FOREIGN DIRECT INVESTMENT AND HUMAN DEVELOPMENT

Foreign Direct Investment as an Engine for Economic Growth and Human Development: A Review of the Arguments and Empirical Evidence

by Liesbeth Colen, Miet Maertens and Jo Swinnen

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Summary

The liberalization process of developing and transition countries in the 1980s and 1990s has been accompanied by an exponential increase in Foreign Direct Investment (FDI) inflows. The interest of developing countries in attracting FDI is based on the belief that FDI contributes importantly to economic growth and to the overall development of the host country. Theoretical arguments state that FDI contributes to economic growth both directly – through the accumulation of capital and technological know-how – and indirectly – through technology and knowledge spillovers to domestic firms in the host economy. However, empirical evidence in support of these theories is not straightforward. Cross-country studies find a strong relationship between FDI and economic growth, but there is no consensus on the direction of causality. Micro-economic studies find some evidence of vertical spillovers to suppliers and buyers of Multinational Corporations (MNC), but horizontal spillovers are not found and seem to be dominated by negative competition effects. The empirical results vary largely across countries, sectors and firms. This indicates that the impact of FDI is very heterogeneous and conditional on factors such as the type of FDI, the economic sector, and the absorptive capacity of the host economy. It seems that FDI can under conditions be an engine of economic growth. Furthermore, FDI can contribute to poverty-reduction in the long run through an economic growth-impact, employment creation, wage pressure and increased tax revenues - although also here the effect is heterogeneous. The impact of FDI on the inequality between countries is unclear with mixed empirical evidence. Within a country, it seems likely that FDI increases inequality in the short run. However, when directed towards less skill-intensive sectors and the poor groups of society – for example FDI in agri-business in rural areas – FDI can reduce inequality. Also on gender inequality, the evidence is mixed. With respect to human rights, labor standards and the environment, FDI seems to create a ‘race to the top’ rather than a ‘race to the bottom’. FDI is thus not a simple solution for enhancing growth. But when the conditions are right, it can provide an important contribution to human development.
Abbreviations

CIS    Commonwealth of Independent States
FDI    Foreign Direct Investment
GDP    Gross Domestic Product
HDI    Human Development Index
IMF    International Monetary Fund
M&A    Merger and Acquisition
MNC    Multinational Corporations
ODA    Official Development Assistance
SSA    Sub Sahara Africa
TNC    Transnational Corporations
UN     United Nations
UNCTAD United Nations Conference on Trade and Development
UNDP   United Nations Development Program
1. Introduction

Until the 1970s many developing countries – in Latin-America, South-East Asia as well as Africa – were rather reluctant towards foreign investment and pursued a policy of import substitution. But during the past three decades – mainly as a result of structural adjustment programs that started in the late 1970s – most developing countries have opened up their economies (Nunnenkamp, 2004). Also, countries in Eastern Europe and the former Soviet Union have opened up during the process of transition from state-controlled economies to market economies during the 1980s and 1990s. As part of the liberalization policies and stimulated by international donors such as the World Bank and the IMF, low-income countries are increasingly adopting policies to attract foreign direct investment\(^1\). Such policies are based on the belief that FDI could contribute importantly to the growth and development of these nations. This paper critically assesses the contribution FDI has made – so far – to economic growth and human development in low-income countries. We review theoretical arguments and contemplate their empirical validity with evidence from the available literature.

Since the Human Development Report (UNDP, 1990) there has been a general shift in focus from ‘economic growth’ as an indicator of development, towards the broader concept of ‘human development’. Human development is defined as the process of widening people’s choices in a way which enables them to enjoy long, healthy and creative lives (UNDP, 1990). This very broad concept includes attention to income, education, health care, employment, human rights, nutrition, gender equality, democracy etc. Yet, economic growth, poverty and inequality remain essential components of human development and their economic measures are strongly correlated with the Human Development Index (HDI), developed by the United Nations (UN) (UNDP, 1996; Ranis et al., 2000; Anand and Sen, 2000). Therefore in this paper we mainly emphasize the impact of FDI on economic growth, poverty alleviation and

\(^1\) The United Nations define FDI as “investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy in an enterprise resident in an economy other than that of the foreign direct investor” (UNCTAD, 2002). FDI implies a form of international inter-firm co-operation that involves significant equity stake and effective management decision power in, or ownership control of, foreign enterprises (De Mello, 1999).
income inequality and shortly expand on some non-economic components of human development such as democracy, labor standards, and environmental standards.

After this introduction, we continue with an overview of FDI trends and flows, and a discussion on the importance of FDI for developing countries. In a third section, we assess the theoretical arguments and empirical evidence of the direct impact of FDI on economic growth through capital accumulation and technological advances. The fourth section deals with the indirect effects of FDI on growth. In this section, economic theory and empirics on the spillover of technology and know-how from foreign-owned firms to the host economy are studied. In section five, the heterogeneous effects of FDI on economic development are discussed and the sources of this heterogeneity studied in detail. Empirical findings on the impact of FDI on growth are very heterogeneous. The sources of this heterogeneity are studied more in detail in section five. The next section deals with the poverty-reducing and inequality impact of FDI. In section seven, we shortly discuss the effect of FDI on human rights, education and environmental standards. Finally, in section eight, we turn to the quality of the growth that is stimulated by FDI. We look at how FDI affects some non-economic components of human development. The last section concludes.
2. FDI in developing countries

2.1. Trends in FDI flows

During the past decades, foreign direct investment (FDI) has increased exponentially: the yearly global flows of FDI increased from 55 billion US $ in 1980 to 1 306 billion US $ in 2006 (figure 1 and table 1). FDI inflows increased continuously during the 1980s and 90s – with the sharpest growth in late 1990s – to reach a peak in 2000. Between 2001 and 2003 the developed economies experienced a sharp decline in FDI flows, associated with a general global economic recession\(^2\). Developing countries were affected only to a small extent. FDI flows started to recover in 2004 and were back at their 2000-level in 2006 (UNCTAD, 2007).

Figure 1. Yearly FDI inflows (US $ billion) per region\(^3\), 1970-2006

![Graph showing yearly FDI inflows per region from 1970 to 2006.](image)

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics)

High-income countries receive the lion’s share of global FDI flows (more than two thirds in 2006). The sharp increase of FDI flows in the late 1990s can be mainly attributed to cross-border investments in developed countries (figure 1). However, developing countries’

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\(^2\) The sudden drop in FDI flows in 2001 is related to depressed stock market sentiments and business cycles, both of which led to a massive decline in M&A investments especially in the developed countries (UNCTAD, 2002). The relatively mild drop in developing countries is presumably due to the fact that a large fraction of FDI in developing countries is Greenfield investment (UNCTAD, 2001).

\(^3\) The developing economies are classified by region. Asia and Oceania include the Middle East, but not CIS, Australia, New Zealand, Japan and Israel. The developed world contains Europe (except for South-East Europe), North-America, Australia, New Zealand, Japan and Israel. (UNCTAD, www.unctad.org/fdistatistics)
share in global FDI inflows has more than doubled: from less then 14% in the 1980s to 30% in more recent years (table 1). The amount of FDI inflows into developing countries increased with almost 50% during the period 2000-2006 - from 255 billion US $ in 2000 to 378 billion US $ in 2006 (table 1) – while developed countries’ FDI inflows stagnated during that period. Also, since 1990 FDI is starting to emerge in the former state-controlled countries of Eastern Europe and the former Soviet Union (figure 1).

Table 1. Global and developing countries’ FDI inflows, 1980 – 2006

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<tbody>
<tr>
<td>Developed Countries</td>
<td>86.1</td>
<td>75.5</td>
<td>82.2</td>
<td>64.8</td>
<td>81.2</td>
<td>64.0</td>
<td>65.7</td>
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<tr>
<td>Developing Countries</td>
<td>13.9</td>
<td>24.5</td>
<td>17.8</td>
<td>33.8</td>
<td>18.1</td>
<td>31.7</td>
<td>29.0</td>
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<tr>
<td>Transition Countries</td>
<td>0.04</td>
<td>0.03</td>
<td>0.04</td>
<td>1.4</td>
<td>0.64</td>
<td>4.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Asia &amp; Oceania</td>
<td>1.4</td>
<td>9.5</td>
<td>11.6</td>
<td>23.6</td>
<td>10.5</td>
<td>20.4</td>
<td>19.9</td>
</tr>
<tr>
<td>Lat.Am. &amp; Caribbean Africa</td>
<td>11.7</td>
<td>10.7</td>
<td>4.8</td>
<td>8.6</td>
<td>6.9</td>
<td>7.9</td>
<td>6.4</td>
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<tr>
<td>Africa</td>
<td>0.7</td>
<td>4.2</td>
<td>1.4</td>
<td>1.7</td>
<td>0.7</td>
<td>3.3</td>
<td>2.7</td>
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<tbody>
<tr>
<td>World FDI inflows</td>
<td>55.3</td>
<td>58.0</td>
<td>201.5</td>
<td>342.6</td>
<td>1 411.4</td>
<td>564.1</td>
<td>1 305.9</td>
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<tr>
<td>Developed Countries</td>
<td>47.6</td>
<td>43.7</td>
<td>165.6</td>
<td>222.0</td>
<td>1 146.2</td>
<td>361.2</td>
<td>857.5</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>7.7</td>
<td>14.2</td>
<td>35.9</td>
<td>116.0</td>
<td>256.1</td>
<td>178.7</td>
<td>379.1</td>
</tr>
</tbody>
</table>

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics)

FDI flows are not evenly distributed among the developing regions. First, Asia and the Pacific have become quite successful in attracting FDI in the past decades and now receive two thirds of total developing countries’ FDI inflows, while in the early 1980s Latin America was the developing region receiving most FDI (table 1). Second, Africa receives the smallest share of global FDI flows – around 3% in recent years. Nevertheless, Africa’s share in global FDI has doubled since the early 1990s. Third, since the 1980s almost half of developing countries’ FDI inflows are concentrated in only three countries: China, Brazil and Mexico (UNCTAD, 2007).
2.2. Trends in FDI stocks

Increasing FDI inflows contributed to a large and continuous increase in the total stock of FDI worldwide, reaching 11 999 billion $ in 2006 (table 2). The distribution of the global stocks of FDI between the developed and developing economies did not change drastically and the developed world still gets about three quarters of the total FDI stocks. Nevertheless, in absolute terms the stocks of FDI increased enormously everywhere: over the past three decades all regions experienced at least a 10-fold increase of the stock of inward FDI.

Table 2. Global and developing countries’ FDI stocks, 1980 – 2006

<table>
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<tbody>
<tr>
<td>Share in global FDI stocks (%)</td>
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<td></td>
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<tr>
<td>Developed Countries</td>
<td>74.5</td>
<td>72.3</td>
<td>79.5</td>
<td>75.1</td>
<td>69.4</td>
<td>73.7</td>
<td>70.5</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>25.5</td>
<td>27.7</td>
<td>20.5</td>
<td>24.4</td>
<td>29.4</td>
<td>24.2</td>
<td>26.3</td>
</tr>
<tr>
<td>Transition Countries</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.46</td>
<td>1.23</td>
<td>2.11</td>
<td>3.24</td>
</tr>
<tr>
<td>Asia &amp; Oceania</td>
<td>11.9</td>
<td>14.8</td>
<td>11.3</td>
<td>15.1</td>
<td>18.5</td>
<td>14.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Lat.Am. &amp; Caribbean</td>
<td>6.36</td>
<td>7.68</td>
<td>5.88</td>
<td>6.21</td>
<td>8.28</td>
<td>7.58</td>
<td>7.57</td>
</tr>
<tr>
<td>Africa</td>
<td>7.23</td>
<td>5.19</td>
<td>3.35</td>
<td>3.14</td>
<td>2.64</td>
<td>2.48</td>
<td>2.63</td>
</tr>
<tr>
<td>Total FDI stocks (US $ billion)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>World FDI stocks</td>
<td>551.2</td>
<td>804.2</td>
<td>1 779.2</td>
<td>2 761.3</td>
<td>5 810.2</td>
<td>8 185.4</td>
<td>11 998.8</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>410.9</td>
<td>581.6</td>
<td>1 414.4</td>
<td>2 073.3</td>
<td>4 031.3</td>
<td>6 034.7</td>
<td>8 453.9</td>
</tr>
<tr>
<td>Developing countries</td>
<td>140.4</td>
<td>222.6</td>
<td>364.7</td>
<td>675.2</td>
<td>1 707.6</td>
<td>1 978.1</td>
<td>3 155.9</td>
</tr>
</tbody>
</table>

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics)

Within the developing world the distribution of foreign investment between the regions changed over the past decades. Africa’s share declined from more than 7% in 1980 to less than 3% in 2006, while Asia and the transition countries increased their share in FDI.
stocks. Also the share of Latin America and the Caribbean slightly increased (UNCTAD, 2007).

2.3. The importance of FDI for developing countries

Although only a quarter of the global inward FDI stock is situated in developing countries, FDI is of increasing importance for these countries. One indication of the increasing importance of FDI is the rising share of FDI in GDP (figure 2). While in the 1980s FDI accounted only for less than 10% of GDP, the share of FDI in GDP reaches now more than 20% in the developed world, 25% in Asia, and 30% or more in Africa and Latin America. In only 15 years time, transition countries started from zero FDI and reached the same level as the other regions.

Figure 2. Inward FDI stock as a percentage of GDP across regions, 1980-2006

Also with respect to other sources of capital, FDI rapidly gained importance. Critics argue that FDI still accounts for only 13% of overall capital formation in developing countries in 1998-2000, and that domestic savings remain more important than FDI (Nunnenkamp, 2004). However, the share of FDI in total capital formation is increasing very rapidly, and even more in low-income countries than in developed countries (figure 3).

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics)

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Apart from FDI, also portfolio investment, official bank loans and official development assistance (ODA) add to international capital flows. Until the early 1990s ODA was the most important source of external capital for developing countries, but since 1994 FDI took over (table 3). In 2006 FDI accounted for 50% of total developing countries’ capital inflows while the contribution of ODA was less than 10%. Also portfolio investment and official bank loans have increased in the past couple of years but FDI has remained the largest component of international capital flows into developing countries (UNCTAD 2007).

Table 3. Inward FDI flows and Official Development Assistance to developing countries (US $ billion), 1970-2006

<table>
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</thead>
<tbody>
<tr>
<td>FDI</td>
<td>3.9</td>
<td>9.7</td>
<td>7.7</td>
<td>14.2</td>
<td>35.9</td>
<td>116.0</td>
<td>256.1</td>
<td>178.7</td>
<td>379.1</td>
</tr>
<tr>
<td>ODA</td>
<td>5.4</td>
<td>9.2</td>
<td>17.0</td>
<td>21.2</td>
<td>38.5</td>
<td>40.5</td>
<td>36.1</td>
<td>49.7</td>
<td>77.0</td>
</tr>
</tbody>
</table>


2.4. Differentiation of FDI flows

We can differentiate between different types of FDI, either (1) according to the specific objective of TNCs to invest in developing countries, (2) according to the entry mode
of the FDI company, or (3) according to the sector of investment. As will become apparent in the next sections, this heterogeneity in the motives for cross-border investment, entry modes of FDI (Greenfield investment or M&A), and sectoral composition of FDI gives rise to differential impacts on growth and development. Therefore we discuss these differentiations in FDI flows in more detail.

**Differentiation along the motives for FDI**


- **Natural-resource seeking FDI** is the investment in exploitation of raw materials, which are mainly exported without being transformed. This corresponds thus mainly to investment in extractive industries as mining, quarrying and petroleum, thus in the primary sector. Natural-resource seeking FDI is believed to be more volatile than other investments, given the combination of capital-intensive projects and the sensitivity to the fluctuating world price of oil and minerals (UNCTAD, 2005).

- **Market-seeking FDI** is mainly situated in the manufacturing sector and services sector (telecommunication and electricity) in developing countries. It became an important alternative for exporting goods in the 1960s and 1970s, when many developing countries introduced import substitution policies. Besides trade barriers, also high transportation costs or country-specific consumer preferences or market structures can be a reason for market-seeking investment.

- **Efficiency-seeking FDI** occurs when part of the value chain is located abroad in order to improve the profitability. Traditionally these investments take advantage of lower labor costs in developing countries by allocating the labor-intensive parts of the production processes there. Efficiency-seeking investment is situated in the manufacturing and service sector.

- **Strategic-asset-seeking FDI** usually takes place at a more advanced stage of globalization and concerns investment in research-and-development capabilities, mainly in the more advanced developing countries (e.g. software development in India).
Differentiation along the entry modes of FDI

When a firm wants to invest in a foreign country, there are two possible entry modes: Greenfield investment or M&A (Mergers and Acquisitions). Greenfield FDI refers to the establishment of new production facilities such as offices, buildings, plants, factories and the movement of intangible capital (mainly services) to a foreign country. Greenfield FDI thus directly adds to production capacity in the host country and, other things remaining the same, contributes to capital formation and employment generation in the host country. Cross-border M&As involve the partial or full takeover or the merging of capital and assets of an existing enterprise in the host country by transnational companies from the home country. M&A represent a change in ownership that does not necessarily involve any immediate additions to investment or employment in the country (UNCTAD, 2006).

Greenfield investment is more important in developing countries than in industrialized economies (table 4). But the surge of FDI flows to developing economies in the 1990s was accompanied by a marked change in its composition. M&A investments grew much more rapidly than Greenfield investments and since the mid-1990s M&As have accounted for a third of FDI flows to developing countries, on average (UNCTAD, 2006). Latin America and transition countries are above the average, while Asia and Africa tend to have a significantly lower share of its inflows in M&As.

Table 4. FDI flows, Greenfield investment and M&As, as a percentage of GDP, (weighted average), 1987-2001

<table>
<thead>
<tr>
<th>Year</th>
<th>Industrial countries</th>
<th>Developing countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of GDP</td>
<td>Total FDI</td>
</tr>
<tr>
<td>1987-89</td>
<td>0.99</td>
<td>0.23</td>
</tr>
<tr>
<td>1990-94</td>
<td>0.76</td>
<td>0.26</td>
</tr>
<tr>
<td>1995-99</td>
<td>1.74</td>
<td>0.26</td>
</tr>
<tr>
<td>2000-01</td>
<td>3.67</td>
<td>0.46</td>
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</tbody>
</table>

Source: Caldeón et al. (2004), based on UNCTAD database

Sectoral composition of FDI

Over the past 25 years, FDI has increased significantly in absolute terms in all three major sectors: primary sector, manufacturing and services. With an increase from 40% in the
1990s to about 60% of global FDI inflow in 2006, the services sector became the most important sector for foreign investment (UNCTAD, 2007). In the developing world the services sector reaches even about 70% of total M&As (figure 4). Investments in the primary sector experienced a decline in the 1990s, but re-emerged in developing and transition countries due to a significant rise in FDI inflow in extractive industries as mining, quarrying and petroleum (UNCTAD, 2005).

**Figure 4. Sectoral distribution of cross-border M&A’s in the world and in developing and transition countries (1987-2006)**

<table>
<thead>
<tr>
<th>World</th>
<th>Developing and transition countries</th>
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</thead>
<tbody>
<tr>
<td>Primary</td>
<td>Secondary</td>
</tr>
</tbody>
</table>

Source: UNCTAD, 2007

The sectoral distribution is characterized by a large geographical variation. Especially the share of primary sector-investment is extremely variable. In Africa, 55 percent of investment is located in the primary sector, reaching up to 80% in some years. This is due to the fact that TNCs are still largely attracted by the abundance of natural resources rather than the market or host-country investment climate. This also explains the uneven distribution of FDI in Africa: all top 10 recipients of FDI in 2003 have large mineral and petroleum reserves (UNCTAD, 2005). The increase in FDI in the services sector was especially high in the Latin American and Caribbean region, while Asia exhibits a large and stable share of FDI in the manufacturing sector (UNCTAD, 2007).
3. The direct impact of FDI on economic growth

The main idea underlying the FDI liberalization policies of many developing countries and the FDI promotion efforts of international donors such as the World Bank and the IMF is the notion that FDI inflows foster economic growth. As FDI is a composite bundle of capital stocks, know-how, and technology, its impact on economic growth is expected to be manifold (De Mello, 1997; Dunning, 1992). In the ways through which FDI can affect economic growth we can distinguish direct and indirect effects. In this section we review the economic arguments and empirical evidence on the direct contribution of FDI to economic growth while the next section deals with the indirect or spillover effects.

3.1. Capital accumulation, technology advances and long-term growth

FDI can contribute to economic growth by expanding the capital stock, just like all other types of capital inflow. Following the traditional neo-classical approach to growth, this capital accumulation can affect growth only in the short run (Solow, 1956 and 1957). Long run growth is only possible through a permanent increase in the level of technology and is taken to be exogenous in neo-classical growth models. Yet, more recent growth models consider technology to be endogenous and see a role for capital in the creation of technological advances (Romer, 1990). Capital allows for investment in the development of new ideas and skills, and since knowledge is – to some extent at least – a public good, it raises the level of technology not only within the firm, but in the entire economy. These externalities account for the permanent advance of the level of technology, which is needed to promote growth in the long run. Thus, according to the new growth theories, capital – including FDI – can permanently affect output growth through increased investment in technology and know-how, increasing the overall level of knowledge and technology in the economy.

FDI in particular is believed to be more important for growth than other sources of capital. Besides a general provision of capital – that can be invested in the adoption and imitation of more advanced technologies and knowledge – FDI in itself often embodies higher levels of technology and know-how. FDI is described as a whole package of resources: physical capital, modern technology and production techniques, managerial and marketing knowledge, entrepreneurial abilities and business practices (Todaro, 1985; de Mello, 1997). Therefore FDI would contribute directly – and more strongly than domestic investment – to
accelerated levels of growth in an economy because of the more advanced levels of technology, managerial capacity and know-how, resulting in higher levels of efficiency and productivity.

However, others have argued that the assumption of foreign firms being more efficient than domestic firms is not necessarily true (Krugman, 1998, Hausmann and Fernandez-Aria, 2000). Especially when FDI takes the form of M&As the inflow of capital might not always be accompanied with improved technologies, managerial capacity and entrepreneurial ability. Foreign investment can take place because foreigners have a superior cash position and can take advantage of liquidity constrained domestic investors’ fire sales, rather than because of a technological advantage. Nevertheless, the superior position in terms of technology and know-how of FDI companies has been underlying many of the arguments in favor of FDI liberalization policies.

### 3.2. Cross-country evidence on the overall growth impact of FDI

Macroeconomic studies use aggregate FDI flows for a cross-section of countries and mostly suggest a positive link between FDI and growth, however, often dependent on particular conditions (see further section 5). For example, De Gregorio (1992) shows, using panel data of 12 Latin American countries, that the effect of foreign investment on GDP growth is about three times larger than for domestic investment. Also Borensztein, De Gregorio, and Lee (1998); Balasubramanyam et al. (1996); and Xu (2000) find that FDI contributes more to GDP growth than domestic investment. Balasubramanyam (1998) finds similar results and concludes that FDI can – under certain conditions – be a powerful instrument for economic development.

**Identifying causality**

The positive link that is mostly found between FDI inflows and economic growth is very likely to be highly endogenous. Theoretically the causality can run in both directions: FDI can cause growth through various effects, but on the other hand a growing economy is likely to attract more FDI since it provides new market and profit opportunities. It has been argued that several of the empirical studies on FDI and economic growth do not account for this endogeneity and therefore fail to identify causality between FDI and economic growth.
(e.g. Carkovic and Levine, 2002). Also, country-specific effects and convergence effects are often not accounted for (Carkovic and Levine, 2002). More recent studies try to control for these biases using causality tests or simultaneous equation systems, and use panel data to account for country-specific effects.

The study of Kholdy (1995) indicates no causality between FDI and productivity, while Nair-Reichert and Weinhold (2001) find that FDI on average causes growth, although the relationship is highly heterogeneous across countries. Choe (2003) and Zhang (2001) detect a two-way causation between FDI and growth, but the effects are more apparent from growth to FDI. Bende-Nabende et al. (2003) find both negative and positive direct effects of FDI on output for the APEC countries. Their results indicate that growth effects are more likely to be positive in the less developed countries of the sample. Results of Chowdury and Mavrotas (2006) suggest that in the case of Chile GDP growth attracts FDI, while for Thailand and Malaysia there is evidence of causality in both directions. Hansen and Rand (2006) assess the causal relationship between FDI and GDP for 31 developing countries. The results show a bi-directional causality but also indicate that FDI has a lasting impact on the level of GDP, while GDP has only a short-run impact on FDI, suggesting that FDI causes growth, rather than the other way around. Overall, we can say that causality studies find mixed results.

3.3. Micro-economic evidence on the technology advances in FDI firms

Another flow of empirical literature, using micro-economic company data, has tested the hypothesis of FDI companies being technologically more advanced and more productive. Based on panel data from Venezuelan plants, Aitken and Harrison (1999) find indeed that foreign equity participation is positively correlated with plant productivity. Blomström and Sjöholm (1999) find that foreign establishments in Sweden have high levels of labor productivity compared with domestic firms. Yet, the degree of foreign ownership seems not to affect labor productivity. Konings (2001) finds evidence that foreign firms perform better than domestic ones for Poland, but not for Romania and Bulgaria. Djankov and Hoekman (2000) find that Czech enterprises with foreign ownership have higher total factor productivity growth and higher labor productivity.
3.4. The type of growth promoted by FDI

Stability of capital accumulation and sustainable growth

Another argument on the beneficial impact of FDI on economic growth relates to the stability of FDI flows. It has been argued that FDI has a larger impact on growth than other international capital flows – such as portfolio investment and bank loans – because of the limited volatility of FDI. This relates to the fact that FDI can not easily be withdrawn while profits, losses and risks are shared among the foreign and the host entity. FDI is thus attracted by the long term prospects of the country and its policies, and is therefore more stable than other capital investments (Albuquerque, 2000). Other types of external capital are known to be less stable and of shorter term, thereby hindering sustainable growth (Stiglitz, 2000).

Critics argue that the impact of FDI is overstated since profits are largely repatriated instead of reinvested in the developing host country. In 2000-2001 for every dollar of net FDI inflow, about $0.30 left the host country in profit repatriation. Profit repatriation is typically higher in Africa and lower in South Asia and Central and Eastern Europe (Sumner, 2005). Moreover, Nunnenkamp (2004) and Haussman and Fernandez-Aria (2000) argue that the stability of FDI is often overstated since there are other ways than repatriating FDI to flee a country in financial crisis, for example through changes in the capital account. Empirical evidence on the stability of FDI is contradicting. For example, Claessens, Dooley and Warner (1995) argue that FDI is indistinguishable from other capital flows in terms of its volatility and predictability. Sarno and Taylor (1997) on the other hand, find that FDI is more persistent than other components of capital flows.

The current account and balanced growth

FDI is often associated with increased international trade and therefore has an impact on the current account of the host economy. The main argument is that foreign owned companies export more because they have better access to international markets through their link with the home economy. Especially efficiency-seeking and strategic-asset-seeking FDI into the manufacturing sector (and services) would lead to increased exports (Aitken et al., 1997; UNCTAD, 2002). The impact of FDI on the current account is difficult to assess but it is estimated that exports by foreign owned companies are very high in certain developing countries. For example, FDI would account for around half of total exports in China,
Malaysia, Costa Rica and some Eastern European countries, and for a quarter or more in Latin America, Slovenia and Romania (Sumner, 2005). Aitken et al. (1997) find for the Mexican manufacturing sector that multinationals are more likely to export than domestic firms. Through its contribution in exports FDI may positively affect the balance of payments which is important for countries with a large current account deficit as in many African and Southeast Asian countries – and bring about more balanced growth.

On the other hand, FDI in extractive industries is said to cause adverse macroeconomic effects, particularly through appreciating exchange rates, which can damage other sectors such as manufacturing. FDI in extractive industries had a negative effect on the balance of payments in some African economies because of profit remittances surging above new FDI inflows (Nunnenkamp, 2004; UNCTAD, 2005). In Botswana, for example, mineral exports by TNCs have enabled the country to run current account surpluses and to accumulate substantial foreign exchange reserves. In Chile, on the other hand, the recent surge in commodity prices has led to a surge in the share of FDI through reinvested earnings, but also to an increase in profit repatriation, which negatively affects the balance of payments (UNCTAD, 2007).

3.5. Some conclusions

Theoretical arguments assign a key role for FDI in economic growth. While these theoretical arguments are quite straightforward and widely accepted, the empirical evidence is much more ambiguous, or as De Mello (1997) puts it: "whether FDI can be deemed to be a catalyst for output growth, capital accumulation, and technological progress, seems to be a less controversial hypothesis in theory than in practice". The empirical macro-economic literature shows a clear link between FDI and GDP growth but the direction of causality is not always clear (Carkovic and Levine, 2002; Nunnenkamp, 2004). Also when the heterogeneity of the host economies is recognized in empirical studies, the link between FDI inflows and growth becomes ambiguous (Nunnenkamp and Spatz, 2004). Therefore, research turned towards the mechanisms responsible for the predicted growth-effect – including indirect and spillover effects – and the factors conditioning the growth impact of FDI. These issues are discussed in the following sections.
4. Indirect effects of FDI on economic growth

As explained in the previous section, FDI affects economic growth in a different way than domestic investment because FDI entails – besides the accumulation of physical capital – a bundle of potentially growth-enhancing attributes including technology, managerial know-how, entrepreneurial ability, and access to global distribution networks and international markets (Dunning, 1992). These attributes may not only foster productivity and growth from within the entered multinational corporations (MNCs) – as discussed above – but may additionally spill over to other companies in the host economy and further benefit economic growth in these countries through indirect or spillover effects. In this section we discuss the different types of such potential spillover effects and the channels through which they occur, and review the available empirical evidence on their importance.

4.1. Typology of FDI spillover effects

Productivity and market access spillovers

Blomström and Kokko (1998) identify two types of spillover effects from FDI to the host country: productivity spillovers and market access spillovers. *Productivity spillovers* take place when the entry of MNCs in the host country leads to productivity or efficiency benefits in the local firms. *Market access spillovers* take place when the entry of multinational firms improves the access to export markets for local firms.

Vertical and horizontal spillovers

MNCs are among the most technologically advanced firms and account for a substantial part of the world’s investment in research and development (Caves, 1974, Borensztein et al., 1998). When starting up a foreign affiliate, MNCs are not likely to give the source of their competitive advantage away for free. They will thus try to limit *horizontal spillovers* (intra-industry) of productivity and market access advances to competing domestic firms that operate in the same market. Yet, technology and knowledge are characterized by imperfect markets with important externalities, so spillover of technology or trained labor to domestic competitors can never be completely prevented.
In contrast, *vertical spillovers* (inter-industry) through forward and backward linkages with domestic companies are desirable for the MNC and it is thought that these spillovers to suppliers and buyers can play a very important role. While MNCs tend to prevent the transfer of technologies to home country competitors, they are likely to voluntarily increase the efficiency of domestic suppliers or customers through vertical input-output linkages. MNCs provide incentives to local firms by imposing high standards and help them to increase productivity and quality (Gow and Swinnen, 1998; Görg and Greenaway, 2004).

### 4.2. Spillover channels

Productivity and market-access spillovers are generally difficult to distinguish in practice as they take place through similar spillover channels. Based on Blomström and Kokko (1998) and Görg and Greenaway (2003) we identify five channels through which spillover effects from FDI companies to domestic firms can occur: imitation, formation of human capital, competition, crowding-in and export effects.

**Imitation.**

Imitation is simply the copying of products, technologies and production processes by a local firm, often referred to as reverse-engineering (Wang and Blomström, 1992). Such reverse-engineering can result in horizontal productivity spillovers and growth advances for the economy. For the imitation of advanced technologies, a certain level of technical skills in the imitating domestic firm may be required, while managerial and organizational innovations might be easier to imitate.

**Formation of human capital.**

FDI can contribute to the formation of human capital – resulting in spillover effects to the rest of the economy – both by demanding and by supplying skills (Slaughter, 2002). A large share of FDI to developing countries is attracted by the relatively low wages in these countries. Nevertheless multinational firms are generally more skill-intensive than local firms and tend to have a higher demand for relatively skilled labor (Te Velde, 2002; Te Velde and Morrissey, 2001). When MNCs enters the market they may increase the *demand for skilled workers* if they do not substitute the local demand for employment. An increased demand for
skills is expected to raise the wage and employment opportunities of skilled workers, creating incentives for overall investment in human capital.

On the other hand, multinational firms might affect the supply side of skills by investing in training of their workers and the development of human capital. The type of training can range from informal on-the-job training to official training, seminars or even investment in formal education. Foreign owned firms may organize informal and official training for their own employees. In addition, MNCs can involve in general education by the voluntary provision of grants and assistance to community development, including formal education, in the name of Corporate Social Responsibility. MNCs might (engage in the) start up of R&D or education centers to develop local skills for their high-tech industries or business education (Te Velde, 2002).

Te Velde (2002) emphasizes that the importance of training is related to the motive for foreign investment. Natural resource investment is usually capital intensive and requires the training of only a small number of high skilled workers. Efficiency seeking manufacturing MNCs usually search for low-skilled low-wage labor and need for training is limited. Especially strategic-asset seeking FDI organizes training in very specific skills to relatively well-educated workforce. Finally, market-seeking FDI might involve technological or marketing training of local people, but only to a limited extent.

Spillovers resulting from the training of employees and general investment in education can be horizontal or vertical. Horizontal spillovers can take place through externalities or through labor turnover. When MNCs support industry or regional skill development institutions, it is expected that skills will spill over to domestic firms that receive training at these institutions supported by MNCs. Another important form of horizontal spillovers consists of employees that move to domestic firms after having been employed and trained at an MNC. Spin-offs occur when such employees decide to use the acquired skills to start up a new company (Miyamoto, 2003). These types of horizontal spillover effects may only become apparent after some time (Fosfuri et al., 2001; Blomström and Kokko, 2002). Vertical spillover effects through human capital formation may be more immediate; for example, when training is provided by a MNC to their local suppliers. Such training and learning by downstream suppliers and upstream buyers may result in immediate productivity gains for these companies.
Competition and crowding out.

The entry of a foreign firm or affiliate generally increases competition. Even if local firms are unable to imitate the technology of multinational firms, increased competition forces them to increase efficiency of existing technologies, to adopt or develop new, more efficient technologies, or to invest in human capital – generally benefiting productivity and growth (Wang and Blomström, 1992; Glass and Saggi, 2002; Gow and Swinnen, 2001). Young (1993) states that the innovations embodied in FDI may create rents accruing to older technologies, making domestic investment more profitable.

However, increased competition can also result in the crowding out of local firms and reduce domestic investment. For example, multinationals can have lower marginal costs due to some firm-specific advantages, which allow them to attract demand away from the domestic firms. This effect can offset the positive productivity spillover effects of increased competition (Aitken and Harrison, 1999).

Crowding in domestic investment

Some argue that rather than creating competition that crowds out local firms, FDI stimulates domestic investment and leads to crowding-in of domestic firms. The technologies, know-how and new market opportunities brought in by MNCs might attract domestic investors into the sectors where MNCs entered (Borensztein et al., 1998). Yet, in poor countries, crowding-in might be hampered since governments lack the ability to direct FDI projects such that they do not displace local firms (Agosin and Mayer, 2000). Additionally, policies offering preferential treatment and incentives to attract FDI – such as export free zones and other tax incentives – may introduce a distortion that negatively affects domestic investment and limits growth spillover effects through crowding-in (Borensztein et al., 1998).

Export effects

A last source of spillovers arises from the export activity of foreign firms (Aitken et al., 1997). MNCs link local suppliers and sub-contractors to international markets, provide information on foreign markets conditions and consumer preferences and offer distribution networks, transport infrastructure and export management skills (Blomström and Kokko, 1998).
4.3. Empirical evidence on spillover effects

*Horizontal productivity spillovers*

A large empirical literature tried to find evidence of the above identified spillover effects. Görg and Greenaway (2004) give an overview of 40 studies on horizontal productivity spillovers in manufacturing industries in developing, developed and transition economies. Twenty-two of these studies find positive and statistically significant spillovers from foreign to domestic firms (e.g. Caves, 1974; Blomström and Persson, 1983), but most of them use cross-sectional data, often aggregated at the sectoral level. If foreign investment is attracted towards the more productive sectors, then cross-sectional data will show a positive relationship between FDI and productivity. But this does not allow us to conclude that the higher productivity is due to spillovers from FDI. When we look only at those studies using a panel of firm-level data, 7 of them find positive evidence of spillovers, mostly in developed economies (e.g. Castellani and Zanfei (2002) for Italy, Görg and Strobl (2003) for Ireland; Damijan et al. (2003) for Romania; Driffield (2001) for the UK). Other empirical research finds evidence of a decrease in productivity (e.g. Haddad and Harrison (1993) for Morocco, Aitken and Harrison (1999) for Venezuela, Castellani and Zanfei (2002) for Spain, Konings (2001) for Bulgaria and Romania, Djankov and Hoekman (2000) for Czech Republic). But most studies find no significant effect of multinationals on domestic productivity. Thus, while the empirical literature provides fairly robust evidence on the beneficial effects of the presence of foreign companies in developed countries, the large amount of studies on productivity spillovers in transition and developing economies finds no or even negative spillovers on domestic firms (UNCTAD, 2005).

Several explanations have been put forward to explain the negative results that have been found. Aitken and Harrison (1999) and Konings (2001) suggest that foreign firms may reduce the productivity of domestic firms through a negative competition effect. However, while some firms experience negative competition effects, other firms may succeed in improving their efficiency as a response to the increased competition. The overall impact from competition is thus the result of aggregating both positive and negative effects. Another explanation for not finding positive spillover effects may be the fact that it takes time for
domestic firms to learn, which is not captured by short-run analyses. Or multinational firms might try to prevent their technology to spill over to competitors. Other literature has argued that the assumption that foreign firms are more efficient than domestic firms is not necessarily true, especially when FDI takes the form of M&As (Krugman, 1998, Hausmann and Fernandez-Aria, 2000).

**Vertical spillover effects in manufacturing**


Some studies have specifically compared the importance of horizontal and vertical spillover effects. Kugler (2006) found very clear evidence of positive inter-industry spillovers in ten manufacturing industries in Colombia, while only in one of these industries also evidence of intra-industry spillovers was found. Other empirical studies came to similar conclusions. Javorcik (2004) and Blalock and Gertler (2008) find no evidence of horizontal spillovers but do indicate productivity spillovers through backward linkages. Driffield et al. (2002) find positive spillovers through forward linkages for UK manufacturing industries, but no significant spillovers through backward linkages. Damijan et al. (2003) find for ten transition countries that the impact of FDI on firm’s productivity is larger by a factor 10 through vertical than through horizontal spillovers.

**Vertical spillover effects in the agri-food sector**

Also the existence of vertical spillover effects from foreign investment in the agri-food sectors of developing and transition countries has recently received a lot of attention in the empirical literature. FDI in the agri-food sector of developing countries is thought to be particularly important because of the existence of vertical links with local farmers. Such vertical links in the agri-food sector entail the potential of creating poverty-reducing effects in
rural areas of developing countries – where poverty rates are often very high (this is further discussed in section 6).

There are many studies providing evidence of positive productivity spillover effects of FDI in the agri-food sector to domestic farmers in low-income countries. For example, Dries and Swinnen (2004) find that dairy farmers in Poland have significantly higher levels of output and productivity when they are vertically linked to modern FDI milk companies. Gulati et al. (2005) and Birthal et al. (2005) find similar effects for the broiler, dairy and fruit and vegetable sectors in Thailand, the Philippines and India. These studies indicate that these productivity spillover effects are created because technology and know-how are transferred directly from FDI companies to supplying farms through contract-farming schemes including extensive farm assistance programs. In addition, such programs include the provision of inputs and credit to farmers.

Education, training and human capital formation

There is quite some evidence that MNCs provide more training than their local counterparts. Iyanda and Bello (1979) found indeed that training expenses per employee were five times higher in MNCs compared to domestic firms and were aimed relatively more at white-collar workers. Gershenberg (1987) finds similar results for Kenya. More recent empirical studies show that higher foreign equity shares are indeed an important determinant of employee training in Mexico, Indonesia and Malaysia (Tan and Batra, 1996; Tan and Lopez-Acevedo, 2003; Miyamoto and Todo, 2003). However, evidence on how TNCs affect general education is lacking.

In Mexico training of domestic suppliers occurred in the auto industry (UNCTAD, 2000; Lim, 2001) and also in Costa Rica training-spillovers through vertical linkages were observed (Larrain et al., 2001). Examples of horizontal human capital spillovers through labor turnover and spin-offs are found in Costa Rica and Malaysia by Rodrigues-Clare (2001) and Lim (2001). Todo and Miyamoto (2002) provide evidence that a larger absorptive capacity of the domestic firms enhances training transfers.

Gershenberg (1987) finds some evidence of the movement of managers from foreign to domestic firms for Kenya. And evidence on training spillovers through workers’ mobility in the manufacturing sector in Ghana is found by Görg and Strobl (2005). They find that firms
which are run by owners who worked for multinationals in the same industry immediately prior to opening up their own firm have higher productivity levels than other firms.

**Export spillover effects**

Empirical evidence of export spillover effects is limited but Aitken et al. (1997) find evidence of positive export spillover effects in the Venezuelan manufacturing sector. The probability that a domestic firm engages in export activities is positively correlated with the proximity to multinational firms, while for domestic exporting firms no export spillovers are found. Greenaway, Sousa and Wakelin (2004) find that MNCs’ exports have a positive effect on domestic firms’ probability of being exporters but do not find evidence that such spillovers impact on the export ratio of domestic firms.

**Crowding-in or out?**

The empirical evidence on the impact of FDI on domestic investment is quite mixed. Some find that FDI stimulates domestic investment while others find that FDI creates competition leading to crowding-out effects. Most of the evidence comes from manufacturing. For example, Agosin and Mayer (2000) find mixed results, with crowding-out effects dominating in most developing countries except for certain Asian countries. On the contrary, Bosworth and Collins (1999) and Borenstein et al. (1998) report FDI in developing countries to result in crowding-in of domestic investment. Both these studies find a one-to-one relationship between FDI and domestic investment – meaning that a $1 increase in FDI raises domestic investment by $1 – which is significantly larger than for other forms of external capital flow.

A particularly important case of FDI and crowding-in effects is in the agri-food sectors of developing countries (again because of the link to poverty reduction, see further section 6). Some argue that FDI in food processing, exporting and distribution in developing countries leads to the exclusion of small and resource-poor farmers from profitable opportunities (e.g. Dolan and Humphrey, 2000; Farina and Reardon, 2000, Reardon et al., 1999). This crowding-out or exclusion of local farmers would happen because FDI companies replace these small-scale farmers or because they prefer to establish vertical links with large commercial farms, creating increased competition for the smallholder sector. However, others have presented
evidence that this is not the case or that there are important benefits through employment creation; e.g. Maertens and Swinnen (2008) for Senegal, Minten et al., (2007) for Madagascar and Jaffee and Henson (2005) for Kenya.

4.4. Some conclusions

Economic theory predicts FDI to create growth multiplier effects through vertical and horizontal spillover effects; including the transfer of technology and know-how to domestic firms, the formation of human capital, etc. The empirical evidence casts doubt on the intensity of horizontal (or intra-industry) spillover effects but provides overall convincing evidence on the existence and the importance of vertical (or inter-industry) spillover effects, in the manufacturing as well as the agricultural sector.
5. Causes of heterogeneous growth effects

The empirical literature on the implications of FDI for economic growth in the host economies – whether through direct or indirect effects – is generally inconclusive on the existence and strength of growth multiplier effects. Empirically observed effects seem to be heterogeneous across countries and regions while certain theoretical arguments might hold only for certain types of FDI inflows. The recent literature has recognized that certain factors may condition the growth effect of FDI in developing countries. In this section, we briefly assess these factors – theoretically as well as empirically.

5.1. Factors conditioning the growth effect of FDI

The technological gap

Since the imitation of technology is typically cheaper than the invention of new ideas, less developed countries will grow relatively faster and catch-up with the developed nations (Romer, 1993; Barro and Sala-i-martin, 1997). As a result, the impact of FDI on growth is expected to be larger for a larger technological gap between leaders and followers. Since developing countries generally lag behind in terms of technological development, FDI inflows might be a particularly important way of spurring economic growth in the least advanced nations.

In contrast, other theories state that the rate of this ‘catch-up process’ depends on the level of human capital in the developing country (Nelson and Phelps, 1966), and thus on the ability to absorb the positive spillovers from FDI. A large technological gap between home and host country can thus hamper the knowledge and technology spillovers. As a result, the impact of FDI on growth is expected to depend inversely on the technological gap between the investing and the receiving country.

Macro-economic conditions

From a theoretical point of view it is widely agreed upon that technological spillovers are the most important form through which FDI can create growth. Yet, the magnitude of this effect can depend on country specific characteristics. Apart from the technological gap and the difference in the level of income or human capital between home and host country, other...
macro-economic conditions may determine the growth effect of FDI inflows. For example, Bhagwati (1978) hypothesized that the beneficial effect of FDI in terms of enhancing economic growth is stronger in countries that pursue an outwardly oriented trade policy than in countries adopting an inwardly oriented policy.

**The type of FDI**

Nunnenkamp (2004) emphasizes that the effect of FDI on growth is industry-specific. He argues that efficiency-seeking FDI is superior to market-seeking FDI in stimulating higher growth in host countries with favorable conditions. And while FDI in the manufacturing sector is expected to have a growth-effect, natural-resource seeking FDI into the primary sector is expected to have only a limited impact on growth. Kojima (1973) predicts that FDI is more growth-enhancing when directed to more labor-intensive and less technology-intensive industries, thus when investment is made in industries where the technological gap between foreign and domestic firms is limited. In contrast, Dutt (1997) argues that investment in less advanced industries deteriorates the terms of trade and that the impact of FDI is thus larger when directed towards the more technologically advanced industries.

UNCTAD (2001, 2005) argues that in the primary sector, the scope for linkages between foreign affiliates and local suppliers is often limited and mining firms often operate as ‘enclaves’. The manufacturing sector has a broad variation of linkage intensive activities, while in the tertiary sector the scope for subcontracting and creating strong linkages is also limited.

Also different entry modes of FDI may cause differential impacts. Most developing countries prefer Greenfield investment because it immediately and directly adds to the existing industrial capacity in host countries, whereas M&As transfers ownership of local assets from domestic to foreign interests. Concerning the creation of jobs, it is similarly argued that M&As are less likely to create new jobs. However, in the longer term M&As may receive supplementary capital and employment may rise (UNCTAD, 1998). On the other hand, Greenfield investment is more likely to operate as an enclave with close links to other units in their international corporate network, but limited interaction with the host economy, thereby limiting spillovers to domestic firms. In contrast, M&As tends to have a more
developed network of local and regional suppliers, since it is simply a take-over of a domestically developed company (Szanyi, 2001).

5.2. Empirical evidence

**Heterogeneous effects in cross-country studies**

Many studies do not find a univocal positive growth-effect related to FDI inflows but find instead that certain conditions need to be fulfilled in order to benefit from FDI (table 5). Borensztein, De Gregorio, and Lee (1998) and Xu (2000) find that FDI contributes more to growth than domestic investment when the country has a highly educated workforce that can exploit the FDI spillovers. Balasubramanyam (1998) finds similar results and concludes that FDI can be a strong instrument of development, but only if a certain threshold of human capital, well developed infrastructure facilities and a stable economic climate is attained in the host country. Balasubramanyam et al. (1996) show that the impact of FDI on growth is larger for countries that pursued a policy of export promotion rather than import substitution. In the context of export promoting trade regimes they find that FDI is more growth-enhancing than domestic investment. Alfaro et al. (2004) find that FDI promotes economic growth where financial markets are sufficiently developed. Blomström, Lipsey and Zejan (1994) find no evidence of the importance of education but they argue that FDI has a positive growth-effect only when the country is rich enough. Li and Liu (2005) support the theory of a positive growth effect of FDI and indicate that a sufficient level of human capital is needed and that the technology gap may not be too large, for experiencing a positive growth impact from FDI.

These findings indicate that a threshold of development, or absorptive capacity, needs to be attained before a country is able to take advantage from the spillover effects of FDI. However, there is also contrasting empirical evidence suggesting that the technological gap is not important or confirming the hypothesis that lower developed countries can benefit more from FDI because of a larger ‘catch-up effect’. For example, Carkovic and Levine (2002) and Hansen and Rand (2006) do not find evidence of the suggested thresholds when accounting for heterogeneity and country-specific effects. Bende-Nabende et al. (2003) find a positive impact of FDI on output for the less-advanced Philippines and Thailand, but a negative effect in the more economically developed Japan and Taiwan. Their results generally indicate that spillover effects are more likely to be positive in the less developed countries.
Table 5. Overview of the empirical studies explaining the heterogeneous effect of FDI across countries

<table>
<thead>
<tr>
<th>Study</th>
<th>Sign of the direction in which the conditional factor influences the growth-impact of FDI</th>
<th>Controlling for causality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borensztein et al. (1998)</td>
<td>Education +</td>
<td>No</td>
</tr>
<tr>
<td>Xu (2000)</td>
<td>Education +</td>
<td>No</td>
</tr>
<tr>
<td>Blomström et al. (1994)</td>
<td>Education No effect</td>
<td>No</td>
</tr>
<tr>
<td>Balasubramanyam (1998)</td>
<td>Level of human capital level +</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Well-developed infrastructure +</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stable economic climate +</td>
<td></td>
</tr>
<tr>
<td>Balasubramanyam et al. (1996)</td>
<td>Export oriented trade regime +</td>
<td>No</td>
</tr>
<tr>
<td>Alfaro et al. (2000)</td>
<td>Developed financial markets +</td>
<td>No</td>
</tr>
<tr>
<td>Bende-Nabende et al. (2003)</td>
<td>Technology gap +</td>
<td>Simultaneous equation</td>
</tr>
<tr>
<td>Li and Liu (2005)</td>
<td>Level of human capital level +</td>
<td>Simultaneous equation</td>
</tr>
<tr>
<td></td>
<td>Technology gap -</td>
<td></td>
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<tr>
<td>Carkovic and Levine (2002)</td>
<td>Education No effect</td>
<td>Simultaneous equation</td>
</tr>
<tr>
<td></td>
<td>GDP/capita No effect</td>
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<td></td>
<td>Export oriented trade regime No effect</td>
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<td></td>
<td>Developed Financial markets No effect</td>
<td></td>
</tr>
<tr>
<td>Hansen and Rand (2006)</td>
<td>Education No effect</td>
<td>Granger causality</td>
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<td></td>
<td>GDP/capita No effect</td>
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<td></td>
<td>Export oriented trade regime No effect</td>
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<td></td>
<td>Developed Financial markets No effect</td>
<td></td>
</tr>
</tbody>
</table>

**Heterogeneous effects across sectors and entry mode**

In contrast to the theoretical models, Dutt (1997) finds no difference in the growth impact of FDI between high-technology and low-technology industries. However, he does not account for different sectors. Nunnenkamp and Spatz (2004) find in a cross-country study that the link between FDI and growth is larger for the services than for the manufacturing sectors. Within the manufacturing sector efficiency-seeking FDI turns out to be more growth-enhancing than market-seeking FDI. Also Chakraborty and Nunnenkamp (2006) find for
India that the growth-effect of FDI varies across sectors. Positive growth effects are found in the manufacturing sector, no causal relationship is found in the primary sector and for FDI in the services sector, the direction seems to run from growth to FDI and not opposite. Alfaro (2003) finds that the overall growth-effect of FDI is ambiguous, while the impact is negative for the primary sector, positive for the manufacturing sector and ambiguous for investment in the services sector.


**Heterogeneous effects across firms**

A lot of attention has been paid to the fact that not all firms benefit equally from the spillovers and that their positive effect is lost by aggregating the data of all firms. Recent theoretical work by Helpman et al. (2004) and others has highlighted the importance of firm heterogeneity in understanding FDI. Differences in absorptive capacity, regional dimensions, and vertical linkages may explain why certain local firms do and others do not benefit from FDI. It is hypothesized that whether a firm can benefit depends on the technology gap with the foreign firm and its capacity for absorbing new knowledge and technology\(^4\).

Some empirical studies have addressed this need for *absorptive capacity* at firm level. Kokko et al. (1996) find evidence of productivity spillovers to those domestic firms with moderate technology gaps, but not for firms that use considerably lower levels of technology. Barrios and Strobl (2002) and Girma (2005) find similar results. Also *regional dimensions* might play a role, since domestic firms that are located close to MNCs may be more likely to experience spillovers from human capital acquisition and imitation. Several empirical studies (Aitken and Harrison, 1999; Sjöholm, 1999; Haddad and Aitken, 1993) did not find clear evidence for this hypothesis. Yet, the findings of Aitken et al. (1997) for Mexico, suggest that

\(^4\) A similar argument on the need for adsorptive capacity was made at country level, stating that countries which are technologically behind or have a low level of human capital are not able to experience growth resulting from FDI.
proximity to MNCs, in general, provides domestic plants with better access to foreign markets.

5.3. Some conclusions

Empirical evidence suggests that the potential growth-impact of FDI is not self-evident, but conditional on a number of factors such as the technological advance and absorptive level of the home economy, the macroeconomic stability, location of the firm, etc. This explains why the impact of FDI on growth is largely heterogeneous across host countries, sectors and firms.
6. The impact of FDI on poverty reduction and inequality

In the previous sections we showed that there are sound theoretical arguments and convincing empirical evidence to believe that FDI can under certain conditions further economic growth in developing countries. However, the question remains whether FDI is really contributing to development that enlarges and equalizes the opportunities for people in the developing world. Do FDI flows to developing countries reduce poverty? Does FDI reduce inequality between countries? And does FDI reduce existing inequalities or does it deteriorate the income distribution of the host country?

6.1. Can FDI contribute to poverty reduction?

While some argue that FDI is one of the most effective tools in the fight against poverty (Klein et al., 2001; UN, 2002), others say that the role of FDI in poverty reduction is highly overestimated (Nunnenkamp, 2004). Except for ‘socially responsible’ investment in poverty-reducing projects out of charity or image-building, there is no direct link between FDI and poverty. Yet, there are four possible indirect channels through which FDI affects poverty: 1/ the economic growth channel, 2/ the employment channel, 3/ the wage channel, and 4/ the tax revenue channel (te Velde and Morrissey, 2002; Klein et al., 2001). We discuss these mechanisms for poverty-reduction in turn.

Economic growth and poverty reduction

First, to the extent that FDI is enhancing economic growth and increasing national income, it thereby offers a potential to benefit the poor. The relation between economic growth and poverty has been the subject to an extensive economic literature and the link between growth and poverty – especially in the long run – has become a well-established fact. Dollar and Kraay (2002) show, using country panel data for four decades, that growth is inequality neutral and leads to proportional income raises for the poorest income quintile. In a critique on this study, Ashley (2008) agrees that in periods of economic growth also the poor benefit from this growth, although not equiproportionally. Also Ravallion and Chen (1997) show that poor people benefit from rising average income, using micro-econometric analysis and household survey data from more than 40 countries. Ravallion and Datt (2002) find that economic growth is positively related to poverty reduction across Indian states, using survey
data over about four decades. In a recent paper Kraay (2006) investigates the cross-country variation in changes in the headcount measure of poverty for a large set of developing countries for the 1980s and 1990s. He finds that average income growth is the main source of poverty reduction, counting for 70% of the variation in poverty in the short run and for 97% in the long run. These results5 all underscore the importance of economic growth for poverty reduction.

Yet, in the short run, there might be a trade-off between growth and poverty reduction. Economic growth might indeed not directly benefit the poor. Especially in countries characterized by high income and asset inequality, economic growth might not be related to poverty reduction in the short run (Pasha and Palanivel, 2004; Ravallion, 2004). Income growth will generally not immediately and directly benefit those who are trapped in poverty because of initial asset inequality coupled with market failures and because of spatial externalities.

Whether or not the economic growth promoted by FDI benefits poverty reduction, remains an empirical questions. Yet, very few empirical studies have tackled the question on the link between FDI, growth and poverty. Cross-country research on FDI and changes in income poverty and inequality is very limited. None of the available studies have provided strong evidence of a positive link between FDI, growth and poverty reduction (e.g. Agénor, 2004; Milanovic, 2002; and Soto, 2000).

Employment creation

A second channel through which FDI could indirectly affect poverty in the host countries is through the creation of employment. Additional investments are likely to create employment. Increased employment benefits workers by adding to their per capita income, which can help some people to move out of poverty. In addition, FDI might cause employment multiplier effects. Through vertical linkages with local suppliers or crowding-in effects, additional employment might be created in the sector as a whole or in downstream and upstream sectors.

5 Many other influential empirical studies have investigated the link between economic growth and poverty reduction in developing countries, resulting in similar conclusions (e.g. Easterly, 1999; Ravallion, 2001; Besley and Burgess, 2003; Adams, 2004; Bruno et al., 1995; Timmer, 1997).
Not all types of FDI are likely to create substantial additional employment in the host economies. When FDI represents additional investment (Greenfield investment), it generally provides employment, while M&As are less likely to create additional jobs (UNCTAD, 2005). Also, especially in the case of efficiency-seeking investment, FDI might be associated with increased employment since such investment is often motivated by the low wages and abundant labor force in low-income countries. On the other hand, in mining sectors local job creation is expected to be very limited.

However, since foreign firms are usually more capital intensive than domestic firms and have more advanced technologies than local firms, it is likely that they increase employment only for the relatively better skilled workers while excluding the poorest, uneducated people from employment benefits. Moreover, when foreign firms compete with local firms resulting in crowding-out, employment in domestic companies and in the sector as a whole may be reduced. Hence, the magnitude and sign of the employment effect will depend on the industry of investment, mode of entry of FDI and country characteristics.

Estimating the employment effect of FDI is difficult because of a lack of data and because of the difficulty to disentangle simultaneous effects such as indirect effects and employment displacement (UNCTAD, 1999). Hence, the empirical evidence on employment effects is very poor (UNCTAD, 2005). It is estimated that 50 million people globally are directly employed by foreign affiliates of multinationals, accounting for only 1 to 2 percent of the global workforce (UNCTAD, 1999). However, when taking into account also indirect effects, the overall figures may be much higher. For example, Nike directly employs 20,000 people but indirectly employs 500,000 through subcontracting and homeworking (Watkins and Fowler, 2002). UNCTAD (1994) estimates that in developing countries for each worker employed by the local affiliate of a foreign-base firm, at least 1 or 2 jobs are created indirectly. Spiezia (2004) finds no significant effect of FDI on employment in low-income countries but finds a positive impact for middle-income countries.

**Pressure on wages**

Third, FDI can alleviate poverty if foreign firms pay higher wages than local firms and by investing more in training, thereby benefiting employers and creating incentives that can benefit the entire economy. The reason why multinationals would pay higher wages is related...
to the multinational firms’ ownership, implying that they use higher levels of technology than domestic firms. By entering the market, also domestic firms will be forced to pay higher wages to attract workers. However, wage spillovers can also be negative, if productivity spillovers are negative, for example due to negative competition effects (Görg and Greenaway, 2004).

Empirical evidence exists of multinational firms paying higher wages, even after controlling for size and other firm and sectoral characteristics (Haddad and Harrison, 1993; Girma et al., 2001; Lipsey and Sjoholm, 2001). Aitken et al. (1996) find negative wage spillovers for Venezuela and Mexico and positive effects in the United States. Lipsey and Sjoholm (2001) find for Indonesia that higher foreign presence in a sector leads to higher wages in domestic firms in that sector.

**Increasing tax revenues**

A fourth way FDI can affect poverty is by contributing to the governments’ tax revenue, which can be used for redistributive measures benefiting the poor or spent on the development of social safety nets for the poorest (Klein et al., 2001). In some developing countries, the importance of FDI in overall tax revenue is quite important, creating opportunities for poverty-reducing policy measures. For example, 50% of Botswana’s government budget results from the mining industry (UNCTAD, 2007). However, in countries where governments, in order to attract FDI, extend tax exemptions to MNCs - as is the case in many developing countries - the potential for poverty-reducing effects through tax revenues and redistributive measures are limited.

The impact of FDI on growth, employment, wages and government revenue is very heterogeneous between countries, sectors, firms and individuals, and thus so is the impact of FDI on poverty. When FDI is only directed to more developed countries, creates spillovers to the more advanced firms and hires and trains the more skilled workers, the poverty-alleviating effects of FDI may be limited. Even when on average the income of the poor increases with growth, it does not mean that the poor are benefiting as much as the rich and inequality might increase (Klein et al., 2001).

**6.2. Is FDI inequality reducing?**
Critics argue that FDI enhances inequality between countries and worsens the income distribution within countries. Also gender inequality might be affected by FDI inflows.

**Across country inequality**

Does FDI increase inequality between countries? First of all, the largest share of FDI is still directed to the developed world and within the developing world the FDI stock is concentrated in a small number of large and relatively advanced countries (UNCTAD, 2007). In per-capita-terms both FDI inflows and FDI stocks are significantly lower in countries with a high incidence of absolute poverty (Nunnenkamp, 2004). Hence, a first condition for FDI to contribute more to equal growth is that developing countries – and especially poverty-struck countries – need to do better in attracting FDI (Nunnenkamp, 2004).

Moreover, several studies have found that the impact of FDI on growth depends on certain conditions: the type of FDI, industry and host country characteristics (see the evidence presented in section 5). More developed countries with a good investment climate, a high skilled labor force and developed infrastructure are more likely to absorb spillover effects and to translate FDI into growth than poor countries. On the other hand, the larger the technology gap, the more and faster technology and knowledge can spill over, which would predict that FDI contributes to convergence among countries. Evidence is limited, but Choi (2004) finds that the level and growth of per capita income converges as bilateral FDI flows increase between two countries. More empirical literature exists on the impact of trade and openness on inequality between countries. Both positive (Ben-David, 1996, 2001; Ben-David and Kimhi, 2000) and negative (Slaughter, 1997, 2001) impacts on convergence were found.

**Within country inequality**

How does FDI affect inequality within a country? FDI can help to reduce income inequality when its benefits favor the poor and those in the lowest income categories. Inequality is likely to be reduced when FDI employs abundant unskilled labor (Deardorff and Stern, 1994), such as in agriculture, or when the positive impact on economic growth is spread throughout the whole economy (Tsai, 1995).

On the other hand, FDI can also deteriorate income distribution by raising wages of the corresponding sector, relative to wages in traditional sectors (Tsai, 1995). Except for agri-business investment, FDI is mainly directed to the urban areas, leaving the rural poor out. Moreover, it is questionable that FDI benefits the poorest segment of the population working...
in the informal sector (Nunnenkamp, 2004). Thus, since FDI has been mainly directed towards the skill-intensive sectors it is unlikely to have reduced wage inequality (Te Velde and Morrissey, 2002). Also the provision of training is likely to be biased towards the better educated workforce, which is not the poorest group in society (Miyamoto, 2003). Wood (1995) hypothesized that, following openness, inequality in very poor countries might increase by helping those with basic education (rather than high-skilled), and leaving even further behind those without education. Thus only when at least basic education becomes the norm, inequality would fall.

The empirical literature shows mixed results on the impact of FDI on inequality. Tsai (1995) argues unambiguously that FDI inflows are very likely to worsen the income distribution in developing countries. Only in East and South East Asia FDI tends to reduce inequality. Mah (2002) and Zhang and Zhang (2003) find that FDI inflows deteriorate the income distribution in respectively Korea and China. Choi (2006) finds for a sample of 119 countries that FDI is positively associated with income inequality. In contrast, Lindert and Williamson (2001) and Milanovic (2002) find no significant relationship between FDI and income inequality. And Tsai (1995) argues that the significant relationship found between FDI and inequality might be due to geographical differences in inequality, rather than to a causal effect of foreign investment.

Some studies focus specifically on wage inequality between skilled and unskilled workers. Feenstra and Hanson (1997) found that foreign capital inflows in Mexico are associated with rising wage inequality. Taylor and Driffield (2004) found that inward flows of FDI contributed to wage inequality for the UK manufacturing sectors. 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 (2001) find evidence that the wage premium paid by foreign firms is higher for skilled workers.

**Gender inequality**

FDI might also have an impact on gender equity in developing countries. When FDI is directed to sectors with a high share of women in employment, it might improve opportunities for women. On the other hand, when FDI is benefiting the better-educated workers, women are typically disadvantaged in developing countries. Braunstein (2006) argues that women
tend to be concentrated in sectors (electronics, textiles) where there is particular pressure to keep labor costs down because they are said to be more productive than men in these kind of jobs (Braunstein, 2006). In that case effects through employment creation may improve gender equity, while negative wage pressure from FDI may have the opposite effect.

Empirical studies find that the increase in foreign investment, especially in labor-intensive, export-oriented industries, has been accompanied by a rising share of women in employment (Braunstein 2002; Joekes and Weston 1994). Studies of ILO (1995) and Heyzer (1995) on East-Asia find that women indeed do benefit from sustained growth through increased employment in the formal sector which offers them an independent wage. Ghosh (2001) finds that the share of women in India’s industrial sector is declining and attributes this to the rising importance of subcontracting to women working at home. She also finds that women are moving to the less valued parts of the production chain. There is also evidence that women have only temporary jobs, lose their jobs to more qualified men as industries upgrade, or they get pushed down the production chain into subcontracted work in order to lower the costs (Braunstein, 2006).

Relative to locally-owned firms, the wages paid to women are high (Davin, 2001, Kabeer, 2000). However, there is evidence that gender wage inequality increases with foreign investment (Seguino, 2000b; Berik et al., 2003). This might be related to the wage gap between skilled and unskilled labor, since men in developing countries tend to be higher educated.

6.3. Some conclusions

Hence, although the evidence is mixed, it seems likely that FDI increases inequality within a country. The impact of FDI on gender equity in the host country seems to be heterogeneous. Yet, even though inequality might increase in the short run, this does not exclude that FDI nevertheless contributes to poverty reduction when directed towards sectors with low-skilled labor in rural areas (te Velde and Morrissey, 2002).
7. FDI and human development

After a detailed discussion on the economic components of human development and the impact of FDI on growth, poverty and inequality, we now turn to a more general and broader discussion of the link between FDI and human development and shortly expand on non-economic issues such as human rights, labor standards and environmental concerns.

7.1 Race to the bottom or climb to the top?

With respect to the impact of FDI on human development there exist two basic hypotheses. The first critical perspective states that FDI leads to a ‘race to the bottom’: foreign companies would tend to locate production in countries or regions with low wages, low taxes and weak social and environmental regulations. In order not to lose investment and jobs, developing countries are thus forced to lower their standards and corrupted governments are supported as long as they favor the company’s objectives. In this perspective FDI would cause a ‘race to the bottom’ (Hymer, 1979; Collingsworth et al., 1994).

A second perspective argues that foreign firms are attracted to places where net profitability is highest, not where costs are lowest (Klein et al., 2000). For example, property rights of MNCs might be better insulated in democratic, rather than authoritarian regimes (Jensen, 2003; Li and Resnick, 2003). In addition, low labor costs may be an advantage, but there is also need for a certain quality of labor: the disadvantage of higher wages can be offset by the higher productivity of labor (Kucera, 2002). Moreover, foreign investors have a strong interest in preserving their brand reputation (Oman, 2000). Especially when firms are selling to developed country markets, they are held responsible for the behavior of not only their own company, but also for that of local subcontractors (Spar, 1999). Spar (1999) also emphasizes the importance of the global information network in driving the ‘social corporate responsibility’ idea of multinational companies. Foreign investors bring not only capital and technological know-how, but also a specific corporate culture of setting higher social and environmental standards for its operations, compared to local competitors. Therefore, over time FDI would be a force for raising standards in developing countries (Oman, 2000) and create a ‘climb to the top’.

7.2 Empirical evidence
The holistic definition of human development and the lack of a simple measure make it difficult to assess the overall human development impact of FDI. Regardless of these difficulties, attempts have been made to assess the relationship between foreign investment and non-economic components of human development.

Before taking a look at some specific indicators of human development, it should be mentioned that income poverty and income inequality should not be underestimated as indicators of human development: even though income may not be the final purpose of human development itself, it does create opportunities for development and enlarges choices (Anand and Sen, 2000). The 1996 Human Development Report (UNDP, 1996, p. 113) emphasizes the positive two-way relationship between human and economic development. Economic growth provides the resources to permit sustained improvement in human development, and on the other hand improvements in human capital contribute to economic development (Ramis et al., 2000). Hence, our findings on indicators of economic development – economic growth, poverty and income inequality – in the previous sections, do indicate that FDI may enhance human development, when the conditions are right.

Yet, with the concept of human development, we need to go beyond economic indicators. Evidence of the impact of FDI on non-economic indicators of development is limited. To our knowledge, the only study that tries to assess the impact of FDI on the concept of human development as a whole is Sharma and Gani (2004). They use the Human Development Index (which consists of three components: life expectancy, adult literacy and education enrolment, and per capita income), but find no significant impact of FDI. We already discussed some evidence on how FDI affects gender inequality and how FDI spillovers can contribute to the education of workforce. In addition, we consider some studies that focus on indicators of democracy and human rights, labor standards and the environment.

**Democracy and human rights**

In general, empirical testing under widely varying experimental specifications supports the ‘race to the top’ hypothesis concerning the link between FDI on the one hand and democracy and human rights on the other hand. Despite some anecdotal evidence that foreign
companies support repressive governments\(^6\), empirical studies find a positive relation between FDI inflows and democracy and respect for human rights (Oneal, 1994; Meyer, 1996; Richards et al., 2001; Harms and Ursprung, 2002; Busse, 2004; Blanton and Blanton; 2006). This finding, however, must be considered with caution. Specification of indicators of FDI flows and different human rights and democracy datasets (measuring narrower or broader concepts of human rights) lead to considerably different results. Moreover, the studies merely present statistical correlations rather than a causal impact: it is unclear whether higher human rights standards attract greater FDI inflows, or if increased FDI causes – directly or indirectly – an increase in the level of societal freedom.

Human rights impact assessment (HRIA) initiatives by NGOs, corporations of international organizations have further evaluated the impact of FDI on political and civil rights. However, because these case-studies represent a very small sample of the total sum of FDI and because of the lack a widely accepted methodology, it is difficult to compare and generalize their conclusions.

**Labor standards**

Some studies have specifically focused on whether foreign firms make use of the lack of social and labor standards in developing countries. There have been some high-profile cases showing that MNCs do at times subcontract to enterprises that employ children. Yet, especially with respect to child labor reputational damage can be very large (Neumayer and De Soysa, 2004). Empirical studies find no effect of globalization on primary school nonattendance and generally indicate that more FDI is associated with lower child labor incidence (Neumayer and De Soysa, 2004; Cigno et al., 2002). Mosley and Uno (2007) find that FDI is positively and significantly related to workers’ rights, while Kucera (2002) finds no significant correlation.

**Environmental concerns**

\(^6\) ITT played a role in overthrowing the popularly elected Allende government in Chile and that international extractive industries supported authoritarian regimes in Nigeria (Shell), Myanmar (Unocal) and Columbia (British Petroleum) (Spar, 1999).
Concerning the impact of FDI on the environment, similar arguments can be made. While multinationals have been accused of investing in developing countries to take advantage of low environmental regulations (the pollution haven hypothesis), they are more recently seen as leaders in the introduction of good environmental practices and ‘green technologies’ into developing countries (Chudnovsky and Lopez, 1999). The existing literature has found little evidence to support the pollution haven hypothesis (Dean, 1992; Zarsky, 1999). Eskeland and Harrison (2003) find some evidence that foreign investors are concentrated in sectors with high levels of air pollution, although evidence is weak at best. They find that foreign plants are significantly more energy efficient and use cleaner types of energy. Also the findings of Letchumanan and Kodama (2000) and Wheeler (2001) contradict the pollution haven hypothesis. Javorcik and Wei (2001) find some support for the hypothesis which is however relatively weak and not robust.

7.4. Some conclusions

Also when looking at non-economic indicators human development no simple predictions on the impact of FDI can be made. The hypothesis that FDI leads to a ‘race to the bottom’ finds little support in general, although it might be true for certain sectors or countries. Through global contacts FDI might spread human rights and social and environmental standards, but also here it should be kept in mind that a firm’s objective is to make profits and that firms cannot take over the role of local governments.
8. Conclusion

In this paper we tried to give an overview of the economic arguments and the empirical evidence of the impact of FDI on human development. While economic theory univocally predicts a positive impact of FDI on economic growth, empirical evidence is mixed. There seems to be no doubt that there is a strong correlation between FDI and growth, but the direction of causality is less clear. Micro-economic studies reveal that foreign firms are more productive than domestic firms and that there are important vertical spillovers to suppliers and buyers. Horizontal spillovers, on the other hand, seem to be less important and can even be negative. Yet, these firm-level results indicate that FDI can have a causal positive impact on productivity growth, even though the effect may be largely dependent on conditional factors such as the absorptive capacity of the host economy, macroeconomic stability, the technology gap between the home and the host economy and the type of FDI. Also the impact of FDI on other components of human development – most importantly poverty and inequality – can differ along these factors. When foreign investment is directed towards the more advanced developing countries or when foreign companies employ the relatively richer and skilled part of the population, it might increase inequality in the short run. Yet, when FDI is directed towards the least developed countries and associated with the creation of employment for unskilled workers, FDI may contribute importantly to poverty-reduction. Especially FDI in the agricultural sector can contribute to poverty alleviation by enhancing the development in rural areas, where the incidence of poverty is the largest. Attracting FDI is thus not a simple solution for enhancing economic growth. But when policy makers succeed in setting the conditions right, FDI can provide an important contribution to human development.
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