeking, resources-seeking or strategic asset-seeking) and distinctiveness of the TNC (transnational corporation), the characteristics of the home and host countries, including policies, and the ability of local firms to assimilate and deploy the TNC's assets and to maintain competitiveness.

Unlike the 'capital flow' approach to FDI, the production approach is concerned with how FDI fits in with the national production structures, or the real side of the economy, whereas less attention is paid to the financial side of FDI. Several East Asian countries, such as Singapore, have successfully attempted to attract FDI into those activities that would help upgrade the national economy (Lall, 1996; te Velde, 2003a).

Labour, social, environmental and distributional consequences of FDI

With the rapid increase in FDI around the world (though some countries received more than others in absolute volumes) came the increasing realisation that FDI could affect social and environmental conditions in a country, beyond macro-economic conditions such as balance of payments and economic growth. Even though this is normally not the main aim, countries are encouraged by international institutions to attract FDI to address social concerns such as alleviating poverty. Two differing approaches are being employed:

- *Direct correlation between FDI and social and environmental indicators.* Researchers have estimated equations derived from economic theory, such as through the functioning of labour and product markets (te Velde and Morrissey, 2004) or they use direct correlations, implicitly (case study evidence) or explicitly (regression analysis), at macro and at micro level.
- *Traditional and new corporate social responsibility.* Traditional CSR included charitable giving by foreign companies. However, the last five years have seen an increased interest in so-called new CSR, which tries to map activities inside a company onto development-related issues, such as poverty. Researchers (and in many cases companies themselves) are increasingly thinking about their activities throughout the whole of the company including its core activities onto development priorities (Warner *et al.*, 2002).

Examining the development impact beyond economic growth is a new area of research. It has only recently begun to emerge as a new and serious research approach.

This book includes papers stemming from the production approach (Mortimore) as well as the latter approach on the social consequences in case study and econometric studies (te Velde, Mkandawire).

1.2   FDI and development: research methods

Several research methods have been used to assess the impact of FDI on development.

Econometric studies

There are both macro and micro-econometric studies of the effects of FDI or foreign ownership on conventional measures such as growth, productivity and wages. Most macro and meso studies find a positive and significant correlation between FDI and GDP per capita or productivity. It is often not clear in such studies whether productivity increases at the macro level are driven by spillovers to and learning effects in local firms, or only because of a composition effect. There are both multi-country studies (Borensztein *et al.*, 1998) and single country studies (Barrell and te Velde, 2000 for East Germany) regarding FDI as one of the factors of economic growth. The theoretical foundation for this is based on endogenous growth theory (Moran, 2001). Only a few studies correlate FDI directly with poverty (Jalilian and Weiss, 2001).

Micro-econometric studies can account for the composition effect testing whether local firms can improve their productivity or wages as a result of foreign presence and whether wages and productivity differ between local and foreign firms (te Velde and Morrissey, 2003 for five African countries). Spillover studies are usually confined to the manufacturing industry and normally do not elaborate significantly on transmission mechanisms of spillovers. A recent example includes Lipsey and Sjoholm (2002) on Indonesian manufacturing.

An advantage of this method is that it provides statistical evidence on FDI and development that can account for several variables other than FDI. The disadvantage is that it is not always clear how such effects come about.

Cost-benefit analyses

Cost-benefit analyses are usually micro in nature, examining the costs and benefits to the local economy of an investment. This approach was fashionable in the 1970s (e.g. Lall and Streeten, 1977 and discussion in Moran, 1998), when investment agencies were screening investment for impacts before approval. Having said this, the IDA Ireland still uses cost-benefit analysis to assess to what extent incentives for FDI are needed. Haskel *et al.* (2002)

combine cost-benefit with econometric analysis to analyse the economics of incentives. It is also possible to use an extended range of indicators in cost-benefit analyses.

General equilibrium approaches

There have been various attempts to model the effects of FDI on factor rewards in general equilibrium models. This usually follows standard models such as Hechscher-Ohlin models to predict what happens to wage rates if there is a capital outflow (Caves, 1996; Mundell, 1957). The last decade has also seen the development of computable general equilibrium models that include estimated equations which incorporate the effects of FDI.

Qualitative case study approaches

Finally, there are qualitative approaches which can account for more information, including development-related indicators, but information which is more difficult to measure. These are often impressions of developments of FDI and development-related indicators over a time period. One of the few well documented examples is the Intel investment in Costa Rica (Spar, 1998; Larrain *et al.*, 2000; Rodriquez-Clare, 2001) but there are not many such examples. Qualitative approaches can go beyond individual companies and can deal with sectors or countries.

This book will deal with econometric (te Velde) as well as case study evidence (Mkandawire and Mortimore) on FDI and development.

1.3   Policy and the interface between FDI and development

There are different types of policies affecting the interface between FDI and development:

- Host country policies (human resource development and infrastructure, industrial policy, incentives and other FDI policy, etc.), see e.g. te Velde (2003a).
- Home country policies (outward investment missions, investment guarantees, bilateral investment funds), see e.g. te Velde (2003b) for the UK.
- International policies (multilateral, regional and bilateral investment treaties; international voluntary codes of conduct), see e.g. UNCTAD (1996, 2003).

All subsequent chapters in this book examine the role of host-country policies in affecting the developmental impact of FDI. However, as approaches and methods to FDI and development differ, so do approaches and methods examining the impact of policy:

- Examining national development performance of FDI before and after introduction of a policy, accounting for other factors (Mkandawire in this book).
- Examining the same type of FDI in different policy settings, e.g. two different regions in a country, or two similar countries with different policies (Mortimore).
- Examining all FDI across several countries with different policy settings (te Velde).

1.4   Overview of this book, conclusions and policy implications

While the literature of FDI and development has included the above approaches, the chapters by Mkandawire, Mortimore and te Velde provide new contributions to an understanding of how policy affects the interface between FDI and development. For instance, there are very few case studies that describe FDI in low-income countries such as Uganda and Zambia as in Mkandawire; few studies have tried to isolate the impact of TNC strategies on development (from other factors such as age, sector, mode of entry), especially

in Latin America (Mortimore); and so far studies have not examined the impact of FDI on social development indicators, such as wage inequality in South America, and then linked the results of these regressions with how policies might have affected this link between FDI and wage inequality. Put differently, this book explores new research directions in the area of FDI and development by examining known effects but for new countries (Chapter 4, Mkandawire), new effects for known countries (Chapter 2, te Velde), new ways in which TNC strategies affect development (Chapter 3, Mortimore), and effects of policy (Chapters 2, 3 and 4). Chapter 5 concludes.

te Velde examines the impact of FDI on wage inequality in Latin America. He argues that wage inequality is the main driver of income inequality. On various measures, wage inequality has not decreased as might have been expected given an increase in the relative supply of educated workers. After a brief discussion of the FDI in Latin America, he then uses regression analysis derived from theories that relate labour markets and FDI, showing that FDI did not have an inequality-reducing effect in most Latin American countries (as might be expected on the basis of traditional trade theory). There are possible exceptions, such as Colombia, but even here FDI may still have played a relatively minor role in reducing inequality. On the contrary, there are indications that in countries such as Bolivia and Chile FDI may have increased wage inequality. While this does not imply that FDI was or was not good for development and poverty reduction in these countries, it does imply that most of the gains of FDI have benefited skilled and educated workers. FDI tends to raise wages in both types of labour, although for Bolivia the results suggested that FDI lowered wages of less-skilled workers more than wages of skilled workers. A brief review of case study evidence on the basis of individual foreign owned companies confirmed that foreign ownership was likely to be associated with rising wage inequality in the static sense.

He then uses a supply and demand equilibrium framework to show how government and business policies might have affected the link between FDI and wage inequality. Latin America countries have not been successful in providing good quality and appropriate education and training. Aiming good quality human resource development at the lower end of the labour market segment would also have a positive impact on the way in which FDI affects inequality. Foreign businesses have introduced pay, training, and industrial relations systems that are often likely to lead to a positive relation between FDI and wage inequality, for instance when they encourage an individualisation of the industrial relations. There are areas in which both a business and development case can be made for improving the social impact of FDI, and hence where coordination is required to realise win-win situations. These include: training, health, supplier development and infrastructure. The main conclusion of the chapter is that while FDI may have been good for development, more can be done to improve its impact on income distribution and the poor in Latin America, either through appropriate government policies in the area of education, training and infrastructure (general development policy), or through working directly with TNCs through incentives or partnerships.

Mortimore provides an account of the production/investment approach of FDI and development, i.e. stating that spillover studies are not sufficient because they do not explain *how* spillovers occur and strategies of TNCs are critical drivers of the way in which FDI affects development. Describing one dominant TNC strategy in the manufacturing sector, the efficiency-seeking one, he then argues that in the absence of a development strategy the benefits of this category of FDI tend to accrue primarily to the investing TNCs, not the host countries. The case of Costa Rica indicates that an active FDI policy that targeted the TNCs employing efficiency-seeking FDI strategies deemed most coherent and coincident with the host country development strategy produced far better results than a 'the more, the better' FDI policy, such as that which was common until recently in Mexico and still persists in most of the Caribbean basin.

Argentina and Brazil provide two polar cases with regard to FDI and TNC impacts in relation to the market-seeking (services) FDI strategy of TNC in Latin America and the Caribbean. Mortimore argued that the existence of a sectoral development strategy on the part of host country authorities and their responsibility in liberalising telecommunications and banking sectors are important in defining development impacts. Argentina implemented a 'the more, the better' FDI policy with disastrous results. Brazil did much better with a more focused and careful liberalisation process in which the quantity of FDI was not the principal priority. The more appropriate FDI policy was an active one in terms of understanding the corporate strategies of the TNCs demonstrating interest in the sale of local assets (state or private sector) in order to establish the best contingent investment requirements in association with regulatory and competition authorities.

Focusing on TNC strategies and host-country policies alone abstracts from other factors that may play a crucial role in the area of FDI and development, such as sector, mode of entry, size, age and nationality of firm, host country economic conditions, and others. To gain insight into how such factors might be related to how FDI affects development, one usually resorts to single country case studies. Mkandawire uses the case study approach to examine the impact of FDI on development in two least developed countries: Uganda and Zambia. He argues that FDI is important in least developed countries (such as Uganda and Zambia) which have low domestic savings, high dependence on development aid and weak local financial institutions. FDI supplements the low savings and brings in technical expertise and access to foreign markets. For countries going through privatisation, foreign direct investment brings in the needed capital that would pay for the assets and increase productivity of the privatised assets. He finds that FDI in Uganda increased over the 1990s and GDP growth rates were significant in the same period. Poverty decreased, but inequality increased somewhat. Mkandawire suggests that this might be because significant investment went to the manufacturing and services sectors, and not agriculture, which would have helped the lowest end of the distribution. Hence, while FDI may have reduced poverty in Uganda, it may also have increased inequality. The Zambian economy developed much less well, and it is suggested on the basis of case study evidence that FDI may have contributed to 'damage control', i.e. without FDI poverty rates would have been higher.

He then argues that governments need to implement polices that will influence the inflow of FDI to sectors that can generate large externalities. This would significantly contribute to poverty reduction and reduction in income inequality. Agriculture in Zambia and Uganda has the potential to generate large externalities. For example, Uganda has a good climate for growing a number of agriculture products (e.g. cotton, cassava, ginger, coffee etc.). They could create a competitive advantage in these industries by ensuring that the country has the physical and soft infrastructure, human and financial capital, and markets to add value to these products for export and domestic use. Building competitiveness requires the government to institute policies and direct budgetary resources to programmes that will assist in achieving such a goal. Governments also need to get the fundamentals right, while directing the budgetary support to the right sectors and creating 'smart partnerships' between large foreign investors and small and medium enterprises.

The last point about linkage creation is emphasised by providing evidence to suggest that FDI in the two countries could have achieved more if the environment was favourable. For instance, local sourcing by a foreign hotel was held back because there were no support programmes that could help local firms become more competitive and help local forms supply good quality products and services. Mkandawire concludes by listing several other policy areas that can help governments reap benefits from FDI: creation of linkages with the local economy; good macro-economic management and stability; export orientation; use of government budget to finance poverty-related programmes.

It is interesting that, despite the different approaches, some common observations can be generated.

- Several approaches have emerged to assess the link between FDI and development, with both advantages and disadvantages: regression approaches show basic effects, but often need to use other approaches to discuss why such effects take place (e.g. te Velde uses general equilibrium models to assess effects of policy); production approaches focusing on TNC strategies offer a clear hypothesis as to why effects take place, but abstract from other potentially important factors; case studies can take more factors into account, but they cannot always offer a firm basis for linking one single factor (e.g. FDI) with another (poverty, growth or inequality). It is not possible to say which approach is superior, so it has been insightful to present these differing approaches in one book.

- Regardless of the approach used, and backed up by new evidence, all authors stress the need for an active policy stance towards FDI and development. All researchers argued several appropriate policies to improve the developmental impact of FDI:
  o Provision of good quality and appropriate education and training. This needs a consistent government approach with adequate public-private interaction, as in Costa Rica.
  o Promotion of linkages between foreign and local firms. This needs attention to capabilities of local firms as well as information-sharing of linkage opportunities.
  o Promotion of FDI into areas and sectors with a higher impact on poverty and inequality. Any targeting needs to be consistently followed.

Governments that wish to improve the impact of FDI will need to have a good understanding of these policy issues. The chapters in this book offer helpful suggestions.

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2

Foreign Direct Investment and Income Inequality in Latin America: experiences and policy implications

Dirk Willem te Velde

2.1   Introduction

There is a heated debate about the effects of foreign direct investment (FDI) on development. Proponents argue that FDI is good for development and therefore perceive the rapid expansion of FDI in Latin America during the past decade and a half as manna from heaven. In some cases, it is indeed difficult to imagine whether the same development levels could have been achieved without FDI. Critics, however, contend that FDI leads to increased poverty, isolation and a neglect of local capabilities. Recent difficulties, involving FDI, with privatisation in Latin America show that not everyone shares in the benefits.

This chapter intends to position FDI in the inequality debate in Latin America. Inequality in Latin America is persistently high and many researchers ask the reasons for this. Globalisation has recently been linked to inequality within and between societies and a substantial literature exists on trade liberalisation and income inequality in Latin America (see e.g. Wood, 1997; Robbins, 1996; and Robertson, 2000. On the whole, trade liberalisation and international economic reforms have not brought the benefits to the poor that were predicted before countries embarked on these reforms in the 1980s. Comparatively little attention has been paid to the effects of FDI on income inequality in Latin America (Feenstra and Hanson, 1995, for Mexico, is the major exception). This chapter builds on previous work which has focused on the relationship between FDI or foreign ownership in five East Asian countries and five African countries (see te Velde and Morrissey, 2004; te Velde and Morrissey, 2003)

The structure of the chapter is as follows: a review of data on income inequality in Latin America (Section 2.2) and the causes of income inequality (Section 2.3); a review of the debate on FDI and development; a review of the link between FDI and income inequality, both theoretically and empirically (Section 2.4); a discussion of new empirical results on the effects of FDI on income inequality for various Latin American countries (Section 2.5); and a discussion of the government and business policies that could improve the developmental impact of multinationals (Section 2.6). Section 2.7 concludes.

2.2   Income inequality in Latin America: overview of the data

Income inequality in Latin America is persistently high. Table 2.1 presents data on the Gini coefficient for income distribution. The Gini coefficient is one of many measures that describe how income is distributed among households. Owing to measurement issues, considerable care should be taken in comparing these measures across countries and over time. Nevertheless, Table 2.1 clearly shows that income inequality is much higher in Latin America than elsewhere and this has consistently been the case since at least the 1960s.

Table 2.2 provides a more recent picture for specific Latin American countries (using a different source). It shows the Gini coefficient for the early and late 1990s as well as the change over that period. The table clearly shows that income inequality differs not only among countries of different regions; it also differs substantially within the Latin American region. Costa Rica, Uruguay and Venezuela have the lowest inequality (under 0.500 which is still relatively high compared with countries on other continents), whereas Brazil, Bolivia, Nicaragua and Guatemala have the highest inequality (above 0.580). Mexico, Chile and Argentina (urban areas) occupy positions in the middle.

Table 2.1: Gini coefficients for income distribution, by region and period

	1960s	1970s	1980s	1990s
Latin America	53.2	49.1	49.7	49.3
Sub-Saharan Africa	49.9	48.2	43.5	46.9
East Asia and Pacific	37.4	39.9	38.7	38.1
Middle East and North Africa	41.4	41.9	40.5	38
OECD and high-income countries	35	34.8	33.2	33.7
South Asia	36.2	33.9	35	31.9
Eastern Europe	25.1	24.6	25	28.9

Source: Deiniger and Squire (1996).

Table 2.2: Income inequality in Latin America,1 1990–99

	Gini coefficient			Urban Gini/ rural Gini		Poverty-headcount (nationally defined)	Per capita income (current international dollars)
	1989–91	1999	1999–90	1989–91	1999	1998–2000	2000
Argentina[a]	0.501	0.542	0.041	na	na		12,050
Bolivia	0.538[b]	0.586	na	na	-0.136	54.7	2,360
Brazil	0.627	0.640	0.013	0.058	0.048	29.9	7,300
Chile	0.554	0.559	0.005	-0.036	0.042	17.8	9,100
Colombia	0.601[e]	0.572	-0.029	0.009	0.039	48.7	6,060
Costa Rica	0.438	0.473	0.035	0.000	-0.003	18.2	7,980
Ecuador[c]	0.461	0.521	0.060	na	na		2,910
El Salvador	0.507[d]	0.518	0.011	0.024	0.000	43.5	4,410
Guatemala	0.582	0.582	0.000	0.045	0.020	53.5	3,770
Honduras	0.615	0.564	-0.051	0.003	0.006	74.3	2,400
Mexico	0.536	0.539	0.003	0.077	0.021	38.0	8,790
Nicaragua	0.582[f]	0.584	0.002	0.013	-0.007	65.1	2,080
Panama	0.560	0.557	-0.003	0.010	-0.007	24.2	5,680
Paraguay	0.447[h]	0.565	na	na	-0.073	51.7	4,450
Dom. Rep.[g]	na	0.517	na	na	0.026	32.4	5,710
Uruguay	0.492	0.440	-0.052	na	na		8,880
Venezuela	0.471	0.498	0.027	0.033	na	44.0	5,740

Source: ECLAC (2002) and *World Development Indicators*.
Notes: a Greater Buenos Aires; b Main cities and El Alto; c Urban; d 1995; e 1994; f 1993; g 1997; h Asunción metropolitan area only.

It is striking that Gini coefficients have remained high and have not substantially converged to more 'normal' levels in other regions. The Gini coefficient increased substantially (sometimes by 0.05) during the 1990s in Ecuador, Argentina and Costa Rica, countries that had a relatively low Gini coefficient in the early 1990s. But the Gini also increased further in Brazil and to a lesser extent Nicaragua. Colombia, Honduras and Uruguay recorded large

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1 Based on household surveys

decreases (sometimes by 0.05) in the Gini coefficient. Such changes seem substantial but it should be borne in mind that this process may have taken a full decade for some countries. Nevertheless, there may be underlying patterns (and determinants) that have changed more dramatically but which cancel each other out and so do not show up in persistent and aggregate Gini coefficients.

Inequalities in rural and urban areas underline such patterns. Table 2.2 shows that in most countries income inequality is higher in urban than in rural areas (notable exceptions are Bolivia and Paraguay), bearing in mind that 77% of the working-age population in Latin America can be found in urban areas. Differences of up to 0.05 between urban and rural Gini are no exception. There can also be dramatic changes in the difference between the urban and rural Ginis over time, see for instance Chile and Colombia (towards higher urban than rural inequality), and Nicaragua (towards higher rural than urban inequality).

Various studies have decomposed income inequality into its components. A decomposition analysis cannot be used to find structural factors behind inequality. Instead, it can provide important descriptions regarding the levels at which inequality is at its most severe or what type of inequality contributes most to aggregate inequality. For instance, much of the evidence shows that Gini coefficients for income inequality are almost entirely determined by Gini coefficients for labour income. IDB (1998) finds that the differences between the two measures is around one percentage point, showing that inequality in profits does not contribute significantly to measures of income inequality, although IDB also admits that there may be problems of underreporting of non-labour income.

Morley (2001a) decomposes labour income inequality (measured by the Theil index) in more detail. He computes what share of total inequality can be described by inequality within groups and between groups, where groups are defined on the basis of education, occupation, age and gender. The greater the share explained by the between group part, the more important that factor is in describing overall income inequality. On this basis, for Latin American countries the between group contribution due to education accounts for 21% – 37% of overall labour income inequality (and is rising over time), 20% – 38% is a result of occupation, but age, rural-urban and gender differences contribute no more than 10% to the total, partly because of a low share of women in total labour incomes and a low share of population living in rural areas. It would therefore appear that it is important to examine incomes and employment by occupation end education more closely.

Table 2.3 shows the employment structure on the basis of household surveys in the late 1990s in urban areas. The labour force participation rate (percentage of economically active workers in the working age population) varies between 71% (Argentina) and 84% (Venezuela) for men, and between 43% (Mexico) and 55% (Colombia and Paraguay) for women. The overall participation rate in Latin America increased from 61% to 62.4%. More than 80% of the economically active population are employed, by the public sector (varying from 8% to 20% of the employed), in or by the private sector, or on own account or as family workers (varying from 20% in Costa Rica and Chile to 48% in Bolivia). The share of professional and technical workers in the private sector has been increasing in the 1990s for almost all Latin America countries for which a consistent series is available.

Table 2.3: Employment and unemployment in Latin America, urban areas[2]

	Labour force participation rate		Unemployed	Employed economically active				
				Employers	Wage earners			Own account and unpaid family workers
					Public	Private professional and technical	Other private wage earners	
	Economically active pop % of working age population Male	– Female	% of economically active population	% of employed economically active population	% of employed economically active population	% of employed economically active population	% of employed economically active population	% of employed economically active population
Argentina[a]	71	47	14.7	4.4	15.6	9.1	48	23.0
Bolivia	75	54	7.1	4.2	10.3	7.3	30	48.2
Brazil	80	53	11.4	4.7	13.0	11.0	42.6	28.6
Chile	74	41	10.1	4.2	b)	17.0	59	19.8
Colombia	79	55	19.2	4.3	8.7	5.7	43	38.3
Costa Rica	79	45	6.1	8.0	17.2	8.9	46.6	19.2
Ecuador	82	54	14.2	8.8	10.7	7.0	41.3	32.1
El Salvador	75	52	6.9	4.6	12.3	9.1	43.8	30.3
Guatemala	82	54	2.8	4.7	8.2	9.2	42.6	35.4
Honduras	82	54	5.3	6.2	9.7	7.5	43	33.6
Mexico	81	43	3.2	4.8	14.2	6.6	52.1	22.4
Nicaragua	81	51	13.8	3.8	b)	13.5	46.3	36.5
Panama	78	48	13.1	2.8	19.4	10.8	44	23.0
Paraguay[a]	83	55	10.1	6.6	11.8	5.1	45.2	31.2
Dom. Rep.	83	49	17.0	3.7	11.9	6.7	43.9	33.9
Uruguay	73	50	11.4	4.0	16.2	6.5	49.7	23.6
Venezuela	84	48	14.5	5.1	14.9	4.9	38.1	36.9

Source: ECLAC (2002), Tables 2, 4 and 12.
Notes: a Urban areas; b) Included in private workers.

Given that labour income inequality plays an important role in total income inequality, it is instructive to examine developments of labour income inequality, both by occupation and education. Income data by type of occupation published in ECLAC (2002) provide one source which also includes data on the informal sector. We concentrate on wage earners in the private sector who make up at least 50% of all employment (see Table 2.3). Table 2.4 shows the relative incomes (and employment) of professional and technical wage earners in the private sector compared with non-professional and non-technical wage earners in the private sector.

The table shows that wage inequality (as measured by relative wages) increased dramatically over the 1990s for Chile, Colombia, Guatemala, Mexico, Nicaragua, Uruguay and Venezuela, stayed within a margin of +/-0.2 in Costa Rica and Panama, and decreased in Bolivia, Ecuador, Honduras and Paraguay. Such numbers may mask opposite changes in sub-periods, such as in Bolivia where inequality increased during most of the 1990s. Relative employment of professional and technical workers increased in all countries, but only to a small extent in Colombia, Mexico, Paraguay, Uruguay and Venezuela. Chile, Guatemala and Nicaragua are clear outliers, bearing in mind that a rise in relative employment would normally reduce relative wages.

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2 Based on household surveys, late 1990s.

Table 2.4: **Relative incomes and employment of professional and technical wage earners**

Country	Year	Relative wage of professional and technical workers	Relative employment of professional and technical workers
Argentina	1990	2.22	0.11
	1999	2.02	0.21
Bolivia	1989	2.67	0.14
	1994	3.38	0.20
	1997	3.44	0.23
	1999	2.43	0.24
Chile	1990	2.39	0.21
	1994	2.64	0.26
	1996	3.25	0.22
	1998	3.02	0.29
Colombia	1991	2.33	0.10
	1994	3.15	0.11
	1997	2.66	0.14
	1999	2.50	0.13
Costa Rica	1990	2.39	0.14
	1994	2.11	0.16
	1997	2.16	0.16
	1999	2.33	0.19
Ecuador	1990	2.44	0.12
	1994	2.39	0.14
	1997	2.44	0.16
	1999	2.00	0.17
El Salvador	1995	2.86	0.17
	1997	2.77	0.19
	1999	2.62	0.21
Guatemala	1989	2.45	0.14
	1998	3.02	0.22
Honduras	1990	3.08	0.11
	1994	2.82	0.14
	1997	2.85	0.15
	1999	1.81	0.17
Mexico	1989	2.28	0.13
	1994	3.31	0.13
	1996	2.70	0.14
	1998	2.64	0.13
Nicaragua	1993	2.31	0.19
	1998	2.79	0.29
Panama	1991	2.76	0.19
	1994	2.93	0.16
	1997	2.87	0.24
	1999	2.69	0.25
Paraguay (As)	1994	3.20	0.10
	1996	2.73	0.09
	1999	2.72	0.11
Uruguay	1990	2.44	0.11
	1994	2.54	0.11
	1997	2.56	0.12
	1999	2.72	0.13
Venezuela	1990	2.05	0.14
	1994	2.29	0.15
	1997	2.75	0.14
	1999	2.52	0.13

Source: own calculations based on Tables 6 and 31 in ECLAC (2002). Wage earners in private sector.

We can also examine income and employment by occupation and education, based on national household surveys. We plot the data for Bolivia (based on education), Costa Rica (occupation), Colombia (occupation), and Chile (occupation) in Figures 2.1-2.4. Relative employment increased in Costa Rica and Colombia but not in Bolivia. Relative wages increased in all three countries, but particularly in Bolivia.

Figure 2.1: Relative employment and earnings of educated workers in Bolivia
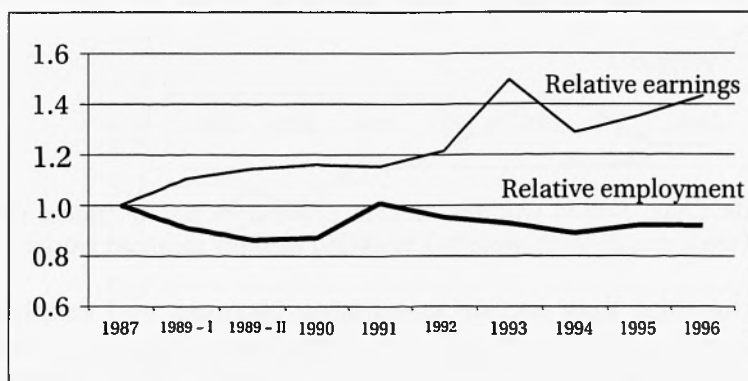
Source: Jemio (1999), Tables 2 and 3, based on Instituta Nacional de Estadística, encuestas a hogares.

Figure 2.2: Relative employment and earnings of skilled workers in Colombia
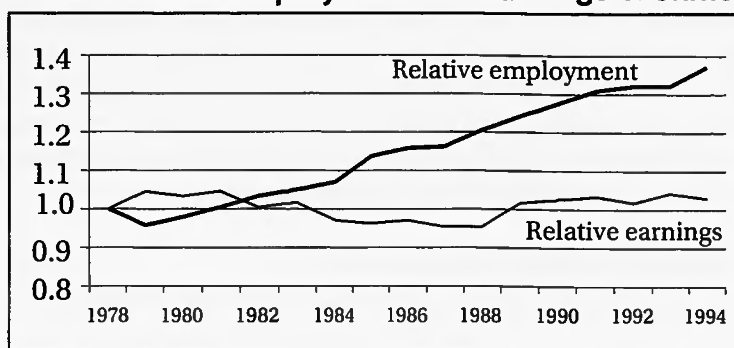
Source: Ramirez and Nunez (2000), Table 26.

Figure 2.3: Relative employment and earnings of skilled workers in Costa Rica
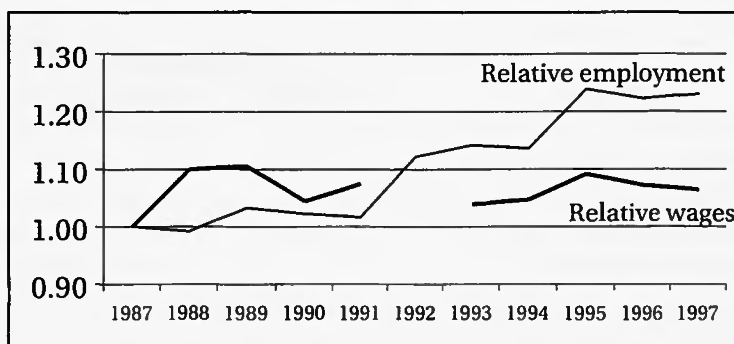
Source: Masis (1999) based on las encuestas de hogares de la DGEC.

Figure 2.4: Relative earnings of skilled workers in Chile
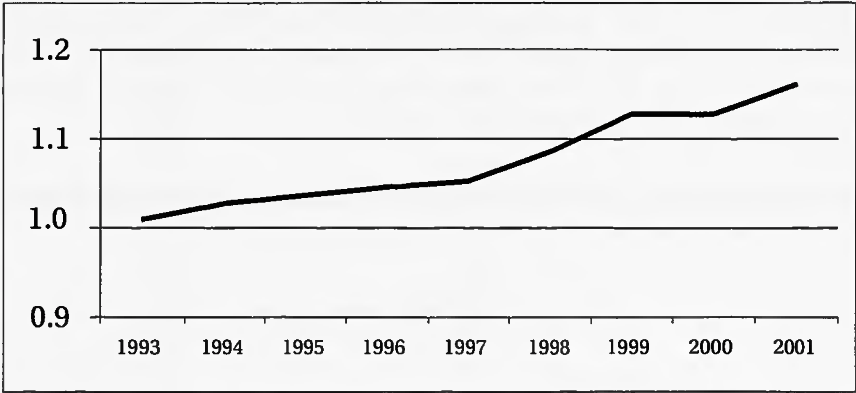
Source: Instituto Estadística de Chile. Skilled workers include profession and technical workers and managers and administrators (using employment weights); unskilled workers are other workers.

The ILO data constitute the third data source to examine incomes and employment by occupation. Figure 2.5 shows that all countries have employed relatively more skilled workers over time, substituting for low-skilled workers. The pace differs significantly by country. On the whole, the Asian Tigers (Singapore, Hong Kong and Korea) have had a fast pace in the expansion of the share of skilled workers in formal employment. Most Latin American countries (e.g. Venezuela and Chile) and occupy a position between the traditional Asian Tigers and new Asian Tigers (e.g., Philippines). Using marginal productivity analysis in traditional economic theory an expansion in the use of skills should have reduced wage inequality, if other factors did not influence the market for skills (the supply effect in Robbins, 1996). However, there are of course various factors that may affect the demand for skills (e.g. skill-biased technology), supply of skills (e.g. education) and wag- setting factors (e.g. unionisation trends), which may ultimately affect wage inequality.

Figure 2.5: Share of skilled workers in total employment
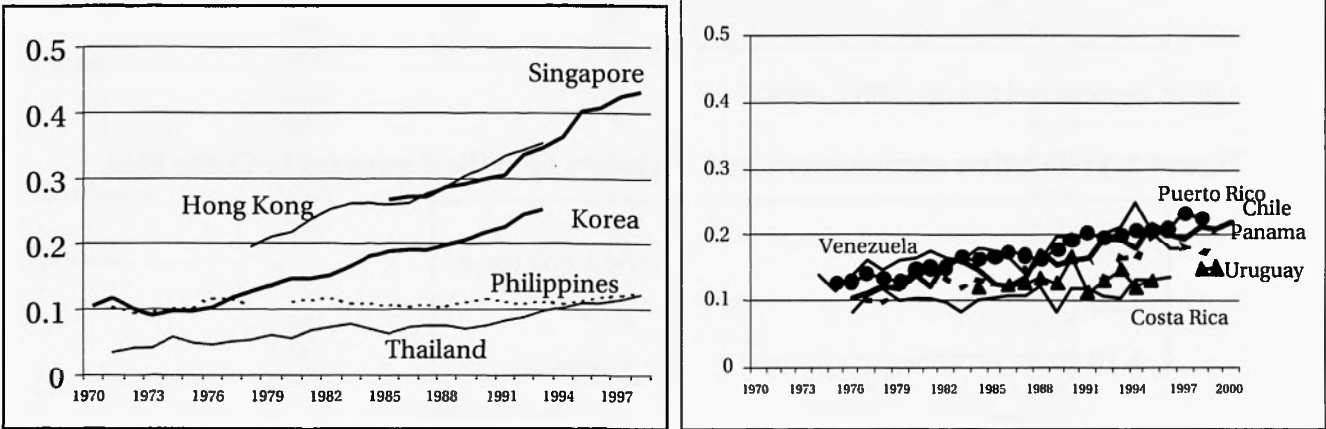
Source: ILO labour market database (see Appendix).

ILO data can also be used to construct wage data by occupation. However, the data for Latin American countries are patchy. We plot the relative earnings for two countries (Figure 2.6): Bolivia and Uruguay. For each country we have selected annual time series by occupation and divided all available occupations into skilled and less-skilled occupation. The ratio of the mean of the two types of labour was then used to approximate relative earnings.

Figure 2.6 Relative earnings of skilled workers in Bolivia and Uruguay
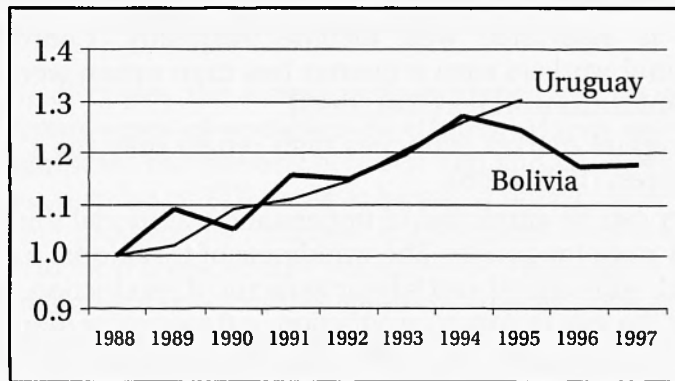
Source: ILO labour market database (see Appendix).

The general conclusion from the review of the above data sources (ECLAC, national annual household surveys, and ILO) is that the relative position of skilled workers has improved over the 1990s in most countries. In many but not all countries this has manifested itself in an increase in relative wages, while most countries have also experienced an increase in the relative employment of skilled workers (which should have caused a drop in relative wages). Because an important factor behind income inequality is wage inequality, it will be important to understand why wage inequality increased or continued to exist, despite an increase in the relative employment of skilled workers.

2.3   Causes of income inequality in Latin America

Many researchers have examined the causes of income inequality in Latin America in recent years (IDB, 1998; ECLAC, 2000; Behrman *et al.*, 2000; Morley, 2001b; Weller, 2001). Income inequality can be determined by three factors: the distribution of factors of production and the demand and supply for those factors. The factor of production that is driving income inequality is labour or human capital. This section briefly summarises the main points emerging in the debate on income inequality.

- Land distribution is much more unequal in Latin America than elsewhere. No Latin American country was in the group of low or even medium inequality (Morley, 2001b).
- While physical capital and profit income tend to be more skewed towards the rich than labour income, it is argued that labour inequality is more important in affecting income (Morley, 2001b).
- Human capital and education are key drivers of income distribution. Education and experience determine the relative position in the income distribution (Birdsall and Londono, 1997).
- During the 1990s there was a widening in the wage differential between university and high-school graduates and lower education groups (Behrman *et al.*, 2000) despite a higher share of college and high-school graduates.
- While Asia equalised education increases over the entire labour force, Latin America focused on expanding primary and university (not secondary). This may have delayed

the point at which overall educational inequality begins to decline in Latin America (Morley, 2001b).

- Income inequality was relatively high in these countries and remained high or increased during the 1990s (Székely and Hilgert, 1999) despite a significant increase in the supply of skilled workers.

- Inequality in Latin America is unusually concentrated in the top decile which, in part, reflects the relatively high returns to higher education and the fact that relatively few people obtain higher education (IDB, 1998).

- Labour segmentation is associated with income inequality. Controlling for other determinants of pay, rural workers earn a quarter less than urban workers, and formal workers earn less than informal workers (IDB, 1998).

- A poorly functioning capital market generates high return only for a few and ignores opportunities of the poorest (IDB, 1998).

- Traditional trade theory can be employed to understand traditional thinking on the link between openness and wage inequality. The workhorse of traditional trade theory is the Heckscher-Ohlin model, with capital and labour as factor of production. By taking skilled and unskilled labour as the two factors of production and assuming that unskilled labour is relatively abundant in Latin America compared with the main trading or investment partners (US, Japan and most of Europe), it is possible to see what traditional trade theory would predict regarding the effect of FDI on wage inequality. Accordingly, factor flows to developing countries (Latin America) should be in unskilled labour-intensive sectors, raising the relative demand for unskilled labour (or natural resources). Openness to trade and capital would lead to a narrowing of wage inequality between skilled and unskilled workers. However, Wood (1997), Robbins (1996) and Robertson (2000) did not find compelling evidence for this in Latin America.

2.4   Foreign direct investment and income inequality

Where and how does FDI fit into the debate on income inequality? This section discusses the effects of FDI on development, the theoretical links between FDI and income inequality and then surveys the evidence.

FDI and development: indicators

There are many areas in which FDI affects development and Table 2.5 lists seven of these. The table distinguishes between static and dynamic effects and argues that FDI can have positive and negative dynamic effects on development in all of these areas. While FDI was traditionally seen as an additional source of capital, vital for the development of countries with insufficient economic capacity and infrastructure, and where domestic saving rates are low, the view that FDI can also bring new techniques and skills is also important.

The table also shows the indicators used to measure the impact of FDI. The design and measurement of such indicators is not straightforward. As FDI is associated with direct costs and benefits as well as indirect costs and benefits, a simple quantitative measure (FDI flows, direct employment, wage levels, etc.) is not sufficient as a means of assessing the impact of FDI on development. There are three alternatives. First, there are detailed econometric studies assessing one aspect of the investment, for example, productivity spillover effects. Secondly, there are cost-benefit analyses, valuing the costs and benefits of all aspects of an investment. Finally, there are qualitative accounts comparing outcomes in similar situations but with alternative policies in place. While the first two approaches are criticised for not being able to construct a 'strategic counterfactual', the qualitative approach may not address cause and effect adequately. Outcomes of all approaches may further depend on the time framework and sector of analysis.

There is indeed a heated discussion about the impact of FDI on development, and at least a significant part derives from the observation that (foreign) multinationals are different from local (non-multinational) firms. Foreign multinationals tend to be larger, pay higher wages, are more capital and skill-intensive and introduce more up-to-date technology (see e.g. Dunning, 1993 and Caves, 1996). Some characteristics of multinationals relate simply to the size of the firm, which itself is often related to higher pay, more training and usage of the latest technologies (Tan and Batra, 1997). However, controlling for factors such as size, foreign ownership is still related to better performance.

te Velde (2003) discusses the econometric evidence of FDI on growth and productivity. There are different types of econometric studies. Macro and meso studies usually find positive and significant correlations between FDI and GDP per capita or productivity. This may come as no surprise as FDI tends to locate in higher value-added industries. It is often not clear whether productivity increases at the macro level are driven by spillovers to and learning effects in local firms, or only because of a composition effect. It is thus important to understand whether and how positive spillovers to local firms occur because FDI associated with positive spillovers has long-lasting effects for development whereas FDI without spillovers may have only one-off effects which may disappear when foreign investors leave the country.

Micro-econometric studies can account for the composition effect testing whether local firms can improve their productivity as a result of foreign presence. These studies are reviewed elsewhere, but there one important point. Most econometric studies of the effects of FDI on development tends to ignore economic and policy factors affecting the link between FDI and development. It is often shown that FDI is correlated with growth and productivity, but this masks the fact that different countries with different policies and economic factors tend to derive different benefits and costs of FDI. Whether the positive effects of FDI outweigh the negative effects in Table 2.5 will depend on the economic and policy factors in the host country as well as the sector and the strategies of multinational affiliates. Recently, researchers have begun to stress the importance of local capabilities (educated and trainable workforce, see, e.g., Borensztein *et al.*, 1998; investment in R&D, see e.g., te Velde 2001; the ability to conduct an outward-oriented trade policy, see, e.g., Balasubramanyam *et al.*, 1996) in deriving benefits to the local economy. One implication could be that countries with relatively few local capabilities are less able to derive benefits from FDI. On the other hand, however, researchers have also suggested that countries have more to gain the further they have to catch up.

Table 2.5 Foreign Direct Investment and host-country development

Impact Area	Static effects			Dynamic effects		
	Indicators	**Differences between foreign and local firms**	**Potential dynamic benefits of FDI**	**Potential dynamic costs of FDI**	**Indicators**	
Employment and income	• Employment generation inside foreign firms. • Wage levels for staff with given characteristics.	Foreign firms are larger and pay higher wages (especially for skilled employees) than local firms.	Provides employment and incomes directly.	May indirectly crowd out other employment by replacing existing employment or pushing up factor prices; may lead to increased wage inequality.	• Long-run employment generation inside firm and in suppliers and buyers. • Long-run wage development in foreign firms and spillover effects on wage levels in other firms inside or outside sector.	
Physical capital	• Fixed capital formation. • Financial transfers.	Foreign firms tend to be more capital-intensive.	Stable source of external finance, improving the balance of payments, and potentially raising fixed capital formation.	May pre-empt investment and opportunities of domestic firms.	• Long-run relationship between FDI and domestic capital formation.	
Market access	• Share of inputs imported. • Share of output exported.	Foreign firms tend to be more trade-intensive.	Firms can gain access to export markets by using global networks of multinationals.	Multinationals can maintain tight controls of export channels.	• Long-run relationship between exports and FDI, and between imports and FDI.	
Structure of factor and product markets	• Concentration in product and factor markets. • Profit margins.	Foreign firms can often be found in sectors with 'barriers to entry'.	Entry by foreign firm may lead to more competition. This may reduce product prices.	The entry of foreign firms can lead to further concentration and market power. This may raise prices of own and other products.	• Long-run relationship between FDI and profitability.	
Technology, skills and management techniques	• Skill level of employees. • Training budgets. • Output per employee. R&D budgets.	Foreign firms are more skill intensive, tend to use more up-to-date technologies and train more.	Provides up-to-date techniques, skilled personnel and advanced management techniques, raising the return to skills offering additional incentives for education.	Spillovers are not automatic or free. Reliance on foreign technology and skills may inhibit development of local capabilities. Increased linkages raise dependency of domestic firms on multinationals.	• Intra and extra-sectoral spillover effects on productivity in other firms. • Share of inputs sourced locally. • Supplier development.	

	Indicators		Positive effects	Negative effects	Long-run effects
	• Types of technologies used.		Positive spillover effects on domestic firms through backward and forward linkages, demonstration effects and human resource development.		• Upgrading and long-run development of technology, training and skill levels in foreign firms.
Fiscal revenues	• Fiscal payments. • Grants to foreign firms.	Tax holidays or outright grants are sometimes offered to foreign firms.	Multinationals can raise fiscal revenues for the domestic government through the payment of taxes in case of new economic activities with more value added.	If multinationals crowd out domestic firms, fiscal revenues may actually be lower through the use of special tax concessions, eventually leading to an erosion of the tax base. Special tax concessions are an implicit subsidy and in case of lack of transparency can lead to rent-seeking behaviour.	• Long-run fiscal payments through foreign firms and through a change in economic activity more generally.
Political, social and cultural issues			Foreign firms can expose host country to other norms and values, e.g. environmental management, ethics.	Foreign firms may lead to political, social and cultural problems, by imposing unacceptable values (labour and environmental standards) interfering with political regime, and are said to exacerbate existing problems of corruption.	
Poverty	• Combination of how above indicators affect the poor • Social investment • Core health, environmental and infrastructure programmes		If the effects in this column are important, this provides an enabling environment thereby directly and indirectly alleviating poverty.	If the effects in this column are important, this provides a disabling environment thereby directly and indirectly worsening poverty.	• Combination of the above indicators. • Long-run effect of social investment. • Lon-run effect of core health, environmental and infrastructure programmes.

Source: building on table in UNCTAD (1999).

FDI and income inequality: what are the links?

The links between FDI and income inequality are complex. We may distinguish between the effects on wage inequality and on non-wage income inequality. Appendix A discusses how to assess the effects of FDI on wage inequality. The following general effects play a role:

- *Skill-specific technological change.* In addition to initial efficiency differences, FDI could induce faster productivity growth of labour in both foreign (technology transfer) and domestic firms (spillover effects). If such productivity growth is skill-biased (for example, information technology), FDI may increase skill-biased technological change (Berman and Machin, 2000).

- *Skill-specific wage bargaining.* Skilled workers are usually in a stronger bargaining position than less-skilled workers because they possess key skills that are in relatively scarce supply and may have better negotiation skills to negotiate higher wages.

- *Composition effect.* Foreign firms tend to locate in skill-intensive sectors or skill-intensive segments within sectors. If FDI causes a relative expansion of skill-intensive sectors, this will improve the relative position of skilled workers and raise wage inequality (Feenstra and Hanson, 1995).

- *Training and education.* FDI may affect the supply of skills through firm-specific and general training and through contributions to general education. While foreign firms generally train more than their local counterparts, after controlling for other factors that are positively related to training such as size, much training benefits skilled workers.

The above points show that FDI can be expected to increase wage inequality in contrast to prediction by traditional trade theory (in the 2-by-2 skilled/unskilled labour variant of the Heckscher-Ohlin model) that FDI reduces wage inequality in developing countries because FDI would allow developing countries to specialise in less-skilled intensive activities. However, because there are many possibly opposing effects, empirical testing is required. See also Appendix for the hypotheses concerning FDI and wage inequality.

In addition to the effects of FDI on wage inequality, there can be effects on non-wage income. For instance, FDI may increase profits and the return to capital, relative to other types of income such as that of the self-employed and employees. Real wages have decreased over the past two decades in many Latin American countries (Weeks, 1999) implying that capital owners have benefited more from the economic reforms. This could have helped increase income inequality. Other effects on income inequality could be indirect, for instance through the effects on fiscal revenues and expenditures. These could nonetheless be very significant or the main link to inequality for certain types of investment (e.g. natural resource based FDI).

FDI and wage inequality: evidence so far

Most evidence on the relationship between inward FDI and wage inequality at the macro level is for developed countries, showing that FDI has raised wage inequality for certain periods and sectors in US, Irish and UK manufacturing Irish manufacturing (Blonigen and Slaughter, 2001; te Velde, 2001; Taylor and Driffield, 2000).

For developing countries, Feenstra and Hanson (1995) find that inward FDI increased the relative demand for skilled labour in Mexican manufacturing over the period 1975–88. In some regions (that may be very localised), FDI can account for over 50% of the increase in the labour wage share in the late 1980s. Freeman *et al.* (2001) find no evidence for a consistent relationship between FDI and wage inequality in a large sample of developing countries. te Velde and Morrissey (2004) provide macro evidence for the effects of FDI on wages and wage inequality in five East Asian countries (Korea, Singapore, Hong Kong, Thailand and Philippines). Wage inequality has been low and decreasing in some but not all

East Asian countries. Using ILO data for wages and employment by occupation, they did not find strong evidence that FDI reduced wage inequality in five East Asian countries over the period 1985-98. Controlling for domestic influences (wage setting, supply of skills) they found that FDI had raised wage inequality in Thailand. They also found that FDI raises the wages for both skilled and low-skilled workers.

The macro evidence shows that FDI does not tend to reduce wage inequality but may increase it. However, it should be emphasised that the evidence available so far is thin and that most research covers wage inequality in the manufacturing sector and only over a recent period. We have not found any published macro-evidence for specific Latin American countries other than Mexico. This chapter extends the analysis in te Velde and Morrissey (2004) for East Asia to Latin America countries, where evidence is scarce.

At the micro level, the empirical evidence shows that foreign-owned firms pay more to their workers than local firms, even after controlling for size, location and industry. An important observation for the current chapter is that studies that distinguish between average wages in two separate skill categories find that wage differentials are greater for non-production (relatively skilled) workers than for production (less skilled) workers. Table 2.6 shows that this applies to Mexico, but skilled workers are also the main beneficiaries of such pay premia in Indonesian manufacturing (Lipsey and Sjöholm, 2001); Thai manufacturing (Matsuoka, 2002) and Chinese manufacturing (Zhao, 2001). Such static wage differentials would *ceteris paribus* raise wage inequality.

Table 2.6: Micro-evidence on foreign ownership in Latin American manufacturing

Study	Country, year and number of observations	Dependent variable	Controls	Results
Aitken and Harrison (1999),Table 2 column 2	Venezuela, 10,257 manufacturing plants, 1976–89	Log output in plant	Plant inputs, sector dummies, regional controls, share of foreign ownership in sector and region	Foreign firms have 15.4% higher productivity and is significant
Aitken, Harrison and Lipsey (1996), Table 1	Mexico (1990) and Venezuela (1987), 10000+ and 4700+manufacturing establishments	Log wage of skilled and unskilled wages in plant	Capital stock, royalty payments, output price, region price, industry and region dummies	Foreign firms pay 28.7 per more in Venezuela, and 21.5% in Mexico (skilled workers), and 22.0 in Venezuela and 3.3% in Mexico (unskilled workers).
Blomstrom *et al.* (2000)	Uruguay (1988), 159 manufacturing plants	Value-added per employee	Capital-labour ratio, capacity utilisation, technology payments, share of management personnel, size of firm.	A one percentage increase in the share of foreign ownership in the sector raises labour productivity in local firms by 10% on average. However, spillovers apply only to plants with productivity levels similar to foreign firms.

Sources: see Column One.

2.5 FDI and income inequality in Latin America: new empirical results

This section will present new and preliminary empirical results of the effects of FDI on income inequality. First there will be a brief overview of FDI in Latin America, then the estimation results. The section will then examine existing case study evidence.

FDI in Latin America

FDI has risen dramatically in Latin America since the reforms in the 1980s. Some countries reformed earlier than others (e.g. Andean in the early 1990s). Increased openness to FDI resulted in an increase in FDI in all almost countries. Brazil, Mexico, Argentina, and Chile have attracted the largest amounts of FDI. This partly reflects the size of the market as much of FDI in Latin America has been market-seeking. To allow for the size of the market (GNP), Figure 2.7 shows the stock (accumulated flows) of FDI as a percentage of GDP. Bolivia, Chile and Costa Rica clearly top the list in percentage terms. All countries experienced an increase on this measure.

Figure 2.7: FDI in Latin America (stocks as % of GDP)
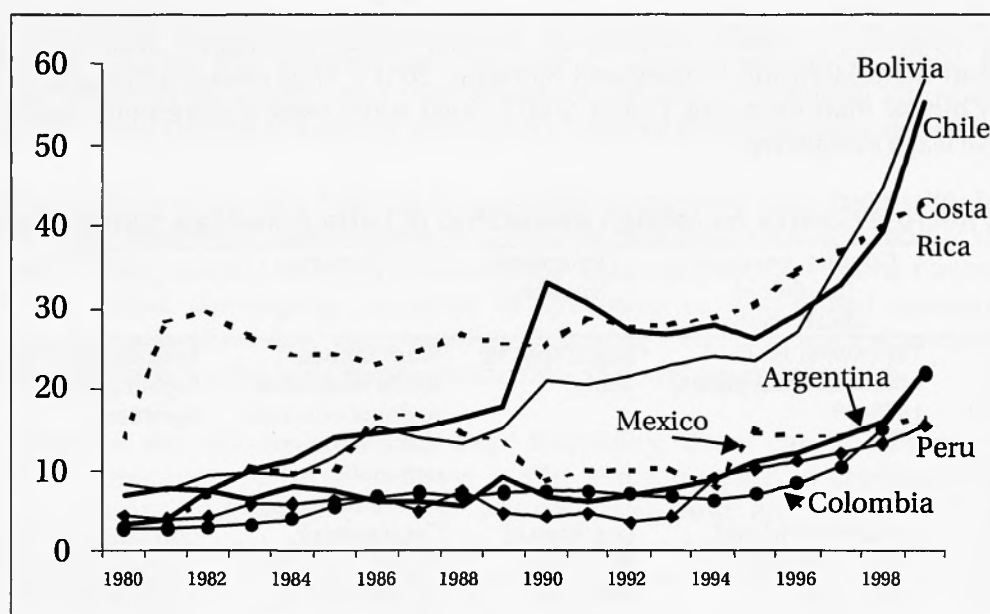
Source: www.unctad.org.

The largest share of the FDI stock in Latin America originates in the United States, Europe and Latin America itself, whereas the EU has recently overtaken the US with regards to FDI flows. However, this varies by country. While FDI to Africa is predominantly in the primary sector and FDI to Asia is mostly in manufacturing and services, there appears to be no sector bias of FDI in Latin America. Much depends on the country, as Table 2.7 shows. Countries such as Bolivia (gas sector) and Chile (mining) have attracted most FDI in the primary sector, whereas Argentina and Brazil (car industry) have attracted a lot of FDI in manufacturing. The services sector dominates in Peru, and to some extent in Mexico. However, Mexico and Central America countries have attracted significant US investment in maquila plants.

Table 2.7: Sector distribution of FDI

	Sector distribution of FDI (stocks or accumulated flows over nearest period)		
	Primary: agriculture, mining, and petroleum	*Manufacturing*	*Services and others*
Argentina (1992–94)	14	35	51
Bolivia (1992–97)	60	12	28
Brazil (stock in 1995 + flows in 1996 and 1997)	2	30	68
Chile (1974–2001)	35	13	52
Colombia (1994–2000)	9	23	69
Paraguay (1995–200)	5	25	70
Peru (1993–99)	17	13	70

Source: See Appendix.

There are many reasons why FDI in Latin America increased during the 1990s. The first reason is a more liberalised FDI regime during the 1980s and 1990s. Almost all countries in Latin America, from Mexico to Argentina, liberalised both trade and investment regimes. Part of the increase in FDI can be explained by efficiency-seeking FDI (Table 2.7 and ECLAC, 2001), exploiting low labour costs. FDI from the US in manufacturing assembly plants in Mexico and Central America follows such strategies. Another part can be explained by (natural) resources seeking FDI (South American countries). Most of the increase in FDI in Latin America was caused by the combination of reduction in restrictions on FDI and privatisation of public services. Large privatisation often involved foreign investors with sufficient capital, and countries such as Brazil. Mexico and Argentina have received significant FDI through privatisation. There are also different experiences in smaller Latin American countries. Peru's privatisation policy has been much more successful in attracting FDI than in Ecuador.

Table 2.8: Corruption perception index 2001

1 Finland 9.9	24 Belgium 6.6	47 Bulgaria 3.9 0	69 Romania 2.8
2 Denmark 9.5	25 Portugal 6.3 0	Croatia 3.9	Venezuela 2.8
3 New Zealand 9.4	26 Botswana 6.0	Czech Rep 3.9	71 Honduras 2.7
4 Iceland 9.2	27 Taiwan 5.9	50 Colombia 3.8	India 2.7
Singapore 9.2	28 Estonia 5.6	51 Mexico 3.7	Kazakhstan 2.7
6 Sweden 9.0	29 Italy 5.5 0	Panama 3.7	Uzbekistan 2.7
7 Canada 8.9	30 Namibia 5.4	Slovak Rep 3.7	75 Vietnam 2.6
Netherlands 8.8	31 Hungary 5.3	54 Egypt 3.6	Zambia 2.6
9 Luxembourg 8.7	Trinidad &Tob 5.3 0	El Salvad 3.6	77 Côte d'Ivoire 2.4
10 Norway 8.6	Tunisia 5.3 0	Turkey 3.	Nicaragua 2.4
11 Australia 8.5	34 Slovenia 5.2 0	57 Argentina 3.5	79 Ecuador 2.3
12 Switzerland 8.4	35 Uruguay 5.1	China 3.5	Pakistan 2.3
13 United Kingdom 8.3	36 Malaysia 5.0	59 Ghana 3.4	Russia 2.3
14 Hong Kong 7.9	37 Jordan 4.9	Latvia 3.4	82 Tanzania 2.2
15 Austria 7.8	38 Lithuania 4.8	61 Malawi 3.2	83 Ukraine 2.1
16 Israel 7.6	South Africa 4.8	Thailand 3.2	84 Azerbaijan 2.0
United States 7.6	40 Costa Rica 4.5 0	63 Dom. Rep. 3.1	Bolivia 2.0
18 Chile 7.5	Mauritius 4.5 0	Moldova 3.1	Cameroon 2.0
Ireland 7.5	42 Greece 4.2	65 Guatemala 2.9	Kenya 2.0
20 Germany 7.4	South Korea 4.2	Philippines 2.9	88 Indonesia 1.9
21 Japan 7.1	44 Peru 4.1	Senegal 2.9	Uganda 1.9
22 Spain 7.0	Poland 4.1	Zimbabwe 2.9	90 Nigeria 1.0
23 France 6.7	46 Brazil 4.0		91 Bangladesh 0.4

Source: Transparency International.

A survey of European companies revealed the following reasons for investing in Latin America: the growth and size of the market; efficiency gains; political and social stability; macro-economic stability; agricultural production potential; foreign investment legislation; skilled manpower; quality infrastructure; raw materials; tax and other incentives; cost of manpower; and membership of a regional grouping (Vodusek, 2001). While many Latin American countries appear investor-friendly on paper, there are still many areas in which governments could do better. In addition to the above list, research suggests that conflict and corruption deter foreign investment (e.g. Wei, 2000). For a firm, paying bribes is like paying a tax, but then the firm is faced with more uncertainty. Transparency International collects data on the perception of corruption, mainly on the basis of private sector surveys. Corruption is defined as the misuse of entrusted power for private gain and ranks from 10 (no corruption) to 0 (highly corrupt). Table 2.8 shows the ranking of 91 countries, with some Latin American countries (Bolivia, Ecuador) appearing at the bottom of the list.

Besides corruption there are other perceived obstacles to FDI in Latin America, as shown in Table 2.9.

Table 2.9: Perceived obstacles to EU FDI in Latin America

Obstacle:	Score
Political instability	58
Local regulation and bureaucracy	54.2
Legal/judicial insecurity	53.4
Corruption	51.9
Fear of devaluation	50.8
Violence	48.5
Problems with repatriation of profits/capital	43.2
Level of local taxation	39.4
Underdeveloped infrastructure	39.0
Labour legislation	37.1
Social problems/poverty	36.7
Lack of qualified human resources	34.1
Local safety, health and environmental standards	32.2
Undeveloped local capital markets	31.4
Cultural differences	19.3

Source: Vodusek (2001), based on questionnaire of 66 European TNCs.

The motivations of FDI may have implications for how FDI affects wage inequality. For instance, natural resource-seeking FDI, although important in terms of value-added in certain countries, is not a major employer, at least directly (there could of course be some indirect jobs), whereas efficiency-seeking FDI in manufacturing may have significant employment effects for low-skilled workers, albeit at possibly low wage levels.[3] The bottom of appendix table 2A3 contains a classification of countries based on the main motivations of FDI. We use this classification in some of our regressions.

FDI and wage inequality: regression results

We use the equations in the Appendix to examine the effects of FDI on income inequality. The data for FDI were taken from UNCTAD, whereas the wage and employment data (by occupation) were mainly taken from annual national household survey data (see Section 2.2). Detailed regression results can be found in the Appendix.

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3 An example is Chile, where 8% of employment in US majority owned firms is in mining, while it accounts for 35% of value-added. This would suggest high productivity (which is the case) and possibly high wages, which may not be the case, as only 12% of value-added in US mining firms in Chile goes to compensating workers.

Table 2.10 contains a summary of the results. These results are tentative and the regressions on annual time series need to be extended to other Latin American countries. Further control variables could also be included to obtain a more accurate picture; and a better description of the dynamics could also be useful. Nevertheless, some general patterns are emerging. On the whole, FDI does not have an inequality-reducing effect, although there are possible exceptions (e.g. Colombia) where FDI may have played a relatively minor role in this direction. On the contrary, there are indications that FDI in countries such as Bolivia and Chile (and Costa Rica when taken over the whole of the 1990s) may have increased wage inequality. This conclusion is still valid when we allow for dynamic relationships (see Appendix 2A). The Appendix also brings out that FDI raises wage inequality particularly between workers with third and second-level education as compared with second and first-level education.

Although this does not imply that FDI was or was not good for development and poverty reduction in these countries, it does imply that most of the gains from FDI have benefited skilled and educated workers. In fact, results in the Appendix also suggest that for this limited sample the effects of FDI on wages are positive and significant for both types of labour, but are greatest for skilled workers. This suggests that on average FDI may raise wage inequality by raising wages of skilled workers more than wage of less-skilled workers. This mirrors the results found for Thailand in the East Asia example (te Velde and Morrissey, 2004). However, if we disaggregate the effects of FDI by country, we find for Bolivia that FDI has raised wage inequality because it has negatively affected the wages of less-skilled workers more than the wages of skilled workers (at least over 1987-97). In Chile, FDI has raised wages of both types of workers.

Table 2.10: Summary of regression results

	Period and data coverage	Effect of FDI on wage inequality (significant coefficient between parentheses)	Part of wage inequality increase associated with FDI
Based on panel of domestic annual data sources, which includes employers and employees in the private and public sector:			
Bolivia	1987–97	+ (0.023)	Around half of the actual 40% increase in wage inequality can be associated by FDI.
Chile	1993–2000	+ (0.0026)	Around half of the actual 13% increase can be associated with FDI.
Colombia	1978–94	- (-0.025)	Almost all of the actual 6% decrease in wage inequality can be associated with FDI.
Costa Rica	1987–97	No significant effect.	
Based on data in ECLAC (2002), wage earners in the private sector:			
Chile and Venezuela (natural resource-seeking FDI)	1990s	+ (0.012)	FDI can be associated with 20% increase in earnings inequality in Chile and 10% in Venezuela.
Colombia, Ecuador, Honduras, Panama, Paraguay and Uruguay (mainly efficiency and market-seeking FDI)	1990s	No significant effect.	
Based on IDB (2001), urban male wage earners aged 30-50:			
Chile, Bolivia, Costa Rica and Venezuela (natural resources or skill-seeking FDI)	1990s	+ (0.022)	FDI can be associated with significant increases in third/first level (not second/first) wage inequality in Chile, Bolivia Venezuela.
Argentina, Brazil, Colombia, Honduras, Mexico and Panama (mainly efficiency and market-seeking FDI)	1990s	No significant effect.	

Source: see Appendix.

FDI and wage inequality: case study evidence in the literature

It is also possible to examine the distributional impact on the basis of case study evidence of individual companies. We do this in Table 2.11. There are some well known FDI cases in the literature, ranging from the water war in Cochabamba to the fiscal wars for automobile investors in Brazil and the successes of Intel in Costa Rica. We look for evidence that can tell us whether the effects on wage, incomes or real incomes varied by level of education or skill level.

The column on social impact can be summarised as follows

- The Intel plant in Costa Rica benefited skilled workers more than less skilled workers, at least temporarily. In the longer-run the effect of increased inequality can be offset by how government and Intel help to boost the supply (and reward) of skilled workers.

- While the automobile plants in Brazil may have provided employment opportunities in assembly operations, local governments wasted money on grants which could otherwise have been used for social purposes: income inequality could have been reduced more if this had been the government's objective.

- The temporary privatisation of a water plant in Cochabamba led to an increase of wage bills which hurt the poor people who spent a relatively large proportion of their budget on water. This may have led to a worsening in *real* income inequality (i.e. less value for money, particularly for the poor).

- The Inti Raymi (a gold mine in Bolivia) is an example of where investment was made (more) relevant for the poor by starting a foundation for community development.

This selected reading of the evidence indicates that FDI may have benefited skilled workers more than less-skilled workers directly (Intel) or indirectly (water in Cochabamba), or that business (Inti Raymi) and government initiatives (less financial grants) may help to improve the distributional impact of FDI. However, we will look at how FDI affects distribution in different policy frameworks in the next section.

2.6   Policies to improve the distributional impact of FDI

FDI has not played a major inequality-reducing role in most of Latin America, and in some countries it may have increased wage inequality. Irrespective of the actual impact of FDI, there is a debate that the impact of FDI should be improved, particularly for low-income workers. According to a Latinobarometro survey in 12 Latin American countries, most respondents believed that the privatisation of state companies (often associated with FDI) was, in 2000, not beneficial. There was a clear trend (in a series of annual surveys) towards also feeling that it had been less beneficial over the past few years. This section reviews government and business policies which may help to improve the impact of FDI on the poorest part of the workforce. There may also be instances where the business and development case for improving the impact of FDI for low-income workers intersect. Before this, the section will discuss a framework in which we can analyse the effects of TNCs on income inequality, which serves as an introduction to analysing the effects of FDI policy.

Table 2.11: FDI and income inequality in Latin America: implications from selected case studies taken from the literature

	Main motivations to invest	Economic impact	Social impact	Implications for policy
Intel – Costa Rica (Sources: Spar, 1998; Larrain *et. al*, 2000; Rodriguez-Clare, 2001).	• Export intensive 'mobile' electronics investor. • Qualified labour force (technicians professional etc.) build up over long run. • Political stability; corruption-free and credible legal institutions. • Coordinated effort to attract skill-intensive technology investments by CINDE. • Tax holiday in EPZs (12 years).	• **Micro:** pays higher wages than manufacturing average. **Macro:** caused around half of GDP and export growth in 1999; net exports were USD 1.5 billion; no additional fiscal receipts. • **Externalities micro** through training (institutes) and linkages with 100 domestic suppliers (helped by linkage promotion schemes); and **macro** through restructuring of investment climate.	• Wage increases mainly to skilled workers raising inequality (temporarily). • No direct relevance to poorest; possibly indirectly through effects on growth (but not fiscal receipts), additional FDI and supplier development and premium on being educated.	• **Coordinated and targeted approach** may have worked for growth but may also have raised income inequality through increased **demand** for skilled labour. However, Intel also helped increase **supply** of skilled labour through supporting engineering studies at the Costa Rican Technology Institute which may help to lower inequality. • **Appropriate education policy** has helped attracting FDI. • **Linkage support policy** helpful for Intel suppliers. • Doubts on **tax holidays** which may have helped attracting FDI, but reduces tax receipts which can be used to increase social relevance. (Tax holidays under EPZs will be disallowed for countries such as Costa Rica from 2008).
Foreign automobile investors in Brazil (Hanson, 2000, Rodriquez-Clare and Arbix, 2001a).	• Brazilian/Mercosur market (market-seeking). • Fiscal grants (up to $ 340.000 per job) unlikely to have been effective at national level, but existence of sub-national competition.	• Direct employment in assembly operations. • No increase in (local) R&D. • Trade balance deficit (imports of parts) as national supply parts industry taken over by foreign firms or imports. • Little development of local suppliers.	• Forgone spending opportunities after offering grants: 'pure waste' for the economy. • Reduction in local employment to supply parts.	• **Incentives** need to be regulated at least at national and possibly international level (some talks have emerged at MERCOSUR level) to improve social impact of competition for FDI.

International Water, Bolivia – consortium including Bechtel and Edison (various sources including websites and *the Economist*).	• Market-seeking	• Increased water bills (doubled for some). • Little investment. • Investors suing (ICSID) government for breach of contract – could amount to $25 million to recover foregone profits.	• No effect on nominal incomes, but less value (services) for same money; water supply more expensive with poor people bearing the cost disproportionately (increase in real income inequality).	• Need for regulators or **guidelines** in case of local monopolies *before* attraction of FDI. • A well considered approach to **bilateral investment treaties.** • Direct negative impact on water bills for poor people, increased real income inequality which needs mitigation for distributional purposes.
Inti Raymi, Mining company, Bolivia. Buitelaar, 2001 and Villalobos, 2002).	• Natural resource-seeking for exports.	• Marco impact of mining activity on GDP in Oruro visible, through employment and second-round effect; low fiscal receipts; Micro: foreign owned mining companies pay higher wages than others.	• Employment opportunities, sometimes with poor working conditions; Inti Raymi foundation with $16.2 million for local programmes since 1991.	• **Business initiatives can** help local development as well as alleviate resentment against foreign ownership.

Source: see Column One.

Analysing the effects of policy on wage inequality in a supply and demand framework

This section discusses a framework in which we can analyse the effects of TNCs on human capital and income inequality. We first propose a demand and supply framework distinguishing between skilled and less-skilled workers, which is instrumental in deriving implications for human capital and income inequality. This serves as an introduction to analyse the effects of FDI *policy*.

We use a supply and demand framework of the market for skilled and less-skilled workers, allowing for market structure (e.g. bargaining), enabling us to analyse the effects of TNCs and FDI policy on human capital development and income inequality. We divide workers into skilled and unskilled (less-skilled) categories, where skills can be based on education or occupation. The income of skilled workers relative to income of unskilled workers is the measure of wage inequality.

Simple demand and supply equations for skilled and unskilled workers are as follows[4]

$$q_U^D = a_U + b_U(w_S - w_U) \qquad = \qquad \text{Demand for unskilled workers}$$

$$q_U^S = c_U + d_U(w_S - w_U) \qquad = \qquad \text{Supply of unskilled workers}$$

$$(2.1) \quad q_S^D = a_S + b_S(w_S - w_U) \qquad = \qquad \text{Demand for skilled workers}$$

$$q_S^S = c_S + d_S(w_S - w_U) \qquad = \qquad \text{Supply of skilled workers}$$

where q is demand for (superscript D) or supply of (superscript S) skilled workers (subscript S) or unskilled workers (subscript U); a, b, c and d are coefficients; and w is the wage of workers. We further impose homogeneity of degree zero in wages, and set $a_S - a_U = a; c_S - c_U = c$, so that relative demand (q^D) and supply (q^S) of skilled workers are

$$(2.2) \quad q^D = a + b\ w$$

$$q^S = c + d\ w$$

where $w = w_S - w_U$, and $b = b_S - b_U; d = d_S - d_U$. Suppose individual supply and demand curves in (2.1) are upward respectively downward sloping ($b_S < 0; b_U > 0; d_S > 0; d_U < 0$) then relative supply and demand curves are also upward and downward sloping ($b < 0; d > 0$). The curves are shown as solid lines (q^D and q^S) in Figure 2.8 (see also Machin, 1996). In the remainder of the section we will explain how FDI policy can shift the solid curves towards positions indicated by dotted lines.[5]

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4 Variables are in logs. Gregg and Manning (1997) argue that the reservation wage of (or demand for) one type of workers depends on the wage of (demand for) the other type.

5 Taking model (2.1) – (2.2) in addition to $a > c$, we can assume for now that there exists an equilibrium between supply and demand ($q^D = q^S$). The equilibrium relative wage ($\overline{w}$) and relative employment ($\overline{q}$) of skilled workers are

$$\overline{w} = \frac{a-c}{d-b}, \ \overline{q} = \frac{ad-bc}{d-b}$$

and positive by assumption. These points (not shown) are at the intersection of the supply and demand curves in Figure 2.8. Wages can also be affected by 'wage-push' factors related to industrial relations such as minimum wages or wage bargaining. Unemployment can also be analysed in this framework, as this may affect wage bargaining.

Figure 2.8: Relative demand and supply of skills
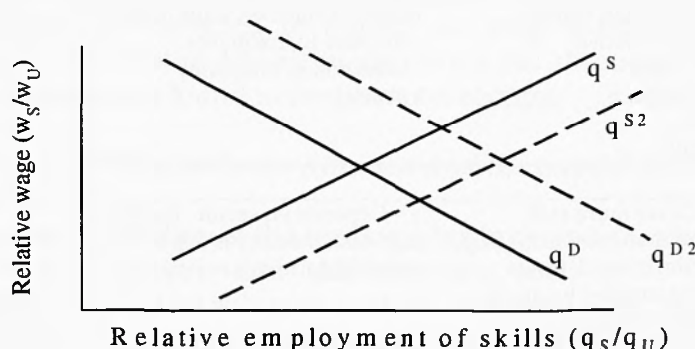
The above framework assumes that demand and supply of skills are in equilibrium in a perfectly competitive world. This is not necessarily the case. One can have doubts to what extent factor markets work in this way in developing countries. For example, there may be a surplus of unskilled labour in the informal sector, keeping wages of unskilled labour low. Consider, too, the cobweb model, where it takes time for supply to adjust to new skill demands. TNCs wanting to transfer technologies to the host country require the use of skilled labour. Such skills become available only with a considerable time lag,[6] by which time demand for skills may have changed. This market failure calls for policy intervention (Lall, 2000 and 2001).

More generally, there are various factors and labour market institutions which cause a wedge between actual and equilibrium-relative demand and relative wage of skilled labour, and there are theoretical models (as well as evidence for developing countries) allowing for imperfect competition in wage-setting (employment protection, minimum wage, rent-sharing, efficiency-wage models, see Söderbom and Teal, 2001). A minimum wage is one example. The enforcement of a 'biting' minimum wage (a move down along the relative demand curve) reduces the relative wage raises relative employment of skilled workers.

FDI policy can shift the solid curves towards positions indicated by dotted lines. For instance, FDI policy affects skill development, i.e. relative employment of skilled workers. Table 2.12 focuses on how FDI policy may affect wage inequality in the suggested framework of relative supply of and demand for skilled workers. The table contains four columns on the type of policy, expected effects on human capital formation, expected effects on wage inequality and on the volume of FDI.

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6 TNCs that raise the demand for skilled labour would also raise the return to education, which should lead to a supply response. However, in case of formal education, it can take 6 years before another level of education will be attained. In terms of the supply/demand framework, it means that countries may reach the equilibrium, if at all, only after significant oscillations.

Table 2.12: FDI policy, human capital formation and wage inequality

FDI policy	Effect on human capital formation (relative employment) ++ very positive + positive ? depends	Expected effect on wage inequality + increase in inequality - reduction in inequality ? depends	Expected effect on volume of FDI inflows + positive ? uncertain
A FDI attraction:			
Firm-specific targeting/clustering/ developing key sectors	+/? TNCs are more skill intensive than local firms (e.g. Singapore, Ireland, Costa Rica), but can also locate in low-skill sectors (garments)	+/- Depends on sector. Targeting high-tech industry is (+), but targeting garments is (-)	+ FDI promotion works (Wells and Wint, 1990), but depends on implementation
Trade facilitation (imports of capital goods, export orientation, trade agreements, etc.)	++ Attracting, export intensive asset-seeking affiliates + Efficiency seeking affiliates (e.g.EPZs)	+ See high-tech manufacturing - TNC affiliates in EPZs employ low-skilled workers	+ Experience of EPZs + Trade openness raises FDI inflows (Morisset, 2000)
Fiscal incentives linked to technology status	+ Pioneer status (see Singapore)	+/? Depends on type of TNC operations	?
Financial incentives	? Depends on elasticity of substitution between skilled and unskilled workers (see Ireland case)	? Depends on elasticity of substitution. However the effect would be negative if the effect on government revenue is taken into account	? see Brazilian automotive industry, Hanson (2000)
TNC training	+ TNCs tend to train more (see section 2.6.3)	?/+ Training tends to be aimed at skilled workers	
Supply of skilled labour	++ By definition	- Especially when aimed at delivering primary and secondary education	+ see e.g. Noorbaksch *et al.*, (2001).
Specific and general infrastructure policies	+ Improved infrastructure attracts FDI inflows	?	+ Wheeler and Mody (1992)
B FDI upgrading:			
Payroll tax, with revenues hypothecated for training.	+ see e.g. experience of SDF, HRDF and the Dominican Republic	?/- Training at all levels, but tax could be linked to unskilled workers	? Contrasting evidence on effects of taxes
Tax deduction for training expenses	+ anecdotal evidence, e.g. in Malaysia	+/? Even if training was equal among skill groups, this is likely to raise inequality	? see above
Public-private partnerships	+ see PSDC – Malaysia	+ in absence of social objective training aimed at skilled workers	?
Create training institutions with private sector/TNC involvement in planning of training	+ to ensure that training is more relevant to needs of private sector	?	+
Promote technology and innovative capacity (R&D policy) within TNC affiliates	+ see experience of Singapore	+ R&D centres employ skilled workers	?
Abolition of performance criteria (TRIMs)	+ /? Fewer TRIMs lead to more technology payments by US affiliates, Blomström *et al.* (2000, Table 13.2), but TRIMs may reduce local sourcing and employment	?	? Fewer TRIMs could lead to more inflows
C Linkages:			
Promote TNC linkages	+ Spillover effects on local firms	- when local firms employ unskilled workers	+/?
Raise local capabilities through skill enhancement	+ Reduced costs of technology transfer from TNCs, see Teece (1977)	- when local firms employ unskilled workers	

Source: building on te Velde (2002).

In the remainder of Section 2.6 we will focus on how Latin American countries have used the main policies listed in Table 2.12. This will help to understand how FDI policy (by

government and businesses) may have impacted on the relationship between FDI policy and wage inequality. Using the demand and supply framework as set out above will also link in directly with the way the regression model in the previous section has been set up. Hence, policies that are expected to impact on wage inequality (see above), and have been implemented in Latin American countries (as discussed below) will also have affected regression results as found in the previous section.

Government policies in Latin America and the impact of FDI
Education
Multinationals are often at the leading edge in the use of new technology. They are also often more capital-intensive and skill-intensive than local firms, requiring workers with knowledge of technical subjects, such as engineers (Lall, 2001). The growth in FDI therefore leads to a growing demand in skilled workers. This further leads to an increase in the relative scarcity of skilled workers who can, unless the education system provides appropriate and good quality workers that can be employed in sectors where FDI is locating, exploit this by demanding a higher wage. Good quality and appropriate education in this context requires at least a good educational basis (at least secondary education) on which TNC and their training systems can build as well as provision of tertiary technical education.

Table 2.13 provides the score card on primary, secondary and technical tertiary enrolment rates in developing countries and, in particular, Latin American countries. The traditional Asian Tigers stand out as having high enrolment rates in secondary and tertiary education and, particularly, in the tertiary technical subjects. This is less true, however, for Latin American countries, which are positioned between the Asian Tigers and the other developing countries, such as Middle Eastern and African countries. In particular, Latin America faces a secondary schooling deficit. There is also a lack of appropriate technical education to attract and benefit from much of manufacturing FDI.

Table 2.13: Enrolment rates as % of population

	Enrolment ratio 1st level[a]		Enrolment ratio 2nd level[a]		Tertiary enrolments		Technical tertiary enrolments (natural science, maths, computing, engineering)	
	1980	1995	1980	1995	1995	% point changes 1980–95	1995	% point changes 1980–95
Developing Countries	88	91	34	44	0.82	0.46	0.16	0.08
Sub-Saharan Africa	74	78	17	23	0.28	0.21	0.04	0.03
MENA	88	92	42	59	1.26	0.70	0.22	0.11
Latin America	102	103	45	53	1.64	0.34	0.30	0.05
Argentina	106	113	56	77	3.08		0.47	
Bolivia	84	95	36	37	1.48		0.34	
Brazil	99	112	34	45	1.08		0.18	
Chile	109	99	53	69	2.58		0.73	
Colombia	128	114	44	67	1.80		0.51	
Costa Rica	105	107	48	50	2.58		0.35	
Honduras	93	111	30	32	0.96		0.20	
Mexico	115	111	46	58	1.56		0.44	
Panama	106	106	61	66	2.92		0.59	
Paraguay	104	109	26	38	0.88		0.11	
Peru	114	123	59	70	3.21		0.46	
Trinidad &Tobago	97	96	68	72	0.64		0.14	
Uruguay	106	111	60	82	2.14		0.29	
Venezuela	109	94	41	35	2.52		0.29	
Asia 4 Tigers	106	100	72	82	4.00	2.39	1.34	0.68
Hong Kong	106	96	64	75	1.59		0.49	
Korea	110	101	76	101	4.96		1.65	
Singapore	108	104	58	62	2.52		0.47	
Asia 4 New Tigers	103	102	43	60	1.61	0.65	0.28	0.12
Philippines	113	116	65	79	2.70		0.33	
Thailand	99	87	29	55	2.10		0.19	
China	112	120	46	96	0.60	0.48	0.13	0.08

Source: Lall (2001, Tables 5.1 – 5A4). *Notes*: a As % of relevant age group.

The situation facing many Latin American countries is even worse when one considers the overall quality of their education systems. As well as lacking in quantity, Latin American schooling is still lacking in quality. Countries such as Brazil, Mexico and Chile were at the bottom of the world-class in a 2001 OECD study, in comparison to other countries in Eastern Europe and Asia which exceeded the quality levels of many Western countries. To make matters worse, Brazil, Argentina and Chile are usually among the top in Latin America, showing that the rest of the region has education of poor quality. Observers argue that much of education spending is wasted because schools are disorganised and teachers are poorly trained. They have also argued that there appears to be a lack of accountability, for example in terms of standard exams and school evaluation.

Good institutions are required to provide better quantity and quality education, thereby coordinating the supply and demand of skills. The involvement of the private sector (with good relationships with unions in tripartite labour models in e.g. Singapore and Ireland) may improve the relevance of much of the education and training. Good quality and appropriate education will lead to the inclusion of the poorest part of the workforce, and it may help to attract and benefit from FDI (see Noorbaksh *et al.*, 2001 and Borensztein *et al.*, 1998). The presence of local universities that could produce relevant graduates helped to persuade Intel to invest in Costa Rica. Intel and the government have set up joint training and technology institutes, which benefits Intel as well as other firms working in the sector. Such supply side (or competitiveness) interventions may in the long run help Costa Rica to benefit from high technology FDI as well as mitigate an adverse distributional effect (see Table 2.11). In fact, FDI has raised wages of skilled and less-skilled workers in Costa Rica (see Table 2A2), and one of the reasons could have been a simultaneous and reasonable supply of appropriate education which will, *ceteris paribus,* shift the relative supply curve in Figure 2.8 outwards and reduce wage inequality.

Training policies and institutions
Good quality education provides the best basis for training. However, government can do more to coordinate the market for skills. They may want to address market failures in the market for skills by encouraging training in TNCs and other firms. There is a large theoretical and empirical literature regarding who should pay – government, employers or employees – for different types of training and education, based on the idea that neither private actor could capture all the benefits of these investments.[7] Looking at the empirical evidence, firms *do* invest in general training as employees do not capture all benefits from training, while firms capture some by raising productivity more than wages.

There are various examples of incentives and public-private partnerships to encourage training within firms, including the use of subsidies and tax breaks for TNC training expenditure, tax levies dedicated to supporting training, sharing the costs of training instructors, equipment or locations. Governments have also supported the cooperation between public research institutions and TNCs.

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7 Most theoretical models predict that training is sub-optimally low and some form of government subsidies and regulation is required to solve this market failure. It was argued that government subsidies were necessary for on-the-job training and schooling since firms do not have sufficient incentives to invest in worker skills because trained workers can decide to work for other firms that can use these skills. Of course this does not imply that government involvement materialises. Becker (1975) distinguished between training for firm-specific skills, raising the productivity of workers only for the current employers, and for general skills, useful for all firms. Becker argued that workers had incentives to pay for general training, while firms could recoup investment in firm-specific training, and that credit constraints meant employees were not able to finance training.

Some countries actively attempt to engage the private sector in the provision and planning of training. Governments are increasingly trying to modify a supply-driven education and training system into a demand-driven system. This involves identifying skill needs, for instance by identifying growth sectors. In this way, skill creation can be made more appropriate to private sector needs. Various countries use tri-sector partnerships, involving employees as well as government and businesses, to address skill needs and training policies and systems (e.g. Ireland and Singapore).

Table 2.14: Training institutions in Latin America

		Financing		Structure	Enrolments	Illiteracy (2000)	Years of schooling (2000)
		Tax	Deduction of own training costs	Supervision			
Bolivia	INFOCAL	Voluntary contribution of 1% of entrepreneur wages		Ministry of human development and the Confederation of private enterprises	6323 (students 1999)	14.4	5.6
Brazil	SENAI	1%	With authorisation of SENAI	Ministry of Labour	1,813,182 (1999, students)	14.7	4.9
Chile	SENCE	1% on payroll	Up to 1% of payroll	Ministry of labour and social security	522,757 (1999, students)	4.3	7.6
Colombia	SENA	2% on wages and 0.5% from government	Up to 50% on authorised programmes		979,104 (students 1999)	8.2	5.3
Costa Rica	INA	2% on monthly wages for enterprises with more than five employees	No	Ministry of labour and social security and public education		4.4	6.1
Dom. Rep.	INFOTEP	1% on wages	Yes, for authorised programmes	Ministry of labour	125.225 (1999 graduates)		
Paraguay	SNPP	1% on wages, paid to national workers bank		Ministry of Labour	38,680 (1999, graduates)	6.7	6.2
Peru	SENCICO	0.002% of overall income				10.1	7.6
Uruguay	CTEP/UTU	0.25% to national board of employers			59,964 (students, 1996)	2.2	7.6
Venezuela	INCE	2% of payroll by private employers and 0.5% by workers topped up by the government	When approved by INCE		233,936 (1999, students)	7.0	6.6

Source: www.cinterfor.org.uy and Marquez (2001).

The structure and relevance of training institutions is shown in Table 2.14. Most countries operate a levy on a firm's payroll that can then be spent on approved training courses. In this way, skill upgrading may occur. However, there is no guarantee that training works for all (although it does raise productivity, see below), that quality is the same for each type of programme, and that such training is aimed at unskilled or just the skilled workers with sufficient education. In some countries, training levies are voluntary and few graduates pass through approved training courses. Basic education as measured by years of schooling varies for countries in the table from 4.9 in Brazil to 7.6 in Chile, Peru and Uruguay, and may also affect the impact and extent of training. It is important to realise that there is a long tradition of training institutes and there may be more than in East Asia, where skill upgrading has been faster, suggesting that the mere existence of such institutes is not sufficient. Indeed

many institutions do not appear to provide appropriate training, although Chile may have improved the relevance of human resource development to private sector needs recently. Instead of offering training directly, the Chilean SENCE now uses an income tax rebate for firms that directly provide training to their employees, so that firms can choose programmes that fit their requirements.

Infrastructure policies

Infrastructure policies may also help to stimulate private sector activity generally. A competitive and vibrant local private sector is more likely to benefit from the presence of foreign firms. For instance, good transport networks and telecommunications systems would facilitate linkages between TNCs and local firms. Such local firms could provide jobs for the poorest workers.

As the following tables show, the availability of good quality and appropriate infrastructure differs markedly by country. For instance, poor infrastructure provision in Bolivia appears to discourage investors (particularly in manufacturing), see Table 2.15, and linkage promotion, so it should be an important priority for Bolivia. Improving regional infrastructure and becoming a hub for certain sectors/products is likely to encourage investors in those products/sectors.

Table 2.15: Relative conditions of transport systems in the Andean region

	Bolivia	Colombia	Ecuador	Peru	Venezuela
Customs and foreign trade procedures	1.65	2.11	1.36	1.92	1.58
Functioning of ports	1.77		1.64	2.03	1.54
Road infrastructure	1.00	2.42	1.31	2.09	1.69
Land transport	1.28		1.75	2.03	1.84
Sea transport	1.85	2.19	2.06	2.31	2.06
Air transport	1.90	1.21	1.77	2.33	2.19
Transport security	1.77	1.81	1.36	2.08	1.35

Source: Vial (2001). *Note*: compared with developed countries: 1 much worse; 2 somewhat worse; 3 similar or better.

Investment promotion policies

Some countries (Ireland, Singapore, Malaysia, Costa Rica, etc.) have actively tried to attract high-tech and skill-intensive electronic TNCs by creating strong and flexible investment promotion agencies. Some investment promotion agencies (Ireland's IDA, Singapore's EDB) were actively doing this trying to attract asset-seeking TNCs through specific promotion (phone calls, mailings, visit to headquarters, arranging site visits, etc.). The experience of Costa Rica, where targeting was combined with appropriate education policy to attract large TNCs such as Intel, shows that simply opening up to FDI is not sufficient to attract FDI (see Table 2.11). While Chile and Mexico had similar economic fundamentals, they did not use targeting. Apparently, Costa Rica had not been on the initial Intel list for potential investor sites, though this was changed after targeting by the IPA. The attraction of Intel has increased the relative demand for skills and thus shifted the relative demand curve outwards (Figure 2.8), thereby raising wage inequality, *ceteris paribus*. Hence, actively attracting this type of FDI has had an impact on wage inequality.

There is some evidence that FDI promotion policy works. Wells and Wint (1990) show that developing countries with a promotional body in the US attracted 30% more FDI than countries which did not have such promotional organisation. The effectiveness of FDI attraction strategies is likely to depend on the organisational structure of the promotion bodies, the method of implementation, and the financial resources available. TNCs prefer real one-stop services to lengthy entry procedures involving many bodies. To the extent that targeting works, it may be considered desirable to target low-skilled and employment-intensive FDI if that has the best impact on the poor. However, targeting is better known for

its 'one-off' approach which entails (fixed) costs, suggesting that it may be less efficient for other types such as light manufacturing operations.

It seems that countries, which really want FDI, do a lot work to attract it. Different countries spend different amounts on investment promotion (e.g. offices abroad). Efficiency and effectiveness of investment promotion always needs to be considered. Similarly, offering incentives should be considered on its merits. The experience shows that much FDI in South America is market-seeking, and hence incentives (tax holidays, outright subsidies) designed to cut costs are unlikely to attract additional FDI, i.e. ineffective. In addition to questions about efficiency and effectiveness, other important questions can be raised about the distributional impact of fiscal and financial incentives (see also Table 2.11). Government expenditure can be used for distributional purposes and for financing public goods. Large grants or foregone tax revenues will reduce such a role. In order to understand whether governments achieve the maximum local benefits from TNCs, it would be desirable to know how much in taxes TNCs pay to host country governments and how such revenues are or will be spent (e.g. to compensate locals).

Trade policies

Moran (1998) finds that exposure to *foreign competition* is important to skill upgrading. Firms that are part of a global competitive network, which forces them to remain competitive, appear to have more incentives to invest in training and education and will employ more skilled workers, and are also more likely to introduce the latest technology requiring further training. But it is unclear exactly what type of foreign exposure is helpful in attracting export-intensive affiliates, and what type of policies can achieve this.

What is clear is that TNCs in South America tend not to be export intensive. As Shatz (2001) shows, sales of US TNC affiliates in developing countries is divided into 63% to host, 17% to the US and 20% to the rest of the world. However, these figures are 82, 4 and 14 for South America and within this 77, 6 and 17 for the Andean countries. Thus most US FDI in South America is market-seeking and is relatively shielded from foreign competition. Improving trade performance may also improve the performance on development, though it can raise income inequality by providing further incentives to use skilled workers.

Other government policies

There are a host of other types of policies that are relevant to how FDI impacts on income distribution. These are mainly indirect, e.g. fiscal policy and how fiscal revenues from FDI or unused grants to foreign investors (automobile in Brazil, Table 2.11) are used to support poor people. In addition, a regulatory framework that is in place before foreign investors take over services such as water supply or banks may also be relevant, although the direct distributional impact is difficult to assess (see e.g. the water case in Table 2.11). An enabling environment is important for firms (foreign or local) to prosper but also to reap the benefits from foreign firms.

Business policies

There are many TNC policies which can affect the relationship between FDI and wage inequality. These include policies in the area of pay, training, unionisation and supply chain.

Pay policies

As discussed previously, TNCs pay higher wages than local firms. Often this is part of their policy. For instance, Shell and Unilever aim to pay their top level workers a wage that is in the top 25% of the relevant control group. While the control group for top-level managers consist of employees working for TNCs, the control group for the bottom level are employees in local and TNC firms. This creates a distortion as TNCs increasingly pay high wages to recruit and retain top-level workers; this may not be so for the bottom-level employees, thus

fostering wage inequality. The Chilean Foreign Investment Committee argues that labour costs for Chilean workers can be quite low, but the wages of top managers are relatively high. A question remains as to whether high wages for skilled workers are inefficiently high, i.e. are they worth it because they are more productive or do they claim it because they have a good bargaining position.

Training policies

There is evidence that TNCs provide more training than their local counterparts. Using a sample of firms for Colombia, Mexico, Indonesia, Malaysia and Taiwan, the number of firms ranging from 500 to 56000+ in single years in the early 1990s, Tan and Batra (1995) find that firms are more likely to offer worker training when they are large, employ a highly educated workforce (except Indonesia), invest in R&D investment (except Indonesia), are export-oriented (except Malaysia), and use quality control. All these characteristics are associated with foreign ownership (see Dunning, 1993). However, even allowing for this, foreign ownership was also associated with increased training in Malaysia and Taiwan.[8] Tan (2001) finds that there are big *differences* between the proportion of foreign and local firms that train: the percentage of foreign firms that train their workers is higher than the percentage of local firms that train workers by 20% (percentage points) in Trinidad and Tobago, 20% in Haiti, 30% in El Salvador, 30% in Venezuela, 15% in Costa Rica and 10% in Argentina.

UNCTAD (1994) provides further evidence about the extent and nature of TNC training practices. TNCs spend more on training in their foreign affiliates than do local firms, but the differential varies according to size, industry, entry strategy and motivation of the investment. Evidence also shows that training was aimed mainly at managerial and professional staff and less at sales employees and production workers. While TNCs can train production workers on-the-job, professional employees get more formal attention and are sent on international training courses using the TNCs international networks. Workers in electrical, machinery and chemical industries receive more training than other industries, partly because these industries use complex technologies, which require skilled and trained workers.

Different motivations of FDI may potentially have different implications for the extent to which TNCs engage in training activities and who benefits. *Natural resource* investments are usually capital-extensive, requiring a handful of skilled workers (sometimes expatriates) to operate the complex extraction methods. This may require specific training for a handful of employees. *Efficiency-seeking* manufacturing TNCs offer only limited scope training, because such TNCs are often motivated by the availability of low-skill, low-wage labour. Training plays an important role in *strategic asset-seeking* investment. Strategic asset-seeking TNCs are often trying to invent and implement new leading-edge technologies. Both activities require well educated workers, whose skills can be augmented by specific training.

Finally, *market-seeking* investments often involve limited training of local people to exploit the firm-specific advantage. Such TNCs are often replicas of their parents (horizontal TNCs) and may devote training efforts to specific technological or marketing approaches skills. Other examples include market-seeking investments attracted by privatisation of state-utilities in East European countries, and now also in Latin America and Africa. The experience of Eastern Europe suggests that, while a relatively skilled workforce (especially technical subjects) was available, substantial training was needed to improve market-orientation skills (UNCTAD, 1994).

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8 The proportion of female workers also significantly and negatively affected training in Colombia and Indonesia. This may reflect the fact that female workers can be found in simple assembly operations. Unionisation, on the other hand, led to more training in Colombia, Mexico, Malaysia and Taiwan. In theory, the effect of unions can go different ways, depending on whether unions bargain for higher wages or more training.

Tan and Batra (1995) find that training positively affects productivity but the impact is largely confined to skilled workers, as opposed to unskilled workers (see Table 2.16). Some minor positive effects for unskilled workers are discernible when disaggregating by type of training. The productivity effects of in-house training of unskilled workers in Colombia were negative and significant, while training for unskilled workers provided by external buyers and suppliers was positive and significant. On the whole, educated workers are better learners with greater absorptive capacity and hence benefit more from training.

Table 2.16: Percentage productivity effects of training by skill level

Country	Skilled workers	Unskilled workers
Colombia (1992, 500 firms)	38.6*	-26.3
Indonesia (1992, 300 firms)	143.1*	-55.0
Malaysia (1994, 2200 firms)	25.2*	-4.1
Mexico (1992, 5072 firms)	20.4*	-13.2

Source: Tan and Batra (1995, Table 12).
Notes: * Significant.

Training policies matter in this respect. TNCs tend to spend a fixed percentage of their pay-roll, often between 3% and 5%, more than (smaller) local firms, and more than the percentages in Table 2.14. While this policy is determined by TNC headquarters (e.g. Shell and Unilever), the actual disbursement of funds is determined by their affiliates (e.g. in Latin America). There is no requirement to train at every level of the workforce, and hence managers may have higher training budgets than operatives.

Industrial relations policies

There is a tendency towards an individualisation of industrial relations, and in many Latin American countries this is because of privatisation and not because of TNCs. Interviews with TNCs have revealed that actual practices may vary. One oil TNC did not discourage unionisation but promoted industrial relations at an individual level. A manufacturing TNC did have business principles which affiliates were expected to adhere to and said it would work with 'sensible' unions. A water TNC had only recently acquired firms in Latin America and was still assessing whether headquarter policies could be reconciled with affiliate policies without many costs.

Supply chain and business principles

The extent to which and the way in which TNCs work with suppliers also affect the link between FDI and income inequality in the host economy. The more linkages are developed, the more jobs can be created indirectly. The extent and quality of linkages differ by sector, TNC policies and host country characteristics and policies. Some TNCs depend on good quality and just-in-time supplies. This is the case in the car assembly industry, which depends on quality supplies of car components.

TNCs engage in local supplier development when this is in their own interest (UNCTAD, 2001). Sometimes FDI in the car assembly industry is followed by FDI in the car components sector (see e.g. the experience in Brazil), and quality imported supplies replace local supplies. But when TNCs help to develop local suppliers, they train them on business standards and principles (health and safety) and may provide loans.

The intersection between the business and the development case

There are potentially ways in which government and business can coordinate their actions or form partnerships in order to improve the impact of TNCs on the development of the poorest workers (and a reduction of income inequality). Such opportunities are most likely

to arise when government and business actions are interdependent. The following areas, where the business and development cases are linked, deserve further attention:

- *Education and training.* TNCs will train their workers more when workers have a good and appropriate basic education. Governments could therefore consider whether the quantity and quality of basic education is sufficiently geared towards areas of economic expansion and the needs of TNCs. Governments may also consider providing incentives (public-private partnerships in training, subsidies, taxes, standardisation) for more training of less-skilled workers, particularly in larger firms.

- *Health.* A healthy workforce is in the (business) interest of the TNC and a healthy population is a government priority. In the case of epidemics, TNCs and less-wealthy governments may join to fight the disease as witnessed in Southern Africa. Neither partner could fight the epidemic on its own. The government may have limited funds, while the provision of health care for (future) employees can make economic sense.

- *Supplier development.* TNCs will source locally when local quality suppliers are present. There may be a role for the government to provide an enabling environment for private sector development and to actively support linkages between TNCs and local firms in a market-led way. This would involve matching local suppliers with TNCs and upgrading the basic capabilities of local firms. Well developed Investment Promotion Agencies (IDA Ireland and Singapore EDB) already perform such tasks through national linkage-support programmes. TNCs may then develop their suppliers further. An example of supplier development in Latin America related to the Intel plants which have more than 100 suppliers. The Costa Rican government, aided by the IDB, is helping local suppliers to become more competitive (see Larrain *et al.*, 2000). Public support for linkage creation is discussed in te Velde (2002a).

- *Infrastructure.* It may be in the interest of both the TNC and local communities to provide local infrastructure. A combination of TNC activities and government funds may maximise the benefits to the development of infrastructure in host countries.

Box 2.1: Partnerships and livelihoods of poor people.

Recently, partnerships between firms, government and civil society have emerged to improve the impact of FDI (see, for example, the 230 partnerships put forward to the World Summit in Johannesburg in August 2002). Each of the partners can bring something to the table. In the case of businesses, this does not simply imply cash for compensation of oil leaks (alone), but thinking about what core competencies (finance capacities, marketing networks, etc.) a business employs in order to reduce poverty and improve local livelihoods. A variant of the partnership approach has been taken by Inti Raymi in Bolivia (Villalobos, 2002). This approach has moved beyond simple compensation by establishing a foundation helping livelihoods of poorer people surrounding the investment. This has also leveraged in other support for cooperation. However, in general, there is relatively little evidence so far about what type of partnerships can make a difference for the poor in what type of settings.

2.7 Conclusions

The chapter has tried to position FDI in the debate on income inequality in Latin America. It has argued that:

- Income inequality is persistently and relatively high in almost all Latin American countries. Labour income inequality plays an important role in total income inequality. It is therefore instructive to examine developments in labour income inequality, both by occupation and education. All data sources used support the conclusion that in most

countries the relative position of skilled workers has improved over much of the late 1980s and early 1990s. In many, but not all, countries this has manifested itself in an increase in relative wages. Most countries have also experienced an increase in the relative employment of skilled workers (which should have caused a drop in relative wages).

- Many researchers have examined the causes of income inequality in Latin America. Income inequality can be determined by at least three factors: the distribution of factors of production, the demand for those factors, and the supply. Labour or human capital, i.e. the distribution of education and the returns to skill, are the factors of production that are driving income inequality.

- While FDI may have been good for development (e.g. we find positive correlations between FDI and GDP, or productivity, or wages) this masks the fact that different countries with different policies and economic factors tend to derive different benefits and costs of FDI. In addition, not all types of workers necessarily gain from FDI to the same extent. The reasons for this include: FDI induces skill-specific technological change; it can be associated with skill-specific wage bargaining; it may locate in skill-intensive sectors; and it provides more training to skilled than unskilled workers. A review of micro and macro evidence shows that, at a minimum, FDI is likely to perpetuate inequalities. This is in contrast to what traditional trade and FDI theories would predict. Nevertheless, because there are so many opposing effects, empirical research is required.

- When FDI is measured as stock as a share of GDP, almost all countries experienced substantial growth in FDI over the past decade and a half (with the exception of the last two years). However, growth rates and sector distribution vary markedly by country. New preliminary empirical evidence shows that FDI did not have an inequality-reducing effect in Latin America. There are possible exceptions, such as Colombia, but even here FDI may still have played a relatively minor role. On the contrary, there are indications that in countries such as Bolivia and Chile FDI may have increased wage inequality. While this does not imply that FDI was or was not good for development and poverty reduction in these countries, it does imply that most of the gains of FDI have benefited skilled and educated workers. FDI tends to raise wages of both types of labour, although for Bolivia the results suggested that FDI lowered wages of less-skilled workers more than wages of skilled workers.

- Government and business policies affect the link between FDI and income inequality. A government may use education, training, infrastructure, trade and investment promotion policies to improve the developmental impact of FDI. Similarly, businesses can use pay, training, industrial relations and supplier development. There are areas in which both a business and development case can be made for improving the social impact of FDI, and hence where coordination is required to realise win-win situations. These include: training, health, supplier development, infrastructure and transparency, security and reputation.

The main conclusion of the chapter is that while FDI may have been good for development, more can be done to improve its impact on income distribution and the poor in Latin America, either through appropriate government policies in the area of education, training and infrastructure (i.e. a general development policy), or through working directly with TNCs through incentives or partnerships. Determining which policies are most appropriate and relevant will depend on country characteristics as well as FDI characteristics, and hence will require further discussion and in-depth studies.

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Appendix: Modelling the effects of foreign direct investment on wage inequality

Foreign direct investment affects wage inequality through various routes. An obvious way to analyse the effects of FDI on the market for skills is in a supply and demand framework (as discussed in Section 2.6). In this section we focus on how this framework can provide equations that can be estimated to inform us about the effects of FDI on wage inequality. The model is described in te Velde and Morrissey (2004) and applied to five East Asian countries.

The supply and demand framework can be represented by a two-factor CES production function with low-skilled labour (U) and skilled labour (S) following Katz and Murphy (1992).

$$f(U_t, S_t) = \left\{ \lambda(\psi_{Ut} U_t)^\rho + (1-\lambda)(\psi_{St} S_t)^\rho \right\}^{\frac{1}{\rho}} \quad \rho < 1 \qquad (2A1)$$

where $\varphi_{Ut} \equiv \ln \psi_{Ut}$ and $\varphi_{St} \equiv \ln \psi_{St}$ are functions of labour efficiency units, and the parameter < 1. The labour efficiency index can be interpreted as accumulated human capital or the skill-specific technology level. The elasticity of substitution between U and S is $\sigma = 1/(1-\rho)$. In neo-classical theory, the technology level changes exogeneously. However, it is perfectly possible to have shifts in the pattern of technical change, dependent on such factors as inward FDI. This is one way that FDI can affect the market for skills, and we model this below.

We let the labour efficiency indices (skill-specific technical progress) depend on an exogenous time trend, t, and the real stock of inward FDI as a percentage of GDP, *fdis*,

$$\varphi_{Ut} \equiv \ln \psi_{Ut}; \varphi_{Ut} = \gamma_{1U} t + \gamma_{2U} \, fdis; \varphi_{St} \equiv \ln \psi_{St}; \varphi_{St} = \gamma_{1S} t + \gamma_{2S} \, fdis \quad (2A2)$$

and using the first-order condition that factor productivity equals the real factor price we can derive a formula for the wage of skilled relative to low-skilled workers (skill-premium),

$$\ln\left(\frac{w_{St}}{w_{Ut}}\right) = \ln\left(\frac{1-\lambda}{\lambda}\right) - \frac{1}{\sigma}\ln\left(\frac{S_t}{U_t}\right) + \frac{\sigma-1}{\sigma}\gamma_1 t + \frac{\sigma-1}{\sigma}\gamma_2 \, fdis_t + \varepsilon_t \qquad (2A3)$$

where α is a constant, $\gamma_1 = \gamma_{1S} - \gamma_{1U}$ and $\gamma_2 = \gamma_{2S} - \gamma_{2U}$. This equation can easily be interpreted. Wage inequality depends on a supply term (the more skilled workers that are employed the lower the returns to skill *ceteris paribus*), a time trend (skill biased technological progress implies higher return to skills) and FDI. If γ_2 is positive, inward FDI raises the relative wage of skilled workers and hence wage inequality.

The derivation of Table 2A3 emphasises the technology transfer aspect of FDI, but there are other routes through which FDI can affect the market for skills. First, the effects of FDI comprise a composition effect (foreign firms may have different skill intensities from domestic firms) pushing up the average skill intensity. Traditional trade theory (the Heckscher-Ohlin model) would suggest that FDI in developing countries with abundant low-skilled workers is located in low-skill sectors such as garments and simple assembly operations (see Wood, 1995, for the predictions of traditional trade theory for trade liberalisation and wage inequality). New trade models also based on Heckscher-Ohlin foundations consider cases where transnational corporations transfer activities abroad, being less skilled compared to the home average but more skilled compared to the host country average (Feenstra and Hanson, 1995). In addition, new trade models have been developed where TNCs locate abroad because of firm-specific assets (Markusen and Venables, 1997) and TNCs are assumed more skill-intensive than local firms. The latter appears to be the case for FDI in relatively complex production processes and in particular sectors using above average skills (electronics, chemicals, etc.), bringing up the national average employment of skilled labour.

Secondly, FDI could induce faster productivity growth of skilled and/or low-skilled labour in domestic firms (spillover effect).[9] Thirdly, the approach includes a potential sector bias of FDI, if FDI causes a relative expansion of skill intensive sectors, leading to a higher relative wages for skills. Fourthly, while the derivation of equation 2A3 assumes perfect competition, the same equation can be derived under a situation of imperfect competition, where FDI affects the relative bargaining position of skilled workers. In fact, other variables can be included that allow for imperfect wage-setting, such as a measure of the relative scarcity of skilled labour in 2A3 to allow for pressure on the relative wage of skilled workers if skilled labour is relatively scarce. Finally, FDI may affect the supply of skills through training and contributions to general education. Equation 2A3 combines all of these effects at the national level, and it can be expected that FDI has different effects in different countries.

Equation 2A3 estimates the effect of FDI on the relative wage of skills, it is often important to examine how FDI affects the absolute wage of low-skilled workers. For instance, it may be important to know whether FDI causes equitable growth. And if not, why not and what can be done about it. For this we can estimate a wage equation for each group of workers jointly with cross-equation restrictions imposed on σ. We thus estimate the following equations, with P a price deflator and Y is real GDP

$$\ln(\frac{w_U}{P})_t = \ln(\lambda) - \frac{1}{\sigma}\ln(\frac{U}{Y})_t + \frac{\gamma_{1U}(\sigma-1)}{\sigma}t + \frac{\gamma_{2U}(\sigma-1)}{\sigma}fdis_t + \varepsilon_{1t}$$

$$\ln(\frac{w_S}{P})_t = \ln(1-\lambda) - \frac{1}{\sigma}\ln(\frac{S}{Y})_t + \frac{\gamma_{1S}(\sigma-1)}{\sigma}t + \frac{\gamma_{2S}(\sigma-1)}{\sigma}fdis_t + \varepsilon_{2t}$$

(2A4)

This approach also assumes two factors of production, skilled and low-skilled workers. The effect of capital accumulation on skill-specific wages is captured by the time trend (we expect different coefficients on the time trend by level of skill based on the capital-skill complementarity hypothesis). It is possible to derive equations for skill-specific wage levels with three factors of production, but these would be very difficult to estimate, asking too much from the data we use in this chapter.

By estimating equations 2A3 and 2A4 we can answer two important questions. First, we can test whether inward FDI leads to a rise in the relative wage of skilled workers, i.e. $\gamma_2 > 0$ in 2A3 or $\gamma_{2S} > \gamma_{2U}$ in 2A4. Secondly, we can test whether inward FDI raises wages and productivity of (low) skilled workers in the absolute sense, i.e. $\gamma_{2S} > 0$ ($\gamma_{2U} > 0$) in 2A4. This leads to the following hypotheses

1	$\gamma_2 > 0$, $\gamma_{2S} > \gamma_{2U}$	$\gamma_{2U} > 0$	FDI raises skilled wages more than low-skilled wages, thereby raising inequality
2	$\gamma_2 > 0$, $\gamma_{2S} > \gamma_{2U}$	$\gamma_{2U} < 0$	FDI raises skilled wages and reduces low-skilled wages, thereby raising inequality
3	$\gamma_2 < 0$, $\gamma_{2S} < \gamma_{2U}$	$\gamma_{2S} > 0$	FDI raises low-skilled wages more than skilled wages, thereby reducing inequality
4	$\gamma_2 < 0$, $\gamma_{2S} < \gamma_{2U}$	$\gamma_{2S} < 0$	FDI raises low-skilled wages and reduces skilled wages, thereby reducing inequality

Situations 1 and 3 are the most desirable from a poverty perspective. Only if FDI raises low-skilled wages can it help to alleviate poverty. Situations 1 and 2 are most desirable if one is

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9 The effects of FDI on growth at the macro-level is compelling (e.g. Borensztein *et al.*, 1998), although the routes through which this occurs - composition or spillover effect - are less clear.

concerned about reducing inequality. We will derive policy implications depending on which of these scenarios has occurred. If it is shown that FDI increases overall income, but also increases income inequality (e.g. 1), then this can move debate from overall impact of FDI to appropriate policies to use FDI.

Table 2A1 shows the results of estimating equation 2A3 in two ways. First we use a panel of four countries (Chile, Bolivia, Colombia and Costa Rica) using annual time series taken from national data sources as shown in figures 2.1 – 2.4 (columns 1,2 and 3). Then we use ECLAC data as in Table 2.4. This is for selected years, but available for more countries.

We use as much information over time as possible, and hence estimate an unbalanced panel using the OLS method adjusting the standard errors for heteroscedasticity.[10] Equation A in Table 2A1 imposes the same β (the inverse of the elasticity of substitution between skilled and low-skilled workers) across countries. We also impose similar time or technology trends but allow for country-specific fixed effects, thus allowing for different levels of technology. The elasticity of substitution is $-(1/-0.69) = 1.4$ which is the average of estimates for some other countries (see Hamermesh, 1993; Robbins, 1996). This implies that a 1% increase in the employment of relatively skilled labour reduces wage inequality by 1.4%.[11]

Independent from the above substitution effect there has been an 'exogenous' increase in the relative wage. This can be due to many factors, such as skill-biased technological change raising the demand for and hence wages of skills (see Berman and Machin, 2000). The average trend indicates that there is an average increase of 2.0% per annum in relative wages in the Latin American sample countries (compared to 2.3% in East Asian countries, see te Velde and Morrissey, 2002, and 3.3% in the US, see Katz and Murphy, 1992). We then want to explain differences around this trend by other structural variables such as FDI, whose effect may vary by country.

We thus include as another determinant of skill-specific wages the stock of FDI as a percentage of GDP. The limited number of degrees of freedom does not allow us to estimate country-specific effects for each of these variables, but the second column, marked B, shows that the exogenous increase in relative wages in Chile has been much faster than elsewhere. The third column, marked C, shows that FDI has different effects in different countries as theory also suggests. Column D allows for country-specific trade effects, but the results related to FDI still stand.

FDI appears to have increased wage inequality in Chile (1993–2000) and Bolivia (1987–97), over the time period specified. FDI has had no significant effect in Costa Rica (1987–96) but has reduced wage inequality in Colombia (1978–94). The fact that FDI has not reduced wage inequality in all countries is contrary to predictions by traditional trade theory which suggests that FDI should be inequality-reducing in less-skilled labour intensive countries.

It is also possible to account for a dynamic relationship between variables, while focusing attention at the long-run effects. Equation E in Table 2A1 introduces dynamics. We first estimate a version of dynamic fixed effects model (with one change term: Δ; and allowing for

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10 The OLS approach assumes that relative employment is exogenous for relative wages, as is assumed in Katz and Author (1992). This may not always be realistic, in which case we would have to use suitable instruments. But this would involve using lagged variables as instruments thereby reducing the already few degrees of freedom. We have thus opted for OLS estimation, thereby realising that the coefficients may suffer from an endogeneity bias.
11 This finding has implications for examining the effects of FDI and trade on wage inequality in countries that have experienced skill-upgrading. Amongst others, in countries with skill-upgrading, correlating FDI or trade with wage inequality without taking increased employment of skills into account would bias the results towards finding a negative relationship between FDI or trade and wage inequality.

country specific variances); λ is the speed of adjustment to the long run, while we still allow for country specific intercepts. We find a well defined long-run relationship, with a long-run elasticity of substitution of around 1.6=-1/-0.60, a time trend of 1.4% annual increase in relative wages, while the pooled FDI effect is positive and significant (0.0040, i.e. a 10 percentage point increase in the FDI stock as percentage of GDP relates to a 4% increase in relative wages) for this sample as a whole. We then estimate a version of a Pooled Mean Group model (Pesaran *et al.*, 1999), which allows for country-specific dynamics, while keeping pooled long-run effects. The results are as before, although it should be noted that the dynamics are not well determined. Finally, if we allow for country-specific long-run effects (final column, Table 2A1), the results that FDI has raised wage inequality in Chile and Bolivia are unchanged.

As discussed on the basis of 2A4 above, it is desirable to assess whether FDI raises wages in Chile and Bolivia of skilled labour more than of less-skilled labour, or whether one or both type actually loses out after an inflow of FDI. We thus estimate equation A4 and present results in Table 2A2. Pooled estimations finds that the time trend for low-skilled wages is not significant while that of skilled wages is 1.2% per annum (2.3% in the East Asia sample) and significant. Hence, there have been 'exogenous' developments that caused an increase in wages of skilled workers but not of low-skilled workers. Capital accumulation would do this when there is evidence of capital-skill complementarity. The elasticity of substitution is less well determined. Importantly, in this sample the effects of FDI are positive and significant for both type of labour, but are greatest for skilled workers. This suggest that on average FDI may raise wage inequality by raising wages of skilled workers more than wages of less-skilled workers. This mirrors the results found for Thailand in the East Asia example. However, if we disaggregate the effects of FDI by country in the next column, we find for Bolivia that FDI has raised wage inequality because it has negatively affected the wages of less-skilled workers more than wage of skilled workers. (The effects in Colombia are economically small.)

Table 2A3 concentrates on a panel of nine or ten countries depending on the data source. The final two columns use employment and wage data from ECLAC data covering selected years in the 1990s for ten countries. The time trend is now divided into three time dummy for time period 1994 (2), 1996 (3) and 1999 (4) or nearest. Again, a normal wage curve can be identified with an elasticity of substitution close to 3 (1/0.34). We also include trade (export and imports as percentage of GDP) and the unionisation rate as controls. When we include the FDI variable (stock as percentage of GDP) we find that FDI does not affect wage inequality much in the majority of countries. However, we can divide countries into two groups as mentioned at the bottom of the table: those countries where FDI strategies are mainly natural resources-seeking (e.g. Venezuela) or motivated by exploiting relatively skilled workers (Costa Rica) and other countries. It then appears that FDI has a more positive (here: inequality-increasing) effect in the former group of countries than in the latter. This would confirm that natural resources-seeking or skill-seeking FDI benefits skilled workers more than less-skilled workers.

An analysis based on IDB data brings out similar findings. It appears that FDI affects wage inequality between workers with third and second-level education, not between second and first -level education. While there is the value-added of more countries included, there are few observations in total because there are only between two and four observations during the 1990s per country.

Table 2A1: FDI and Wage Inequality in Latin America (1978–2000)

(eq A) $\quad \ln\left(\dfrac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\dfrac{S_{it}}{U_{it}}\right) + \gamma_1 t + \varepsilon_{it} ,$ $\qquad\qquad i = $ country i

(eq B) $\quad \ln\left(\dfrac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\dfrac{S_{it}}{U_{it}}\right) + \gamma_{1i} t + \varepsilon_{it} ,$ $\qquad\qquad i = $ country i

(eq C) $\quad \ln\left(\dfrac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\dfrac{S_{it}}{U_{it}}\right) + \gamma_1 t + \gamma_{2i}\, fdis_{it} + \varepsilon_{it}$ $\qquad i = $ country i

(eq D) $\quad \ln\left(\dfrac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\dfrac{S_{it}}{U_{it}}\right) + \gamma_1 t + \gamma_{2i}\, fdis_{it} + \gamma_{3i} trade_{it} + \varepsilon_{it}$ $\qquad i = $ country i

	Annual data			
	A	**B**	**C**	**D**
		Pooled effects		
β	-0.69 (-4.30)*	-0.15 (-1.71)**	-0.23 (-2.09)*	-0.23 (-1.93)**
TIME (γ_1)	0.020 (5.25)*		0.012 (4.02)*	0.011 (3.72)*
		Country-specific effects		
		TIME	FDI	FDI
Chile		0.037 (10.0)*	0.0019 (4.10)*	0.0026 (2.75)*
Bolivia		0.020 (7.46)*	0.015 (4.10)*	0.023 (2.64)*
Colombia		0.004 (1.64)**	-0.018 (-2.86)*	-0.025 (-4.18)*
Costa Rica		0.005 (1.28)	-0.003 (-1.60)	0.0011 (0.22)
				TRADE
Chile				0.0086 (0.65)
Bolivia				-0.030 (-1.26)
Colombia				0.013 (4.12)*
Costa Rica				-0.004 (-0.61)
Country intercepts included	Yes	Yes	Yes	Yes
Observations	46	46	46	46
Parameters (incl. intercept)	6	9	10	14
LL	75.40	78.75	89.00	94.20
Countries	4	4	4	4

Notes: Robust standard errors in parentheses. * (**) Significant at 5% (10%) level; country-specific fixed effects not included; β is inverse (and negative) of elasticity of substitution).

Table 2A1 (continued): FDI and Wage Inequality in Latin America (1979–2000)

$$\Delta \ln\left(\frac{w_{Sit}}{w_{Uit}}\right)_t = \alpha_i + \lambda(\ln\left(\frac{w_{Sit}}{w_{Uit}}\right)_{t-1} - \beta\ln\left(\frac{S_{it}}{U_{it}}\right)_{t-1} - \gamma_1 t - \gamma_{2i}\, fdis_{it-1}) +$$

(eq E) $\qquad + \gamma_{3i}\Delta\ln\left(\frac{S_{it}}{U_{it}}\right) + \gamma_{4i}\Delta\ln\, fdis + \varepsilon_{it}$ $\qquad\qquad i = \text{country } i$

	Annual data		
	Dynamic Fixed Effects (country specific variances)	Pooled Mean Group Estimator	Dynamic Model (FDI specific effects)
	Pooled effects		
β	-0.60 (-3.39)*	-0.73 (-3.88)	-0.24 (-1.22)
TIME (γ_1)	0.014 (2.94)*	0.017 (3.65)*	0.011 (1.89)**
Fdis γ_2	0.0040 (2.21)*	0.0032 (2.48)*	
γ_3	0.11 (0.95)		
γ_4	0.11 (0.63)		
λ	-0.67 (-3.24)*	-0.71 (-3.22)*	-0.90 (-4.12)*
	Country-specific effects		
		Δ FDI	FDI
Chile		0.0025 (2.49)*	0.0027 (3.05)*
Bolivia		-0.0023 (-0.39)	0.014 (2.82)*
Colombia		-0.0088 (-0.61)	-0.012 (-1.27)
Costa Rica		0.0057 (1.15)	-0.0053 (-1.54)
		Δ S/U	
Chile		0.27 (2.32)*	
Bolivia		0.043 (0.021)	
Colombia		-0.32 (-0.94)	
Costa Rica		0.45 (2.09)*	
Country intercepts included	Yes	Yes	Yes
Observations	42	42	42
Parameters (incl. intercept)	10	16	12
LL	76.77	78.75	89.00
Countries	4	4	4

Notes: Robust standard errors in parentheses. * (**) Significant at 5% (10%) level; country-specific fixed effects not included; β is inverse (and negative) of elasticity of substitution). Δ is first difference operator.

Table 2A2: FDI and skill-specific wages in Latin America (1978–2000)
Chile, Bolivia, Colombia and Costa Rica,

$$\ln(\frac{w_U}{P})_{it} = \alpha_{1i} + \beta\ln(\frac{U}{Y})_{it} + \gamma_1 t + \gamma_{2i}fdis_{it} + \varepsilon_{it}$$

$$\ln(\frac{w_S}{P})_{it} = \alpha_{2i} + \beta\ln(\frac{S}{Y})_{it} + \gamma_1 t + \gamma_{2i}fdis_{it} + \varepsilon_{it}$$

	Low-skilled wages	Skilled wages	Low-skilled wages	Skilled wages
	(SUR estimation)			
β	-0.14	-0.14	0.24	0.24
	(-0.83)	(-0.83)	(1.34)	(1.34)
Time trend	-0.004	0.012	0.011	0.034
	(-0.54)	(2.14)*	(1.32)	(5.82)*
γ_2	0.0076	0.0085		
	(2.24)*	(2.70)*		
$\gamma_{2, CH}$			0.0066	0.0051
			(2.88)*	(2.47)*
$\gamma_{2, BO}$			-0.0020	-0.011
			(-2.41)*	(-1.74)**
$\gamma_{2, CO}$			-0.011	-0.064
			(-0.63)	(-4.23)*
$\gamma_{2, CS}$			0.045	0.025
			(5.98)*	(3.56)*
Observations		46		46
Parameters (excl. intercepts)		5		11
Log Likelihood		98.84		135.00

Notes: * (**) Significant at 5% (10%) level; instruments include 'own' variables and changes in FDI regime.

Table 2A3: FDI and Wage Inequality in Latin America (1978–2000)

$$\text{(eq A)} \quad \ln\left(\frac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\frac{S_{it}}{U_{it}}\right) + \gamma_1 t + \varepsilon_{it}, \qquad\qquad i = \text{country } i$$

$$\text{(eq B)} \quad \ln\left(\frac{w_{Sit}}{w_{Uit}}\right) = \alpha_i + \beta \ln\left(\frac{S_{it}}{U_{it}}\right) + \gamma_1 t + \gamma_{2i}\, fdis_{it} + \gamma_3 trade_{it} + \gamma 4 union_t + \varepsilon_{it} \quad i = \text{country } i$$

	IDB data			ECLAC (2002) data		
	3/1	3/2	2/1	A	B	B
Pooled effects						
β (inverse of negative of elasticity of substitution)	-0.42 (-0.95)	-1.00 (-1.73)	0.41 (1.26)	-0.34 (-1.79)**	-0.37 (-1.33)	-0.38 (-1.31)
TIME (γ_1)	-0.035 (-0.26)	0.05 (0.823)	-0.05 (-0.81)			
TIME (γ_1) - 2				0.16 (3.33)*	0.16 (3.03)*	0.16 (2.92)*
TIME (γ_1) - 3				0.17 (3.66)*	0.16 (2.91)*	0.17 (2.60)*
TIME (γ_1) - 4				0.09 (1.67)**	0.07(0.84)	0.078 (0.85)
Trade	-0.06 (-1.66)	-0.020 (-1.56)	-0.025 (-1.63)			-0.001 (-0.29)
Union density	0.062 (1.48)	0.019 (1.70)	0.04 (2.05)*		-0.004 (-0.84)	-0.004 (-0.86)
Country-specific effects						
FDI mainly natural resource-seeking and skill-intensive	0.022 (2.04)*	0.019 (2.43)*	-0.0046 (-0.83)		0.012 (1.66) **	0.01 (1.28)
Other FDI	-0.012 (-0.86)	-0.0012 (-0.27)	-0.006 (-1.20)		-0.00 (-0.173)	-0.00 (-0.17)
Country intercepts included	Yes	Yes	Yes	Yes	Yes	Yes
Observations	25	25	26	39	39	39
Parameters (including intercept)	14	14	14			
Countries	9	9	9	10	10	10

Notes: Robust standard errors in parentheses. * (**) Significant at 5% (10%) level; country-specific fixed effects not included; β is inverse (and negative) of elasticity of substitution.

Classification based on Tables 2.7 and ECLAC (2001).

ECLAC data:

FDI natural resource-seeking and skill-intensive: Chile and Venezuela

FDI other (e.g. efficiency-seeking, market-seeking): Colombia, Ecuador, Honduras, Panama, Paraguay and Uruguay.

IDB data (2002, Table 12.1): (3/1 means hourly wages for urban males aged 30–50 with third-level education relative to those with first level; these age data are linked to employment data from ECLAC, 2002, refer to all ages defined with the workforce, third level-employment are those with more than 12 years schooling, first level those with less than six years, second level are the residual group)

FDI natural resource-seeking and skill-intensive: Chile, Bolivia, Costa Rica and Venezuela

FDI other (e.g. efficiency seeking, market seeking): Argentina, Brazil, Colombia, Honduras, Mexico, Panama

Data sources

Employment by occupation: We used the ILO database (www.ilo.org) on employment (formal sector) by occupation. We used the ISCO 1968 basis for all countries. For the purpose of this chapter we divided occupations into skilled (ISCO 1968: major groups 0/1, 2, 3) and low-skilled workers (other major groups). Appendix Table 2A also provides estimates based on data in ECLAC (2002), which includes the informal sector.

Wages by occupation: We used the ILO which has also been used in Freeman and Oostendorp (2000). For our purpose we collected a time series on wages by occupations on the basis of male earnings. We divided occupations into skilled and unskilled workers as above. Almost all 'skilled' workers were paid higher wages than 'low-skilled' workers. We calculated the wage of skilled workers as the mean of skilled occupations on the basis of male earnings, after cleaning the data for gaps and duplications in records. The present method does not allow for weights of the various occupations in the two skill groups, but is the best possible use of the data due to lack of suitable alternatives (weights can not be easily found for all occupations). The wage data cover up to 60 occupations for Chile and Bolivia. Appendix Table 2A also provides estimates based on data by IDB (2002, Table 12.1) and ECLAC (2002).

Foreign Direct Investment: Data used is from UNCTAD and is the accumulation of flows since 1970. The accumulation of flows may understate the stock of FDI if revaluation of the equity component is large, but overstates the stock if the depreciation rate is high.

Other variables: Unionisation rates from Visser (1999) and data on trade from *World development Indicators* . Real GDP and Price Deflator taken from IMF World Economic Outlook database. Real wages for Bolivia from Jemio (1999).

More details are available from the authors and in the draft version of this chapter at http://www.odi.org.uk/iedg/meetings/FDI_feb2003/FDI_Programme.html.

3

The Impact of TNC Strategies on Development in Latin America and the Caribbean

Michael Mortimore

Foreign direct investment (FDI) and, more generally, the activities of transnational corporations[12] (TNC) have lost much of their shine recently with respect to their contribution to development. This, on the one hand, is because FDI inflows, in general, and to developing countries, in particular, have collapsed since 2000 (UNCTAD, 2003). On the other hand, empirical analyses increasingly call into question the assumptions underlying the traditionally very favourable views of FDI and TNC activities as motors of growth and development. This suggests that it is an opportune moment to review and revise our understanding of the impact of TNCs on development.

The indicators for FDI and TNC activities have taken a severe turn for the worse. For example, global inflows have fallen from a high of $1,393 billion in 2000 to just $651.2 billion in 2002. FDI inflows to developing countries peaked at $246.1 billion in 2000 to reach only $162.1 billion in 2002 ($52.7 billion going to China alone). As of 2002, several significant indicators of the level of international production by TNCs either declined, such as sales, gross product and employment of foreign affiliates, or stopped expanding, such as the exports of foreign affiliates. Whether this is a mere bump in the road or a secular decline is, of course, central to developing country decision-making with regard to the role of FDI policies in development strategies. Unfortunately, this is not something that we can answer easily at this moment, but rather it is something that must be carefully and continually monitored. In this chapter we carry out a revision of the impact of FDI and TNCs operations on development.

The original literature on productivity spillovers can now be seen with hindsight to have been an extremely biased vision of potential FDI impacts, suggesting that the mere presence of increasing levels of FDI and TNC activities improved the productivity of the host economy, much like water spilling over the sides of a glass. In other words, it suggested that the largest quantity possible of FDI should be attracted in order quickly to surpass the threshold beyond which productivity benefits accelerated. Recently, this essentially ideological premise has been increasingly questioned in terms of its utility as a guide to FDI policy in the manufacturing sector, where the empirical analyses of such have multiplied. Also, it might be mentioned that the spillovers literature has little to offer in terms of FDI impacts in services, where most FDI now goes: it can thus be considered incomplete. This article invites the reader to think outside the existing FDI policy box dominated by the spillovers literature by offering a different perspective based more on corporate strategies in real-world settings.

This article consists of five parts. The first examines the evolution of empirical findings on the original literature that supported the rosy view of the impact of FDI and TNC activities. It

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12 We should widen our research interest to 'transnational corporation (TNC) activities', rather than simply FDI, in order to have a fuller appreciation of the phenomenon with which we are dealing. After all, TNCs can have a very significant impact on a developing country without investing a cent. I use FDI as shorthand for FDI/TNC activities in this text.

points out its shortcomings while salvaging the most useful elements in order to incorporate them into a more realistic perspective based on a clearer comprehension of the principal TNC strategies that drive FDI. The second section reviews the overall experience of Latin America and the Caribbean (LAC) from this perspective. Section 3 focuses specifically on the impact of efficiency-seeking FDI in the region. Section 4 does the same for market-seeking (services) FDI. In this manner, we arrive at a more satisfactory explanation of the impact of TNC strategies on development in LAC. The final part demonstrates that the FDI policy recommendations deriving from the new analytic perspective are considerably different from those emanating from the original spillovers literature.

3.1   A critical review of some of the spillovers literature

The micro-economic literature analysing the impact of FDI and TNC activities tends to focus on manufacturing activities in particular countries. The improvement in the basic data available for this analysis has provoked a significant sophistication in the kind of statistical and econometric tools used to attempt to isolate the FDI impact on development and make its measurement more rigorous. This is a positive development because the dominant strand of this literature – that related to the concept of 'spillovers' – came to very powerful conclusions based on quite weak evidence and can be considered, from that perspective, to have been ideologically – more than empirically – based. The basic conclusion was that the increased presence of FDI in itself produced productivity gains in the host economy based on transmission mechanisms such as technology assimilation and transfer, human resource training, deepened production linkages, and enterprise development, among other things. In other words, the more pronounced these transmission mechanisms, the more favourable the impact on host country productivity.

Table 3.1 provides a summary of what can be considered a representative sample of the spillovers literature. Some of the principal findings of the review of that literature are that:

- the original empirical analyses tended to be methodologically questionable owing to the unavailability, poor quality or limited comparability of much of the evidence upon which it rested its case. The outcome tended to be assumed where it was supposed to be proven.
- as data availability improved and the empirical analysis was extended, first into developing countries and later into economies in transition, the original conclusions were challenged as more and more mixed or negative impacts were encountered and measured where positive ones had been assumed to exist. This was particularly evident with regards to economies in transition. With regards to developing countries, the case of Mexico is particularly revealing. Early studies of that country (Blomstrom and Persson; Blomstrom; Blomstrom and Wolff; and Kokko) when it was closed and had an unfriendly attitude towards FDI found spillover effects to be positive. A more recent study (Romo, 2003) of that country – now open and with a decidedly favourable attitude towards FDI – found these effects to be questionable at best.
- it became increasingly evident that, while it was clear that FDI could favourably impact the host country – and generally did so in the more economically advanced developed countries, this was not at all an *automatic* result in other host countries possessing a more limited absorptive capacity.
- although the empirical results of the spillovers literature progressively raised doubts about the initial rosy view of FDI impacts, especially in developing countries and economies in transition, the improvement in the measures being employed – transfer and assimilation of technology (TAT), human resources (HR), production linkages (PL) and enterprise development (ED) – became benchmarks for more penetrating FDI impact analyses.

In other words, the spillovers literature brought into question its own original postulates by way of improved data availability and better statistical and econometric analysis. As a result, it could no longer be assumed that the best FDI policy was necessarily the one that aimed to attract the maximum amount of FDI.

Table 3.1: A summary of the evolution and results of a sample of the spillovers literature

Author(s)	Country	Year	Data	Level analysis	Result
1. Developed Countries					
Caves (1974)	Australia	1966	Cross-section	Industry	+
Globerman (1979)	Canada	1972	Cross-section	Industry	+
Liu *et al.* (2000)	UK	1991–95	Panel	Industry	+
Branstetter (2000)	USA	1990–96	Panel	Firm	+
Driffield (2001)	UK	1989–92	Cross-section	Industry	+
Girma *et al.* (2001)	UK	1988–96	Panel	Firm	?
Girma and Wakelin (2001a)	UK	1988–96	Panel	Firm	?
Girma and Wakelin (2001b)	UK	1980–92	Panel	Firm	?
Harris and Robinson (2001)	UK	1974–95	Panel	Firm	?
Barry *et al.* (2001)	Ireland	1990–98	Panel	Firm	-
Barrios and Strobl (2001)	Spain	1990–94	Panel	Firm	?
Dimelis and Louri (2001)	Greece	1997	Cross-section	Firm	+
Keller and Yeaple (2002)	USA	1987–96	Panel	Firm	+
2. Developing Countries					
Blomstrom and Persson (1983)	Mexico	1970	Cross-section	Industry	+
Blomstrom (1986)	Mexico	1970–75	Cross-section	Industry	+
Blomstrom and Wolff (1994)	Mexico	1970–75	Cross-section	Industry	+
Kokko (1994)	Mexico	1970	Cross-section	Industry	+
Kokko (1996)	Mexico	1970	Cross-section	Industry	+
Haddad and Harrison (1993)	Morocco	1985–89	Panel	Firm and industry	?
Kokko *et al.* (1996)	Uruguay	1990	Cross-section	Firm	?
Blomstrom and Sjoholm (1999)	Indonesia	1991	Cross-section	Firm	+
Sjoholm (1999a)	Indonesia	1980–91	Cross-section	Firm	+
Sjoholm (1999b)	Indonesia	1980–91	Cross-section	Firm	+
Chuang *et al.* (1999)	Taiwan	1962–96	Panel	Firm	+
Chuang and Lin (1999)	Taiwan	1991	Cross-section	Firm	+
Aitken and Harrison (1999)	Venezuela	1976–89	Panel	Firm	-
Chan (2000)	Taiwan	1962–996	Panel	Industry	+
Cheng and Ku (2000)	Taiwan	1986–94	Panel	Firm	+
Kathuria (2000)	India	1976–89	Panel	Firm	?
Kokko *et al.* (2001)	Uruguay	1988	Cross-section	Firm	?
Kugler (2001)	Colombia	1974–98	Panel	Industry	?
Liu (2002)	China	1993–98	Panel	Firm	+
Romo (2003)	Mexico	1991–95	Cross-section	Industry	?
3. Transition Economies					
Djankov and Hoekman (2000)	Czech Rep.	1993–96	Panel	Firm	-
Kinoshita (2001)	Czech Rep.	1995–98	Panel	Firm	?
Bosco (2001)	Hungary	1993–97	Panel	Firm	?
Konnings (2001)	Bulgaria, Poland, Romania	1993–97 1994–97 1993–97	Panel	Firm	- ? -
Damijan *et al.* (2001)	Bulgaria, Hungary, Czech Rep., Poland Estonia, Romania, Slovakia, Slovenia	1994–98	Panel	Firm	? or - , + only for RO
Sgard (2001)	Hungary	1992-1999	Panel	Firm	- and + (firms export oriented)

Source: based on Gorg and Greenaway (2001).

The insights of the more recent spillovers literature based on better empirical studies can be used to arrive at even more penetrating and objective analyses of the impacts FDI and TNC operations on development. Table 3.2 provides an important ingredient not present in the analysis associated with the spillovers literature: corporate strategies, or why TNCs invest in host countries in the first place. Building on Dunning's work, it is feasible to define the principal TNC motivations for investing. TNCs seek certain advantages in specific host countries in terms of natural resources, markets (for manufactures or services), efficiency or other strategic factors. At the same time, the host countries have certain expectations with regards to the benefits that the different TNC strategies will generate. It is here that the factors identified by the spillovers literature are particularly valuable (i.e. TAT, HR, PL, ED). At the same time, a significant amount of empirical research has demonstrated that host countries can be frustrated by certain kinds of endemic problems that arise – according to distinct corporate strategies – and spoil their expectations with regard to the benefits from FDI.

## Table 3.2: Determinants, benefits and problems of FDI, by corporate strategy

A. Key host country *determinants*	
Natural resource-seeking FDI	Abundance of natural resources
	Access to natural resources
	International commodity price movements
Market-seeking FDI (national or regional)	Market size, growth and purchasing power
	Level of tariff protection
	Barriers to entry
	Market structure (competition)
	Local regulatory and supervisory requirements
Efficiency-seeking, export-oriented FDI	Access to export markets
	Quality and cost of human resources
	Cost of physical infrastructure (ports, roads, telecom)
	Logistics
	Quality of suppliers, clusters, etc.
	International trade and investment commitments
Strategic asset-seeking FDI	Presence of firm-specific assets
	Science and technology base
	Logistics
B. Key *benefits* expected by host countries	
Natural resource-seeking FDI	Exports of natural resources
	High local content
	Employment in non-urban areas
Market-seeking FDI (national or regional)	Local activities
	Systemic competitiveness
	Increased local content
	New production linkages
	Enterprise development
Efficiency-seeking, export-oriented FDI	Export competitiveness for manufactures
	Transfers of technology
	Improved human resources
	Deeper production linkages
	Enterprise development
	Advance from assembly to manufacturing
Strategic asset-seeking FDI	Science and technology infrastructure
	Logistics development
C. Principal *problems* that have arisen	
Natural resource-seeking FDI	Enclave activities not integrated into local economy
	Low level of local processing
	Cyclical in relation to international prices
Market-seeking FDI (national or regional)	Higher cost production or service provision
	Weak international competitiveness
	Not world class
	Regulatory problems for services
	Crowding out of national companies
Efficiency-seeking, export-oriented FDI	Getting stuck in low wage assembly, no upgrading
	Focus on static not dynamic advantages
	Limited production linkages: import dependent
	No advance toward clustering
	Crowding out of national companies
Strategic asset-seeking FDI	Stagnates at certain level
	Can be out-competed

In this context, it makes sense to complement the more recent and defensible findings of the spillovers literature with this new perspective focusing on the impact of TNCs with *similar* strategies, especially where those strategies are the dominant form of FDI in a given host country. The experience on LAC suggests so. After a brief review of the LAC experience with FDI and TNC activities, the following sections focus on the distinct situations of the new and dominant TNC strategies in that region: efficiency-seeking FDI and market-seeking (services) FDI. This will demonstrate that, at a minimum, identifying distinct TNC strategies allows on to classify those different situations in order to compare like ones, thereby producing greater clarity on the more direct impacts of FDI and TNC operations in developing countries.

3.2   FDI and TNC experiences of Latin America and the Caribbean

The history of LAC has been marked by foreign interventions since the end of the fifteenth century – when Spanish colonisation began. During the last century foreign investment has been a central factor in defining the nature of the integration of the region into the international economy, both in the form of external financing and direct investment. The stop-and-go nature of external finance has been a constant challenge to policy-makers (ECLAC, 1971; Ffrench-Davis and Griffith-Jones, 1995), particularly during the boom and bust of syndicated lending by transnational banks in the 1970s (Mortimore, 1989 and 1991) that ultimately led to the 'lost' decade of the 1980s (ECLAC, 1994). 'Lost' in this context means that it did not contribute to the achievement of developmental goals. The recent collapse of FDI inflows raises the spectrum that something similar might take place with regard to FDI (Figure 3.1).

Figure 3.1: Latin America and the Caribbean: net transfer of resources (NTR)[a]
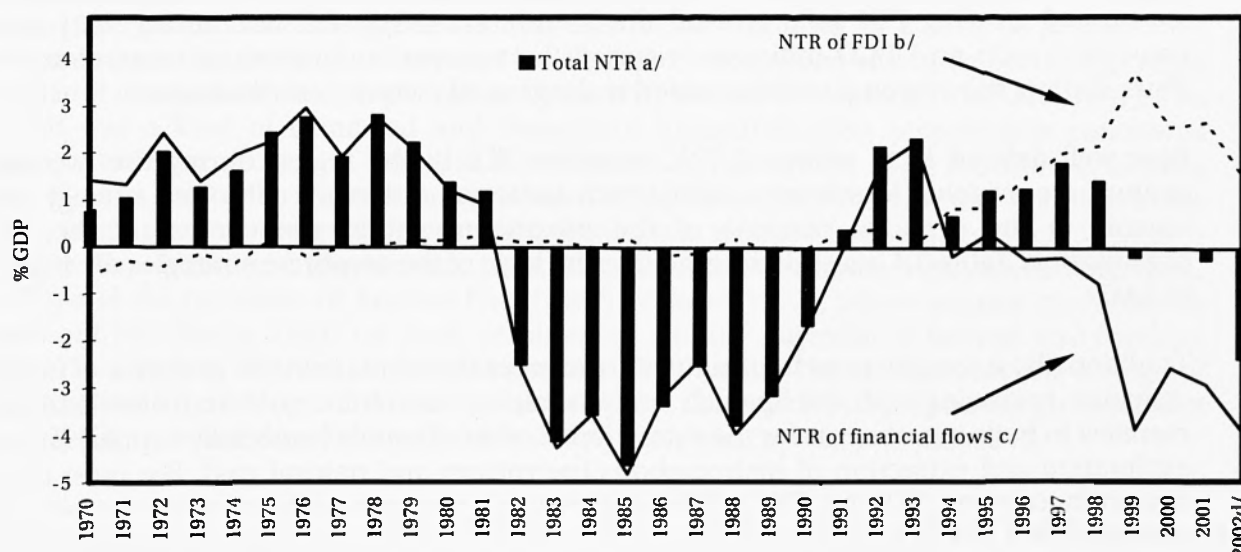
Source: ECLAC.

Notes: a The net transfer of resources is equivalent to the net inflow of capital (including net errors and omissions) less the balance in the factor payment account (profits and net interest payments). Negative figures indicate transfers to the exterior; b Equivalent to the net inflow of FDI less profit remittances; c Equivalent to the net inflow of other capital, different from FDI, less the net payment of interest. d Preliminary estimates.

Table 3.3: Latin America and the Caribbean: net inflows of FDI by sub-region, 1990–2002[a][13]

(millions of dollars)

(in US$m)	1990–94[a]	1995–99[a]	1999	2000	2001	2002[b]
1. Mexico, Central America & the Caribbean	6,846	15,229	17,984	18,263	29,465	17,409
2. South America	8,956	45,375	70,236	57,320	39,555	28,032
Southern Cone	6,114	35,590	61,881	48,468	30,723	19,969
Andean Community	2,843	9,786	8,355	8,852	8,832	8,063
3. Financial centres	2,506	8,914	19,810	18,855	14,993	12,000
Total	18,308	69,518	108,030	94,438	84,013	57,441

Source: Information Center of the Unit on Investment and Corporate Strategies, ECLAC.
Notes: a Annual average; b Estimates.

Table 3.3 indicates the evolution of FDI inflows to LAC over the period 1990-2002. The annual averages tripled from over $18 billion in 1990-94 to almost $70 billion in 1995-99, peaking at over $100 billion in 1999. Between 1999 and 2002 the inflows fell by half. Mexico, Central America and the Caribbean more than doubled their average annual inflows from $6.8 billion in 1990-94 to $15.2 billion between 1995 and 1999 and generally remained slightly above that average thereafter (2001 was an exceptional year in which the $12.5 billion purchase of a Mexican bank by Citigroup much elevated the annual figure). South America experienced more of a roller coaster ride when average annual inflows of about $9 billion during 1990-94 were multiplied by a factor of five to $45.4 billion during 1995-99 before declining steeply to $28 billion in 2002. These figures for South America hide two separate realities. On the one hand, the Andean Community tripled its average annual FDI inflows between the first and second period and generally maintained that level thereafter. On the other hand, the Southern Cone (Mercosur plus Chile) experienced the roller coaster ride multiplying average annual inflows by six from $6.1 to $35.6 billion before seeing those inflows fall to below $20 billion in 2002. Financial centres in the Caribbean experienced strong and growing FDI inflows until the bottom started to fall out during 2001-02 in association with an OECD initiative to curtail the tax evasion facilities of those countries. Thus, distinct sub-regional realities underlay the general picture described above.

Four well defined focal points of TNC activities/FDI in the region during the twentieth century are evident (Mortimore, 2000). Each indicates a distinct corporate strategy with regards to the essential purpose of the investment within the context of the TNC organisation. Table 3.4 assists in interpreting the logic of the corporate strategies driving FDI in LAC.

Traditionally, it was the search for **natural resources** that explained the presence of foreign activities, beginning with the Spanish conquistadores' search for gold and silver and now manifest in huge investments for the extraction of other minerals (especially copper) and the exploration and extraction of hydrocarbons (petroleum and natural gas). For most of the twentieth century, FDI by TNCs following natural resource-seeking strategies was the principal kind of FDI in the region. This kind of investment was typically an enclave type of activity characterised by 'extract and export' operations with little local processing. It took place wherever the natural resources were found. The TNC usually captured the lion's share of the benefits outside of the host country. In terms of national benefits, usually they did not extend much beyond the government's take from royalties and export taxes and the relatively high wages of the 'labour aristocracy' linked to the extraction process itself (ECLA, 1949; Rodriguez, 1980; Girvan, 1973). This situation led to a wave of

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13 Net inflows (gross inflows – capital remittances by the same foreign enterprises).

nationalisations/expropriations in the petroleum (Peru, Venezuela, Ecuador) and mining (Chile) sectors during 1968–76 (Pinelo, 1973; Moran, 1974; Petras *et al.*, 1977). In the last quarter century FDI has been focused mainly on the new access to petroleum and natural gas fields in the Andean countries and Argentina, and the big mineral projects in Chile, Argentina and Peru. Governments now tend to capture a larger share of the benefits from FDI in petroleum and natural gas operations owing to new modalities (i.e. association contracts, etc.). The fiscal take from the mining projects tends to be smaller, however, as a result of the intense competition for projects that has led host countries to allow the deduction of the interest payments of these highly leveraged projects before taxes are paid (ECLAC, 2002; Moguillansky, 1999).

Historically, the second major focal point of TNC activities/FDI in the region was that of **market-seeking (manufactures)** TNCs during the import-substituting industrialisation (ISI) process in the region that generally spanned the 1930–80 period. Governments tried to promote industrialisation by establishing high tariff protection against imports (often 100% or more of the price of imports) and offering special benefits to certain sectors. In order to avoid being excluded from growing markets, TNCs responded with a burst of FDI in the automobile, machinery, chemical and agro-industrial sectors of the larger markets of the region, such as Brazil, Mexico and Argentina (Newfarmer and Mueller, 1975; Evans, 1994; Chudnovsky, 1974). This effort did result in the establishment of new manufacturing activities where they did not previously exist, although it was achieved in an inward-looking and overprotected manner that meant that the new industry was not internationally competitive (Baer, 1972; Hirschman, 1968; Cardoso and Faletto, 1979; Gereffi and Evans, 1981; Newfarmer, 1985, Jenkins, 1984). This produced the unsavoury result that, in the automobile industry, for example, products were overpriced, poor quality, and technologically obsolete (Jenkins, 1974; Mortimore, 1998a and 1998b; Bennett and Sharpe, 1985). Instead of leading the industrialisation process as was the case in East Asia, these higher-tech activities dragged it down, especially from a balance of payments perspective as a result of the high level of imports of components and weak exports (Fajnzylber, 1983; Chudnovsky, 1974; Sunkel *et al.*, 1980; Vaitsos, 1974). This created growing tensions between host governments and foreign investors. The former resorted to a host of performance requirements (minimum local content levels, export obligations and trade balancing) while the latter complained that they could not 'export by decree' (Mortimore, 1985 and 1991). The result was a kind of truncated and dependent industrialisation process that contrasted sharply with the success of East and Southeast Asia (Fajnzylber, 1983; Mortimore, Bonifaz and Duarte, 1997–98). The tensions produced in the local environment were manifest in the new, more restrictive, foreign investment regulations enacted in countries, such as Mexico (1973) (Sepulveda and Chamacero, 1973; Dussel 2000; Mortimore, 1998; Mortimore *et al.*, 2000) and the members of Andean Pact (1969) (Vaitsos, 1973), where sectoral prohibitions, fade-out provisions, limits on profit remittances and the payment of interest and royalties became standard features of the treatment of FDI. As the ISI process reached a stage of 'exhaustion', mutual recriminations characterised the relationship between governments and TNCs such that the presence (and benefits) from such operations shrivelled.

Table 3.4: Principal focal points of FDI in LAC according to the corporate strategies driving them

Corporate Strategy/Sector	Raw materials-seeking	Market (national or regional) access-seeking	Efficiency-seeking	Strategic element-seeking
Goods	*Petroleum/natural gas:* Argentina, Venezuela, Colombia, Bolivia, Brazil, Trinidad & Tobago *Minerals:* Chile, Argentina and Peru	*Auto industry:* Brazil and Argentina *Agro-industry:* Argentina, Brazil and Mexico *Chemicals:* Brazil *Electricity generation:* Argentina, Chile	*Auto industry:* Mexico *Electronics:* Mexico and Caribbean basin *Apparel:* Caribbean basin and Mexico	
Services		*Financial Services:* Brazil, Mexico, Chile, Argentina, Venezuela, Colombia and Peru *Telecommunications:* Brazil, Argentina, Chile and Peru *Retail trade:* Brazil, Argentina, Mexico and Chile *Electricity distribution:* Colombia, Brazil, Argentina and Central America *Gas distribution:* Argentina, Brazil, Chile and Colombia *Tourism:* Mexico, Caribbean basin		

Source: Mortimore (2000).

The disputes over the nationalisation/expropriation of petroleum and mining subsidiaries, the rising tensions with the subsidiaries of manufacturing companies in the context of the exhaustion of the ISI process, and the disinterest of transnational banks to continue placing syndicated loans in the region combined to produce a severe and chronic economic crisis. These negative experiences fuelled the *dependencia* debate in Latin America, one that blamed most of the region's ills on external factors, especially TNCs, and recommended inward-looking, independent developmental models.[14] Events soon left this debate behind.

Sooner or later, in the face of a chronic net external transfer of resources, virtually all countries of the region jettisoned their inward-looking, nationalistic orientations in the

14 The dependency school of thought had at least three variants, those that identified dependency with external vulnerability (e.g. Furtado, 1970; Cardoso and Faletto, 1979); those that saw it as a structural phenomenon related to the international expansion of transnational corporations (e.g. Sunkel, 1973, 1980, 1993; Sunkel and Mortimore, 2001; Rodriguez, 1980; Dos Santos, 1970); and those that understood it as imperialism or exploitation (e.g. Caputo y Pizarro, 1970; Frank, 1977).

course of the 1980s and embraced the central tenets of the Washington consensus designed by the principal national and international organisations located in Washington (US Government, IMF, World Bank, IDB) (Gore, 2000). Those tenets were: the reduction in the size and role of the state; the implementation of a more private sector-based economic model; an opening up of the economy to trade and foreign investment; and a sustained effort to raise export performance, etc. This led to a proliferation of FDI-friendly policies in the region that coincided with the global boom in FDI flows that produced the huge increase in FDI inflows to LAC.

This boom was driven by different corporate strategies that those of the past. Although the FDI inflows are not that large in terms of the overall capital formation in the region, the new neo-conservative outlook to policy-making and the absence of defined developmental strategies often produce the effect that these new dominant corporate strategies of principal foreign investors (**efficiency-seeking** and **market-seeking for services**) often became the *de facto* focus of the host economic model. In this changed policy environment in Latin America, the new TNC activities and inflows of FDI driven by different corporate strategies (efficiency-seeking, market-seeking for services) have now surpassed those motivated by the older or more traditional ones (natural resource-seeking, market-seeking for manufactures) (Mortimore 2000).

3.3   Efficiency-seeking FDI and TNC operations in LAC

The efficiency-seeking TNC activities in the region are manifest in export platforms established mainly to form part of international or regional systems of integrated production of the TNCs (Mortimore y Peres, 2001; Mortimore, Vergara and Katz, 2001; UNCTAD 2002a). These have attained a higher or more sophisticated level in the form of the automotive and electronics platforms in Mexico (Mortimore, 1998a and 1998b; Dussel, 1999 and 2000) and a lower or less sophisticated level in the form of the apparel platforms in Central America and the Caribbean (Mortimore 2002 and 1999). It is relevant to distinguish between these two kinds of export platform because their developmental impacts in LAC are distinct.

In Mexico, the efficiency-seeking TNC activities stemmed primarily from greenfield investment in new export platforms usually operating via the *maquiladora* scheme for export assembly. Some of the favourable impacts of this FDI were greatly to increase exports and improve export competitiveness to the extent that Mexico became one of the ten winner countries associated with the new international systems of integrated production (UNCTAD, 2002). These export platforms provide employment to more than one million Mexicans and represent the dynamic part of the manufacturing sector, although the recession in the US market has taken some of the shine off them. The automotive cluster is particularly impressive, providing exports of $31.7 billion in 2001 (or 20% of Mexico's total exports) and generating a favourable balance of payments in the order of $8.9 billion (Bancomext, 2002). In 1994, automotive exports had amounted to only $10.8 billion and the automotive industry then generated a deficit of $0.7 billion. 70% of the current exports is vehicles and 30% is auto parts. Although 93.8% of the exports go to one sole market –the North American one – in the context of the North American Free Trade Agreement (NAFTA) signed in 1994, the Free Trade Agreement signed in 2000 with the European Union promises to diversify them. Evidence on production impacts is limited, although it seems that the configuration of the automotive cluster has produced significant production linkages and the upgrading of human resources (Carillo, 1995; Lara and Carillo, 2003, Romo, 2003). The effects in terms of transfer of technology and enterprise development are less noteworthy. Another positive factor is found in the apparel industry where the effect of the NAFTA rules of origin is generating production linkages and some 'full package' providers in terms of enterprise development related to new organisational practices (Bair and Gereffi, 2003; Gereffi and

Bair, 1998). Thus, many of the export platforms in Mexico have produced very significant results, especially in terms of export competitiveness of the automotive and apparel industries.

Some negative impacts have also been attributed to the export platforms in Mexico. For example, the dynamism of the export sector has not been transmitted to the rest of the economy, suggesting that it is not well integrated into the economy as a whole (Dussel, 1999). While exports grew at almost 18% a year over the 1994–2002 period, GDP grew at only 3% a year (CEPAL, 2002). In other words, the link between FDI inflows and GDP growth was not clear. The extreme dependence on the NAFTA market introduced a cyclical element to export performance. The electronics industry (dominated by Asian TNCs) possessed few of the production advantages -production linkages and enterprise development – associated with the automotive and clothing industries (dominated by US TNCs) and even the latter were mainly limited to foreign not Mexican suppliers (Carrillo and Zarate, 2001; Contreras, 2001; Dutrenit and Vera-Cruz, 2001; Gomis, 2001; Gonzalez and Barrajas, 2001; and Jaen and Leon, 2001). Finally, NAFTA itself and many of the bilateral investment agreements signed by Mexico contained elements that put limitations on future policy choices to deal with some of these shortcomings. The opportunity afforded foreign investors to litigate against state policy outside of Mexico produced uncertainty about the space for and effectiveness of national policy. The number of performance requirements prohibited by NAFTA was much greater than the trade-related investment measures (TRIMs) agreement of the WTO and represented a harsher environment for policy-makers dealing with production effects. Finally, the *maquiladora* format used by many exporters severely reduced the taxes paid by them, weakening the fiscal link between the export platforms and the National Treasury (Dussel, 2001). Thus, in spite of their evident successes with regard to export competitiveness, the effect on the overall production apparatus was muted and the ability to deal with these shortcomings was limited by international agreements.

In the case of Central America and the Caribbean (CAC) the situation was somewhat distinct. The apparel industry was the focus of TNC activities operating in host country export processing zones (EPZ), usually in the context of the US production-sharing mechanism. The apparel industry produced over half of the exports of many of these countries. A significant amount of new exports were generated by way of these TNC activities, both through FDI in new, more efficient plants and through buyers' contracts with foreign and local assemblers. The export competitiveness of the sub-region demonstrated a marked improvement as a result. Other positive effects were the generation of new jobs (especially for women in non-urban settings), some upgrading of human resources, and some enterprise development as local companies bid for and won assembly contracts. Thus, many of the export platforms in CAC generated a surge in exports from the apparel industry and this considerably improved the export competitiveness of the sub-region.

Many negative impacts have been attributed to these export platforms. Unlike the situation in Asia where EPZs often were converted into industrial zones and become linked to science and technology parks (ESCAP, 1994), the EPZs in CAC often get stuck in a rut. On the one hand, the US production-sharing mechanism effectively limited the CAC contribution to an assembly stage of production utilising US inputs, since tariffs are applied to all value-added outside of the US upon entry to the US market. This leads the TNC activities in this industry to focus primarily on low wages in CAC (Mortimore, 1999 and 2002). On the other hand, the intense competition for plants and contracts in the context of US import quotas can lead to a 'race to the bottom' in terms of competitive devaluations, wage repression and reduced social security benefits, and a 'race to the top' with respect to (over dimensioned) incentives, both of which severely reduce the national benefits deriving from such operations (Mortimore and Peres, 1997 and 1998). Very little in the way of production linkages or technology transfer is forthcoming. CAC does not have the benefit of anything similar to the

NAFTA rules of origin that work in favour of the further integration of the Mexican apparel industry, since physical inputs for NAFTA can come from the US, Canada or Mexico. The Caribbean Basin Trade Partnership Act of 2000 attempted to face up to that problem by doing away with some quotas, allowing for the incorporation of a certain amount of locally produced cloth and permitting some further local processing (cutting, stone washing, etc.). Furthermore, it is hoped that the Central American Free Trade Agreement currently under negotiation will provide NAFTA-like rules of origin for the apparel industry; however, the US textile industry seems set on maintaining the existing restrictions. To date, nonetheless, the CAC apparel export platforms have been limited to one market – the United States – and one function –simple assembly of US-made components. Any possible upgrading of these operations will have to take place very fast to be feasible as the last part of the WTO Agreement on Clothing and Textiles will kick in as of 2005 and that will mean that CAC apparel producers will face a much harsher competitive environment in the US market owing to the increased presence of Asian, especially Chinese, competitors. Thus, the apparel export platforms enjoyed success with regard to export competitiveness. However, the effect on the overall production apparatus was truncated by the primary mechanism used to gain assess to the US market (Mortimore and Zamora, 1998; Mortimore, Vicens and Martinez, 1998; Mortimore, Duthoo and Guerrero, 1995). Recent alterations in bilateral and international agreements appear not to be sufficiently comprehensive or rapid to make much of a difference.

This evaluation of the main efficiency-seeking TNC activities in Latin America – those in Mexico and CAC – suggests that the indicators of success in terms of new exports and export competitiveness are truly impressive and much superior to the rest of Latin America (Table 3.5) (ECLAC, 2001 and 2002). Nonetheless, this success does not square with the reality of Mexico and the CAC at the level of production. Evidently, the impacts of the transmission belts associated with the transfer and assimilate of technology, the construction and deepening of production linkages, the upgrading of human resources and enterprise development are smaller than or different from what is generally assumed in terms of the spillovers literature. Moreover, there is a huge difference between the situation of Mexico and that of CAC in the sense that the national benefits of the latter associated with the apparel industry are exceptionally small and vulnerable. It would appear that, *in the absence of a host country development strategy*, the benefits generated from these kinds of TNC activities based on efficiency-seeking considerations accrue primarily to the TNCs themselves and not the host countries. While the situation in Mexico is qualitatively superior to that of Central America and the Caribbean, it is still not good enough.

The only country in Latin America in which the efficiency-seeking TNCs activities are dominant and in which a new national developmental strategy has been implemented to improve upon the existing shortcomings is the exceptional case of Costa Rica (Salazar, 1998). This country had a developmental trajectory very similar to other countries of CAC, whereby the apparel export platform represented its principal link to the international economy (Mortimore and Zamora, 1998). With the end of the civil wars in other parts of Central America, higher wage Costa Rica came under considerable competitive pressures. Instead of opting for the 'low road' to export competitiveness, encompassing competitive devaluations, repressed wages, reduced social security benefits, and never-ending incentives, Costa Rica chose to design and implement a new development strategy based on attracting FDI to upgrade into more technologically sophisticated activities (Robles, 2000). A considerable amount of success was achieved in electronics, medical devices and logistics. The attraction of the much fought-over Intel microprocessor assembly and testing plants worth $500 million boosted Costa Rican exports by about 30% and greatly improved its export competitiveness (Spar, 1998; ECLAC, 2000). Beyond that, the Intel investment also stimulated advances in other fields especially services; Costa Rica is developing into a significant exporter of software (UNCTAD, 2002b). Some of the major decisions that backed

up the new developmental strategy were those related to investing heavily in education (6% of GDP), emphasising technical and English language capabilities, an active FDI policy based on setting national priorities, identifying the TNCs to be targeted and negotiating firm-level packages, and designing and implementing industrial policies to deal with some of the problems which arise (Egloff, 2001). Of particular importance is the fact that these policies are in tune with the development strategy (A. Gonzalez, 2002) and that the TNCs activities are evaluated in that light. In this sense, Costa Rica's development strategy possessed elements found in well known success stories, such as Singapore and Ireland.

Efficiency-seeking FDI/TNC activities have redefined the integration of Mexico and the Caribbean basin into the international market. The spillovers literature identifies the transmission belts that are most relevant for measuring and evaluating this impact in the form of transferring and assimilating technology, upgrading human resources, building production linkages and promoting local enterprise development. However, it does not separate country situations according to the distinct corporate strategies that drive the FDI or the different policies needed to ensure that the benefits are also enjoyed by the host country, as well as the investing TNC. Thus, the spillovers literature is relevant but not that useful unless *like situations* – such as the countries playing host to major components of the international systems of integrated production of efficiency-seeking TNCs – are compared.[15] This brief analysis of aspects of the electronics, automotive and apparel industries in their real-world settings in Mexico and the Caribbean basin demonstrates the usefulness of this methodology. Costa Rica stands out as an example of what can be achieved by successfully combining the correct policy framework – one that reflects the priorities of the national development strategy – with the dominant corporate strategy.

3.4   Market-seeking (services) FDI and TNC activities in LAC

Unlike the situation for manufacturing activities – especially those associated with efficiency-seeking FDI – the spillovers literature remains uncharacteristically silent on the subject of FDI in services. Here, the TAT, HR, PL and ED variables are less relevant and harder to measure. Another analytical focus is needed.

The most important market-seeking TNC activities in the region are those associated with the opening up of services previously closed to FDI, such as telecommunications and other infrastructure (sanitary services, distribution of gas and electricity, airport administration, etc.), financial services, and retail commerce, among others (ECLAC, 2001 and 2003). The FDI linked to this corporate strategy comes mainly in the form of acquisitions (including privatisations), primarily involves European TNCs, and takes place principally in the larger economies of the region, such as those of Brazil, Mexico, Argentina and Chile. This FDI has contributed significantly to the modernisation of these economies and the improvement of their systemic competitiveness (that is, it makes exporting easier but does not directly generate exports), however, with the exception of Mexico, the huge increase in profit and capital remittances has often created severe balance of payments constraints – especially in countries with weak international competitiveness (Table 3.5) and low export/GDP ratios, such as Brazil and Argentina – once the original investment is concretised. The crowding out of private national companies has often been a problem as well. The design and implementation of national policies and regulations have been critical factors in dealing with some of the problems that have arisen. The subsequent analysis will deal with the situation of two of the principal services, contrasting the experiences of Argentina and Brazil.

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15 It might be mentioned that there exists a large and growing literature on global value chains that also is very useful in this regard. See http://www.ids.ac.uk/globalvaluechains/.

Mention will be made of new FDI policy initiatives in Chile, aimed at improving on or complementing the market-seeking (services) mould.

Table 3.5: Latin America and the Caribbean: international competitiveness in world imports, 1985–2000 (import market shares in %)

	1985	1990	1995	2000	Change 1985–2000
Mexico and Caribbean basin					
Overall market shares	**2.39**	**1.96**	**2.40**	**3.35**	**40.2**
1. Natural resources	5.01	3.56	3.28	3.54	-29.3
2. Manufactures based on natural resources	2.09	1.82	1.86	2.10	-
3. Manufactures not based on natural resources	1.34	1.55	2.33	3.57	166.4
Low technology	1.25	1.53	2.48	3.92	213.6
Medium technology	1.27	1.64	2.51	3.68	189.8
High technology	1.66	1.40	1.91	3.19	92.2
4. Others	2.06	2.01	2.37	3.27	58.7
South America					
Overall market shares	**3.40**	**2.76**	**2.76**	**2.62**	**-22.9**
1. Natural resources	6.82	7.16	8.33	8.50	24.6
2. Manufactures based on natural resources	5.55	4.66	4.93	4.93	-11.2
3. Manufactures not based on natural resources	1.24	1.14	1.12	1.03	-16.9
Low technology	1.96	1.75	1.66	1.42	-27.6
Medium technology	1.20	1.21	1.34	1.27	5.8
High technology	0.47	0.36	0.29	0.45	-4.3
4. Others	2.10	1.15	1.35	1.56	-25.7

Source: Based on the ECLAC, TradeCAN 2002 edition computer programme on international competitiveness. Merchandise trade groups defined according Lall (2000) using the Standard International Trade Classification (SITC Rev. 2).

The **telecommunications industry** in Latin America was one of the first services to be opened to foreign investment. In many ways it became a test case of the region's ability to attract FDI. Some governments started from the premise that the sale of state assets to private, usually foreign, investors was in itself the solution to the problems of inefficiency, poor service, low investment and high debts often associated with state service providers. In fact the privatisation of state assets often simply transformed a public monopoly into a private one. The original policy goals often never went beyond attracting foreign investment and getting the highest price for State assets. The regulatory framework for the sector was often drawn up *after* the privatisation had taken place. Rarely was the principal objective a conscientious and well thought-out telecommunications policy aimed at national developmental goals. Argentina and Brazil represent extreme examples in this regard.

Argentina was still in the throes of a severe economic crisis characterised by fierce hyperinflation at the beginning of the 1990s when the new government decided to make the sale of the state telecommunications company a showcase for attracting FDI (ECLAC, 2001). Argentina's policy in this sector during the following ten years can be referred to as 'cashing in'. The sale of the state telecommunications company, Entel, was to convince foreign investors that Argentina was open for business. Entel was divided into two monopoly operations, one in the north of the country and the other in the south. The privatisation rules permitted payment with discounted government debt paper which meant that, with hindsight, the assets were sold cheap and in very favourable conditions for the two winner groups: Telefonica/Citibank in the south and France Telecom/Telecom Italia in the north. These operators were given seven years of exclusivity (followed by a two-year extension) and

beneficial operational guidelines that demanded far less in terms of investment and price reductions than their efficiency gains generated (Abeles *et al.*, 1999; Azpiazu, 1999). The regulatory authority was established after the fact by decree rather than by way of an Act of Congress. When the regulators began to take their job seriously the government stripped away many of their powers. In both fixed-line and mobile services government policy favoured the two dominant operators. Only in 2000 was a significant degree of competition introduced into the industry. There is no denying that a huge amount of new investment went into the sector, that customer costs dropped considerably (but still remained comparatively high) and that most service performance indicators improved noticeably (although not as fast as those of most other countries of the region). However, the cost of such can be considered exceedingly and excessively high.

The Brazilian policy for opening up the telecommunications sector demonstrated that their policy-makers had learned from the experiences of others. Their policy might be referred to as 'getting a boost'. In 1995, the Brazilian Federal Constitution was modified to allow for the licensing of service provision to private sector agents. Two years later the Telecommunications Act was enacted to provide a regulatory framework for telecommunications, including the industry's regulatory authority, ANATEL, in association with the competition authority, CADE. During 1994–97, the majority state-owned telecommunications company, Telebras, invested over $20 billion to prepare the company to be privatised in a rational and orderly fashion. In 1998, Telebras was privatised by auction along with a host of other assets for $26.7 billion. The interesting aspect here is that Telebras was divided into 12 different pieces (one long distance provider, three fixed line providers, eight mobile operators) which, together with the mirror companies, ensured a reasonable degree of competition during the short transition, 1998–2001, until fuller competition came into force. The principal foreign investors were Telefonica España, Telecom Italia, Portugal Telecom, BellSouth and MCI WorldCom. This process stimulated a huge amount of greenfield investment in extending the existing infrastructure. This posterior investment was guided by developmental goals established by the telecommunications policy, such as universal service, better performance and lower costs (Herrera, 1998). The result was that the telecommunications policy and the Brazilian economy were given a significant boost by the opening up of the sector to telecom TNCs.

The relative performance of the telecom industry in Argentina and Brazil is demonstrated in Table 3.6. Each and every of the five separate indicators suggests that the performance of the telecoms industry in Brazil was superior to that of Argentina over the same period.

Table 3.6: Indicators of telecommunications service performance in Argentina and Brazil, 1990–2002

Indicator		1990	1995	2002
1. Main lines per 100 inhabitants	Argentina	9.3	15.9	21.8
	Brazil	6.5	8.5	22.3
2. Cellular telephone subscribers per 100 inhabitants	Argentina	0.04	0.98	17.7
	Brazil	0.02[a]	0.83	20.1
3. Complaints per 100 main lines	Argentina	42.4	29.5	17.3[b]
	Brazil	4.7	3.2	3.8[b]
4. Charge for residential line connection (dollars)	Argentina	2155	500	150[b]
	Brazil		1215	43[b]
5. Charge for business line connection (dollars)	Argentina	5338	750	150[b]
	Brazil		1215	43[b]

Source: based on ECLAC, (2001) and International Telecommunication Union, www.itu.int
Notes: a 1992 figures; b 1998 figures.

With regard to **financial services**, the principal aims of Latin American policy-makers were to bring in transnational banks (TNBs) to avoid the perennial financial crises that have

characterised the region and to improve the efficiency of the sector (ECLAC, 2003; Stallings and Studart, 2000). This took place in two phases across the region. The first phase encompassed the attraction of TNBs by way of opening up the sector, offering state guarantees and capital injections to make the sector more attractive, and reducing the role of state banks and easing controls over interest rates and credit allocation. The second phase represented an attempt to improve the regulatory and supervision aspects of financial services (capital reserves, risk analysis, transparency, institutional development, etc.). The effect was immediate as the TNB share of total financial sector assets in the region jumped from about 10% to over 50%. Three universal banks led the wave of acquisitions in the region. The Santander group ($16.4 billion), the Banco Bilbao group ($9.6 billion) and Citigroup ($12.5 billion) investments during this period surpassed $38 billion. The 2001 market shares for loans of Santander (10.4%), BBVA (9.3%) and Citigroup (9.1%) accounted for over half of the total share for foreign banks (63.8%) in Latin America. Other major players in more traditional activities or specific segments included FleetBoston, Scotiabank, HSBC, ABN Amro and Lloyds. In other words, a very small group of TNBs spearheaded the entry of foreign direct investment in the financial services sector of Latin America (Calderon and Casilda, 2000). An analysis of the first decade of heightened TNB activity in Latin American financial services (ECLAC, 2003) finds that the increased competition from the larger foreign presence in the sector has produced micro-economic benefits in the form of improved efficiency and more liquidity, however, has not led to the hoped-for macro-economic benefits, that is, the availability of more credit at lower cost, improved systemic stability of the sector and the TNBs playing a role of lender of last resort to it affiliates in the region. Moreover, many TNBs feel discontent because their costly positioning in the region coincided with the spread of financial crises. The experiences in the region vary considerably in terms of the national policies applied to this sector. Argentina and Brazil again represent polar examples in this regard.

The Argentine experience with huge FDI inflows into the financial services sector might be referred to as 'blind faith'. The 1994 financial crisis in Argentina was comparable in magnitude and effects to those that took place in Mexico, Russia and the Asian NICs. Argentine policy-makers put their faith in the massive entry of foreign banks to correct this weakness by way of privatising the dominant state bank sector and otherwise attracting foreign ones. Over 11% of the $75.5 billion of FDI inflows that entered the country between 1992 and 2000 went to the financial services sector (ECLAC, 2002). Between 1994 and 2001 the foreign bank share of financial sector assets rose from 18% to 61%. The principal market shares (assets) belonged to Santander (8%), FleetBoston (8%), BBVA (7%), Citigroup (6%), HSBC (4%) and Scotiabank (3%) and the highest exposure in terms of Argentine assets in their Latin American assets belonged to FleetBoston (30%), HSBC (27%) and Scotiabank (16%) (ECLAC, 2003). As a consequence, local banks were crowded out. The regulatory and supervision situations were murky at best. The presence of foreign banks produced many positive impacts in terms of modernising the sector. However, there have been no dramatic differences in micro-economic efficiency demonstrated to date by foreign banks in comparison to local ones. With regard to macro-economic effectiveness, the indicators were rather dismal as the new financial crisis set in as of 2000: the growth in the availability of credit fell from 1.4% to -17.6% between 1997–2000 and 2000–2001, the cost of such credit to users rose from 11% to 27% and system stability broke down with foreign banks offering no guarantees to savers and no assurances against possible runs. The 'pesification' of debts coupled with a 70% devaluation of the peso and the freezing of bank accounts pushed many banks to the wall (ECLAC, 2002). Scotiabank and Credit Agricole bailed out of Argentina as a result. This experience exploded the myth that TNBs by definition represented bulwarks against further financial crises owing to their better risk management, the effect of their home country regulatory and supervisory institutions and the headquarters firms' obligations to their own subsidiaries. At the same time, the Argentine regulatory and supervisory institutions did not perform as expected.

The comparable Brazilian experience might be referred to as 'spreading the risk'. The Brazilian economy in the mid-1990s was suffering a bout of hyperinflation that was faced up to by way of the *Plan Real*. Brazilian policy-makers thought that the entry of foreign banks to compete with local banks would consolidate that process. Over 15% of the FDI inflows that entered the country between 1996 and 2002 went to the financial services sector. The foreign bank share of financial sector assets rose from 14% to 49%. The principal market shares (assets) belonged to Santander (4%), ABN (4%), HSBC (3%), BBVA (2%), and Citigroup (2%) between 1994 and 2001 (ECLAC, 2003). Unlike in the case of Argentina, local banks were crowded out only temporarily: they are presently making a strong comeback during difficult times (ibid). The stricter regulatory and supervision practices were part of the reason why this took place. The presence of foreign banks forced local banks to improve their performance, particularly in terms of micro-economic efficiency. With regard to macro-economic effectiveness, the indicators improved from a weak base: the growth in the availability of credit went from 11.4% to 14.4% between 1997 and 2000 and 2000 and 2001, the cost of such credit to users fell from 67% to 46% (although this was still very high). Although the Brazilian financial system came under great stress, especially once the Argentine crisis began, it weathered the storm. Two of the largest private local banks in Brazil (and Latin America) – Bradesco and Itaú – reversed the regional trend toward crowding out and denationalisation by way of their acquisitions of local banks (including some foreign banks) often by way of privatisations. In other words, the nature of policy-making in Brazil, i.e. managing the bout of hyperinflation, introducing more competition in financial services, establishing a strict regulatory framework under competent supervision, and not putting all eggs in the TNB basket, led to a better outcome.

Table 3.7 offers some indicators on the performance of the financial services sector. One must interpret these indicators with great care as both countries suffered severe financial crises during the period under analysis. The figures on the real variation suggest that Brazil's overall performance was appreciably better than that of Argentina during 1997-2001. The other four indicators offer an added dimension by differentiating the results by nationality of bank. Here, the bottom line is that in Brazil the financial performance indicators of foreign banks are superior to those of local banks, the opposite of the situation in Argentina. To the extent that these figures reflect on the nature of opening up of the financial services sector to foreign banks, Brazil's results were clearly better than those of Argentina.

Table 3.7: Indicators of financial sector performance, 1997–2001 (%)

Indicator	Country	Banks	
		ALL BANKS	
1. Real variation in credit[a]		1997–2000	2000–2001
	Argentina	1.4	-17.6
	Brazil	11.4	14.4
		LOCAL BANKS	FOREIGN BANKS
		1997–2001	1997–2001
2. Profitability[b]			
	Argentina	0.8	0.3
	Brazil	. 0.9	0.7
3. Liquidity[c]			
	Argentina	84.5	91.9
	Brazil	95.2	201.5
4. Efficiency[d]			
	Argentina	268	190
	Brazil	143	158

Source: based on Latin Banking Guide & Directory (http://www.latinfinance.com), August 2002.

Notes: a Figures in constant 1998 values; b Return on assets; c Loanable funds as percent of total deposits. d Overdue loans as percent of loan loss reserves.

Even this very compressed analysis of the experiences of two of the principal country recipients of market-seeking (services) FDI in Latin America permits the differentiation of those experiences in terms of impact. In both the telecommunications and financial services sector, the outcome in Brazil was far superior to that of Argentina. The key features distinguishing those results were the role played by national policy in terms of defining developmental goals in each industry and the guidance provided by regulatory and supervisory authorities.

Before concluding, it makes sense to refer the recent policy initiatives of another principal recipient of market-seeking (services) in Latin America: Chile. This country was a pioneer in much of the opening up to FDI that took place in the region. It opened up telecommunications and financial services much before other Latin American countries and with a considerable degree of success in terms of the amount of FDI attracted, and its impact in modernising many services. Chile has one of the best telecommunications infrastructures in the region and has the best record for avoiding financial crises since the late 1980s. It also has come to appreciate the limitations of policies based exclusively on attracting FDI by way of horizontal policies (ECLAC, 2000,) and is now attempting to define what it considers the priority areas for targeting FDI attraction at the national (information technology, electronics, biotechnology and new materials) and sub-national levels, and new, more proactive, instruments (direct contacts, strategic offices, incentives, etc.) to carry it out. During the last two years, Chile has implemented a two-track policy initiative of a more focused or targeted nature to attract FDI to these more technologically sophisticated activities and services in which Chile can serve as a platform to access the rest of South America. As part of this initiative, Chile's President Ricardo Lagos opened a promotion office in Silicon Valley and has proposed Valparaiso as the country's new technology capital. This new effort has produced results in the form of Motorola's development centre for wireless solutions, Ericsson's regional development centre, Santander's regional technology centre, and Delta's regional client contact centre. The new policy initiative is based on making Chile's role in Latin America similar to that of Ireland in Europe or that of Singapore in Asia. This represents the first attempt in South America to move from the easy stage of attracting FDI by way of horizontal instruments – where more FDI is better – to a more difficult stage based on selective instruments and FDI targeting –where the quality more than the volume of FDI is the focus.

This section on FDI driven by market-seeking (services) corporate strategies in Latin America demonstrates that the spillovers literature has virtually no relevance for measuring and evaluating impacts of FDI driven by this corporate strategy. In fact, the impacts vary from service to service and country to country. The brief analysis of FDI in telecommunications and financial services in Argentina and Brazil demonstrated that a clear definition of developmental goals in the context of reliable regulatory and supervisory norms and institutions are critical to obtaining national benefits. Argentina and Brazil were polar examples in this regard.

3.5   Conclusions and policy recommendation

The critical analysis of the spillovers literature allowed us to question the original findings that suggested that a 'the more, the better' FDI policy was a host country's best option. Even the more recent empirical studies of that line of analysis suggest that, increasingly, negative or mixed not positive impacts are encountered in the analysis of developing countries and transition economies. One very useful aspect of that kind of analysis was the identification of the principal transmission belts of FDI and TNC impacts, those associated with the transfer and assimilation of technology, improving human resources, establishing and deepening

production linkages and enterprise development. However, even these useful aspects of the spillovers literature were limited basically to FDI and TNC operations in the manufacturing sector.

We used the analysis of these transmission belts in LAC in the context of one dominant TNC strategy in the manufacturing sector: the efficiency-seeking one. The analysis of the cases of Mexico and the Caribbean basin demonstrated the usefulness of that approach. It demonstrated that in the absence of a development strategy the benefits of this category of FDI tend to accrue primarily to the investing TNCs, not the host countries. The case of Costa Rica indicated that an active FDI policy that targeted the TNCs employing efficiency-seeking FDI strategies deemed most coherent and coincident with the host country development strategy produced far better results than a 'the more, the better' FDI policy, such as that which was common until recently in Mexico and still persists in most of the Caribbean basin.

With regards to the market-seeking (services) FDI strategy of TNC in LAC, the spillovers literature did not offer much in order to analyse the impacts on development. Here, the TAT, HR, PL and ED transmission belts were less relevant and difficult to measure. In order to get a clearer understanding of the impact of such corporate strategies in the countries in which that FDI strategy is dominant, it was necessary to incorporate another kind of analysis more pertinent to the reality of services, such as telecommunications and financial services. Argentina and Brazil provided two polar cases with regard to FDI and TNC impacts in those services. While many of the relevant factors were specific to the separate services, it was found that the existence of a sectoral development strategy on the part of host country authorities and their responsibility in liberalising those sectors were two central aspects in defining development impacts. In particular, the establishment of a responsible regulatory framework and consequential sectoral institutions were critical to success. Argentina implemented a 'the more, the better' FDI policy with disastrous results. Brazil did much better with a more focused and careful liberalisation process in which the quantity of FDI was not the principal priority. In this respect, the more appropriate FDI policy was an active one in terms of understanding the corporate strategies of the TNCs demonstrating interest in the sale of local assets (state or private sector) in order to establish the best contingent investment requirements in association with regulatory and competition authorities.

In both cases, the analysis of development impacts of FDI and TNC in LAC was facilitated by comparing *like* corporate FDI strategies in the countries where those strategies represented the dominant FDI strategy by TNCs, that is, Mexico and the Caribbean basin with regard to efficiency-seeking FDI and Argentina and Brazil in terms of market-seeking (services) FDI. In the first case, the transmission belts identified by the spillovers literature were relevant, but that was the case for FDI in services. In both cases, the original FDI policy recommendation emanating from the spillovers literature – 'the more, the better' – was way off-base. An active and targeted FDI policy aimed at achieving priority goals defined in the national development strategy would seem to work much better.

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4

Creating Wealth through FDI in Landlocked COMESA Countries: The Case of Zambia and Uganda

Watipaso Mkandawire

4.1   Introduction

Foreign direct investment (FDI) is critical in stimulating economic growth and development, and thereby contributing to poverty reduction. FDI plays different roles in different economies, though the generic ones include provision of technology, transfer of high-level skills, facilitation of access to foreign markets, creation of new employment opportunities and capital injection.

The old school of thought believed that the robust economic growth coming from FDI would 'trickle down' and result in sustained reductions in poverty. There is ample evidence that where poverty is spread across a large cross-section of the population, economic growth that raises average levels of household income and consumption should normally lead to major reductions in poverty. But like many instruments of economic growth and development, FDI is not a panacea for problems of poverty and inequality. Its impact relies heavily on a number of complementary policies and actions by host countries. FDI can also be a cause of instability in an economy (Stiglitz, 2002) and in the process can destroy small and medium enterprises (SME) and competition in the local economy. This is normally the case when there is poor economic management and governance. It could also be a source of corruption among public officials, especially in extractive industries,[16] and it could bring instability when it monopolises the financial sector.[17] FDI in such instances could perpetuate income inequality and poverty.

This chapter presents the experiences of two countries in Eastern and Southern Africa: Zambia[18] and Uganda. These two were founder members of Preferential Trade for Eastern and Southern African States (PTA), which was launched in September 1982. The PTA was replaced by the Common Market for Eastern and Southern Africa (COMESA) in 1994. We have analysed the FDI inflows in the two countries since 1997, the sectors which attracted the investment, the roles the respective governments played in supporting and facilitating FDI, and the FDI impact on income inequality and poverty. The final section of the chapter draws some policy implications. There is no econometric modelling to show the relationship between growth, poverty and FDI, and hence the conclusions have been reached on the basis of what transpired during the period and how FDI impacted on the various variables that could influence incidence of poverty.

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16 Corruption arises when foreign companies demand certain incentives, which are awarded using discretionary powers or when public officials demand payments for providing services or contracts.
17 Government fails to make strategic interventions using the banking community, while the foreign players may not understand some of the local constraints in developing, for example the case of SMEs.
18 Zambia is a member of both SADC and COMESA and is in the COMESA Free Trade Area, whereas Uganda is a member of COMESA and the East African Community (EAC) and has not yet joined the FTA.

4.2   Foreign direct inflows in the COMESA region

FDI inflows to sub-Saharan Africa increased to $11.8 billion in 2001. The increase, however, was mainly a result of De Beers' shares, bought by Anglo-American, and inflows in Angola and Nigeria. Angola, Sudan and Egypt featured among the top 10 countries in the COMESA region in 2000 and 2001. Uganda also performed well compared with the rest, receiving more than $200 million in FDI in 2001. Overall, COMESA performed poorly, with FDI inflows dropping from $3.8 billion in 2000 to just over $3 billion, representing a 21% reduction. The largest reduction was in Egypt and Mauritius.

In terms of sectoral performance, countries in COMESA performed differently. Sectoral breakdown shows that Angola received more FDI in oil and petroleum, Uganda received more of the manufacturing FDI (apart from mining), Zambia received reasonable FDI in agriculture and tourism, while Ethiopia received more FDI in the hotel industry. There were fewer mergers and acquisitions in COMESA, owing partly to the nature of the privatisation programmes and largely to the fact that, except in South Africa, FDI flows contribute more to greenfield investment than to M&A. The FDI inflows in COMESA for 2001 are presented in the tables in the Appendix.

Political and economic developments
The two countries are landlocked, are primary exporters, and have constraints in access to seaports. Transport costs are relatively high at times, reaching 40% of the cost of the final product. In Uganda, a survey in 1997 found that transport and other costs raised the cost of capital goods by 50%. Both countries have been implementing IMF/World Bank structural adjustment programmes since the 1980s, with Uganda doing so consistently and Zambia taking intermittent breaks prior to 1991.

Uganda has gone through political turmoil, the worst being the period before 1986 (prior to the ascendance to power of President Museveni). Since 1986, there has been reasonable stability, except for rebel activities in the northern part of the country. Uganda is not a democratic country in the western-defined sense, as its constitution does not recognise the practice of party politics, virtually eliminating dissent and competition for the high political office. Western governments have had to look elsewhere for reasons to invest, including at the fact that the economy has been run to the satisfaction of most cooperating partners. Zambia, on the other hand, is one of the models for modern democracy, having gone through three multi-party elections and a smooth transition from single party to multi-party politics.

Both countries have implemented reform programmes and created an enabling environment for the private sector to participate fully in the economy. Liberalisation programmes have also led to the creation of several regulatory bodies to support the market-based economy. Some of the institutions have capacity problems to regulate, and this has created some major challenges (e.g. in telecommunications).

As stated earlier for exports, both countries rely on primary commodities (copper for Zambia and coffee for Uganda). Both countries face the challenge of dealing with HIV/AIDS,[19] which has affected thousands among the workforces in the productive sectors. HIV/AIDS has also increased the incidence of dependency, with an increase in child or old-people headed households. This has also contributed to the status of poverty in the two countries, as more resources are spread thinly on the ground.

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19 Uganda has been hailed as one of the success stories in reducing the incidence of HIV/AIDS; the latest figures show that Zambia may follow in Uganda's footsteps.

Uganda has been strong in its macro-economic management, registering low levels of inflation (single digits) over a reasonable period of time. On the other hand, Zambia's economic management has been weak and inflation rates have been very high. Both countries, though, continue to have very low savings rates, and donors contribute significant resources towards their budgets (see Tables 4.1 and 4.2).

Both countries are members of COMESA,[20] a regional economic grouping with 20 Member States and a population of 400 million (see map in Appendix). COMESA established a Free Trade Area in October 2000 and will establish a Customs Union in December 2004. Currently there are nine Member States that are members of the FTA and the combined GDP of these is 70% of the COMESA GDP. Two more countries were scheduled to join by 1 January 2004.[21] Since the launch of the FTA, intra-COMESA trade has been growing at an average of 35% per annum.

COMESA's aim is to deepen regional integration through trade and investment. The COMESA programme indicates that by 2014, COMESA will become a common market; by 2025 the region should attain the status of economic union. COMESA is implementing several programmes to facilitate and deepen integration, including transport and transport facilitation, monetary harmonisation, agriculture development, macro-economic surveillance, infrastructure, telecommunications, etc. For example, in transport, COMESA has instituted several facilitation instruments, including regional third-party motor vehicle insurance, a common carrier license for trucks, harmonised axle load limits and vehicle dimensions, harmonised road transit charges etc. These programmes have lowered the cost of doing business in the region, as most payments can now be made in local currencies, temporary permits are no longer necessary, and border formalities are now faster – saving time for goods in transit. In customs, COMESA countries now use one single customs document as opposed to more than 20 documents (for some countries) before the change. This again has significantly reduced cost of doing business in the region.[22] At a bilateral level, COMESA has programmes on AGOA, is working with the European Commission to implement PROINVEST programmes, and will undertake private sector support programmes with the French government. COMESA has also established institutions such as the PTA Bank, the African Trade Insurance Agency (ATI – a political risk insurance agency) and many others. On investment, COMESA has embarked on a programme to institute and implement a legal framework that would facilitate the creation of a common investment area to enable factors of production move freely in the region.

4.3   Foreign direct investment inflows and performance

FDI in Uganda and impact on poverty
Uganda, with a population of 22.8 million people, has a land size of 241,038 square km. Uganda's real GDP growth has been averaging around 6%, with inflation in single digits. It also has a comparative advantage in natural resources (agriculture, fisheries and forestry). The good climate and soils make agriculture the mainstay of the economy, with coffee accounting for over 40% of total merchandise exports. The country is experiencing a shift from the entrenched agricultural economy of the 1980s towards one emphasising construction, manufacturing and regional trade and distribution.

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20 COMESA Member States are: Angola, Burundi, Comoros, Djibouti, DR Congo, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.
21 Countries in the FTA are: Djibouti, Egypt, Kenya, Madagascar, Malawi, Mauritius, Sudan, Zambia and Zimbabwe. Burundi and Rwanda were due to join on 1 January 2004. This information was correct as of February 2003.
22 See www.comesa.int on COMESA programmes in transport and trade facilitation.

Figure 4.1: Uganda FDI flows 1997-2001 (US$ million)
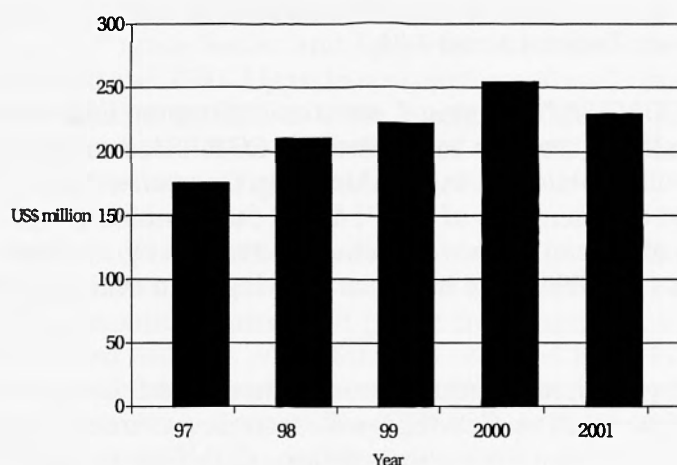
Source: compiled from UNCTAD (2002b).

Foreign direct investment flows in Uganda averaged $215 million per year between 1997 and 2001, representing about 20% of the Gross Fixed Capital Formation. This is a remarkable improvement, as annual average FDI flows were $24 million between 1985 and 1995, representing only 3.6%. Kenya has become the second largest investor in Uganda. As of 1999, out of the 13 largest foreign affiliates operating in Uganda in agriculture and manufacturing, three were Kenyan firms. In the last five years, investment flows have mainly occurred in the manufacturing sector. (See Table 4A2 in the Appendix for sector breakdown.)

Ugandan industries are undergoing rehabilitation and restructuring after years of deterioration as a result mainly of political instability and economic mismanagement in the 1970s and 1980s. This will require heavy investment in new technology in order to achieve competitiveness. Privatisation has played a key role in attracting FDI. Some of the firms privatised (e.g. cotton ginneries) have shown that with new capital, with the change in policy, and by operating in a COMESA regional setting, the industries can become competitive. For example, Ex Ken Limited of Kenya was set up in Uganda and is subcontracted by the parent company to produce for the USA market under AGOA.[23] Another garment company, Southern Range Nyanza, based in Jinja, spins yarn and makes fabric which is used by UTEXRWA, a Rwandese textile and garment factory, to produce garments for the regional market. Their operations have already created strong backward and forward linkages in the supply chain by utilising Ugandan cotton and the fabric used in Uganda and Rwanda for garment manufacturing.[24]

Cotton Clark from South Africa, another example, is a new investor in cotton ginning in Soroti, in the cotton belt 400km from Kampala. They procured an existing ginning mill under the privatisation programme in August 2001. Cotton Clark has operations in Zambia, Malawi and South Africa. Uganda has the potential to produce one million bales of cotton, but its production has gone down from a high of 500,000 to only 100,000 bales. Smallholder farmers grow most of the cotton in Uganda; prior to privatisation, they abandoned cotton, as prices offered by the state companies were very low and, more often than not, farmers were paid

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23 The author had meetings with Ex Ken Management in Kampala in 2002.
24 Based on the discussions of the author with the management of Southern Nyanza and UTEXRWA in 2002.

very late. There was no incentive to continue growing cotton. Clark Cotton and the revival of ginning have resulted in farmers being paid upon delivery of the crop.

Foreign direct investment in this case has brought predictability, as the farmers are able to make plans, knowing that they will be paid. Most foreign companies, especially multinationals, are able to raise funds from local banks and/or from foreign banks and are able to make such a type of payment. Domestic investors, on the other hand, facing high interest rates and lack of acceptable collateral, at times fail to raise such short-term funds.

Investment and growth have occurred in sectors such as manufacturing (beverages sugar/coffee processing), mining, transport, communications (telecommunication) and construction. This has led to a doubling in size of the economy in a very short space of time, although Uganda remains one of the poorest countries in the world (ranking 141 out of 162 nations in the UNDP's 2001 Human Development Index). Apart from the privatisation programme, FDI flows into Uganda resulted from the returning Asian business community: following the expulsion of the Asian population by the Idi Amin regime, business operations had collapsed. Most Asian businesspersons returned to Uganda in the 1990s and claimed back their operations. Capital flowed back into Uganda to rehabilitate the reclaimed companies. In 1992, $15 million in flight capital left Uganda and by 1997 $311 million – 17% of private wealth – was repatriated (Collier *et al.*, 1999). The majority of investors in Uganda are British and Indian firms, and of late Kenyan and South African firms have strengthened their presence.

The Madhvanis are among the Asians who have returned. They have made substantial new investments in enterprises like the Kakira Sugar Works and Nile Breweries and estimate their annual contribution to the government's coffers at about $50 million a year. Uganda has also attracted new Asian investors such as the Dawda Group of Kenya, which has invested some $10 million since 1993. Other major investors include South African Breweries (which now owns a 40% share in Nile Breweries), MTN Telecom, Shoprite, Kasese Cobalt and Coca Cola (UNCTAD, 2001).

The household surveys conducted in Uganda have shown that economic growth has translated into an increase in household consumption and a reduction in income poverty. The proportions living below the poverty line of $1 per day declined from 44% in 1997 to 35% in 2000 (OECD, 2002). As can be seen from Table 4.1, the economy experienced positive per capita growth amid low levels of inflation. Foreign direct investment was consistently high during the period also. Investment went into manufacturing industries and a number of jobs were created during the period.

Table 4.1: Uganda indicators

	1992–97	1997	1998	1999	2000	2001
Inflation (%)		1.1	3.3	6.1	3.9	4.1
Real GDP %		5.1	4.6	7.6	4.6	4.5
GDP per capita growth (%)	22	1.9	2.8	4.4		
Gross domestic savings (%)		4.0	-4.1	-3.6	-2.7	-6.2
Manufacturing growth rates		13.4	14.4	11.3		
FDI growth rates (%)		-2.7	20	6	14	-10
Per capita agriculture production (%)		-2.9	4.1	0.5		
Total investment/GDP %		16.8	15.7	17.8	19.7	18.8

Source: OECD (2002).

The 2000 household survey, however, indicates that while poverty has declined, inequality has increased, especially since 1997. The richest decile experienced the largest rise in living standards, with their consumption levels growing by 20%. On the other hand, the

consumption levels of the poorest decile grew by only 8%. A number of reasons could be given for this. Agriculture is the backbone of the country and most of the population derives direct benefits from it. Increase in per capita agriculture production has not been impressive, considering that the population has been growing by over 3% per annum. Investment has mainly occurred in manufacturing, trading and services sectors, as well as through the privatisation of sectors such as banking, tourism (hotels) and telecommunication, which either attract white collar workers or an insignificant number. Agriculture in 1998 received only $6.8 million in investment, creating 67 jobs. Manufacturing and retail on the other attracted FDI to the tune of $51 million and $37 million respectively, and attracted a total of 220 jobs. The planned investment for the year 2000 showed that the agriculture investment contributed 3.5% to total investment compared with manufacturing and retail which contributed 29% and 20% respectively (Uganda Investment Authority, Annual Reports 1998, 1999, 2000).

However, the trend could change considering the new developments in cotton industry, which involve thousands of smallholder farmers in the rural areas. According to Appleton, (Ghana Statistical Service, 1999), there were sharp falls in consumption poverty among households engaged in cash crop production in the 1990s. On the other hand poverty among food-crop farmers declined marginally. Uganda needs to attract FDI that will foster linkages with the agriculture sector, especially in cash crops for export, if investment is to have significant impact on poverty and income inequality. Companies in the textile sector have either been privatised or given back to original owners. Revamping the textile sector to utilise the expanding cotton production for AGOA will require heavy investments – which most of the operators seem not to have. The firms are looking at the possibility of forming regional alliances within COMESA as a way of penetrating the lucrative US market. The success in this sector will have a lasting positive effect on poverty in both rural and urban Uganda.

FDI in Zambia and impact on poverty

Zambia is a landlocked country covering 752,610 square km, three times the size of Uganda and with a population of 9.7 million people, less than half that of Uganda. It is endowed with mineral and agricultural resources and the mineral sector has been the country's mainstay, with copper forming its backbone. Zambia is a member of the COMESA and SADC and is the founding member of the FTA.

Copper accounts for over 50% of all exports outside the COMESA region (external). Combined with cobalt and other intermediate products of this, this accounted for 72% of all external exports in 2001. Among the non-traditional exports, cotton yarn accounted for 8% of all external exports. Among the top export products to COMESA are Portland cement, sugar, cotton yarn, refined copper products, tobacco and electricity.

Zambia has been categorised by the 2002 World Investment Report as an 'above potential economy', meaning it was able to attract reasonably high FDI relative to the size of its economy and weak internal structures. Foreign direct investment, though, has been growing at a decreased rate since 1997. FDI inflows have mostly been driven by the privatisation programme and privatisation has – with some justification – been hailed as a model within Africa for the effective establishment of legal and institutional frameworks for privatisation of state-owned enterprises (SOEs) (World Bank, 2001). By the end of December 2002, 257 units had been privatised out of a working portfolio of 280; this included nearly all non-mining commercial and manufacturing entities. New investment to date in these enterprises since privatisation amounts to $990 million. This has brought a fundamental change in the institutional structure of the economy. However, the economic impact of this has not been as significant, and less than it could have been had the country moved swiftly to privatise the copper mines which, according to the World Bank, was the most critical reform to restore short-term, export-led growth in the 1990s.

Mining contributes to about 8% of formal employment and has strong backward and forward linkages in agriculture, manufacturing, telecommunication and electricity. Its multiplier effect therefore has always been considerable. The need for foreign direct investment for the privatisation of the largest mining parastatal, the Zambia Consolidated Copper Mines (ZCCM), was real. Zambia was already suffering from being a high cost copper producer and copper prices between 1997 and 1999 had declined by 44%. Prior to privatisation, the period 1996–99, ZCCM was suffering catastrophic operating losses equivalent to 6% to 10% of GDP per annum.

The privatisation of ZCCM finally happened in 2000 when Anglo-American acquired a 65% stake of the copper mines and paid $90 million for the assets (which the government had valued at $400 million in 1996). Some 8,000 people were retrenched. By 2002, when Anglo finally announced their withdrawal, they had invested $174 million in the refurbishment of existing mines and lost $108 million (Zambian Privatisation Review: World Bank, 2002). The impact of the foreign investment was subdued, with years of ruin following when some funds from the revenue could not be accounted for, high production costs, and depressed copper prices. At the same time, it is possible that the damage done to the economy during the years of inefficient mining operations was so large that the foreign investment merely minimised the shock and damage to the economy.

Table 4.2: Zambia Economic Indicators

Year Indicators	1992–97	1997	1998	1999	2000	2001
Inflation (%)		24.5	24.4	26.8	26.1	21.7
Real GDP growth %		3.3	-1.9	2.4	3.6	5.7
GDP per capita growth (%)	-1.4	0.9	-4.1	0.2	1.5	3.1
Gross domestic savings (%)		8.1	4.6	4.1	3.3	3.5
Manufacturing growth rates (%)		5.1	1.8	2.8	3.5	5.8
FDI growth rates (%)		14	-4	-18	-25	-41
Per capital agriculture production (%)		-12.9	-7.2	10.6	-	-
Total investment/GDP (%)		13.6	14.9	14.5	16.7	18.5

Source: OECD (2002).

Figure 4.2: FDI inflows in Zambia (1997–2001) (US$ millions)
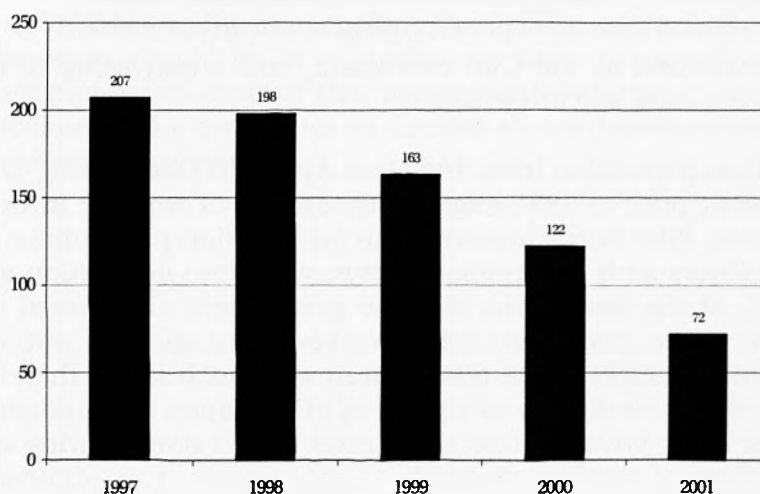
Source: compiled from UNCTAD (2002b).

It was hoped that privatisation of ZCCM would facilitate new capital injection to augment the low domestic savings and technology transfer to regain efficiency and productivity of the mines. The national savings in Zambia have been very low and in 2001 the gross domestic savings as a share of GDP were a miserable 3.5%. Despite the existence of a stock exchange, Zambia has no reliable source of long-term capital. Of importance, it was the hope of the government of Zambia that there would be a revival of the manufacturing industry, which had completely collapsed in the copper belt region. Economic growth in 2001 was at over 5%, spurred by these investments and their multiplier effects. But only 11% of the privatised assets were acquired by foreign investors, with 56% going to local investors. The companies acquired by local investors have faced difficulties in view of high lending rates (50%+), an unstable exchange rate, and a low savings rates, making access to local term capital impossible. On the other hand, the assets acquired by foreign investors and producing for exports have made a great difference in diversification of the export products. These include Zambia Sugar and Chilanga cement (acquired by Commonwealth Development Corporation (CDC)), cotton ginneries (acquired by Lonrho and Cotton Clark), and coffee plantations (acquired by African Plantations). In addition, Sun International acquired the hotels at the Victoria Falls and other foreign investors acquired the main hotels in Lusaka. According to the World Bank review on privatisation, 42 of the privatised companies could be hailed as a success while 19 were outright failures.

The impact of FDI on poverty, arising out of privatisation, seems minimal. However, one has to note that most of the privatisation achieved 'damage control'. By the time of the political transition in 1991, the new government had to deal with huge budget deficits, a result largely of the state enterprises financing by printing and borrowing on the local market. This led to high inflation and excessively high interest rates. Zambia had faced two decades of steady per capita declines in per capita income ($900 in 1970, $600 in 1980 and $450 in 1990) (World Bank, 2002). Life expectancy, according to the latest figures, is below 40%, having fallen from over 50% in the 1980s.

Therefore, incidence of poverty in Zambia has been growing, despite the impressive figures on foreign direct investment. The per capita GDP growth has been small. The population living below the poverty line soared from 69.7% in 1991 to 73% in 2002. In addition, the proportion of the extremely poor outnumbers the moderately poor by four to one (Zambia Government PRSP, 2002–04). The available data for the 1990s show some significant trends:

- A modest decline in the incidence of rural poverty in the first half of the decade, countered by a rapidly rising incidence of poverty in urban areas in later years.
- A moderate decline in the depth and severity of poverty, particularly in rural areas.
- A decline in inequality as measured by the Gini coefficient, and a narrowing of the differences in inequality between rural and urban areas.

Zambia has a relatively larger urban population (over 40%) (see Appendix) and, owing to its socialist approach, the government prior to 1991 engaged thousands of workers in non-productive state-owned companies. Prior to the launch of the privatisation programme, 38 companies, including large employers such as Zambia Airways, went into liquidation and thousands became unemployed. At the same time, the new government abandoned the policies of subsidised food in the urban area. Many urban workers were affected; with the extended family system, the number caught in the poverty trap was much larger than the estimated 8,000 people who lost their jobs directly as a result of privatisation or liquidation. It is also important to note that other private sector companies closed down during this period, as they had been suppliers of services or goods to the privatised or liquidated companies.

The changes in the poverty formation or structure are consistent with a number of developments. There was a positive supply response in agriculture following price increases resulting from liberalisation. Secondly, FDI flows in non-traditional agriculture for exports was concentrated in rural Zambia (sugar, cotton, and coffee), coupled with the more urban-based impacts of delayed mining privatisation, extensive enterprise restructuring and high HIV/AIDS prevalence in later years. Following the privatisation of the enterprises in the agriculture and agro-processing sector, for example, Clark Cotton and Dunavant now contract over 250,000 cotton growers, up from 50,000 before privatisation. Zambia Coffee increased planted area from 350 to 1200 hectares and invested $18 million. Zambia Sugar invested $70 million and expanded the area under cultivation. This generated income for the poorest segment, especially in the rural areas.

4.4   The role of the two governments in supporting FDI

Uganda and Zambia have a variety of incentives offered to foreign investors and both have investment promotion agencies that facilitate FDI. There are no specific programmes in the two countries that link FDI to the local economy. Unlike Mozambique (see Box 4.1), the two countries hoped that foreign investors would be able to make market decisions to source inputs as well as services from the local market. Whereas both countries have been liberal in awarding work permits and ensuring that they eliminate most barriers that increase the cost of doing business, no programme exists to link the needs of private investors to the programmes in vocational and tertiary education institutions.

It is obvious that to deal with poverty in the two countries as well as in the region, there is a need to expand income opportunities. Uganda's improvements in economic growth seem to have filtered down to the poor. From 1992-97, real per capita private consumption grew by 22% while for Zambia it fell by -1.4% (World Bank, 2000). One can conclude then that growth in Uganda, partly spurred by FDI, translated into increased average levels of household income and consumption and hence poverty reduction. It is important to note, though, that receipt and the use of development aid to combat poverty have been more successful in Uganda than in Zambia. Therefore, FDI may have played a significant role in spurring growth because good complementary policies, especially the poverty reduction strategy of earmarking poverty-related expenditure (government expenditure on education, health etc.), were vigorously pursued (see Appendix.)

SME linkage programmes
Few foreign investors would invest in linkage programmes, as they are able to get services or inputs from traditional suppliers from affiliates or home countries. A government attracting investors should be in a position to know the needs of investors and hence put up a programme to support that investment by linking it to local suppliers and the domestic economy. The experience in Zambia shows that there was no proper preparation for new investment coming in.

Box 4.1: Smart partnership at work

The investment of $1.34 billion used to build Mozal Aluminum Smelter just outside Maputo significantly boosted the economy of Mozambique. Mozal was the first major project to be implemented in Mozambique over the past 50 years. On completion, Mozal doubled Mozambique's exports, providing for in excess of $400 million in foreign exchange earnings per annum and adding more than 7% gross domestic product.

For example, the exports from Mozambique to the EU rose from €118.8 million in 1999 to €531 million in 2001, mainly as a result of the opening of Mozal. Aluminium exports increased from €22 million in 2000 to €392 million in 2001, accounting for about 74% of Mozambique exports to the EU. Mozal Smelter is expanding: Phase II will create 4500 new jobs in construction/direct labour; at the end of construction, Mozal Smelter's employees will increase in number from 745 to 1050.

Mozal Smelter is a $2 billion facility, 47% of which is owned by United Kingdom-based BHP-Billiton. Other shareholders include the government of Mozambique, the Industrial Development Corporation of South Africa, and the Mitsubishi Corporation of Japan

Although this foreign direct investment has assisted in the creation of new temporary and permanent jobs, thereby contributing to poverty reduction, it is the empowerment programme that Mozal Aluminium Smelter and the government of Mozambique have put in place which has made the difference in the lives of the majority of the people.

Mozal's Small and Medium Enterprises Empowerment and Linkages Programme (SMEELP) has so far awarded seven of the 25 contracts to local companies. The total value of the contracts in 2002 reached $2.4 million. The programme was intended to maximise the benefits that a country could derive from foreign direct investment. Initially, a survey was conducted to analyse local companies which could potentially become accredited suppliers for Mozal. After identification, the process was followed by a training session explaining the tendering process. Technical mentors were appointed by SMEELP; their role is to provide the SMEs with assistance in the fields of safety, industrial relations, quality assurance and control, engineering and project management. In addition, the programme has commercial mentors and these assist suppliers in issues related to cost and financial management, accounting and procurement. For companies that have been awarded contracts, their performance is monitored and a conclusive report is prepared on the overall performance of the company.

An example is the privatisation of the hotel in Livingstone (Victoria Falls) where the new owners, Sun International, had to procure supplies such as vegetables from South Africa. There were no suppliers in the area, yet the privatisation of the existing hotels was followed with construction of new facilities. In other words, there was a time-lag during which time the government could have assisted small farmers/entrepreneurs to become suppliers of Sun International. Most governments look at direct taxes and employment as the only benefit arising from foreign direct investment and as such do not look for opportunities for linkages, such as outsourcing and subcontracting. It is highly probable that in the case of Zambia the private sector support infrastructure created by the government is relatively weak compared with most East Asia countries. As a result, not only is the right information not transmitted to prospective SMEs but also the SMEs are not as dynamic and have major constraints in becoming players in a supply chain without a targeted support and intervention by the government. The majority of the private sector support programmes in Zambia are run by donors (e.g. EU, USAID, JICA and GTZ) and have specific programmes that are usually muted by the donor rather than by the government.

Infrastructure development and role of FDI

One of the major constraints facing countries like Uganda and Zambia is the high-cost and inadequate infrastructure, e.g. utilities and transport, which has made industries uncompetitive. Zambia, like Uganda, is landlocked and access to the sea is expensive because of distance as well as high transport costs.[25] Zambia has concessioned its railway, hoping to reduce transport costs and increase efficiency. The state enterprise supplying electricity, ZESCO, is one of the remaining assets supposed to be privatised. Whereas Uganda has gone ahead and brought in the private sector to participate in the generation of electricity,[26] Zambia has become unconvinced and has seen mounting opposition to privatising ZESCO, especially from the urban population. The inefficiency of the infrastructure has a major impact on the poor who, though with no access to electricity, are consumers of products using the uncompetitive infrastructure. Zambia will need foreign capital to help strengthen its energy and infrastructure. For example, only 20% of Zambia's population have access to electricity and, worse still, the rural coverage is only 2%. To reach a 50% coverage by 2010 (government target), new connections have to be made for more than 150,000 houses per year versus a current of less than 15,000 houses. The total capital requirement is estimated to be in the range of $500–700 million. ZESCO's distribution losses increased to 27%[27] from 16% in 1996 and debtor days increased from 180 days in 1997 to more than 400 days in 2002. This is mainly a result of very low collection of revenue from government agencies and parastatals.

There is, however, an advantage that landlocked countries like Zambia and Uganda could have in regional trading arrangements. Eight countries border Zambia. Its central position and the fact that it has large unutilised land resources could make Zambia the supplier of most food products and other raw materials (e.g. cotton, copper products, etc.). The proposed concessioning of Zambia railways and the inter-connectivity to other regional railways could therefore play a key role in Zambia becoming a regional hub. Likewise,

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25 Uganda's major port is Mombassa; according to information collected by the author from a freight forwarding company in Uganda in 2002, it costs close to $4,000 to move a 40-foot container from Mombassa to Kampala.

26 'AES Nile Power is proud to represent the largest private investment in power in East Africa and pleased to help Uganda meet its need for power in a clean, inexpensive and reliable manner. AES has only reached this point of success because of the consistent and transparent support of the Government and the people of Uganda. In particular, the Government's commitment to reforming the power sector and facilitating power generation has been and continues to be vital.' Bob Chestnutt, Managing Director, AES Nile Power Limited.

27 Distribution loss in better-run utilities typically ranges from 8% to 10%.

Uganda could also play a vital role as a sub-regional hub in the Great Lakes region (DR Congo, Rwanda and Burundi), supplying cotton, maize and electricity.

FDI and the negative effects on the local economy

FDI in the two countries has also brought in some elements of destruction of local competition. A good case in point in both countries has been investment in retail trade whereby the aggressiveness of South African investors has seen companies like Shoprite opening outlets in Zambia and Uganda.[28] Prices of most commodities initially came down and this resulted in the closure of some local shops. The shops procure most of their products from South Africa, as the prices offered to the local suppliers would drive the domestic companies out of business. This has also contributed to the collapse of most SME suppliers. Stiglitz recalls the controversy in the US over the large chains of drugstores and convenience stores, for example Wal-Mart opening in a small community, which brought protest from local firms/shopkeepers who feared being displaced (Stiglitz, 2002).

FDI in financial institutions is another controversial area, as with experiences in Bolivia and Argentina where operations of foreign banks played a significant role in contributing to economic disaster by pulling back on lending. Economies require expansion of credit at certain times when the economy needs stimulation. The US in 1977 passed a Community Reinvestment Act. Banks are required, under this act, to lend to underprivileged persons or areas. The major banks in Zambia for example are foreign owned (Barclays, Standard Chartered, Citibank, and STANBIC). By the end of 2002, the total domestic credit to the private sector was much less than that to the government through bonds and treasury bills. 62% of total domestic debt stock in the form of treasury bills was held by the financial institutions. The thirst for profit made all the foreign-owned banks less responsible as they took advantage of weak macro-economic management and lent government funds at over 30% interest.

4.5   Conclusions and policy implications for the two governments

Foreign direct investment is important in least developed countries with low domestic savings, high dependence on development aid, and weak local financial institutions (such as Uganda and Zambia). FDI supplements the low savings and brings in technical expertise and access to foreign markets. For countries going through privatisation, foreign direct investment brings in the needed capital that would pay for the assets and increase productivity of the privatised assets. However, for FDI to have a significant impact on the economy, governments need to implement policies that will influence the inflow of foreign direct investment to sectors that can generate large externalities (see Figures 4A6 and 4A7 in the Appendix for sectors attracting investment in Zambia). This would significantly contribute to poverty reduction and reduction in income inequality. Agriculture in Zambia and Uganda has the potential to generate large externalities. For example, Uganda has a good climate for growing a number of agriculture products (e.g. cotton, cassava, ginger, coffee etc.). It could create a competitive advantage in these industries by ensuring that the country has the physical and soft infrastructure, human and financial capital, and markets to add value to these products for export and domestic use. According to a recent study in Nigeria by a company called 'ontheFRONTIER',[29] whereas cassava has the potential to be used as an input in over 100 different products, most African countries, including Nigeria, use cassava mainly as food. Despite the fact that a country like Indonesia produces much less cassava relative to Nigeria, the former exports significant amounts of cassava products to

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28 Shoprite has also opened shops in Malawi, Mozambique and BLNS countries.
29 ontheFRONTIER is based in Rwanda and is a subsidiary of The Monitor Group of the Harvard Group, which works on Competitive Advantage Theory.

the EU market. Building competitiveness requires the government to institute policies and direct budgetary resources to programmes that will assist in the achievement of such a goal. Governments also need to get the fundamentals right while directing the budgetary support to the right sectors and creating 'smart partnerships' between large foreign investors and small and medium enterprises.

The case of Uganda and Zambia has demonstrated how FDI plays a role in creating wealth in the two countries. The experience of the two countries has shown that FDI has, to some extent, contributed positively to reducing poverty. There is also evidence to suggest that the FDI in the two countries could have achieved more if the environment had been favourable. It is important, however, to recognise the fact that the economies of countries such as Uganda and Zambia are largely non-monetised, with the informal sector playing a very large role. When measuring the wealth or poverty in such economies, the actual numbers do not usually surface. Most rural households have assets such as land and farm animals, which are not valued and have no collateral value when trying to operate in real economy.

The following are some of the areas that would enable governments to reap benefits from FDI:

Creation of linkages with the local economy
It is clear that improvements in the competitiveness of countries like Uganda and Zambia depend on enhancement and upgrading of the contribution of small and medium enterprises. SMEs account for the majority of enterprises, employment and output in most of the least developed nations. For example, Uganda and Zambia depend on the smallholder farmers for the output of agricultural products and these play a key role in informal trade. Unfortunately, though these SMEs need to play a leading role in the economic turnaround of their countries, they are often unable to integrate themselves into the world economy and are in fact frequently hurt by globalisation as imported products flood into their domestic markets (UNIDO, 2002).

A producer-driven value chain, e.g. the Mozal Aluminium experience (Box 4.1) typically brings more benefits to SMEs, as these are able to acquire skills as technology know-how is transferred. However, there is also a danger that SMEs may be relegated to mere suppliers of parts and components to larger corporations like Mozal and become dependent on the prime manufacturers whom they supply. This seems to have been the case in Zambia, where SMEs were merely suppliers of parts and components to the local mining houses. When the mines collapsed, the SMEs collapsed as well. The expectation is that the participation of SMEs in global and national value chains should provide them with opportunities to upgrade technology, management and market access. In addition, it is more important to have strong spillover effects. As in Mozambique, spillover effects could be strong if SMEs are linked in networks with other firms or if they have a local cluster of firms. This did not happen in Zambia. One could speculate that SMEs in Zambia were more than satisfied with being mere suppliers of parts and components. It brought good money to the suppliers and there seem to have been no specific programmes or incentives by mining houses and government to encourage suppliers to acquire technology and upgrade their skills so as to move higher in the national value chain. In addition, Zambia, like many least developed countries, receives its policy recipe from the World Bank and the IMF. The two Bretton Woods institutions are well known for their emphasis on demand management and macro-economic policies, and are not as helpful in assisting countries in strengthening the supply side. The structural adjustment programmes in the past two decades put more emphasis on complete withdrawal of government from direct intervention in the private sector than on broad policy areas. It is, therefore, also possible that Zambia could not have put up a SME linkage programme in the mining sector.

Good macro-economic management and stability

Good macro-economic management and economic stability is a basic fundamental requirement for economic growth and poverty reduction. A combination of high inflation levels, high interest rates, and an unstable exchange rate makes planning domestic economic activities an impossible task. A business community with access to foreign currency tends to retain its funds in the foreign currency; doing business in the domestic market becomes a major challenge. Uganda has consistently had low levels of inflation over the last decade. On the other hand Zambia has had high inflation and interest rates and huge budget deficits.

Export orientation, growth and poverty

Export growth is critical for poverty reduction because it supports the overall growth process. However, the impact of increased export growth accompanied by increased economic growth may depend on the export structure and macro-economic fundamentals. For example, the export/GDP ratio of Zambia has been relatively high compared with that of Uganda (see Appendix). However, both countries export primary commodities, but incidence of poverty in Uganda has decreased more rapidly than in Zambia. This could be a result of the consistent economic growth in Uganda accompanied by low levels of inflation. On the other hand, Zambia's economic growth has been inconsistent and inflation has been high.

Use of the government budget to finance poverty-related programs

It is the responsibility of government to create intervention that will ensure that the country has the capacity to respond to the needs of foreign investors. The Appendix shows that Zambia, for example, allocates less than 10% of its total expenditure to education. On the other hand, Uganda spends more than 15% of its total expenditure, with rates having surpassed 25% in the late 1990s; South Africa spends at least 20% of its total expenditure on education. In terms of the other indicators in the Appendix (exports and government revenue), Uganda seem to have performed reasonably well, relative to Zambia, in using government resources and grants from donors to pool resources into poverty-related areas.

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Appendix

COMESA

*Source*: COMESA website.

Table 4A1: Fact Sheet

|	Uganda	Zambia
Total area (km square)	241,038	752,610
Population (million)	22.8	9.7
Population/square mile	255	33
Urban population (%)	14	43
Adult literacy (%)	65	76
GDP (real) (US$ billion)	6.9	3.7
GNP per capita (US $)	310	330
GDP (PPP) (US$ billion)	22.7	8.3
Exports (US$ million)	726	701
Imports (US$ billion)	1.5	1.3
Development aid (US$ million)	883	650
External debt (US$ billion)	3.48	6.7
Railroads (km)	1,240	2168
Paved roads (%)	8	17
Motor vehicles	43,000	164,000
Air passengers/km (millions)	52	428
Telephones/1000	2	9

Source: World Development Indicators.

Figure 4A1 FDI inflows 2000–01 (Group A) (US$ millions)
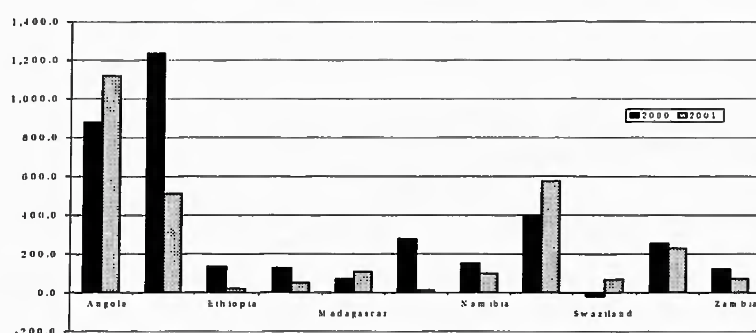
Source: World Development Indicators.

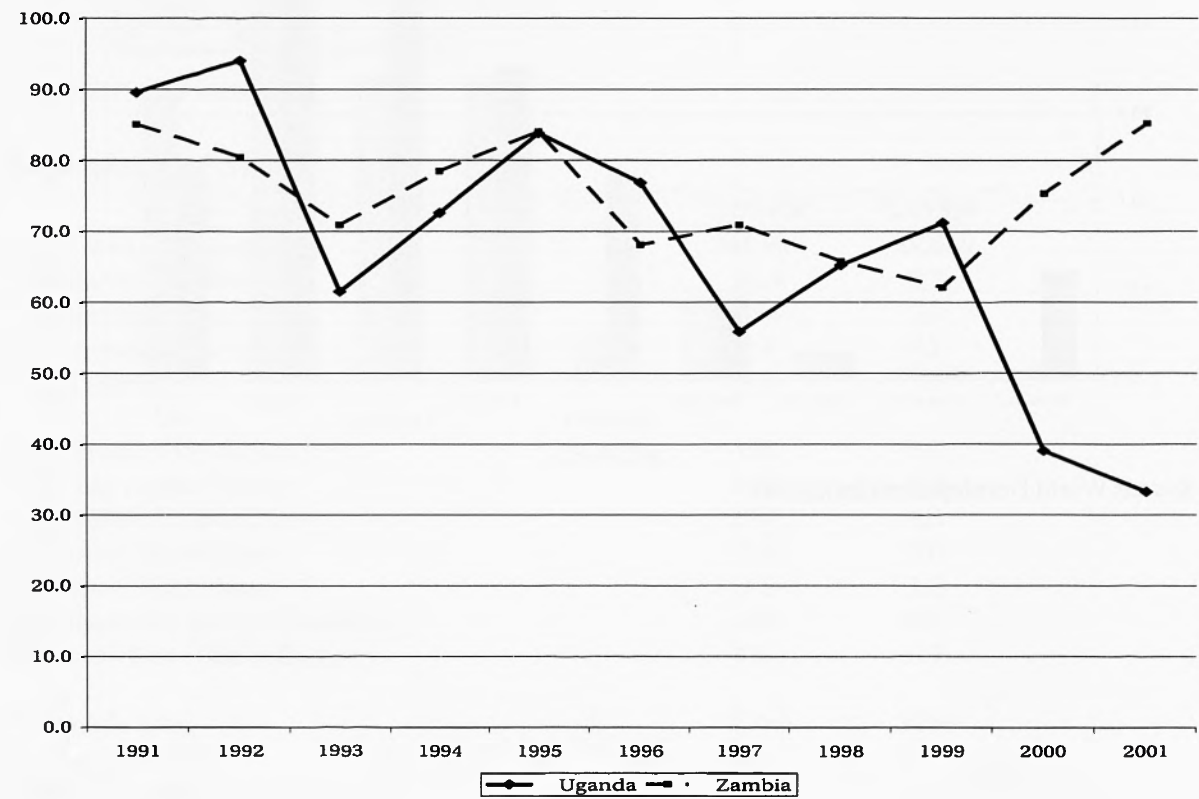## Figure 4A2: FDI inflows 2000–01 (Group B) (US$ millions)
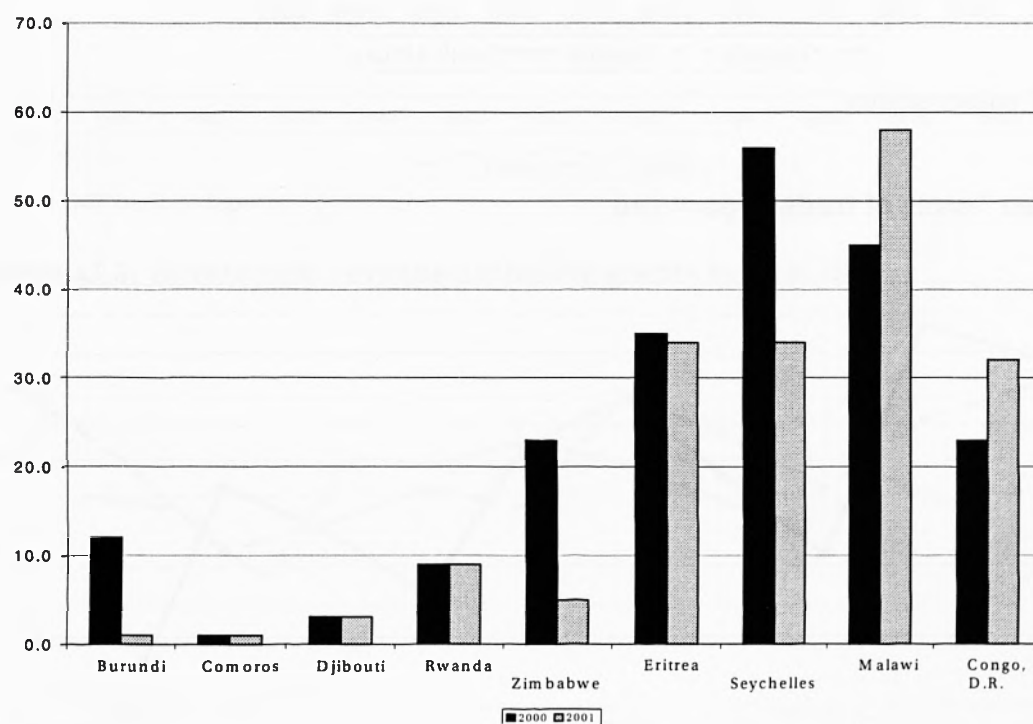
Source: World Development Indicators.

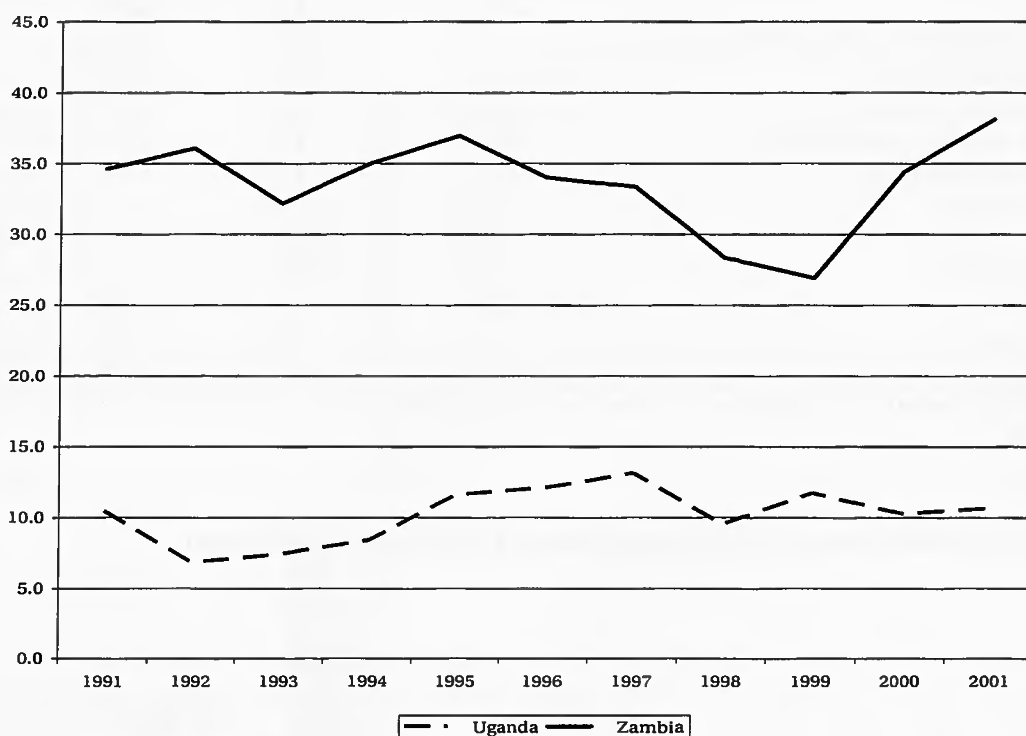## Figure 4A3: Government spending on education as % of total expenditure
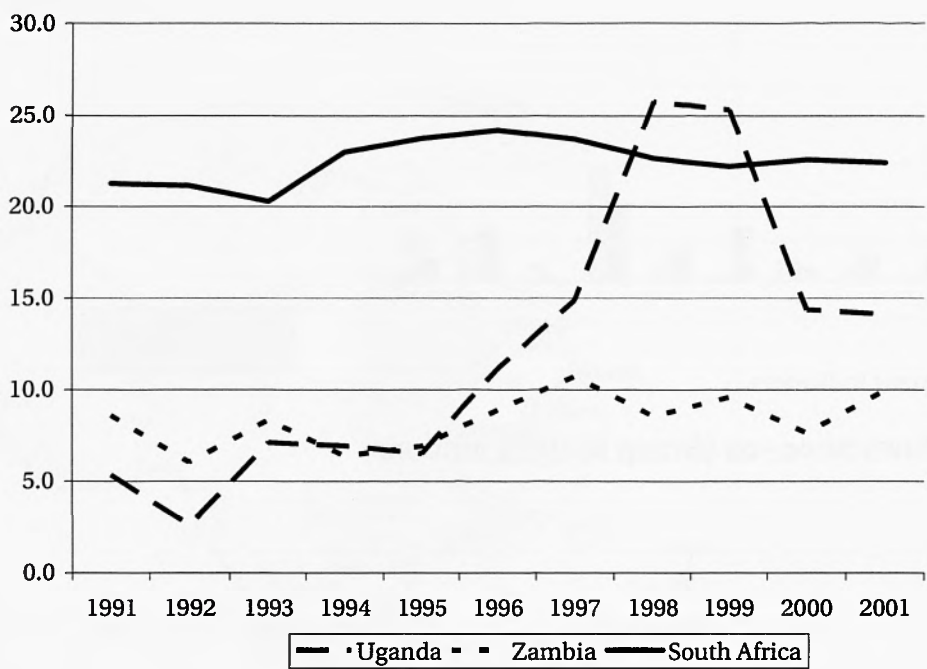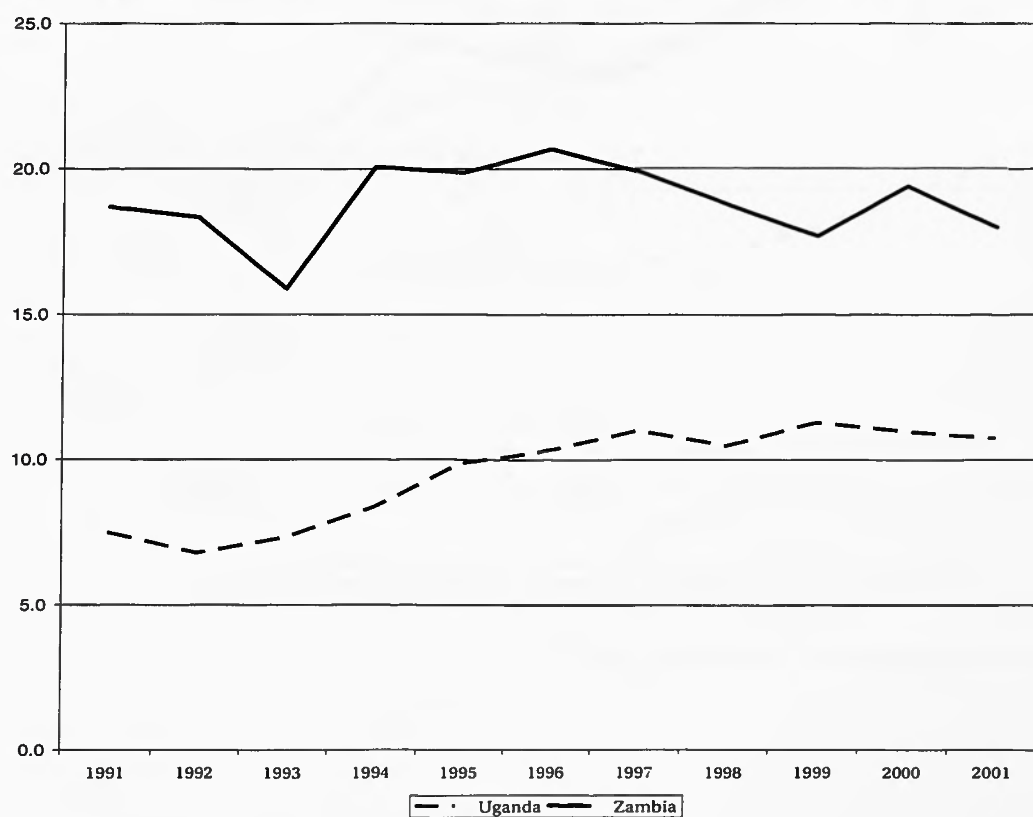

Source: IMF various reports.

Figure 4A4: Terms of trade 1990 = 100

Source: IMF various reports.

Figure 4A5: Exports as a share of GDP (%)


Source: IMF various reports.

Figure 4A6: Government revenue excluding grants as % of GDP

Source: IMF various reports.

## Table 4A2: Uganda: foreign direct investment by sector 1991–98

Sector	Approved (US$m)	%	Actual (US$m)	%
Manufacturing	906.2	37.7	422.8	5.21
Real estate	343.3	14.3	56.7	7.0
Transport, communication and storage	291.2	12.1	70.3	8.7
Mining and quarrying	194.3	8.1	47.7	5.9
Tourism (hotels, casinos)	132.3	5.5	52.0	6.4
Agriculture, forestry and fishing	112.5	4.7	57.2	7.0
Other business services	99.1	4.1	13.6	1.7
Water and energy	74.2	3.1	0	0
Trade	69.9	30.1	..	3.7
Financial services	67.4	2.8	31.2	3.8
Construction	55.4	2.3	12.1	1.5
Social services	51.9	2.2	12.1	1.5
Total	2,397.6	100	781.7	100

Source: UNCTAD, based on information provided by the UIA, 2000.

Figure 4A7: Zambia: investment commitments (number of projects)
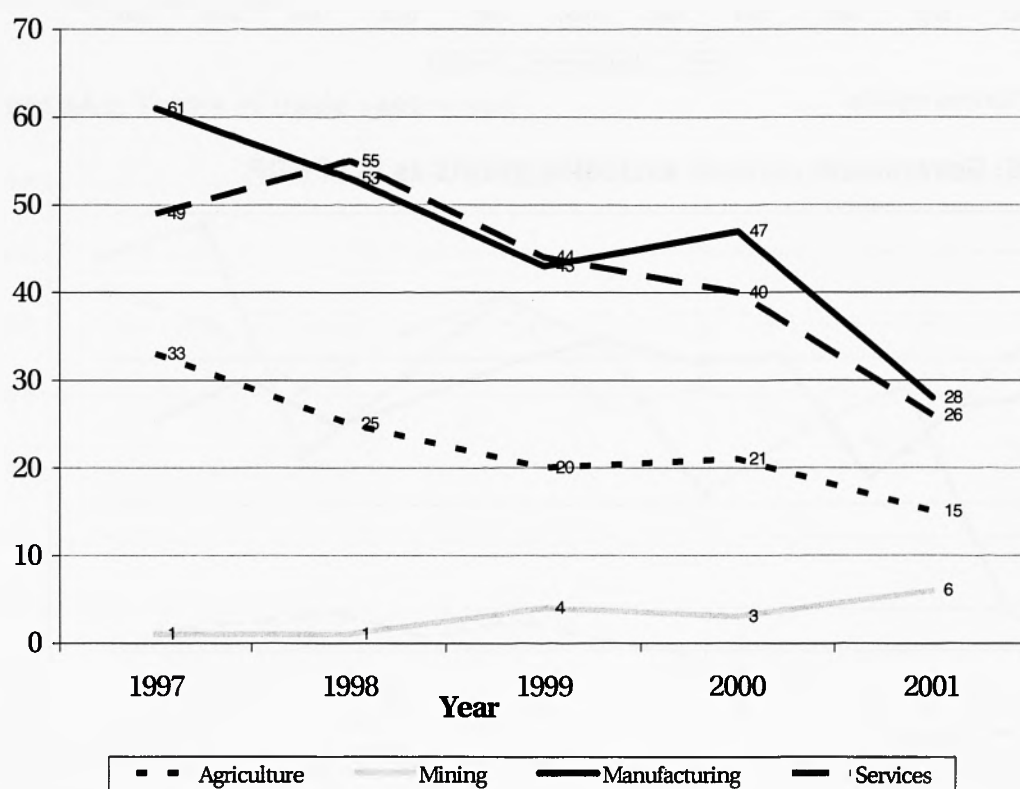
Source: Zambia Investment Centre Publications (2002).

Figure 4A8: Zambia sectoral investment commitments (US$ million)
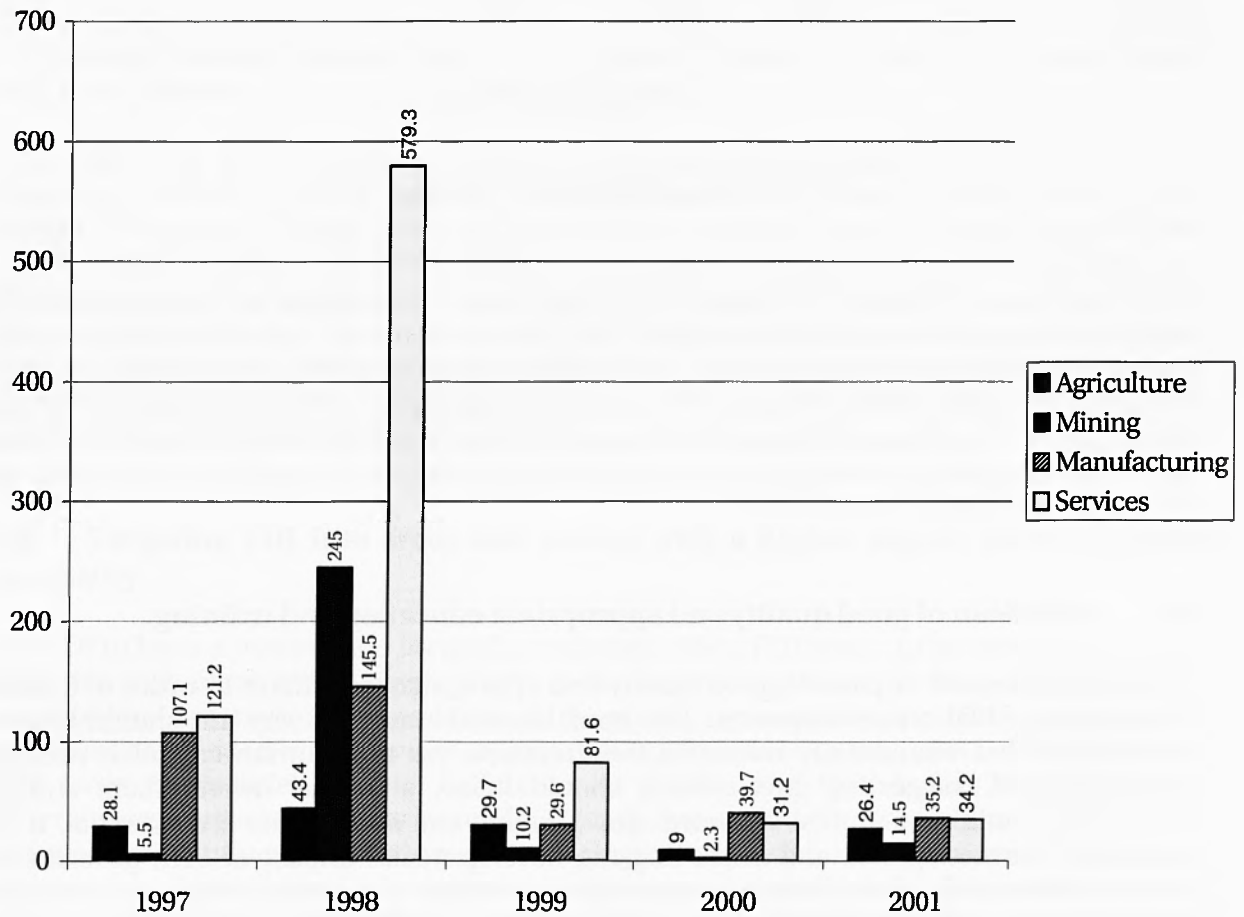
Source: Zambia Investment Centre Publications (2002).

5

Conclusions

Dirk Willem te Velde

This book has addressed the impact of foreign direct investment on development. The experiences of most countries analysed suggest that FDI has helped development and reduced poverty in the host country (e.g. Uganda, Costa Rica, Chile), particularly in those countries that have followed an active policy stance towards FDI. Here we focus on the three main policy conclusions relevant for developing country government efforts and donor agencies supporting developing country government efforts to improve the poverty and inequality-reducing effect of FDI.

5.1 Provision of good quality and appropriate education and training.

Governments need to provide good quality and appropriate education in order to improve the impact of FDI on development. This book has elaborated on why this should be done and how. What was already known in the literature was that human capital is useful in attracting FDI, suggesting governments should follow a normal development strategy. However, in addition to this, the words *good quality* and *appropriate* are essential. In the context of attracting FDI and improving the developmental impact of FDI, governments should think more clearly about what 'appropriate' means and how it can be achieved. Often this does not just involve following a normal development strategy, but also one which considers how FDI (and local investment) fits in.

Mortimore suggested that an active approach towards FDI involved a good understanding of TNC strategies. The case was made that Costa Rica was the only Latin American country with an effective national development strategy to enhance the impact of efficiency-seeking TNCs. This strategy emphasised the need to develop technical and English language capabilities. te Velde suggested further that good institutions are required to provide better quantity and quality of education, in order to coordinate the supply and demand of skills. The presence of local universities that could produce relevant graduates helped to persuade Intel to invest in Costa Rica. Intel and the government have set up joint training and technology institutes, which benefits Intel as well as other firms working in the sector. There is thus a need to coordinate the actions of investment promotion, technology, and training and education agencies and to improve interactions between these agencies on the one hand and potential or existing investors on the other hand. There are plenty of bad examples of the lack of relevance of public agencies to the private sector in Latin America, but the example of Costa Rica stands out as a good example.

5.2 Promotion of linkages between foreign and local firms.

Linkage promotion strategies have usually emphasised the need to build local capabilities. Experiences discussed here suggest that linkages can be promoted further by using a more active and targeted policy. A successful approach involves a *quick* and *coordinated* response.

There is a need for a *quick* response. Mkandawire argued that Sun International had to procure supplies such as vegetables from South Africa rather than from local Zambian producers, and there was therefore a time-lag during which time the government could have assisted small farmers/entrepreneurs to become suppliers of Sun International. Governments should consider quick and appropriate capability-building to foster linkages with new investors.

There needs to be *coordination* between public intervention and efforts by the relevant investors. te Velde pointed out that both investors and the local economy benefit from linkage promotion – though there can be dangers when locked into the 'wrong' supply chain – so a careful balance of the roles of the private sector and public support programmes is required. One coordinated way to support linkages involves the provision of public goods (e.g. infrastructure, education, certification) in demand by and through investors or private sector organisations. Mkandawire highlighted the presence of a 'coordinated' linkage promotion programme surrounding the Mozal investment in Mozambique, while there are no such programmes in Uganda and Zambia.

5.3   Targeting FDI into areas and sectors with a higher impact on poverty and inequality

For FDI to have a poverty and inequality reducing effect, FDI needs to be attracted either to activities with clear trickle-down effects to the poorer segments of the population or to activities that are more directly relevant to the poorer segments. Mkandawire suggested that governments needed to implement polices that would influence the inflow of FDI to sectors with large externalities directly. Agriculture in Zambia and Uganda has the potential to generate large externalities. For example, Uganda has a good climate for growing a number of agriculture products (e.g. cotton, cassava, ginger, coffee etc.). It could create a competitive advantage in these industries by ensuring that the country has the soft infrastructure, human and financial capital, and markets to add value to these products for export and domestic use. Building competitiveness requires the government to institute policies and direct budgetary resources to programmes that will assist to achieve such a goal. Governments also need to get the fundamentals right, while directing the budgetary support to the right sectors and creating 'smart partnerships' between large foreign investors and small and medium enterprises. This suggests that an active sectoral approach to building competitiveness and attracting FDI should be considered.

In the context of directing FDI into poverty relevant sectors, it should be considered whether actively attracting FDI into specific areas may put strain on the amount of FDI attracted. While increased local linkage possibilities (through increased local capabilities and voluntary linkage programmes) and increased good quality and appropriate education should stimulate overall inflows of FDI, this is less clear for policies that try to attract FDI into unfashionable areas at the expense of other areas. If targeting poverty will attract lower amounts of FDI, then governments should consider the trade-off between attracting lower volumes of FDI into areas that directly benefit the poor and attracting higher volumes of FDI that may benefit the poor indirectly.

Improving the developmental impact of FDI depends on attracting at least some amount of FDI. te Velde argued that the effectiveness of FDI-attraction strategies was likely to depend on the organisational structure of the promotion bodies, the method and consistency of implementation, and the financial resources available. TNCs prefer real one-stop services to lengthy entry procedures involving many bodies. It seems that countries which really want FDI need to do a great deal of work to attract it. Different countries spend different amounts on investment promotion (e.g. offices abroad). It should be clear that governments always

need to consider the efficiency and effectiveness of investment promotion. Similarly, offering incentives should be considered on its merits. The experience shows that much FDI in South America is market-seeking; hence, incentives (tax holidays, outright subsidies) designed to cut costs are unlikely to attract much additional FDI. A careful, well considered, consistent, WTO-compliant and targeted approach is required. For poorer countries which have started to desire FDI in the past decade this might still take years to achieve.

Foreign Direct Investment, Income Inequality and Poverty

Experiences and Policy Implications

This publication addresses the impact of foreign direct investment (FDI) on development and contains new contributions to an understanding of how policy may affect the interface between FDI and development. The experiences of several countries analysed in this book suggest that FDI has helped development and reduced poverty, in part because they have had the capacity to follow an active policy stance towards FDI. The chapters contributed by Dirk Willem te Velde on FDI and income inequality in Latin America, Michael Mortimore on TNC strategies and development in Latin America and the Caribbean and Watispaso Mkandawire on FDI in Zambia and Uganda bring together a number of different contemporary approaches to examining FDI and development. This publication includes a number of policy options relevant for developing country government efforts and donor agencies supporting developing country government efforts to improve the poverty and inequality reducing effect of FDI.

Dr. Dirk Willem te Velde (editor) is a Research Fellow in the International Economic Development Group at the Overseas Development Institute in London. He holds a PhD from Birkbeck College, University of London. His work includes publications on trade and investment policy, and on the impact of foreign direct investment on development and labour markets in particular.