FDI flows to Sub-Saharan Africa

'Differences in Determinants and Economic Impact'

Including an analysis of eight Dutch investment projects in Ghana and Ethiopia

Master Thesis

October 2008

Bernadet Neutel-van Engelenhoven

International Economic & Business

Faculty of Economics & Business

University of Groningen

Pictures on the cover, from left to right:

Investment project in organic coffee (Ethiopia) of the Dutch company Trabocca, African boy eating a hotdog, Mr. Simons of Trabocca with his business partners, African woman growing roses, factory of Holland Car in Mojo, Ethiopia.

FDI flows to Sub-Saharan Africa

'Differences in Determinants and Economic Impact'

Master Thesis

October 2008

International Economic & Business

Faculty of Economics & Business

University of Groningen

Bernadet Neutel-van Engelenhoven

bernadet.neutel@gmail.com

Student number: 1667254

06 235 345 85

Supervisors:

Prof. dr. L. Karsten (l.karsten@rug.nl)

Dr. B.J.W. Pennink (b.j.w.pennink@rug.nl)

Preface

In February this year, I knocked on the office door of my supervisor Professor Karsten. This meeting was the start of a nine months journey, in which ideas of economic development in Africa were translated into an in-depth study of a multinational, but eventually turned into an analysis of investment projects of eight small and medium sized Dutch companies in Ghana and Ethiopia.

This journey, in which Foreign Direct Investment (FDI) was my destination, was inspiring from the beginning to the end. Just like a visit to a country can overwhelm you with its diversity in cities, compounds and people, I discovered the many different faces of FDI. One can compare FDI with a chameleon, it changes its colour in each different activity, sector and strategy. It is, furthermore, a chameleon who is growing up. Where initially the focus was purely on the firms own activities, FDI is now more and more concerned with its environment and social issues and has entered the arena of Corporate Social Responsibility. I started this thesis with a general idea about FDI and its impact on the economy, but now I know, I will never have this general idea again, as there simply exists no general concept of FDI.

Nine months after the first meeting, the final version of my thesis is born. Nine months, meaning I exceeded the period for the master thesis with two months, but also meaning I had two additional months of experiences and interesting insights. In these nine months, I learned much about FDI in sub-Saharan Africa, from studying the literature, but also from the analyses of and interviews and meetings about Dutch FDI in Africa.

During the whole period, I was supported and motivated by my two supervisors, Professor Karsten and Dr. Pennink, whom I would like to thank for their comments, suggestions and feedback. I also thank Dr. Rao Sahib for her comments on the methodology. Furthermore, I would like to thank Miriam Valstar from the PSOM (EVD) for all her help in finding the companies that cooperated in the research for this thesis. I also like to thank the eight respondents from these companies: mr. Koekkoek, ms. Van Vliet, mr. Den Heijer, mr. De Bruin, mr. De Looper, mr. Guns, mr. Linssen and mr. Simons. Finally, I thank my husband Marcel Neutel for his support and feedback.

Bernadet van Engelenhoven
Ermelo (The Netherlands), October, 2008

Abstract

In this thesis, differences between sub-Saharan African countries in the determinants and economic impact of FDI inflows are analysed. This topic is studied with two types of research methods: a statistical analysis on FDI flows to different groups of sub-Saharan African countries and a qualitative research on Dutch investment projects in Ghana and Ethiopia.

Both studies show the heterogeneity in FDI determinants and the economic impact of FDI inflows, meaning that between sub-Saharan African countries there are different factors that determine FDI inflows and that there are differences in the economic impact of these FDI flows. An explanation for these differences between sub-Saharan African countries is found in differences between FDI flows targeted at natural resources and other types of FDI.

The statistical analysis shows that sub-Saharan African countries with large natural resource endowments have natural resources and infrastructure as the main determinants of FDI inflows and show a relatively weak relationship between FDI inflows and economic growth. Whereas, sub-Saharan African countries with a small natural resource endowment, where economic growth and trade openness are the main determinants of FDI inflows and where FDI is targeted at other sectors than natural resources, show a stronger relationship between FDI inflows and economic growth.

Furthermore, the qualitative research on Dutch investment projects in Ghana and Ethiopia more specifically shows that there are different FDI determinants between these countries and between different types of FDI. The analysis also showed that the economic impact of FDI is not only determined by the type of FDI, but also depends on the specific activity and individual strategy of the firm.

Table of Contents

List of figures, tables and boxes

Introduction

Newspapers and journals often comment on the large increase of foreign direct investments flows to sub-Saharan Africa. The continent is also becoming more popular by banks and other financial institutions for the increasing revenues on investments in this upcoming market. The figure[1] below shows the increase of Foreign Direct Investment (FDI) inflows in the region over the last two decades. The light purple bars show the FDI inflows from 1990-1996 and the dark purple bars show the FDI inflows from 2000-2006. The red coloured countries are oil-exporters. The figure shows that almost all countries experienced an increase in FDI inflows during the period 2000-2006. However, the figure also shows that there are large differences between countries in the amount of FDI inflows. In sub-Saharan Africa the oil-exporters and South Africa receive most FDI inflows.
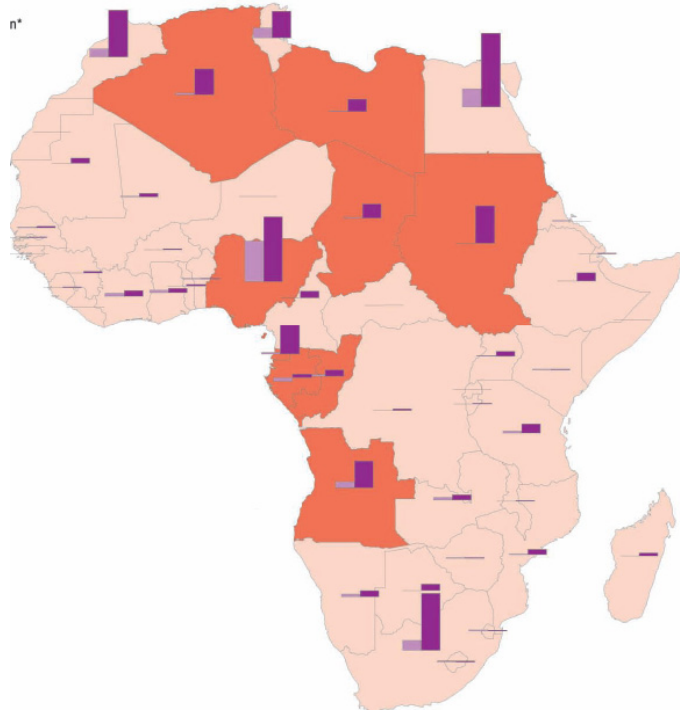
FDI inflows are increasing, but why are the amounts of FDI inflows so different between sub-Saharan African countries? What determines the amount of FDI inflows in a country? Studies show that natural resources are an important factor in determining FDI flows to sub-Saharan Africa. This is in line with the above picture where oil-exporters are the main receivers of FDI inflows. However, many sub-Saharan African countries do not have attractive natural resources, which means this factor can not be an important determinant of FDI inflows in these countries. Often, studies on FDI determinants analyse sub-Saharan African countries as one group and differences between countries are not taken into account. Therefore, in this thesis a distinction is made between resource rich and resource poor countries in order to see if there are differences in FDI determinants between these two types of countries.

---

[1] Source: Afrika Studiecentrum Leiden

Another question that can be asked is whether the increasing FDI flows to sub-Saharan Africa lead to economic growth in the region. Although in general the relationship is found to be positive, studies find mixed results. An explanation for these mixed results can be found in differences in the impact of FDI on economic growth between investments in different sectors. Alfaro (2004) shows that FDI in the manufacturing sector has a positive effect on economic growth, but FDI in the primary sector (which includes natural resources) has a negative impact on economic growth. The investments in resource rich countries in Sub-Saharan Africa are mainly in the primary sector (Afrika Studiecentrum Leiden, 2008), which may result in a negative impact on economic growth. Therefore, a second analysis in this thesis is focused on differences in the relationship between FDI and economic growth in resource rich and resource poor sub-Saharan African countries. In literature, the interaction of FDI with education, finance and trade is often found to be important for the impact of FDI on economic growth. Therefore, this is also studied together with the importance of the amount of FDI inflows for the impact on economic growth.

Overview Thesis

This master's thesis consists of two parts: a statistical analysis on FDI determinants and the FDI-economic growth relationship in sub-Saharan Africa and a qualitative analysis on Dutch investments in Ghana and Ethiopia. In the first part, differences in FDI determinants and the FDI-economic growth relationship between sub-Saharan African countries are examined. A distinction is made between resource rich and resource poor countries. The second part consists of an analysis of investments from eight Dutch firms in Ghana and Ethiopia. Hereby, the determinants and economic impact of two types of FDI are studied: market and asset oriented FDI.

Research Objectives

The key objective of this master's thesis is to give insight in differences in the determinants and economic impact of FDI inflows between sub-Saharan African countries. This key objective is divided in three sub-objectives:

- Examine differences in FDI determinants between resource rich and resource poor sub-Saharan African countries
- Examine differences in the relationship between FDI inflows and economic growth between resource rich and resource poor sub-Saharan African countries
- Analyse the determinants and economic impact of two types of Dutch FDI flows to Ghana and Ethiopia.

Research Questions

In this thesis, three main research questions are addressed. The first two research questions are the focus in the statistical analysis and the third research question is analysed in the research on Dutch investments in Ghana and Ethiopia.

Research question 1

What are the differences in the main factors determining FDI inflows between resource rich and resource poor FDI receiving sub-Saharan African countries?

Research question 2

Do macro conditions influence the relationship between FDI inflows and economic growth in sub-Saharan African countries?

a. Are there differences in the relationship between FDI inflows and economic growth between resource rich and resource poor sub-Saharan African countries?
b. Does the interaction of FDI with education, finance and trade openness influence the relationship between FDI and economic growth in resource rich and resource poor sub-Saharan African countries?
c. Does the amount of FDI inflows influence the relationship between FDI inflows and economic growth in sub-Saharan African countries?

Research question 3

What are the determinants and economic impact of Dutch investments in Ghana and Ethiopia?

a. How many Dutch companies invest in sub-Saharan African countries?
b. Why do companies choose to invest in Ghana/Ethiopia?
c. What is the economic impact of the Dutch investments in Ghana/Ethiopia?
d. What are the difficulties, strengths and future prospective of investing in Ghana/Ethiopia?

In the first chapter of this master thesis, an overview is given of relevant theories. The second chapter starts with an overview of previous empirical studies on the topic, whereby the hypotheses for the statistical analysis are formulated. In this chapter, also the methodology and models are explained. In the third chapter, the results of the statistical analysis are shown and discussed. The fourth chapter focuses on the investments of eight Dutch companies in Ethiopia and Ghana. Finally, the conclusions, limitations and recommendations are given.

1.   Theoretical Framework

The theoretical framework for this thesis is based on theories related to Foreign Direct Investment (FDI), FDI determinants and ways in which FDI can influence economic development. First, FDI is defined and after that the focus is on determinants of FDI. This chapter continues with an overview of differences in the economic impact of FDI between different sectors, types of FDI and business strategies. Finally, the trend of FDI in Africa is addressed.

1.1   Foreign Direct Investment

According to the definition of the Organization for Economic Co-operation and Development (OECD, 1996), FDI is an investment in a foreign company where the foreign investor owns at least ten percent of the ordinary shares, undertaken with the objective of establishing a 'lasting interest' in the country, implying a long-term relationship and significant influence on the management of the firm. FDI flows comprise the financing of new investments, retained earning of subsidiaries, inter-firm loans and cross-border mergers and acquisitions (Navaretti and Venables, 2004).

Companies can have different motivations for investing in foreign countries. Some invest in countries to make use of low wages, others see market opportunities or secure access to large amounts of natural resources (OECD, 2002). Foreign direct investment, in general, is assumed to transfer skills, scarce technologies and financial resources leading to economic development in the host country (Navaretti and Venables, 2004).

In the World Investment Report (UNCTAD, 1998) three types of FDI are distinguished: market oriented, efficiency oriented and resource & asset oriented FDI. In this thesis, a distinction is made between only two categories: market and asset oriented FDI. The category asset oriented FDI incorporates the two types of resource & asset and efficiency oriented FDI. The choice for making a distinction between these two categories is based on the difference in motivations for investments, which can be production- or sales-related. Whereby, market oriented FDI is primarily focused on sales, both resource & asset and efficiency oriented FDI focus on specific assets in the country for production.

1.1.1 Market oriented FDI

From these two main categories of FDI, market oriented FDI is the first type that is explained in this chapter. The primary motive for market oriented FDI is to sell products or services in the market. In other words, market oriented FDI is aimed at expanding into markets to sell outputs of production (Navaretti and Venables, 2004).

Figure 1.1 The World Economic Pyramid

0,1 billion — **Top of the pyramid**
> $20.000*

2 billion — **Middle of the pyramid**
$2.000 - $20.000*

4 billion — **Bottom of the pyramid**
< $2.000*

Population

* Yearly income per consumer in PPP US dollars.
(Source: Prahalad and Hart, 2002)
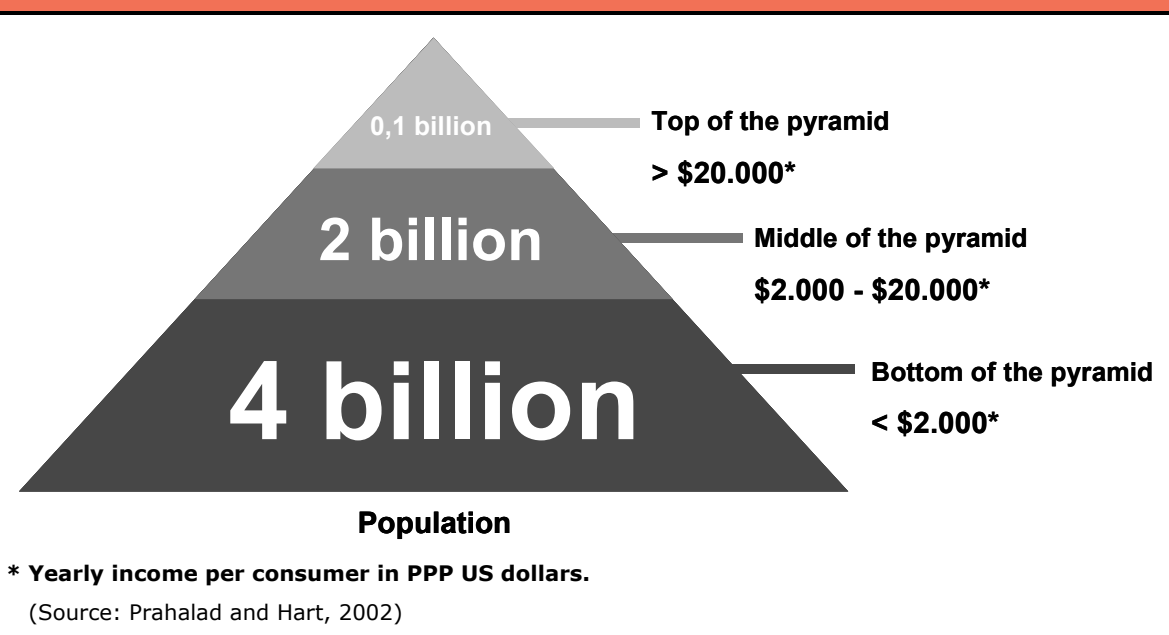
BOX 1 Bottom of the Pyramid Theory

With the Bottom of the Pyramid (BOP) theory, Prahalad encourages firms to sell products in low income markets in order to earn profits and fight poverty at the same time. More than a billion people earn less than a dollar a day. However, this massive tier of the world pyramid is often invisible for the corporate sector. According to Prahalad, The BOP is not a market that allows high margins, but unit sales are extremely high and therefore, it can be a very profitable market. The theory states that poor consumers experience an increase in welfare when firms bring cheaper, higher quality products or goods that increase a healthy lifestyle (Prahalad, 2004). But are the poor really better off? Others, like Karnani (2007a), say that BOP FDI can only make a difference when the poor are also viewed as entrepreneurs in a way that firms establish business linkages with them (Karnani, 2007a/b).

Market oriented FDI can be divided into three levels according to which segment of the world economic pyramid the FDI is targeted. In figure 1.1, the world economic pyramid is shown. FDI in the first level, the top of the pyramid, is traditional market oriented FDI, which is aimed at the segment of consumers with the highest income. Secondly, there is emerging market oriented FDI, targeted at the middle segment of the world economic pyramid. Finally, the third level is Bottom of the Pyramid (BOP)

FDI, which is aimed at the segment of consumers with the lowest income (Prahalad and Hammond, 2002; Prahalad and Hart, 2002).

The third type of market oriented FDI is related to the Bottom of the Pyramid theory by Prahalad, more on this theory is given in Box 1. In this thesis, sub-Saharan African countries are studied. These countries are almost all least developed countries (LDCs) and therefore BOP FDI is mainly the type of market oriented FDI that is seen in these countries. In the qualitative analysis on Dutch investments in Ghana and Ethiopia, this type of FDI is analysed.

1.1.2 Asset oriented FDI

The main motive for the second category, asset oriented FDI, is to gain access to certain location specific assets. These assets can range from natural resources to a specific climate and from a cheap unskilled workforce to technological capabilities in the country. Firms focusing on asset oriented FDI, in general, have a different end market than the host economy. In short, asset oriented FDI is targeted at gaining access to important inputs of production (Pigato, 2001).

A distinction can be made between four types of asset oriented FDI: resource oriented FDI, unskilled manufacturing FDI, advanced manufacturing FDI and strategic asset oriented FDI. In this thesis, the focus is on FDI in sub-Saharan Africa and from these four types, resource oriented and unskilled manufacturing FDI are the most important forms of FDI for this region.

Resource oriented FDI is focused on access to and control over valuable resources. In general, within resource oriented FDI, a distinction can be made between resource extraction and agribusiness FDI (Bartlett and Ghoshall, 2000). Examples of resource extraction FDI are the extraction of minerals like diamonds, gold and bauxite, iron ore and energy sources like oil, gas and uranium. An interesting aspect of resource oriented FDI, and especially resource extraction FDI, is that due to the high value of these resources, companies invest in countries with these resources, even when these countries experience economic instability or military conflict. The production of agricultural products, like rubber and coffee, are examples of agribusiness FDI. Many African countries have plenty of space for agricultural land and possess large deposits of minerals, oil and gas, and still more are discovered (Nepad, 2001).

Besides resource oriented FDI, developing countries are also able to attract unskilled manufacturing FDI. In unskilled manufacturing FDI, parts or all of the production process is outsourced to a foreign country in which the cost of labour is

on such a low level, that the firm benefits even though there are additional costs of setting up a foreign subsidiary. This type of asset oriented FDI is motivated by efficiency, by producing simple products against lower production costs (Pigato, 2001, Bartett and Ghoshal, 2000). Developing countries often have a large number of unskilled workers in combination with a relatively low wage-rate. Therefore, this type of FDI is also present in developing countries.

A high percentage of all FDI in sub-Saharan Africa is resource extraction FDI, as will be shown in section 1.4. In the statistical analysis on FDI determinants and the economic impact of FDI, indirectly, resource extraction FDI is analysed by looking at resource rich and resource poor countries. In the qualitative research on Dutch investments in Ghana and Ethiopia, agribusiness FDI is analysed together with the earlier mentioned BOP FDI. To a limited extent also unskilled manufacturing FDI is analysed, because in some investment projects studied in this thesis, it is combined with agribusiness FDI.

1.2   Determinants of FDI

Investment decisions of firms are first of all determined by the activity and strategy of firms. The motives mentioned in the former section for firms focusing on market oriented or asset oriented FDI already reveal the main determinants of FDI. Where market oriented FDI is focused on a large market and is influenced by transportation costs and strategic advantage, is asset oriented focused on specific assets, like cheap unskilled labour or natural resources (Navaretti and Venables, 2004).

However, there are also more general country determinants for FDI. A first factor for attracting FDI inflows is a stable economic and political situation in the country. A stable environment reduces the risks for companies (OECD, 2002). In this aspect, factors like corruption, crime, coups, inflation and high costs of doing business (due to difficult regulations) have a negative impact on attracting FDI inflows in a country (Asiedu, 2006).

Secondly, FDI policy and favourable taxes are important in attracting FDI inflows. Attractive tax systems and FDI policy encourage FDI inflows in the country, but trade barriers due to high taxes discourage flows of FDI to a country (Naretti and Venables, 2004). A third aspect is the geographical location and infrastructure. When the distance to the end market is too far or the infrastructure, like the roads, harbour and airport, are not optimal, the costs of transport will be too high (Navaretti and

Venables, 2004). Other factors that encourage FDI inflows in a country are skilled labour and developed financial markets (Asiedu, 2006).

In the statistical analysis on FDI determinants and the impact of FDI inflows on economic growth, the importance of different determinants are analysed for different groups of countries. In the analysis on Dutch investments, the specific determinants for Ghana and Ethiopia and for different types of FDI are analyzed.

1.3   Economic impact of FDI

FDI inflows in a country have an impact on the local economy. The economic impact of an investment can be defined as 'any increase or decrease in the productive potential of the economy' (Blowfield, 2004: 4). In this thesis, economic impact is divided in economic growth and economic development. Economic growth entails a 'quantitative change or expansion in a country's economy' (Blowfield, 2004: 4).

Economic development is defined by a 'qualitative change and restructuring in a country's economy in connection with technological and social progress' (Blowfield, 2004: 4). Economic development implies a structural improvement, which needs to be effective and sustainable. It is effective, when it leads to improvements in the fulfilment of human needs through the production and distribution of scarce goods and the provision of income. It is sustainable, when besides the short term improvement, long term economic progress is made, for future generations to be able to meet their needs. In the statistical analysis, I focus on economic growth by determining the relationship between FDI and the GDP growth rate. While in the analysis of the Dutch investments in Ghana and Ethiopia, I also incorporate the concept of economic development.

In this section, differences in the economic impact of FDI between different sectors, types of FDI and business strategies are explained. First, general channels through with FDI has an impact on the host economy are given. Hereby, also an overview is given of the factors that are studied in the impact analysis of Dutch investments in Ghana and Ethiopia. After that, the differences in economic impact between specific sectors and types of FDI are explained. Finally, the differences in economic impact between firms following different business strategies are shown.

1.3.1   General economic impact of FDI
The economic impact of a company is seen in the spillover effects of the company's operations in terms of the number of jobs created, investments in employees, taxes

paid and economic effects on suppliers, distributors, consumers and the local community and economy. These effects can be beneficial or harmful, but studies show that, in general, FDI has a positive effect on the economy in a host country.

The general economic impact of FDI can be divided in three levels: private sector development, human development and government sector development. On the level of private sector development, the economic impact is, first of all, seen in the business linkages with local suppliers and distributors. By establishing business linkages the company generates income for these suppliers and distributors. Furthermore, often trainings are provided which increase the productivity within local firms. In table 1.1 an overview is given of the most important factors found in literature through which FDI has an impact on the private sector. It can be seen that investments by foreign firms increase the financial capital base in a country, but also increase the knowledge, efficiency and productivity within local firms. Furthermore, they stimulate the private sector by creating additional demand.

Table 1.1 Factors through which FDI promotes economic growth

Factor	Impact	Study
Financing capital formation	Increase in capital stock	Brems (1970)
Labour training, skill acquisition, introduction of alternative management and organization practices	Increase in human capital	De Melo (1997), Findlay (1978)
Competition, introduction new technology, high quality demand, delivery on time demand, technical assistance	Increase efficiency and productivity of local firms	Lall (1980)
Demand in complementary sectors	Facilitate expansion of domestic firms	Borensztein, et al. (1995)

The second level in which we study the economic impact of FDI is human development. On this level, the focus is on the impact of FDI on people. The effect of FDI is seen in employment creation, labour conditions, training of employees, improvement of living conditions and the impact of the product or service for consumers.

The government sector development is the third level in which the economic impact of FDI can be studied. The impact on this level is seen in the generation of tax income for governments by firms investing in the country. However, often governments offer financial incentives like tax breaks or tax holidays in order to attract new inflows of FDI which results in a limited impact of investments on the government budget. Furthermore, the impact of foreign investments on a government level can be seen when foreign firms use their power to politically influence the government. Firms might insist on a more effective regulatory

9

framework or cooperate with the host government to achieve common goals like improving the infrastructure, education and health care.

There are also studies that analyse factors that limit the positive impact of FDI on the host economy. In table 1.2, an overview is given. Investments in the form of mergers and acquisitions crowd out local investments. Furthermore, competition and the use of foreign suppliers can harm or limit the impact on the local private sector. Knowledge protection strategies and a large knowledge gap result in limited technological spillovers. Finally, also underdeveloped financial markets limit the impact of the investments on the local economy.

Table 1.2 Factors that limit the positive impact of FDI on economic growth

Factor	Impact	Study
Merger and acquisitions	Crowd out domestic investments	Agosin and Mayer (2000)
Competition	Reduce productivity of national firms	Aitken and Harrison (1991)
Use of foreign suppliers	No additional business for local market	Aitken and Harrison (1991)
Knowledge protection	No technological spillovers	Gorg and Greenaway (2004)
Knowledge gap too large	Domestic firms unable to learn new technology	Gorg and Greenaway (2004)
Underdeveloped financial markets	Limits ability to invest in new technology	Gorg and Greenaway (2004)

For the impact analysis of Dutch investment in Ghana and Ethiopia, I grouped the main positive and negative aspects that form the economic impact of FDI in four channels: direct employment creation, knowledge transfer, private sector linkages and community development.

The first channel of economic impact is *direct employment creation*. Several issues determine the extent of the economic impact of direct employment. First, the number of jobs involved in the investment are important and it is the question whether these are newly created jobs and whether the employees are local or foreign. An interesting factor for the gender equality is whether the employees are male or female. Furthermore, the labour conditions are studied. In this aspect, it is the question whether the wage rate is reasonable and to what extent there are additional benefits for the employees, such as the provision of transport facilities, medical assistance, meals and improvement of living conditions.

The second channel studied in the impact analysis of Dutch investments in Ghana and Ethiopia is *knowledge transfer*. This factor is related to the first, as knowledge transfer mostly occurs within the firm among employees. However, there

are also other possibilities for knowledge transfer. In this thesis, knowledge transfers of firms to employees, but also to other organizations or firms in the society are studied, which can be their suppliers, distributors or other actors.

Private sector linkages form the third channel of economic impact, whereby the total number of private sector linkages that are established in the investment project are studied. The impact of this factor depends on the strategy of the firm. Firms investing in a country can form a large network of private sector linkages with for example suppliers and distributors. However, it is also possible to import all the materials or do it in-house.

The last and fourth channel that is used in this thesis to analyse the economic impact of FDI is *community development*. In this factor, several issues are taken together and a distinction is made between direct and indirect impact. First of all, the direct impact is studied in the contribution to the government budget and also specific community projects are taken into account.. The indirect impact of the investment is analysed by looking at the impact of the product or activity on the community and economy. This is studied by looking at the contribution of the investment project to general economic (sector) development, whereby the extent to which the investment projects brings or attracts new businesses or industries in the country is analysed. For market oriented investments (BOP FDI), on this level, also the benefit of the product or activity for poor consumers is studied.

1.3.2   Differences between sectors

There are differences in the economic impact of FDI between the different sectors in which firms can operate. Generally, a distinction is made between three sectors: the primary, manufacturing and services sector. The primary sector involves all firms focused on natural resources and agri-business. It is a sector that trades products for which, in general, few processing is necessary. The manufacturing sector is related to firms that produce products of several inputs, like clothing, consumer products and food and beverages. The third sector consists of firms that provide services, like communications, internet and consultancy.

There are differences in the economic impact of FDI between these three sectors. For example, in the UNCTAD Trade and Investment Report (2001: 138) it is argued that 'in the primary sector, the scope for linkages between foreign affiliates and local suppliers is often limited… The manufacturing sector has a broad variation of linkage intensive activities… [In] the tertiary sector the scope for dividing production into discrete stages and subcontracting out large parts to domestic firms

is also limited'. This shows that the impact of FDI in the manufacturing sector can be substantial, but that the impact of FDI in the primary and the services sector is limited.

As will be shown in section 1.5, the main flows of FDI to sub-Sahara Africa are in the primary sector. In the statistical analysis, indirectly the differences in the impact of FDI in the primary sector and other types of FDI is studied by looking at the differences between resource rich and resource poor countries.

1.3.3 Differences between types of FDI

The economic impact of FDI is also influenced by the type of FDI. As explained before, in this thesis a distinction is made between market oriented and asset oriented FDI. More specifically, the focus is on BOP FDI, unskilled manufacturing FDI, agribusiness FDI and resource extraction FDI. Resource extraction and agribusiness FDI take place in the primary sector. Whereas, unskilled manufacturing and BOP FDI are found in the manufacturing and services sectors. In this section, the differences in impact of the four types of FDI are explained.

The economic impact of BOP FDI

The specific impact of Bottom of the Pyramid FDI on the local economy can be significant, because for investments oriented at the local market it is important to establish a close relationship with the local people and private sector. This means these type of investments often result in a large network of local linkages. Strategies for investments focused on the local market are often long term and therefore offer opportunities for a lasting interest and impact in the country.

There are, however, several issues in BOP FDI that can either hurt or benefit the local economy depending on the situation and firm. A first aspect is seen in the competition effect. Because of the strong position of the multinational firm, local firms can be hurt, which can result in lower revenues or even closing down of firms. However, additional competition can also increase the productivity of local firms and stimulate sector development. Furthermore, market oriented firms can harm or benefit the local communities by the product they bring. By investing in luxury products, like alcohol and cigarettes, poor consumers are encouraged to spend their limited money on products that offer (often) short term pleasure, but do not improve the long term living situation of consumers. Products like detergent or clothing, which are sold against low costs, can increase the real income of the consumers and help the poor to improve their living conditions.

The economic impact of Unskilled Manufacturing FDI

The economic impact of unskilled manufacturing FDI is often not very large, but again it also differs between the product and strategy of the investing firm. First of all, the jobs that are created are low skilled jobs and because costs are the motivation for the investment, the conditions are often also not very good. Furthermore, the number of additional private sector linkages is often small, because firms move parts of an (often) already existing process to a foreign country, which means the linkages with suppliers have been established before. This limits the amount of additional private sector linkages in host countries. Often, there is also not a close relationship with the community, because regularly the products or services are produced for other end markets.

Sometimes, unskilled manufacturing FDI is combined with, for example, agribusiness FDI. This occurs when the investment is primarily focused on the resources for the agricultural product, however due to low wages in the country, the firms decides to also do the further processing in the foreign country. In this case, the impact of unskilled manufacturing FDI is much larger and also more sustainable.

The economic impact of Agribusiness FDI

In this type of FDI, direct employment forms the main channel of economic impact. However, the direct employment created within investments of firms in the agribusiness sector, depends on the strategy of the firm and type of products. Some firms work with a network of farmers and others establish their own agribusiness firm. The additional employment besides growing, depends on the type of product. For commodities like coffee and cacao, the processing for further production is often performed in the end market (UNCTAD, 2005).

The business network of agribusiness firms often consists of many local producers, like plantations and farms of products like cacao, coffee or fruits. Through these linkages the multinational company generates income for the private sector. However, due to the low prices of the commodities involved and the domination of unskilled jobs in this industry, the wages for farmers and workers will be low (Oxfam, 2002).

The economic impact of Resource Extraction FDI

In order to start, for example mining operations, on a certain location, several large investments need to be made. For example, exploration (the search for locations with large amounts of, for example, minerals) and the development of a specific

mining site are both large expenses for the investing firm. Therefore, in order to reduce costs, modern technologies will automate the process of mining or drilling meaning that a relatively small local workforce is needed. This results in limited employment and income gains for the local population and economy. The economic gains for the few employees that are hired, are also limited because the local workers will only be hired for 'simple' activities, like digging and transportation. In general, the local employment that is created by this form of FDI is accompanied by a low wage-rate and unpleasant working conditions.

However, besides the small low skilled workforce, this type of FDI also needs a technically skilled workforce, due to the complicated extraction processes and advanced machinery. But most African countries will be unable to provide this (due to the lack of technical education) and therefore most multinational firms in the resource extraction sector will employ foreign employees in technical jobs and middle and high management.

Furthermore, resource extraction is always performed in 'enclaves', whereby transactions with the local private sector are limited (UNCTAD, 2005). Most extraction operations are located 'in the middle of nowhere', simply because the resource in question can be found there. In such rural areas there are almost no local firms present. This results in limited opportunities for forward and backward linkages with the local private sector (UNCTAD, 2005).

A highly debated factor in resource extraction FDI, is the possibility of environmental degradation and displacement of local communities. Most resource extraction operations result in a negative environmental impact through digging of ground, deforestation and pollution of soil and water (because of dumping of waste) (Oxfam, 2002). Furthermore, when a village happens to be located near a recently discovered resource field, they are often 'removed' by the central government to make room for an investing multinational firm. The consequences of environmental degradation and displacement of local communities result in a negative impact on human development.

Finally, non renewable resources are 'static' (Oxfam, 2002): when the deposits of resources are depleted, the comparative advantage disappears. Investments of resource extracting firms can result in increased government earnings, because the firm will need to pay taxes over profits or royalties over the volume of production or export (UNCTAD, 2005). However, due to the depletion of

resources, resource extraction can only bring short term advantages and will often result in long term economic, social and environmental costs.

1.3.4 Differences between business strategies

So far, the differences in economic impact are explained between FDI in different sectors and between different types of FDI. Now we turn to the differences in the economic impact of FDI between firms following different business strategies. According to Bird (2003) there are two main business strategies that firms can follow: cost minimization and asset development. These different strategies influence the impact of the investment on economic development and therefore it is important to make this distinction in this thesis. Firms following a cost minimization strategy maximize profits by minimizing the expenses of business operations (Bird, 2003). These firms have a focus on short term profit creation. In order to realize this, they make use of low cost inputs of production like cheap labour and materials.

The strategy of asset development is focused on investing in the firm's assets in order to realize longer term growth (Bird, 2003). Instead of minimizing the costs, firms develop their own assets and the assets of their immediate stakeholders. Examples of these assets of firms are machinery and production sites, but also employees, customers, business partners and local communities (Bird, 2003). Furthermore, for firms following this strategy, a positive impact of their investments on the local economy and environment is essential for improving and developing their long term value in the host country (Bird, 2003).

When looking at the economic impact, cost minimization firms strongly use their own network, branding and marketing capabilities in order to avoid high risks. Hereby, cooperation with local suppliers, distributors and employees is limited. Cost minimization firms also more easily end a contract with suppliers when they find suppliers with a better price or quality (UNCTAD, 2005). In order to minimize costs, firms following this strategy, often pay wages that are similar to the official minimum wages (Oxfam, 2002).

Firms following an asset development strategy have more incentives to invest in the local employees, suppliers and distributors. They will be more inclined to invest in the training of employees, offer fair wages and safeguard good working conditions than firms following a cost minimization strategy. Furthermore, they focus on long term trading relationships (Hillen and van Geelen, 2000). This means that trust and goodwill with business partners are key elements. The result of this focus on a good business relationship is that these companies are willing to pay fair prices

15

for the supplies or services. Furthermore, these firms also invest in and share knowledge with local firms in order to increase the efficiency and quality of the products. Hereby, human capital is increased and income is gained for the local private sector. Firms following an asset development strategy also more easily hire local managers in order to gain knowledge about local tastes and habits in order to develop valuable and demanded products or in order to establish a good relationship with the community.

When looking at the environment and community, firms following an asset development strategy try to limit the negative impact of the investment on the environment and local communities. These firms possibly invest in waste water purifications, soil sanitation, the development of local businesses or offer services like micro-credits and transportations. They are also more wiling to invest in development projects like affordable health care and education ((WBCSD, 2004; Bird, 2003). In case of displacement, firms following an asset development strategy are more willing to compensate local communities by offering fair financial incentives, affordable new housing and, when appropriate, job opportunities within the newly formed operation. Firms following a cost minimization strategy do not easily invest in environmental or community projects. In general, the economic impact of firms following a cost minimization strategy is smaller than the impact of firms following an asset development strategy.

As was shown, there are differences in the economic impact of FDI between these two business strategies that firms can follow. The Dutch firms that invest in Ghana and Ethiopia that are studied in this thesis can be categorized as firms following an asset development strategy. This is because they are in a specific program, which will be explained in Chapter 4, that requires them to have a substantial impact on the local economy and in which they need to provide possibilities for future investments, which closely relates to a focus of asset development. However, even though these firms can be categorized in the same business strategy, they also follow their own firm specific strategy. In the analysis, the differences in economic impact between these individual strategies is studied. In the statistical analysis, resource extraction FDI is indirectly studied when analyzing resource rich countries, and because these resources are not renewable, the strategy for resource extraction firms is often more on cost minimization and less on asset development.

1.4   FDI in Africa

As was shown in the figure in the Introduction, Foreign direct investment flows to Africa are increasing. In 2006, FDI flows to Africa increased by 20 percent to 36 billion dollars, twice the amount of 2004. Figure 1.2 (source: UNCTAD, 2008) shows that FDI in Africa is increasing, but is still small compared to other regions in the world.

According to Navaretti and Venables (2004), the most noticeable trend in the sectoral distribution of FDI on a world scale is the increase in the share of services and a parallel decline of the primary sector. FDI in the service sector rose from 41.2 percent in 1986 to 61.4 percent in 2002. Whereas, the primary sector

Figure 1.2 FDI flows by region (billions of US $)
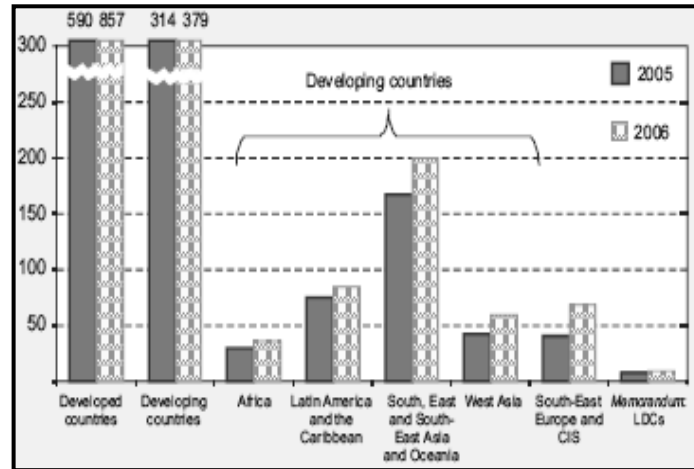
saw a decrease in FDI from 15.1 percent in 1986 to 4.3 percent in 2002. In the distribution of world FDI in 2003 the share of services is 59.8 percent, that of manufacturing is 33.3 percent and the primary sector accounts for the remaining share of 6.9 percent.

However, in Africa, FDI inflows are still heavily concentrated in primary sector and especially in resource extraction activities (Cantwell, 1997). From 1988 to 1997 there was a slight increase of FDI in the primary sector from 51.8 percent to 53.4 percent in Africa. Whereas, in Latin America this number declined from 8.8 to 5.7 percent and in Asia from 8.8 percent to 3.5 percent (UNCTAD, 1999). Between 1996 and 2000, the share of the primary sector accounted for nearly 55 percent of total flows to Africa, even reaching as high as 80 percent in some years. By way of comparison, between 1990 and 2002, the share of the primary sector in the total stock of FDI in developing countries showed little change, rising from 6.7 to 7 percent (UNCTAD, 2002).

The World Bank and International Monetary Fund played an important role in this process of increasing FDI in the primary sector in Africa. They encouraged African countries to liberalize and privatize the primary sector and to provide incentives to attract foreign investors, because it would create employment and

increase the government budget. Due to the large resource deposits in Africa and these incentives, many countries in Africa were able to attract these resource oriented FDI inflows (UNCTAD, 2005).

1.5 Conclusions

The differences in FDI determinants and economic impact of FDI between sub-Saharan African countries are the focus of this thesis. In this chapter, an overview was given of the theories that are important for studying this topic. It was shown there are different types of FDI and that in this thesis the distinction is made between market and asset oriented FDI. These different types of FDI already revealed important factors that determine investments flows, such as large markets or specific assets such as cheap labour or natural resources. However, it was also shown that there are specific country determinants, such as economic and political stability, favourable taxes, geographical location and infrastructure.

In section 1.3, it was explained that the economic impact of FDI differs between the different sectors, types of FDI and business strategies of firms. In this section, also the four factors were explained that will be studied in the impact analysis of Dutch investments in Ghana and Ethiopia. The trend of FDI in Africa was shown in section 1.4, whereby it was explained that there is a worldwide trend of FDI in the services sector, however in Africa, FDI in the primary sector remains very large.

The theory in this first chapter forms the framework for this thesis. In the remainder of this thesis, first of all, several aspects of the theory are tested in a statistical analysis, which is described in Chapter 2 and 3. Furthermore, this framework is used as a foundation to analyse Dutch investments in Ghana and Ethiopia, which is the focus of Chapter 4.

2. Literature review, Hypotheses and Methodology

As explained in the Introduction, this master's thesis consists of two parts, whereby the statistical analysis on FDI determinants and the economic impact of FDI flows in sub-Saharan Africa is the first. Whereas, the former chapter already introduced the main theories, this chapter continues with a brief overview of previous empirical studies on the topic, in order to introduce the hypotheses tested in the statistical analysis. Furthermore, the methodology used in the analysis is described in this chapter and finally, the bi-directional relationship between FDI and economic growth is explained.

2.1 Literature review and hypotheses

This literature review consists of the main results and differences between previous studies on the topic and explains the choice for the hypotheses. First, the focus is on determinants of FDI inflows and after that we look at the relationship between these FDI inflows and economic growth.

2.1.1 Determinants of FDI Inflows

There are several studies that focus on determinants of FDI inflows for FDI receiving developing countries and a few specifically focus on sub-Saharan Africa. Asiedu (2002) argues that many studies on FDI determinants in developing countries include only a small amount of sub-Saharan African countries in their sample. For example, a study of Gastanaga, Nugent and Pashamova (1998) consisted of a sample of 49 countries, from which six are in sub-Saharan Africa. Schneider and Frey (1985) also studied determinants of FDI, taking into account 51 countries of which 13 are in sub-Saharan Africa.

In Asiedu's (2002) own research she looks at 71 developing countries, of which 32 are in sub-Saharan Africa. In this research she also includes an Africa dummy in order to find specific values for the African region. She concludes that openness to trade, infrastructure and return on investment are positively related to FDI inflows in sub-Saharan Africa. Asiedu (2006) did another study on determinants of FDI for sub-Saharan Africa. She now only focused on sub-Saharan African countries with a dataset of 22 countries. She found that large markets, natural resource endowments, good infrastructure, low inflations, an efficient legal system

and a good investment framework promote FDI. Education also had a weak positive sign. Furthermore, an interesting finding is that she finds that few corruption and political stability have a negative effect. Which is different from studies on many other regions.

Another study by Bende-Nabende (2002) included 19 sub-Saharan African countries. In this analysis, economic growth is also found to be an important determinant of FDI flows. Furthermore, he finds that the amount of exports and level of FDI liberalization are important determinants. On the bottom of the list he also finds a positive effect for the country's trade openness. Onyeiwu and Shrestha (2004) also did a research specifically on sub-Saharan Africa. They included 29 African countries in their dataset. The results show that economic growth, inflation, openness of the economy, international reserves and natural resource availability are positively related to FDI inflows. Political rights and infrastructure are found to be insignificant in explaining FDI flows to sub-Saharan Africa.

Studies on determinants of FDI flows to sub-Saharan Africa often focus on one large group of countries, whereby differences are not taken into account. In this thesis, I would like to see whether there are differences between resource rich and resource poor sub-Saharan African countries in factors that determine FDI inflows. The amount of FDI inflows in sub-Saharan Africa can broadly be divided in two groups: large amounts of FDI flows are found in resource rich countries and small amounts are present in resource poor countries. In earlier studies (e.g. Asiedu, 2006) it was shown that for example political stability or few corruption are not as important for determining FDI inflows in sub-Saharan Africa as in other regions. This is explained by the idea that foreign firms investing in natural resources do not take many other factors, like political stability, into account due to the fact that resources are only available at specific places. This explanation of course only counts for resource rich countries. It would be interesting to test this explanation and see if determinants for FDI for resource poor countries differ from resource rich countries. Therefore, in this research a distinction is made between resource rich, resource medium en resource poor countries. The resource medium category will serve as a control group for the results.

In all of the just described studies, several factors are found to be important determinants of FDI inflows in sub-Saharan Africa. In my analysis, I include factors that are found in most studies and for which data is available. These include, economic growth, inflation, education, infrastructure, political stability, corruption,

rule of law, trade openness and natural resource availability. It will be tested whether these variables have a positive, negative or insignificant effect on determining FDI inflows in resource rich and resource poor sub-Saharan African countries. In general, it is thought that the variables economic growth, education, infrastructure, rule of law, trade openness and natural resource availability have a positive effect on determining FDI inflows. Inflation is thought to be negatively related to FDI inflows. The findings for political stability and corruption differ, but in general political stability is expected to have a positive and corruption a negative sign. The following hypothesis will be tested:

Hypothesis 1
Resource rich FDI receiving sub-Saharan African countries have different factors that determine FDI inflows than resource poor FDI receiving sub-Saharan African countries

2.1.2 FDI inflows and Economic Growth

Now, we turn to the impact of FDI inflows on economic growth in the host country. There are quite some studies that analyse the impact of FDI inflows on economic growth. In general, it is thought that FDI has a positive effect on economic growth mainly due to knowledge spillovers and an increase in economic activity in the country. However, studies on this topic often find different results. In table 2.1, an overview of different studies on this topic are shown.

Especially interesting is the study of Alfaro in which she analyses the impact of different types of FDI on economic growth. It is shown that only manufacturing FDI has a positive effect on economic growth. The effect in the services sector is mixed and the effect in the primary sector is even negative. This is interesting for this research, because, in sub-Saharan Africa, natural resources dominate in determining FDI inflows.

Table 2.1 also shows that studies on this topic analysed different samples of countries. Often large groups of countries are taken together and few only look at sub-Saharan Africa. Specific studies that focus on differences between sub-Saharan African countries were not found. Therefore, in this thesis the focus is on differences between specific groups of sub-Saharan African countries in the impact of FDI on economic growth.

With the second hypothesis of this research, it is analysed whether the negative impact of FDI in natural resources is also seen in the relationship between FDI and economic growth in resource rich and resource poor sub-Saharan African

countries. Therefore, in this analysis also a distinction is made between resource rich, resource medium en resource poor countries. The resource medium category again serve as a control group for the results. Following the research of Alfaro (2003), a stronger relationship between FDI and economic growth is expected for resource poor countries than for resource rich countries. This leads to the second hypothesis:

Hypothesis 2
The relationship between FDI inflows and economic growth is stronger in resource poor than in resource rich sub-Saharan African countries

Table 2.1 Studies on the relationship between FDI and economic growth

Author (year)	Relationship	Econometric technique	Sample	Time period
Zhang (2001)	Yes	Time series	11 developing countries	1960-1992
Chowdhury and Mavrotas (2006)	Mixed	Time series	Chile: no Thailand & Malaysia: yes	1969-2000
De Melo (1999)	Mixed OECD: yes non-OECD: no	Time series and panel	32 countries	1970-1990
Hansen and Rand (2006)	Yes	Time series and panel	31 developing countries	1970-2000
Nair-Richert and Weinhold (2001)	Yes	Cross-country and panel	24 countries	1971-1995
Choe (2003)	Yes, but weak	Panel	80 countries	1971-1995
Basu, Chakraborty and Reagle (2003)	Yes, but trade openness important	Panel	23 countries	1978-1996
Carkovic and Levine (2002)	No	Panel	72 countries	1960-1995
Basu and Guariglia (2007)	Yes	Panel	119 developing countries	1970-1999
Borentzstein et al. (1998)	Weak, but yes with interaction of human capital	Panel	69 developing countries	1970-1990
Herzer et al. (2008)	Different effects, but generally no	Panel	28 countries	1970-2003
Alfaro (2003)	Primary sector FDI: negative Manufacturing FDI: positive Services FDI: mixed	Panel	48 developing countries	Mixed

Furthermore, studies find that specific conditions influence the impact of FDI inflows on economic growth. An overview is given in table 2.2. Developed financial markets,

education and trade openness are found to increase the possibility of spillovers of FDI inflows to the economy.

It would be interesting to see whether the interaction of these specific conditions with FDI inflows also has a positive effect on economic growth in sub-Saharan African countries. Again, the countries are divided according to their resource endowment and the resource medium countries serve as a control group for the results. In line with the argument behind hypothesis 2, it is expected that because FDI in resource rich countries is mainly in the isolated natural resources sector, the spillover effects to the host economy are small in comparison with FDI in resource poor countries, resulting also in a smaller possible interaction effect of financial markets, education and trade openness. This is tested by the third hypothesis of my research which is divided in 3 sub hypotheses:

Hypothesis 3a
Financial markets have a stronger positive impact on the relationship between FDI and economic growth in resource poor than in resource rich countries

Hypothesis 3b
Education has a stronger positive impact on the relationship between FDI and economic growth in resource poor than in resource rich countries

Hypothesis 3c
Trade openness has a stronger positive impact on the relationship between FDI and economic growth in resource poor than in resource rich countries

Table 2.2 Macro conditions necessary for a positive impact of FDI on economic growth

Macro conditions	Study
Financial markets	Alfaro (2004) / Lensink and Hermes (2002)
Education	Borensztein et al., 1998 / Blomstrom (1986) / Kokko (1994) / Kokko, Tansini and Zenan (1996)
Trade openness	Borensztein et al. (1998) / Balasubramanyam et al. (1996)

So far, differences between resource rich and resource poor countries are analysed. However, a distinction can also be made between countries with different amounts of FDI inflows. In order to analyse the importance of the amount of FDI inflows, the countries are divided in groups with large, medium and small amounts of FDI inflows. With this distinction, it is analysed whether the amount of FDI inflows matters for the impact of FDI on economic growth.

The countries in sub-Saharan Africa with large amounts of FDI inflows are resource rich. Therefore, in line with the arguments behind hypothesis 2 and 3, it is not expected that these countries show a strong relationship between FDI and economic growth. However, it is expected that countries with medium amounts of FDI inflows show a stronger relationship between FDI and economic growth than countries with small FDI inflows. The argument is that when a country receives more FDI, there is a greater chance that spillovers can stimulate economic growth. The fourth hypothesis in this research is the following:

Hypothesis 4

The relationship between FDI inflows and economic growth is stronger in countries with a medium amount of FDI inflows than in countries with a small or large amount of FDI inflows

2.1.3 Bi-directional relationship between FDI and Growth

Finally, the bi-directional relationship between FDI and economic growth needs a little more explanation. In this research, the relationship between economic growth and FDI is analysed in two ways. In the FDI Determinants model, economic growth is an explanatory variable for increasing FDI inflows and in the Economic Growth Model, the FDI inflows variable is seen as a factor influencing economic growth. Different studies have analysed the bi-directional relationship between the two variables. For example, Hansen and Rand (2006) found a strong significant effect for FDI on growth and a weaker but still substantial relationship for growth on FDI. Also other studies have shown that the relationship exists in both ways.

It is not the aim of this research to determine the exact causality relationship between the two variables. In this research, the relationship is analysed in both ways with two different models. This is important to keep in mind when analysing the results.

2.2 Methodology

Now the hypotheses are introduced, it is time to explain the methodology, or econometric technique, that is chosen for this analysis. After describing the methodology, the sample of countries studied in the statistical analysis is given.

2.2.1 Methods

When looking at recent studies on FDI inflows, whether focusing on FDI determinants or the relationship between FDI and economic growth, the majority uses panel data

techniques for the analysis. Examples of studies on FDI determinants in sub-Saharan Africa using panel techniques are Asiedu (2002), Asiedu (2006), Bende-Nabende (2002) and Onyeiwu and Shrestha (2004). Studies using panel data techniques to analyse the relationship between FDI and economic growth are for example Borensztein, et al. (1998), Carkovic and Levine (2002), Nair-Richert and Weinhold (2001) and Herzer, et al. (2008).

There are several reasons for choosing panel data methods over purely cross-section or time-series techniques. With a cross-section technique, it is not possible to take into account the time effects related to foreign direct investment flows in a country (Herzer, et al., 2008). Investment flows are often a reaction on changing conditions and therefore there is a time lag. This means it is important to include a time element. However, with purely time-series methods it is only possible to analyse individual countries and because my analysis is focused on the differences between groups of countries, this technique is also not suitable. Panel data techniques allow differences over time and between countries by combining time-series and cross-section (Gujarati, 2003). Therefore, in this research panel data techniques are used.

Baltagi (in: Gujarati, 2003) mentions several advantages of panel data over cross-section or time-series data. The first advantage is that panel data takes heterogeneity among units into account by allowing for individual-specific variables. Secondly, by combining time-series with cross-section observations, panel data gives more informative data, more variability, less collinearity among variables, more degrees of freedom and more efficiency A third advantage is that by studying the repeated cross-section of observations, panel data are better suited to study the 'dynamics of change'. Fourthly, panel data can better detect and measure effects that simply cannot be observed in pure cross-section or time-series data and enables more complicated behavioural models. A fifth advantage is that by combining data for many units in one analysis, panel data can minimize the bias that might result if only individual units are taken into account.

2.2.2 Panel Data Techniques

There are several techniques that can be used when analysing panel data. In this section, the most common panel data techniques are described: the fixed effects approach, random effects approach and dynamic approach.

There are two main techniques that belong to the fixed effects approach: the pooled regression and the fixed effects model. The differences are given by allowing

variation in the intercept and slope coefficients or analysing them as a constant. Within the first technique, the pooled regression, it is assumed that both the intercept and coefficients are constant over time and individuals. This model is also called the constant coefficients model. It means that there is no significant country effect and no significant time effect, which makes that the data can be pooled in order to run an least squares regression model (Gujarati, 2003). The second technique that belongs to the fixed effects approach is the fixed effects model, which is also called the least square dummy variable model. In this model the slopes are constant, but the intercepts are allowed to differ across the units, for example countries (Gujarati, 2003).

The random effects model is the second approach for analysing panel data. The term random means that the impact of the country- and time specific effects is stochastic. For our model this means that the impact of variables on determining FDI flows can differ between countries. This model has a random error term, which is constant over time. The error term indicates that the deviation from the constant of the cross-sectional units must be uncorrelated with the errors of the variables in order to have a good model (Gujarati, 2003).

The last technique in analysing panel data that is explained in this paper is the dynamic panel model. The former described models are all static in a way that the relationship between variables are at the same point in time. Dynamic variables allow the analysis of relationships between variables that develop over time. In dynamic panel models a lagged dependent variable is included in the equation (Gujarati, 2003).

A technique is suitable for this research when it fits the dataset and model well and when there is an explanation for the good fit. In the analysis, panel data is used over a time frame of 35 years for 14 sub-Saharan African countries. Furthermore, dummy variables are included to analyse different groups of countries, for example the resource rich, resource medium and resource poor countries. When testing the different panel data techniques for both the determinants model and the economic growth model, the pooled regression has the best fit. This was analysed by looking at the adjusted R-squared and the significance of the coefficients. The good fit of the pooled regression model means that the country or time effects are not significant in the models. An explanation for this good fit can be found in the fact that dummy variables are included and therefore countries with similar

characteristics are analysed. Due to the good fit, the pooled regression technique is used in this analysis.

2.2.3 Sample

In this research, 14 sub-Saharan African countries are studied. Figure 2.1 shows the sample of countries selected for the analysis. For this research, it was necessary to establish a sample that includes countries with different natural resource endowments and different amounts of FDI inflows. Another criteria was the data availability. Figure 2.1 shows the diversity of the countries within the dataset. The categories are established by looking at the Net FDI inflows and the percentage of fuel, ores and minerals in total merchandise exports over the period 1995-2005.

In the sample of 14 countries, five are resource rich. Countries are considered resource rich when the average percentage of fuel, minerals and ores in the total merchandise exports over the 10 year period is above 60 percent. The five countries that are considered resource poor in the analysis have percentages below 20. For the four resource medium countries, the percentage is between 20 and 60 percent. It is

Figure 2.1 Sample

	Resource Rich	Resource Medium	Resource Poor
Large FDI	Nigeria Sudan Angola		
Medium FDI	Zambia Gabon	Cameroon	Cote d'Ivoire Ghana Ethiopia Tanzania
Small FDI		Kenya Niger Senegal	Burkina Faso

important to realise that this categorization does not mean that countries which are considered resource poor or resource medium have no resources, but that trade in these resources is relatively small when compared to the total exports.

The amount of FDI inflows is divided in small, medium and large. Countries with a small amount of FDI inflows have foreign investments from zero up to 100 million US dollars. The medium category has an amount of FDI inflows that is between 100 and 1000 million US dollars and countries with large amounts of FDI inflows have an amount above 1000 million US dollars. The choice for this categorisation is made by looking at the data of FDI inflows in which there are also roughly three categories: one with FDI inflows from 20-60, one from 200-500 and one with FDI inflows above 1200 million US dollars.

2.3 Models and Variables

As the hypotheses, methodology and sample are described, we now turn to the models for the statistical analysis. There are two different models, one for the analysis on the determinants of FDI and one for the relationship between FDI and economic growth. After explaining both models, the definition of the variables and sources of the data are given.

2.3.1 FDI Determinants Model

The model used in the analysis on the determinants of FDI in sub-Saharan Africa is based on the following model of Asiedu (2006):

FDI/GDP = c + ß1 growth + ß2 natural resources + ß3 infrastructure + ß4 inflation + ß5 FDI policy + ß6 education + ß7 rule of law + ß8 corruption + ß9 no. of coups + ß10 no. of assassinations + ß11 no. of riots + ε

The reason for choosing this model as the foundation for the analysis in this thesis is that this model contains most of the variables that are found to be important FDI determinants in overall literature. However, for the analysis in this thesis, a few variables in the model are changed. Due to data limitations, the variable for *FDI policy* is not included. Furthermore, the variable of *openness* is inserted in the model, which is a variable that is also used in many others studies and is found to be of significant importance in determining FDI inflows. Due to data limitations, the index variable *political stability* is included instead of the political risk variables (coups, assassinations and riots).

The last, and probably most important change made in the model of Asiedu, is the dependent variable *FDI*. Asiedu uses the FDI/GDP ratio, but Onyeiwu and Shrestha used the lagged value of this ratio as the dependent variable in their model. They use the Net FDI inflows as a percentage of GDP in the year t+1 and not in the year t. The reason behind using this lagged variable is that there is always a time lag between changes in the explanatory variables and the decision to invest (Onyeiwu and Shrestha, 2004: 97). The argument sounds reliable, because firms deciding to invest in a foreign country often base their decision on earlier research. Furthermore, setting up investments projects in foreign countries takes time.

However, many other studies, like Asiedu, use the 'normal' FDI/GDP ratio (in year t) as the dependent variable *FDI.* Therefore, the fit of the model for both variables was tested by looking at the significance of the coefficients and the adjusted R-squared. The model with the lagged dependent variable had more

explanatory value. Therefore, in this analysis the lagged value of the FDI/GDP ratio is used as the dependent variable. With these changes, the model for analysing the determinants of FDI inflows in sub-Saharan Africa, in which c is the constant and ε represents the standard error term, is the following:

FDI Determinants Model

lag FDI/GDP = c + ß1 natural resources + ß2 economic growth + ß4 inflation + ß5 openness + ß6 infrastructure + ß7 education + ß8 corruption + ß9 political stability + ß10 rule of law + ε

2.3.2   Economic Growth Model

In previous literature, different models are used to analyse the relationship between FDI inflows and economic growth. In some studies many variables are included in order to control for the effect and other studies include only two variables. However, a model whereby economic growth is only determined by FDI inflows is not realistic. Many studies therefore add inflation and/or exports or trade openness to the model.

The model used in this analysis of FDI and economic growth is based on the model of Carkovic and Levine (2002). They use a set of seven conditioning variables besides the two main variables for *FDI* and *economic growth*. The conditioning set of Carkovic and Levine (2002) consists of the following variables: *education, inflation, credit, government size, black market premium* and *trade openness*. However, in their analysis, *government size* and *black market premium* do not add to the explanatory value of the model. Furthermore, these variables are often not included in models of other studies on FDI and economic growth. Therefore, these variables are not included in this analysis.

In previous studies, often different measures are used for the main variables. For the variable *FDI*, sometimes just the number of FDI inflows is taken and sometimes the ratio of FDI inflows to Gross Capital Formation is used. However, the most common measure, the one that is also used in Carkovic and Levine, is the ratio of FDI inflows to GDP. This measure represents the importance of FDI for the total economy. In this analysis, the ratio of net FDI inflows to GDP is the measure that is used for *FDI*.

Another variable for which different indicators are used in previous studies is the dependent variable of *economic growth*. Some studies use the per capita growth rate, others the logarithm of GDP and again others the GDP growth rate at constant prices. In Carkovic and Levine the per capita growth rate is used. However, these different variables were tested in the model and the log of GDP showed the most

reliable and consistent results. Therefore, in this analysis, the logarithm of GDP is used as a measure for *economic growth*. The model that is estimated in order to analyse the relationship between FDI and economic growth is the following:

Economic Growth Model

Economic growth = c + ß1 (FDI/GDP) + ß2 inflation + ß3 openness + ß4 education + ß5 credit + ε

As explained in section 1.2, the impact of the interaction of FDI flows with education, trade openness and finance (called 'credit') on the FDI-economic growth relationship is also analysed. For the estimation of the interaction effects, the interaction terms are included in the model. Three different models are estimated:

Economic Growth Interaction Effects Models:

Economic growth = c + ß1 (FDI/GDP) + ß2 inflation + ß3 openness + ß4 education + ß5 credit + ß6 (FDI/GDP * education) + ε

Economic growth = c + ß1 (FDI/GDP) + ß2 inflation + ß3 openness + ß4 education + ß5 credit + ß6 (FDI/GDP * openness) + ε

Economic growth = c + ß1 (FDI/GDP) + ß2 inflation + ß3 openness + ß4 education + ß5 credit + ß6 (FDI/GDP * credit) + ε

2.3.3 Variable definitions and sources of data

In table 2.3, the definition of the variables used in this analysis is given, together with the sources and availability of the data. The study covers a period of 35 years (1970-2004), but when analysing the variables *corruption*, *political stability* and *rule of law* are in the model a time frame of 9 years (1996-2004) is used due to data limitations.

   FDI is measured by the Net FDI inflows divided by the Gross Domestic Product (GDP), both taken from the World Development Indicators (WDI). For the Determinants Model the value of FDI/GDP (t+1) is used. The availability of *natural resources* is measured by the share of fuel, ores and minerals in the total merchandise exports, also taken from the WDI. Other variables from the WDI are the measure of the GDP deflator for *inflation* and the logarithm of GDP for *economic growth*. For *infrastructure*, two measures are combined in one variable, these are the fixed line and mobile phone subscribers (per 1000 people) and the internet users (per 1000 people), both also taken from the WDI.

For *openness* the measure of Trade is taken from WDI, which is the total of imports and exports divided by GDP. The variable *credit* is a measure of financial development and is indicated by the credit to the private sector divided by GDP, also taken from the WDI. For *education* a measure is taken from the World Education Indicators (WEI), which is the percentage of people that enrol for secondary school. The measures for *corruption, political stability* and *rule of law* are taken from the World Governance Indicators (WGI), which is an index with a range from -2,5 to +2,5, whereby -2,5 is the lowest possible score and +2,5 is the highest score possible for the variable. These last three variables are only available for the period 1996-2005.

Table 2.3 Variables and sources

Variable	Measure	Source	Time frame
FDI	Net FDI inflows / GDP (current US$)	WDI	1970-2004
Natural resources	Share of fuel + share of ores and minerals in total merchandise exports	WDI	1970-2004
Inflation	GDP deflator	WDI	1970-2004
Economic growth	Log GDP (current US$)	WDI	1970-2004
Infrastructure	Fixed line and mobile phone subscribers (per 1000 people) + Internet users (per 1000 people)	WDI	1970-2004
Openness	Imports + exports as a percentage of GDP	WDI	1970-2004
Credit	Credit to the private sector / GDP	WDI	1970-2004
Education	Gross secondary school enrolment (%)	WEI	1970-2004
Corruption	Corruption control rating (index, range: -2,5 - +2,5)	WGI	1996-2004
Political stability	Political stability (index, range: -2,5 - +2,5)	WGI	1996-2004
Rule of law	Rule of law (index, range: -2,5 - +2,5)	WGI	1996-2004

2.4 Conclusions

In this chapter, the foundation for the statistical analysis was given. In a brief overview of previous studies, the expectations were shown and the hypotheses formulated. Furthermore, section 2.2 explained the choice for a panel data analysis and showed the sample of countries that will be studied. In the last section the models and variables were explained. In the next chapter, these models are estimated and the results are discussed.

3.   Statistical Analysis on FDI in sub-Saharan Africa

In this chapter, the results of the statistical analysis are analysed. Hereby, research question 1 and 2 are addressed. Research question 1 focuses on the differences in determinants of FDI between resource rich and resource poor countries. The second research question is related to differences in the economic impact of FDI inflows. Hereby, differences between resource rich and resource poor countries are analysed and also the importance of education, finance and trade is studied. Finally, also the differences in the FDI-economic growth relationship between countries with different amounts of FDI inflows are analyzed. In this chapter, first, several diagnostic checks are explained and after that the results of both models are shown. Finally, the conclusions of the statistical analysis on FDI in sub-Saharan Africa are given.

3.1   Diagnostic checks

Before estimating the models, several diagnostic checks are performed in order to see whether, for example, the coefficients or errors are correlated. The following checks are done: nonstationarity, autocorrelation, multicollinearity and heteroskedasticity. For the statistical analysis, it is important to mention the outcome of the check for multicollinearity.

Multicollinearity is present when several variables move together in systematic ways, such variables are said to be collinear. If this is the case, it may not be possible to isolate the economic relationship of the parameters of interest (Gujarati, 2003). In order to see whether there is multicollinearity between variables it is necessary to check the correlation matrixes. The values of the correlations range from 0 to +/− 1. Values close to 0 indicate a weak or absent linear relationship. Values close to +1 (-1) indicate a strong positive (negative) linear relationship. Values that are above p=0.7 or below p=-0.7 should preferably not be included in analysis.

In this analysis, different groups of countries are analysed: the resource rich, medium and poor countries and countries with large, medium and small amounts of FDI flows. Therefore, in order to be sure that there is no multicollinearity between the variables, the correlations between the variables in each of the separate groups are checked. The correlation matrixes (see Appendix 1a, 1b and 1c) show there is multicollinearity between several explanatory variables in the different samples.

However, it is still interesting to include all the variables in the analysis and therefore, the models are estimated with different variables as will be shown in the results.

3.2   Results Determinants Model

The model used for the analysis on FDI determinants in sub-Saharan Africa was explained in Chapter 2. One hypothesis is tested in this model: 'Resource rich FDI receiving sub-Saharan African countries have different factors that determine FDI inflows than resource poor FDI receiving sub-Saharan African countries'. It is good to mention again, that due to a limited availability of data, the models that include the variables *corruption*, *political stability* or *rule of law* cover a period of only 9 years (1996-2004). Whereas, the other models cover a period of 35 years (1970-2004).

The limited number of years that can be included when estimating the model with *corruption*, *political stability* or *rule of law* has consequences for the estimation of the model. Due to the limited amount of observations (9 years for a group of 5 countries) that can now be included in the model, it is not possible to include more than 4 variables[2]. Including more variables would harm the reliability of the model. Therefore, different models with different variables are estimated. In this section the results of the model are given and analysed.

For the group of resource rich countries the results are shown in table 3.1. Multicollinearity exists between the variables *inflation* and *natural resources,* and because the variable *inflation* was not significant in any step, only the results for the model with *natural resources* are included. There is also muliticollinearity between the variables *infrastructure* and *education*, but the coefficient of *education* was not significant and therefore mainly the results for the model with *infrastructure* are shown.

In general, the coefficients of the variables *natural resources* and *infrastructure* are significant at the 5 percent level and also have the right sign. The coefficients of the variables *economic growth, corruption, political stability* and *rule of law* are not significant for the group of resource rich countries. Sometimes, the coefficient of *opennes*s is significant, but has a negative sign, which was not expected. This means that an increase in the total amount of imports and exports

---

[2] This is calculated by a rule of thumb for the reliability of the model, which says that the number of variables included in the model can not be larger than ten percent of the observations. In this analysis there are 45 observations: 9 years for 5 countries. Ten percent of this value is 4.5.

relative to GDP has a negative impact on the flows of foreign direct investments in resource rich countries. Several previous studies also found this negative result for openness in attracting FDI. A possible explanation given in these studies is that FDI and trade are substitutes and not complement each other. Meaning a trend of reduced total imports and exports moves parallel with an increasing trend in FDI. However, in this research we focus on resource rich countries, where the main FDI inflows are targeted at the export product: natural resources. Therefore, this explanation is not satisfying.

Table 3.1 Results Determinants Model for resource rich countries

Independent Variable: FDI/GDP+1	1	2	3	4	5	6
Natural Resources	0.000185 (0.0990)**	0.000374 (0.0037)**	0.000472 (0.0358)**	0.000459 (0.1556)	0.000559 (0.0716)*	0.000081 (0.7814)
Economic growth	0.000190 (0.9536)	0.003225 (0.3799)	0.001904 (0.7937)			
Inflation	x	x	x	x	X	X
Openness	-0.000176 (0.2428)	-0.000535 (0.0060)**	-0.000599 (0.0871)*	-0.001108 (0.0060)**	-0.000965 (0.0214)**	
Infrastructure		0.000134 (0.0098)**		0.000218 (0.0256)**	0.000192 (0.0260)**	0.000077 (0.3561)
Education			0.000218 (0.6190)			
Corruption				-0.041240 (0.2588)		
Political Stability					-0.011391 (0.2135)	
Rule of law						-0.030541 (0.1130)
R2	0.044719	0.224584	0.232639	0.406631	0.415776	0.129684

** Significant at the 5 percent level / * Significant at the 10 percent level

Another possible explanation for the negative coefficient of *openness* in resource rich countries is related to the general trend of an increase in FDI in the services sector and a decrease in FDI in the primary sector, which was mentioned in section 1.4. Kandiero and Chitiga (2003), find a strong negative relationship between openness in the primary sector and FDI in Africa and explain this by efficiency gains from an increased openness in the services sector that may enable a country to support some

of the activities in the primary sectors, hereby reducing some of the investments by foreign firms. Even though FDI in the primary sector is still large in resource rich countries, this is a possible explanation, but further research is necessary in order to verify this result.

The results of the Determinants model for resource poor countries are shown in table 3.2. There is multicollinearity between the variables *natural resources* and *openness*. The coefficient of the variables *openness* is more often significant, but because the variable *natural resources* is important in this research, results of the models for both variables are shown. There is also multicollinearity between the variables *political stability* and *rule of law*.

Table 3.2 Results Determinants Model for resource poor countries

Independent Variable: FDI/GDP+1	1	2	3	4	5	6	7	8
Natural Resources	-0.000203 (0.2980)						-0.000584 (0.2172)	0.000795 (0.1407)
Economic growth	0.010449 (0.0000)**	0.005396 (0.0002)**	0.005908 (0.0002)**	0.008069 (0.0062)**	0.019494 (0.0308)**	0.028889 (0.0001)**	0.028825 (0.0010)**	0.022827 (0.0240)**
Inflation	-0.000132 (0.1206)	-0.000055 (0.3575)	-0.000050 (0.4146)	-0.000108 (0.4617)				
Openness		0.000143 (0.0035)**	0.000110 (0.0485)**	0.000205 (0.0333)**	-0.000198 (0.1338)	-0.000128 (0.3402)		
Infrastructure			0.000045 (0.4802)	0.000107 (0.3304)		-0.000209 (0.0531)*	-0.000293 (0.0111)**	
Education				-0.000102 (0.5996)				
Corruption					-0.006785 (0.4632)			-0.011042 (0.2870)
Political Stability					0.002055 (0.7165)		-0.004873 (0.4032)	
Rule of law						0.009301 (0.3225)		0.011841 (0.3080)
R2	0.366855	0.196605	0.212025	0.186810	0.336560	0.477668	0.539151	0.451873

** Significant at the 5 percent level / * Significant at the 10 percent level

When looking at the FDI determinants in resource poor countries, the coefficient for *economic growth* is significant and has the right sign in all the different steps. Also the coefficient of the variable *openness* is often significant and positive, as was expected. The coefficient of the variable *infrastructure* is sometimes significant and

negative, which was not expected. Naudé and Krugell (2005) also find a negative significant relationship between infrastructure and FDI in Africa, but it is insignificant once they control for institutions and geography. The fact that the coefficient for *infrastructure* is only sometimes significant in this analysis shows that the negative relationship between *infrastructure* and *FDI* is not very strong and may be insignificant when other factors are included in the analysis. However, it is beyond the scope of this research to study this relationship between infrastructure and FDI in more detail.

The aim of estimating the Determinants Model for the different groups of countries, was to see whether the main determinants for FDI inflows differ between these groups. The hypothesis that was tested was related to differences between the resource rich and resource poor countries. The results show that there are indeed differences in the main determinants of FDI flows between these two groups. Whereas, for resource rich countries the variables *natural resources* and *infrastructure* are positive and significant, resource poor countries have a positive and significant results for *economic growth*. For both groups the variable *openness* is sometimes significant. However, for the resource rich group the sign for this coefficient is negative, whereas the resource poor group shows a positive sign.

In order to compare and check the results, the model is also estimated for the total group of 14 sub-Saharan African countries and for the resource medium countries. The results of both groups are given in Appendix 2a and 2b. Expected is that the results for both group of countries shows a rough mix between the results of the resource poor and resource rich countries. When looking at the results for the total group of 14 countries, the variables *natural resources* and *economic growth* have the right signs and are, in general, significant. The results of the Determinants Model for the resource medium countries only show a significant and positive sign for the variable *natural resources*. These results indeed are a mix of the results for resource rich and resource poor countries.

3.3   Results Economic Growth Model

After analysing the Determinants Model, we now continue with the Economic Growth Model. In this model, all steps cover a period of 35 years (1970-2004). Again due to the problem of muliticollinearity, the model is sometimes estimated with different variables. In this section, first, the general relationship between FDI and Economic Growth is estimated for the resource rich and resource poor countries. After that, the

importance of the interaction of FDI with education, financial markets and trade openness for the FDI-economic growth relationship is analysed. Finally, the focus is on the economic impact of FDI for countries with different amounts of FDI flows.

3.3.1 FDI and Economic Growth in resource rich and resource poor countries

There are several hypotheses that are tested with the Economic Growth Model. The first hypothesis is the following: 'The relationship between FDI inflows and economic growth is stronger in resource poor than in resource rich countries'.

The results for the relationship between FDI and economic growth for resource rich countries are given in table 3.3. The coefficient of the variable *FDI* is in most cases significant with an average value of around 5.0. From the other variables no coefficient is strongly significant. The results for the group of resource poor countries are given in table 3.4. The relationship between FDI and economic growth is also in most cases significant at the 5 or 10 percent level with an average value of 11.0. Furthermore, the coefficients of the variables *education* and *credit* are significant. When comparing these results it can be said that for both groups there exists a relationship between FDI and economic growth. However, for the group of resource poor countries the coefficient is more than double the value of the coefficient for resource rich countries. This result supports our hypothesis.

Table 3.3 Results Economic Growth Model for resource rich countries

Independent Variable: log(GDP)	1	2	3
FDI	5.337455 (0.0027)**	3.793639 (0.1293)	5.949431 (0.0856)*
Inflation	0.000211 (0.2421)	0.000112 (0.5785)	0.000241 (0.3216)
Openness	-0.013719 (0.0000)**	-0.007330 (0.1191)	-0.010216 (0.1016)
Education		0019056 (0.1341)	0.024163 (0.0962)*
Credit			0.036678 (0.3002)
R2	0.150750	0.082817	0.092277

** Significant at the 5 percent level /
* Significant at the 10 percent level

Table 3.4 Results Economic Growth Model for resource poor countries

Independent Variable: log(GDP)	1	2	3
FDI	17.26438 (0.0005)**	8.520799 (0.1160)	9.769797 (0.0542)*
Inflation	0.000373 (0.9124)	-0.003179 (0.5912)	0.007245 (0.2495)
Openness	0.006873 (0.0128)**	0.000015 (0.9968)	-0.005057 (0.1793)
Education		0.021202 (0.0065)**	0.022119 (0.0024)**
Credit			0.032049 (0.0008)**
R2	0.166224	0.193257	0.312737

** significant at the 5 percent level /
* Significant at the 10 percent level

In order to check the results, the total group of 14 countries and the resource medium countries are also analysed. The results are shown in Appendix 3. Again values are expected that are in between the values of the resource rich and resource poor countries' results. When looking at the total group of 14 sub-Saharan African countries, the relationship between FDI and economic growth is strongly significant, positive and between the value of the resource poor and resource rich countries. For the resource medium countries, the coefficient of *FDI* is not strongly significant and has a value that lies between the value of the resource rich and resource poor countries. These results show indeed are mix of the results of the resource poor and resource rich countries. The conclusion is that the results support the hypothesis that was tested in this model: the coefficient for FDI is larger for resource poor than for resource rich countries and therefore, the relationship between FDI and economic growth is stronger in resource poor countries.

3.3.2 The interaction between FDI and Education, Financial Markets and Openness
So far, the relationship between FDI and economic growth in resource rich and resource poor sub-Saharan African countries is analysed. In this section, this research is extended by considering the interaction effects between FDI and respectively education, finance and openness. Education, finance and openness are seen as factors that positively influence the relationship between FDI and economic growth. In this analysis, again the differences between resource rich and resource poor countries are studied. In general, a stronger interaction effect is expected in resource poor than in resource rich countries, as was shown in hypothesis 3a, 3b and 3c.

The results for the interaction models are given in the tables 3.5 and 3.6. It is important to note, that in analysing interaction models, the coefficients have a value that they would have when other variables are zero. It is therefore not possible to analyse these results as a total overview of coefficients in the model. In this analysis we only look at the interaction term. As can be seen, for the resource rich countries the interaction terms of FDI with *education* and *credit* are positive and significant. Whereas, the coefficients of these variables were not positive one their own in explaining economic growth. Therefore, when FDI in resource rich countries is combined with education or credit it has a positive impact on economic growth.

For the group of resource poor countries, only the coefficient of the interaction term with *education* is significant, however, it has a negative sign. In the former section it was shown that *education* and *credit* both had a positive effect on

economic growth in resource poor countries. This negative and significant sign of the interaction term between *FDI* and *education* shows that the interaction between the variables does not increase economic growth. An explanation for this result is difficult to find, but possibly the interaction effect is biased due to the small amount of FDI inflows in resource poor countries. The results of the interaction models do not support the hypotheses, because the interaction effects are stronger in resource rich than in resource poor countries, whereas the expectation was the opposite.

Table 3.5 Results Interaction Model for resource rich countries

Independent Variable: log(GDP)	1	2	3
FDI	-6.187790 (0.3304)	-1.592840 (0.7407)	13.79764 (0.0936)
Inflation	0.000159 (0.4974)	0.000206 (0.3794)	0.000231 (0.3408)
Openness	-0.004425 (0.4932)	-0.007993 (0.1881)	-0.007778 (0.2388)
Education	0.014426 (0.3190)	0.021087 (0.1329)	0.021138 (0.1513)
Credit	0.026597 (0.4364)	-0.002502 (0.9482)	0.039971 (0.2605)
FDI*Education	0.619482 (0.0290)**		
FDI*Credit		1.723190 (0.0363)**	
FDI*Openness			-0.054181 (0.2888)
R2	0.182556	0.175628	0.114446

** Significant at the 5 percent level /
* Significant at the 10 percent level

Table 3.6 Results Interaction Model for resource poor countries

Independent Variable: log(GDP)	1	2	3
FDI	25.55593 (0.0071)**	21.73580 (0.0404)**	3.447496 (0.8112)
Inflation	0.006873 (0.2644)	0.006642 (0.2896)	0.007502 (0.2376)
Openness	-0.003514 (0.3491)	-0.006204 (0.1081)	-0.007107 (0.2212)
Education	0.033178 (0.0003)**	0.023539 (0.0014)**	0.021605 (0.0035)**
Credit	0.030924 (0.0010)**	0.042676 (0.0008)**	0.033210 (0.0009)**
FDI*Education	-0.950554 (0.0468)**		
FDI*Credit		-0.821498 (0.1951)	
FDI*Openness			0.141044 (0.6404)
R2	0.351263	0.329373	0.314924

** Significant at the 5 percent level /
* Significant at the 10 percent level

3.3.3 FDI, Economic Growth and the amount of FDI inflows

In the former sections, the differences in the relationship between FDI and economic growth between resource poor and resource rich countries are analysed. The results show a stronger relationship between FDI and economic growth in resource poor than in resource rich countries. However, in order to see whether the amount of FDI flows also influences the economic impact in sub-Saharan African countries, a

distinction is made between three groups of countries with small, medium and large amounts of FDI flows. As explained before, a stronger relationship between FDI and economic growth is expected in countries with a medium amount of FDI inflows than in countries with a small or large amount of FDI inflows.

The results of the growth model for groups with different amounts of FDI inflows are shown in table 3.7. There is multicollinearity between FDI and openness in the group of countries with a large amount of FDI inflows. Therefore, the variable openness was not estimated for this group. When looking at the table, the results are surprising. Only for countries with small amounts of FDI inflows, the relationship between FDI and economic growth is significant. Countries with medium and large amounts of FDI inflows do not show a significant relationship between FDI and economic growth.

Table 3.7 Results Growth Model for countries with different amounts of FDI

Independent Variable: log(GDP)	Small amount of FDI	Medium amount of FDI	Large amount of FDI
FDI	9.874330 (0.0644)*	0.533932 (0.8603)	0.017116 (0.9887)
Inflation	-0.003594 (0.4649)	-0.004552 (0.0903)*	-0.000002 (0.9817)
Openness	-0.000421 (0.9137)	-0.010632 (0.0001)**	x
Education	0.053406 (0.0000)**	0.015764 (0.0029)**	0.048862 (0.0002)
Credit	0.018416 (0.0098)**	0.017371 (0.0134)*	0.078513 (0.0021)
R2	0.831738	0.265316	0.585775

** Significant at the 5 percent level / * Significant at the 10 percent level

The results for the relationship between FDI and economic growth for countries with different amounts of FDI do not support the hypothesis. An explanation for these results can be that these results show that the relationship between FDI and economic growth is not primarily related to the amount of FDI flows, but is most of all determined by the type of FDI inflows. Meaning that in countries where a substantial amount of FDI is targeted at natural resources, which is seen in the group of countries with medium as well as large amounts of FDI inflows, the impact on economic growth is limited.

3.4   Conclusions

In this chapter, the differences in FDI determinants and the impact of FDI on economic growth between different groups of sub-Saharan African countries were examined. In the analysis on FDI determinants, research question 1 was addressed, which is related to the differences between resource rich and resource poor sub-Saharan African countries in the factors that determine FDI inflows.

It was shown that there are differences in the factors that determine FDI inflows between resource rich and resource poor countries. Natural resource endowment and infrastructure are important determinants of FDI inflows in resource rich countries. Whereas, in resource poor countries, economic growth and trade openness were important in determining FDI inflows. The coefficient for the natural resource endowment is insignificant for this group of countries. Previous studies already showed that among others the natural resource endowment and economic growth are important determinants of FDI in sub-Saharan Africa, but in the analysis it was shown that there are differences between groups of countries in the importance of these factors in determining FDI inflows.

The analysis on the relationship between FDI and economic growth addressed the second research question. This question consists of three sub research questions related to the differences between resource rich and resource poor countries, the importance of the interaction of FDI with education, finance and trade openness and the importance of the amount of FDI inflows. Regarding the first sub research question, it was shown that for resource poor countries the coefficient of FDI in explaining economic growth is larger than the coefficient of resource rich countries. The weaker relationship between FDI and economic growth in resource rich countries was expected and can be explained by the fact that FDI in resource rich countries is mainly targeted at natural resources. As Alfaro (2003) found: FDI in the primary sector is negatively related to economic growth. Even though studies in general find a positive relationship between FDI and economic growth, this analysis shows that in countries where a substantial amount of FDI is targeted at natural resources, the impact on economic growth is limited.

Furthermore, regarding the second sub research question, several previous studies found that the interaction of FDI with education, finance and trade openness has a positive effect on the relationship between FDI and economic growth. In this analysis, it was shown that for resource rich countries the interaction of FDI with education and credit was significant. For resource poor countries only the interaction

41

with education was significant, however, this term was negative. This result for resource poor countries is difficult to explain, but is possibly related to the relative small amount of FDI in these countries, due to which the interaction effects might not be visible and the results may be biased.

Finally, in order to see whether the amount of FDI influences the relationship between FDI and economic growth, the growth model is estimated for the following three groups: countries with small, medium and large amounts of FDI inflows. The results are supported by the hypothesis when showing that in countries with large amounts of FDI the relationship between FDI and economic growth is not strong. However, it was expected that countries with medium amounts of FDI inflows would have the strongest relationship between FDI and economic growth, but the results show that countries with small amounts of FDI inflows have the strongest relationship between FDI and economic growth. An explanation for this result can be that in the group with countries that receive medium FDI inflows also several resource rich and medium countries are included, meaning that the amount of FDI targeted at natural resources is still substantial, which limits the impact on economic growth. In the group with a small amount of FDI inflows there are no resource rich countries. Therefore, these results again show the limited impact of FDI targeted at natural resources on economic growth.

In conclusion, this statistical analysis contributes to the existing literature by making a distinction between different groups of countries when analysing determinants of FDI and the relationship between FDI and economic growth in sub-Saharan Africa. This research shows that there are differences in FDI determinants and the relationship between FDI and economic growth between groups of countries in the region. Furthermore, it contributes to the very limited amount of studies on the economic impact of different types of FDI by indirectly showing that FDI in resource rich sub-Saharan African countries, which is mainly targeted at natural resources, has a limited impact on economic growth.

This research also has its limitations and therefore opened several doors for further research. A limitation of this research is that small groups of countries were analysed and therefore more in-depth research is needed in order to verify these results. Furthermore, there are also possibilities for further research by grouping countries on different characteristics, like their geographical location or language.

4.   Dutch Investments in sub-Saharan Africa

As explained in the Introduction, the research for this master's thesis consists of two parts. In Chapter 2 and 3, the first part, the statistical analysis on differences in FDI determinants and the impact of FDI on economic growth between groups of sub-Saharan African countries was described and performed. This chapter forms the second part of the research, in which eight Dutch investment projects in Ghana and Ethiopia are analysed. This analysis is related to research question 3: What are the determinants and economic impact of Dutch investments in Ghana or Ethiopia? The theoretical framework in Chapter 1 forms the foundation for this analysis.

In this chapter, first, the companies and countries selected for the analysis are explained. After that, a general analysis on Dutch investments in sub-Saharan Africa is given. The chapter continues with an analysis of the investments from eight Dutch firms in Ghana and Ethiopia. Than, a comparison is given between the countries and the economic impact of the investments projects. Finally, the conclusions of the analysis are shown.

4.1   Selection of companies and countries

By selecting companies and countries for this research, several factors formed the selection criteria. In selecting the firms, the size was important, in selecting the countries, the number of Dutch investments were essential and for the investment projects, the type of FDI was considered. First, for selection of firms, the focus was on small and medium sized companies. There are several reasons for choosing these relatively small companies. One reason is that these companies often have less capital and therefore need to be more selective in choosing the countries in which to invest. Large multinational companies often already have subsidiaries all over the world and eventually also invest in sub-Saharan Africa. Another reason for choosing small and medium sized companies for the analysis is that several studies about investments in Africa already exist for specific large multinational companies, like Heineken en Unilever. A study that focused on Dutch investments of small or medium sized companies was not found and therefore this analysis contributes to the existing literature.

In The Netherlands, a government programme exists in which companies can receive a subsidy for investments in several developing countries. This program is

from the 'Economische Voorlichtingsdienst' (EVD) and is called the 'Programme for Co-operation with Emerging Markets' (PSOM). This program financially supports companies when they have no alternative possibilities for financing their investment project in a specific country. This means these firms are usually relatively small because, they do not have the capital to finance the investment or can not bear the risks of the investment. Therefore, in this research companies are studied that are enrolled in this program. In Box 2, the PSOM is explained. Additional information on the program can be found in Appendix 4.

In order to enrol for the PSOM, investments projects need to meet several conditions. For example, the investment project should incorporate a partnership with a local firm and needs to be a new activity in the country. Furthermore, the PSOM also requires a positive impact of the investment on the local economy and possibilities for future investments. These requirements already make that firms are enrolled in the PSOM have investment projects with a relatively large impact on the local economy. These requirements of additional future investments and a significant cooperation with the local economy already places the firms in an asset development strategy. However, in this analysis, the differences between the individual firms strategies are analysed.

BOX 2 THE PSOM
The PSOM offers 'financial support to entrepreneurs who are planning to invest in emerging markets' (PSOM, 2008). The programme is set up to stimulate sustainable economic development in upcoming markets. There are several requirements to enrol for this programme. The most important are: (1) the investments needs to be a new activity in cooperation with a local company (which has at least 50% of the shares),   (2) the partners need to be financially sound,   (3) the applicant needs to be registered at the Chamber of Commerce in the Netherlands,   (4) there are no other financial options to implement the plan,   (5) the investments need to have a positive effect on the local economy in terms of employment, knowledge transfer, etcetera.   (6) the project leads to additional investments.   The financing is often 50 or 60 percent, depending on the county, of the total budget of the investments. For Ghana it is 50 percent and for Ethiopia it is 60 percent. This financing is given after the project is implemented. The PSOM financing is only for investments in specific countries. In 19 of the 48 sub-Saharan Africa PSOM finance is available, these countries are: Ghana, Kenya, Namibia, South Africa, Benin, Burkina Faso, Cape Verde, Ethiopia, Gambia, Madagascar, Malawi, Mali, Mozambique, Rwanda, Senegal, Sudan, Tanzania, Uganda and Zambia (PSOM, 2008).

To further narrow down the research, two sub-Saharan African countries were selected. The choice for the countries was determined by the number of Dutch investments in the country. It is interesting to study the countries that are the main receivers of Dutch FDI inflows in order to analyse why these countries are attractive for Dutch companies. It was, however, not possible to realise a total overview of all Dutch investments in sub-Saharan Africa, as will be explained in the next section. Therefore, an overview is made of the investment projects in sub-Saharan Africa within the PSOM. In table 4.1, the overview is given. As can be seen, not all sub-Saharan African countries are included in the PSOM program, which was explained in Box 2. The table shows that Ghana and Ethiopia have the most PSOM projects. Therefore, for this qualitative research these two countries are selected. An interesting finding from the table is also that most of the investment projects are in agribusiness, which is the primary sector. The dominance of investments in the primary sector in Africa was also shown in section 1.4.

Table 4.1 Dutch investments in sub-Sahara Africa within the PSOM

Country	Total	Agri-business	Consumer products	Services	Energy, oil & minerals	Machinery	Environ-ment	Tourism & sports	Transport-equipment	Logistics	Food & beverages
Benin	2	2									
Burkina Faso	1	1									
Burundi	0										
Cape Verde	2	1									1
Ethiopia	23	16	2		1	1		1	1	1	
Ghana	12	7					1		1		3
Kenya	6	5									
Madagascar	0										
Malawi	0										
Mozambique	11	9									2
Senegal	2		2								
Sierra Leone	0										
South Africa	5	3						1		1	
Tanzania	10	7	1		1		1				
Uganda	10	6		1				2		1	1
Zambia	4	3			1						
Total	88	60	5	1	3	1	2	4	2	3	7

A last factor in order to structure the research is the focus on two types of FDI, market oriented and asset oriented, which was already explained in Chapter 1. In total, the project managers/directors of eight companies that are enrolled in the PSOM were interviewed, four of them invest Ghana and four in Ethiopia. An overview

of the companies that cooperated in this research is given in table 4.2. As is shown in the table, the companies Teeuwissen, Van Vliet, Tongu Fruits and Sitos invest in Ghana and Celtic, Trento, Linssen Roses and Trabocca invest in Ethiopia. And furthermore, Teeuwissen, Van Vliet, Celtic and Trento have a market oriented approach, resulting in Africa in BOP FDI, and Tongu Fruits, Sitos, Linssen Roses and Trabocca have an asset oriented approach. From the four companies that have an asset oriented approach, Linssen Roses and Trabocca have a purely agribusiness FDI project. Whereas, Tongu Fruits and Sitos combined agribusiness FDI with unskilled manufacturing FDI by also doing processing in the host country.

The method used in this analysis is a semi-structured interview technique. This means the interviewer prepares the topics to be discussed, but these topics are addressed in a conversation and not in the form of a structured questionnaire. A detailed description of the interview topics is given in Appendix 5.

Table 4.2 Companies and investment projects

Company	Country	Project	FDI	Type of FDI
Teeuwissen	Ghana	Production and sale of hotdogs	Market	BOP
Van Vliet	Ghana	Service and sales of second hand trucks	Market	BOP
Tongu Fruits	Ghana	Production of tropical fruit salad	Asset	Agribusiness + Unskilled
Sitos	Ghana	Production of charcoal from coconut shells	Asset	Agribusiness + Unskilled
Celtic	Ethiopia	Production, service and sales of cold store technology	Market	BOP
Trento	Ethiopia	Assembly and sales of cars	Market	BOP
Linssen Roses	Ethiopia	Production of roses	Asset	Agribusiness
Trabocca	Ethiopia	Production of organic coffee	Asset	Agribusiness

4.2   Dutch Investments in sub-Saharan Africa: a general overview

In order to create an overview of the number of Dutch firms investing in sub-Saharan Africa and the sectors and countries in which they invest, a general analysis of Dutch investments in the region is shown. This analysis is related to the first sub-research question of research question 3. To obtain the information, first, an institution of the Dutch government, the EVD, that also offers the PSOM, was contacted. This institution is focused on international economic activities of Dutch

firms. However, they were not able to provide a complete overview of the number and types of firms investing in sub-Saharan Africa.

After that, all the Dutch embassies in sub-Saharan Africa were contacted with the question how many and what type of Dutch firms invest in the country(ies) that fall within the area covered by that particular embassy. The results were also disappointing. Embassy's had little or no information on Dutch investments. This is due to the fact that Dutch companies investing in sub-Saharan Africa do not need to register or contact the embassy or any Dutch institution when they invest in a country.

Some embassy's forwarded my request for information to investment promotion centres or statistical offices. And for some countries, a list of companies was provided, but these were often old lists and it was unclear if these Dutch companies were still investing in the country. Different embassy's mentioned the PSOM of the EVD. In table 4.1, the number of investment projects was shown. However, these projects form only a part of the Dutch investments in the region.

The conclusion of this analysis on the overall Dutch investments in sub-Saharan Africa, is that there is no institution that registers these investments. Even at the Dutch embassy's in sub-Saharan African countries, it was not possible to find a complete list of Dutch firms investing in the country. In short, it was impossible to find information on the number of firms, the sectors and sub-Saharan African countries in which Dutch firms invest. This conclusion calls for further research on this topic.

4.3   Dutch investments in Ghana

In this analysis on Dutch investments in Ghana, and in section 4.4 also in Ethiopia, the remaining sub-questions of research question 3 are addressed. These are: Why do companies choose to invest in Ghana/Ethiopia? What is the economic impact of the investments on the local economy? What are the difficulties, strengths and future prospective of investing in Ghana/Ethiopia?

In this section, an overview of the selected Dutch investment projects in Ghana is given. As was shown in table 4.2, the companies studied in this thesis are Teeuwissen (hotdogs), Van Vliet (trucks service workshop), Tongu Fruits (fruit salad) and Sitos (charcoal). First, an overview is given of the main determinants that were mentioned by the respondents for investments in Ghana. After that, the investments projects of the four firms are explained. Hereby, first, the activities of the company

and the specific investment project are described and than an impact analysis of the investments is given.

In the impact analysis the four factors described in section 1.3.1 are used: direct employment creation, knowledge transfer, private sector linkages and community development. For the number of private sector linkages, the water and energy firms are not taken into account, because these are the same for all firms. When analysing the indicator 'community development', the favourable tax system indicating the impact on the government budget for foreign firms investing in the country, is not mentioned. The reason is that this is also similar for all firms: both countries have a favourable tax system and therefore the impact on the government budget is limited. This section concludes with explaining the experiences of the respondents with doing business in Ghana and the future prospective.

4.3.1 Determinants of Dutch investments in Ghana

When analysing the reasons mentioned by the respondents for investing in sub-Saharan Africa and Ghana, several general determinants could be identified. Previous trade relations form a first determinant for investing in sub-Saharan Africa, but also determined the choice for Ghana. Furthermore, economic growth was seen as a positive factor for choosing Ghana. Other factors were political stability and the harbour.

However, the determinants for the specific asset oriented and market oriented investment project were more important. For the two asset oriented firms in agribusiness, the climate and the geographical location of Ghana, which is close to the European end market, were important. The good harbour and airport and low cost of labour were also mentioned as reasons to invest in Ghana. Whereas for the market oriented firms, specific market opportunities for their products in the growing Ghanaian market formed the main determinant.

4.3.2 Teeuwissen

The first company analysed in this research is Teeuwissen. Teeuwissen is founded in the early 1970s and is located in Cuijk. The firm is one of the largest in (meat) by-products and casings from all kinds of animals. Teeuwissen is operating in different market segments, but mainly in the pharmaceuticals, human consumption and pet food. The firm has facilities on every continent: Europe, North- and South-America, Asia and Africa. In Africa, the firm is engaged in partnerships in Ghana, Congo and Angola. Mr. Koekkoek, marketing, PR and project manager at Teeuwissen, mentions

that the firm likes to work through partnerships instead of Greenfield investments, because partners already know the market and have a network in the country.

The PSOM project

The investment project that is the focus in this thesis is the production facility for hotdogs in Ghana. The aim is to realise the production of fresh meat products, starting with hotdogs, with an African taste. Together with their local partner they developed a hotdog according to the taste of the Ghanaian people. They sell the products in local shops and they will soon also sell the hotdogs in specific mobile units. The hotdogs will be available in Ghana and the surrounding countries.

The project involves a partnership together with an import firm called Taj Investment. Teeuwissen already knew the partner from earlier trade relations, which results in a good cooperation. The tasks in the joint venture were divided between Teeuwissen and the local partner. Teeuwissen took care of the design of the factory, the machinery and the know-how. The local partner was responsible for finding a location and organize the construction of the factory. He also took care of the formalities and administrative issues, hired employees and is now in charge of the sales of the hotdogs.

The firm experienced a few difficulties in the start up phase of the production facility. These difficulties were heavy rains, which slowed down the construction process, electricity problems and personal problems for the partner firm. Teeuwissen also has difficulties with finding raw materials. Koekkoek mentioned that Teeuwissen likes to produce the hotdogs with local poultry meat, an industry that used to be large in Ghana. However, according to Koekkoek, the industry is now suffering due to for example the subsidies on European meat exports.

Impact analysis

As explained before, the impact of the investment project of Teeuwissen in Ghana is analysed on four different factors: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. Teeuwissen has created 42 jobs in the production facility: 35 jobs in production and 7 jobs in administration. Within a few months Teeuwissen will create another 20 jobs, which will be self-employed persons, that will each be responsible for one of the mobile units to sell the hotdogs. All the employees are Ghanaian and around 70 percent are women. According to Koekkoek, the reason for the high percentage of women is that they are, in general, more

reliable and do there job better than men. The employees all had a medical check in order to see if they were healthy, which is essential in the meat industry. The salary is above average. There is no transport arrangement for the employees and no meals are provided.

Knowledge transfers. All the employees were trained in hygiene basics and hygiene in the meat industry. Furthermore, they were specifically trained in operating the machinery. A Dutchman has trained the employees for eight months. And, as explained before, the poultry industry in Ghana, that can provide the raw materials for the hotdogs, is suffering. According to Koekkoek, Teeuwissen does not have the know-how in-house to assist the poultry industry and therefore, they sent a researcher from the University of Wageningen. This researcher, who is specialized in the poultry industry, trained the poultry farmers in Ghana for a few weeks.

Private sector linkages. The hotdogs are made from meat, dough and spices and therefore, there are several ways for Teeuwissen to work together with the local private sector. Firstly, Teeuwissen works with several firms in the wheat and flour sector and they also have linkages with two firms in bread crumps. According to Koekkoek, they like to work with two or more of the same firms together, because this reduces the risks of delivery. Furthermore, they work on a small scale with starch flour firms. Koekkoek mentioned that they would like to increase the volume of cassava starch flour. However, the type of cassava starch flour produced in Ghana tastes bitter and therefore it is not good for the taste of the hotdogs. They are still looking for better types of cassava starch flour in Ghana.

For the salt there are special requirements for the level of nitrite and the local supplier can not guarantee this level. Therefore, so far, Teeuwissen imports the salt until the local supplier can guarantee the quality. The other spices are also not from African grounds, because these spices are too much polluted. As mentioned before, the main ingredient, poultry meat, is still imported due to the limited production in the country. Furthermore, Teeuwissen works with two firms in packaging material and also the distribution is done by local transport firms.

Community development. In this final impact indicator, the impact of the project on a broader scale is studied. The specific type of hotdogs that Teeuwissen brought into the country increases the variety of food for poor consumers, because, according to Koekkoek, the price is similar to the one type of hotdogs that was already sold in the country. Furthermore, Teeuwissen adapted the taste of the hotdogs to the African taste. Teeuwissen is also involved in the Schoolfeeding

Initiative Ghana Netherlands (SIGN). The target of this foundation is to provide four million children with hot meals with locally produced ingredients in 2010. Teeuwissen financially supports the foundation, but for the firm this initiative is also a way to influence the local production of for example cassava. By investing in the country, Teeuwissen brought a new industry in the country, which can be an example for others. And, according to Koekkoek, the aim is to produce the hotdogs with local materials and therefore the actively stimulate new local business.

4.3.3 Van Vliet

Van Vliet is the second Dutch company studied in this thesis that is investing in Ghana. In 1953, the Van Vliet company was founded in Nieuwerkerk aan de IJssel and that is still the headquarter of Van Vliet. The firm sells second hand trucks and passenger cars. The export of trucks has become their largest segment in sales. In general, Van Vliet buys the trucks in Europe and sells them to Africa, the Middle East, Eastern Europe or Russia. In their workshop in The Netherlands, they check the trucks and replace any parts when necessary. Any special requirements, like refrigerator units, spraying into another colour, lettering, etcetera, can be catered for. Van Vliet has facilities in Dubai, China, Nigeria, Ghana and a joint venture in Angola. According to Ms. Van Vliet, foreign subsidiary manager at Van Vliet, the factory in Nigeria is not operating at the moment due to difficulties. In Ghana, they already started in the early 1990s, but due to internal difficulties with employees, this facility closed down. Now they started a new facility in Ghana within the PSOM.

The PSOM project

In Ghana, Van Vliet is building a workshop for the maintenance of trucks. They will also work with two service trucks that will serve clients when there are problems on the road. Besides the workshop facility and mobile service trucks, they also build a sales office at the same location. According to Van Vliet, there is a high demand from their clients in Ghana for service and this problem is increasing, because the trucks become more technologically advanced and there is little knowledge about the maintenance and repair of these new technologies in Ghana.

The local partner, with whom they set up the workshop, has been their agent for over years. He has a firm in which he sells machinery and also some trucks. According to Van Vliet, the cooperation works fine, because they have known their partner for a long time. Van Vliet arranges all the machinery, knowledge and know-

how and the local partner will hire employees and is in charge of the local management and also brings in his network.

Van Vliet is still in the phase of building the facility and hopes to be in operation in February 2009. According to the first plan, the facility should already be in operation, but they were delayed. They had purchased a plot which was located in a row of plots, but, according to Van Vliet, the local government decided that a road needed to cross the row of plots. This meant that all the owners had to move one plot further in order to make space. The plot that now became Van Vliet's plot, was first the property of a man from Libya and this man argued that the plot he now had was not as nice as the one he had before. He went to court which delayed the construction of Van Vliet's investment project. Now the construction has re-started.

Impact analysis

Just like the investment project of Teeuwissen, the service workshop of Van Vliet in Ghana is also analysed on the following four factors: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. In total, the investment project will generate around 25 jobs. Van Vliet expects that around ten percent of the employees will be women and that these will be employed mainly in the administrative positions. Most of the jobs generated by the project will be in the workshop, whereby people will specialise in different activities. Two jobs will be created for the mobile service trucks and some people will be employed in the parts shop. There will also be an area manager. Furthermore, a job will be created in the transportation of the trucks from the harbour to the workshop.

In the sales office, another three jobs will be created and two people will be employed in administration. One Dutchmen will also be part of the administration team. According to Van Vliet, this is necessary in order to smoothen the communication process and avoid cultural distances. Their local partner will become the managing director of the workshop and sales office. Besides the one Dutchman, all the employees will be Ghanaian. The salary and labor conditions will be above average. This is, according to Van Vliet, to prevent that employees leave the company and take the know-how to a local workshop.

Knowledge transfer. Dutch people will train the employees during the start up process. These trainings will be provided mainly for the managers in the workshop and these managers will train the other employees themselves. Probably, they will also offer internships for local students.

Private sector linkages. Most products necessary for the workshop and sales office, like the trucks and spare parts, are imported. According to Van Vliet, in their industry it is difficult to buy things locally, because the Ghanaian people prefer products from The Netherlands just because of the reputation. In the future, Van Vliet can possibly cooperate with the local private sector in buying trucks or parts of trucks from local firms which can be used in the workshop. However, this is not a priority of the firm. Van Vliet will establish private sector linkages with accountants, insurance agency's and cleaning services. In total, the number of private sector linkages will be less than 10.

Community development. In this last impact indicator, the broader impact of the investment on the community and economy is analysed. Van Vliet will bring a service workshop to Ghana with a specific advanced knowledge that is not yet present in Ghana. According to Van Vliet, at the moment, when trucks brake down they are only used for spare parts in Ghana, but when there is a workshop these can be repaired. There is no direct impact on the poorest consumers, but the relatively poor entrepreneurs in Ghana can benefit from the project. Finally, Van Vliet is not involved in any community project in Ghana.

4.3.4 Tongu Fruits
The third Dutch company investing in Ghana that is studied in this thesis is Tongu Fruits. Tongu Fruits is a trading company in freshly cut pineapples. They export the pineapples by air transport directly to wholesalers and therefore do not need a factory in the Netherlands. Mr. Den Heijer is the owner of Tongu Fruits and has an office at his house in Rijnsburg. The clients of Tongu Fruits are spread over many countries in Europe. Besides the PSOM project in Ghana, Tongu Fruits does not have subsidiaries in other countries.

The PSOM project
The investment project of Tongu Fruits in Ghana is a production facility of frozen fruit salads that are exported by ship to Europe. The reason for setting up this project is that, due to the increasing fuel prices, the export of regular fresh cut pineapple by air transport was not profitable anymore. The fruit salad consists of pineapple, mango and papaya. In the project, Den Heijer works together with the Ghanaian firm Volta Integrated Agricultural Development Ltd. In the joint venture the tasks are divided: the local partners takes care of the supply of fruits and arranges the employees. Tongu Fruits is responsible for the technology and sales.

Just like the other projects, the investment project of Tongu Fruits in Ghana was also delayed. There were different factors that caused this delay. First, there were difficulties with land ownership rights: others claimed the just bought land of Den Heijer. Secondly, according to Den Heijer, the provision of electricity was very inconsistent last year, which delayed the construction. The roads form the third reason for the delay. According to Den Heijer, many roads are not in a proper condition, which causes many delays or trucks braking down. The last reason for the delay is the limited availability of containers. According to Den Heijer, there are often not enough containers and therefore the cargo is delayed.

Impact analysis

Like the other projects, also the impact of the investment project of Tongu Fruits is analysed with the following four factors: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. In the project 150 jobs are created. From these jobs, 135 are in production and 15 are administrative and management jobs. The management of the firm is Indian and the other employees are all Ghanaian. According to Den Heijer, it is easier to work with an Indian management, because they exactly follow his orders. Den Heijer said the Ghanaian often have their own solutions to problems. More than 70 percent of the employees is women. According to Den Heijer, in general, women work harder and are more reliable. The salary is higher than average and the employees receive meals and can make use of transportation services. Furthermore, the medical costs are taken care of by Tongu Fruits. Because of the necessity of hygiene, all employees had a medical check before starting the job.

Knowledge transfer. All employees are trained for the activities that they need to do. They also receive training on hygiene and clothing requirements. According to Den Heijer, the employees are also trained on discipline and time management.

Private sector linkages. Tongu Fruits has linkages with several local firms, like the fruit farms and transportation firms. They also cooperate with firms for inputs of production. Den Heijer does not know the number of private sector linkages and can also not make an estimation, because all the administration is in the office in Ghana.

Community development. In this last impact indicator, the broader impact of the investment on the community and economy is analysed. Tongu Fruits is not involved in any community project in Ghana. However, with their investment Tongu

Fruits increases existing agricultural activities in the country and with the production facility they brought a new industry which can be an example for others.

4.3.5 Sitos

Sitos is the fourth and last Dutch company studied in this thesis that is investing in Ghana. Sitos is founded in 2002 by mr. De Bruin and his business partner. Both were employed at another company in the same industry, but due to some internal issues they were fired and decided to start for themselves. They bought a small firm in the harbor of Amsterdam which became the origin of Sitos.

Sitos offers a range of logistic services, focusing on commodities, mainly but not limited, between Africa and Europe. According to De Bruin, the moved from only warehousing to a place within the supply chain. This means that besides warehousing facilities, they also offer, for example, transshipment and shipping, quality control, and stock management. Sitos mainly works with cacao, coffee and nuts. They specialized in these products by also providing different types of cleaning for these products in-house. Sitos is certified to work with fair trade and organic products.

In a period of five years, Sitos acquired five foreign subsidiaries and also moved to a new location in Amsterdam. Three of the foreign subsidiaries are in England, one is in Ireland and one in Ghana. In England, they do 90 percent of the warehousing in the cacao market. They also do all the warehousing for Nestle coffee. Besides these foreign facilities, Sitos also has an office in Togo and two representatives in the Ivory Coast. Their client base increased fast due to bankruptcy of their main competitor (the company where De Bruin and his business partner worked before).

The PSOM project

The PSOM project of Sitos that is the focus in this thesis is a production facility of the conversion of coconut shells into coconut shell charcoal, which is used by enterprises like Norit. In the project, they collect coconut shells from different villages, they wash and dry the shells and ground them into charcoal. The production facility is located in an underdeveloped area of Ghana.

The idea for the project came from a friend of De Bruin who heard Norit was looking for this type of charcoal that meets specific standards of active carbon. Even though the project is not related to Sitos activities, De Bruin liked to invest in this project because he liked to do something in return for the country. Since the project

does not add anything to the activities of Sitos, the facility was sold when the project was finished. It now belongs to a Dutch firm that already worked with coconut shells in Ghana. The already established facility of Sitos in Ghana served as the local partner in the PSOM project.

Impact analysis

When analysing the activities of Sitos in Ghana the same four factors are studied as in the other projects: direct employment creation, knowledge transfer, private sector linkages and community development. However, Sitos has two different projects in Ghana, one is their own facility and one is the PSOM project in which they served as the investor. In this impact analysis, the PSOM project is the main focus, but sometimes I also relate to their other facility in order to present a full picture of the impact of Sitos in Ghana.

Direct employment creation. In the production facility of the conversion of coconut shells into charcoals, 1200 people are employed of which 75 percent are women. Around 10 percent of the total jobs consists of managers or supervisors. All employees are Ghanaian, except the managing director, that is a South African. Sitos first had managers from Europe in the production facility, but this South African can work better with the Ghanaian. According to De Bruin, there was no qualified Ghanaian to fulfil this job. He said this is due to the location of the facility, which is an underdeveloped area in Ghana where the educational system is not well developed. In their own Sitos facility in Ghana, 50 people are employed and another 50 work for the firm when it is necessary and again another 100 work also at Sitos Ghana, but only during the high season.

Sitos pays a salary that is higher than average in Ghana. They also provide meals in the afternoon and take care of the medical costs of their employees. In the production facility, a nurse is full time employed. Employees can go to her for a medical care. When employees need to go to the hospital, Sitos pays for the costs. According to De Bruin, Sitos also takes care of the coffin and food and drinks on the funeral of an employee who passed away. People that live too far away to walk to the firm can ride along with the tractors that collect the coconut shells in the villages. According to De Bruin, firms in Ghana which are founded by 'white man' are deemed to provide these conditions, because the Ghanaian are already used to it.

Knowledge transfer. Trainings are provided to all employees, but many tasks are learned on the job under supervision. Last year, Sitos has send six Ghanaian people to England and after that to The Netherlands in order to do internships. These

people were trained for their own facility in Ghana. Within this same facility they also sent one Ghanaian to a local university in order to prepare him for a managerial position. The son of De Bruin, is also a manager in Sitos Ghana. According to De Bruin, the Ghanaian people hardly share the knowledge they acquire, because this knowledge gives them a status and therefore they keep it for themselves.

Private sector linkages. For the investment project of processing coconut shells into charcoal, Sitos worked with a local contractor, a transport firm and a supplier of bags.

Community development. In this last impact indicator, the broader impact of the investment on the community and economy is analysed. Sitos is involved in the local community by supporting a local primary school in Ghana in the form of providing pencils, digging a water hole, or modernising the kitchen. Furthermore, with the investment project in an underdeveloped area of Ghana they brought a new activity in the country which can be an example for others.

4.3.6 Doing business in Ghana and future investments

By looking at the ease of doing business in Ghana, several positive and negative factors were mentioned by the respondents. The economic stability and tax system in the country are experienced as positive by all four respondents. Furthermore, the language and communication are perceived as good by most respondents. The respondents see Ghana as a safe country with friendly people. Furthermore, respondents mentioned the low level of corruption in comparison with some other sub-Saharan African countries.

A positive factor mentioned by De Bruin from Sitos was the government intervention in the cacao industry which results in a well structured industry that delivers high quality products. Furthermore, De Bruin mentions the differences between Ghanaian people and the surrounding French speaking countries. According to De Bruin, the tribes in Ghana are related to each other, which results in a high level of unity in comparison with other countries. Furthermore, due to the English history, De Bruin thinks the mentality of Ghanaian people is more business oriented and less loose than in the surrounding countries with a French history.

Negative aspects of doing business in Ghana are seen by the respondents in the limited financial services in the country. Also the level of corruption, even though it is less than in other countries, is experienced as negative. Furthermore, the respondents mentioned that the low educational level makes it hard to find qualified personnel. The infrastructure and energy services are also seen as an obstacle in

doing business in the country. Difficulties are experienced with trade relations in making appointments or delivering the right quality. According to Den Heijer from Tongu Fruits, there is little knowledge about the international market and standards in Ghana.

Even though the respondents experienced several difficulties with doing business in Ghana, most of them mentioned that you just need to adapt to the African style of doing business. This African style was explained by the respondents as meaning that you take into account that people do not come on time at appointments, that you need to be detailed in the descriptions of agreements and that relationships are important.

When looking at future investments in the country that are planned within five years, Teeuwissen already investigates the possibilities for the production of chicken nuggets. Furthermore, Koekkoek from Teeuwissen sees potential in the processing and export of fish from Ghana to the Netherlands. And when the pilot of running a production facility of hotdogs in Ghana works out well, they will also copy the project to other African countries, like Angola and the Ivory Coast.

The workshop of Van Vliet in Ghana is also a pilot and therefore they first like to see whether it is successful, before planning future investments. In total Sub-Saharan Africa, Van Vliet is investigating the options for a sales office with own stock in Angola. Den Heijer from Tongu Fruits is not planning any future investments in Ghana. Sitos is also not planning any other investments in the African continent, but if a client comes with an interesting proposal for investments in a certain country, they will consider it.

4.4   Dutch investments in Ethiopia

After the analysis of the Dutch firms investing in Ghana, we now turn to the Dutch firms that invest in Ethiopia. As was shown in table 4.2, the firms that are studied in this thesis are Celtic (cold store technology), Trento (cars), Linssen Roses (roses) and Trabocca (organic coffee). Again, first the determinants of investing in Ethiopia are described and after that the different investment projects are analysed. This section concludes with an overview of the respondents' experiences with doing business in Ethiopia and their future prospective of investments in the region.

4.4.1 Determinants of Dutch investments in Ethiopia

When analysing the reasons mentioned by respondents for investing in sub-Saharan Africa and especially in Ethiopia, several important determinants could be identified. In general, the respondents mentioned the safety, political stability, low level of corruption and favourable tax system in the country as attractive factors. Also trade relations were mentioned.

However, again, according to the respondents, the determinants for the specific asset and market oriented investment projects were more important. For the asset oriented firms in roses and coffee, the climate was seen as one of the most important determinants of investing in sub-Saharan Africa. And the reason for choosing Ethiopia, for these asset oriented firms, was the unique combination of different microclimates in this country, resulting in the possibility of growing many varieties and delivering good quality. Other reasons for these firms to invest in Ethiopia are the low costs of labour and the relative short distance to the European end market. For the market oriented firms, Trento and Celtic, the large potential market and demand were the most important factors for investing in Ethiopia.

4.4.2 Celtic

The first Dutch company investing in Ethiopia that is studied in this thesis is Celtic. Celtic is founded in 1997 and has its headquarter in Nieuw Vennep. The firm installs cold store technology systems, but more and more takes on turn key projects for their clients. This means they manage the construction of the total cold stores facility. Hereby, other firms are hired by Celtic, for example, construction companies. Celtic installs cold store systems mainly for firms in flowers, meat, fruits and vegetables. Most of their clients are African. Celtic has three foreign subsidiaries, which are all in Africa: Ghana, Ethiopia and Kenya. In Ghana and Kenya, Celtic has sales offices and in Ethiopia a production facility and sales office. In this thesis, the focus is on their PSOM project, which is the production facility in Ethiopia.

The PSOM project

The PSOM project of Celtic in Ethiopia is a production facility of panels, which is an important element in cold store systems, and a cold store equipment assembly and servicing workshop. Previously, the panels were imported, but this is very expensive, according to mr. De Looper from Celtic. De Looper also mentions there is a flourishing horticulture industry in Ethiopia. Therefore, the demand for cold store systems is large in this country, which makes the investment profitable.

Celtic first found a local partner themselves with whom they liked to set up the investment. However, this partner had a history of fraud and was not approved by the EVD. An Ethiopian who had been a former employee of this firm, had informed the EVD about this history of fraud. This same person suggested another firm to be the new partner. This partner was approved by the EVD and became the new partner in the investment project.

However, according to De Looper, it soon became clear that the new partner firm was not an optimal business partner. According to De Looper, the partner did not invest in the project and constantly searched for holes in the contract. This partner even went to court to sue De Looper personally, but also Celtic as a firm. Due to these problems, Celtic stopped the production after finishing the project. They are now in the process of selling the firm to the local partner.

Impact analysis

The impact of the investment project of Celtic in Ethiopia is also analysed on the same four factors as the projects in Ghana: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. Within the PSOM project more than 20 jobs were created. Seven of these jobs were positions of supervisors, engineers and mechanics. Two were executive secretaries, who also manage the customer contact in the country. The other jobs were production workers in the factory. All employees are Ethiopian. Since the production in Ethiopia has stopped, the employee base shrank from 20 to 9: all the jobs in production disappeared. In Ghana and Kenya, Celtic has around seven employees, all supervisors, engineers, mechanics or executive secretaries.

All employees have a salary that is far above average. Furthermore, Celtic provides transport (mostly to mechanics, but also some secretaries have their own van), medical insurance and meals. The employees in high skilled jobs (all, except production workers) are also treated with a trip to the Netherlands in order to maintain a good relationship. In these trips the employees are trained, but also undertake all kinds of tourist activities.

Knowledge transfer. In the start-up phase of the project there was a three months training of a Dutchman and every year this is repeated and updated in a two week period in which a Dutch engineer visits the facility. Furthermore, according to De Looper, all the starting mechanics receive an intensive on-the-job training. They learn about the maintenance, installation and technical failures of cold store systems.

Private sector linkages. According to De Looper, most of the supplies for the production of the panels are imported, because they are simply not available in Ethiopia. However, the steel is bought in Ethiopia and now they can also buy the panels locally in the production facility that they set up themselves, but that will be owned by their former partner. They also just started a pilot with a local salesman and hire the transport locally.

  Community development. In this last impact indicator, the broader impact of the investment project on the community and economy is analysed. With the investment project, which is a service for local and foreign firms, the project is not directly beneficial for poor consumers. However, with this service they attract new investments and increase the development of local firms in the country. According to De Looper, Celtic is too small to do community projects. However, the owner of Celtic is also for 30 percent owner of a large flower growing firm in Ethiopia and this firm is involved in many community projects.

4.4.3 Trento

Trento is the second Dutch company studied in this thesis that invests in Ethiopia. Trento provides process-based (re)organization of production lines and is located in Sittard. Their clients are mainly from the automotive industry. Besides the Netherlands, Trento also has a facility in Belgium.

The PSOM project

The investment project that is the focus of this research is a car assembly factory in Ethiopia. The project is managed by mr. Guns, who has its own consultancy firm, Guns BV, and worked part-time at Trento as the general manager. Tessema, an Ethiopian who studied and lived in The Netherlands for 30 years, contacted Guns to talk about a project proposal for setting up a car production company in Ethiopia. Tessema had traded old Lada's from The Netherlands to Ethiopia for many years. However, the Lada's became scarce and he started looking for other possibilities to bring cheap robust cars into Ethiopia. That is how the idea rose of setting up a car production facility in Ethiopia himself.

  According to Guns, setting up a car production company is very difficult, and therefore they rewrote the proposal into a project proposal for a car assembly company. Guns saw potential in the project and first thought Trento could be involved by the set up of the production line. However, in Ethiopia the labor costs are low, and therefore an automation process is far more expensive than a labor

oriented process. In the end, Trento mainly had the role of investor in the project and provided Guns as the general manager. The local partner, Tessema, who was at that time already running the transport company of his mother in Ethiopia, was responsible for the construction, transport and employees in the project.

The investment project results in a firm called Holland Car. Holland Car focuses on the middle class: Ethiopian who like to buy a good new car, but do not have the money to buy the regular models from Europe. After the construction of the factory, which was delayed by the lack of cement in the country, the project started with the assembly of the Fiat 131. This car is called the Dutch Oversees Car Company (DACC) in Ethiopia.

However, their Turkish supplier discontinued with the production of parts soon after they started the project and therefore only 48 cars of this type were assembled. After that, they contracted a Chinese supplier called Lifan. This car is not as robust as the Fiat model and therefore it is less suitable for the often bad roads in Ethiopia. However, according to Guns, this new model has much more luxury attributes and still is cheap compared to the European models, which makes the car very popular in Ethiopia. Holland Car is growing fast, first they assembled and sold 150 cars a year and now the target is 1000 cars a year. All cars are already sold before they are even assembled.

Impact analysis

Like the other investment projects, the impact of Holland Car, the investment project of Trento in Ethiopia, is also analysed on the four different factors: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. In the construction of the factory, they employ 50 people each day. This number used to be around 100, but now the construction is almost finished, it has become less. Furthermore, 50-75 jobs are created for mechanics, who generally come from local technical university. In transportation, another eight people are employed. The sales and administration also count for 15-20 people. In the security also eight people are employed. These eight people came from the families that lived on the location where the factory was build. Holland Car build new houses for these families and offered a job in the security for each of the families.

In total, around 150 people are employed at Holland Car of which ten have a managerial job. All employees are Ethiopian and 40 percent is women. All employees

have a salary which is above average. The factory is on a distance of 65 kilometres from Addis Abeba and there is a bus that brings the employees that live in Addis Abeba to the factory. Finally, Holland Car, also pays for the medical costs of their employees and no meals are provided.

Knowledge transfer. According to Guns, all employees of Holland Car are trained. In the beginning the training was provided by a Dutch mechanic from Trento, who trained the employees for four weeks. They also hired a trainer from Nedcar, who has been the manager of production for six months. Since they started the assembly of the new Chinese car, the training is given by Chinese. Eight people from China are now full time at the factory. They outsourced the training to the Chinese, because these people have the knowledge of the new type of car.

Private sector linkages. Actually, Holland Car has one main supplier and this is the Chinese firm Lifan. However, they also have many local private sector linkages. In services, they work with an accountancy firm, a lawyer and several consultants. Furthermore, in logistics they work with warehousing facilities and transport companies. Holland Car also buys certain materials for the production in Ethiopia, like sandpaper, detergent and tools, but also for example core jigs, cement and reinforcing bars. And because Holland Car is continuously expanding, they often work with an architect, a contractor and construction workers. Finally, they work with advertising firms and printing offices for leaflets and advertisement in radio, television and magazines. In total, according to Guns, Holland Car has between 50 and 100 private sector linkages within Ethiopia.

Community development. In this last impact indicator, the broader impact of the investment on the community is analysed. With the investment project, which produces an consumer product, the project is directly beneficial for poor consumers. Holland Car has brought good affordable cars to Ethiopia. Furthermore, with this investment project, Holland Car brings a new industry, which can be an example for others. Holland Car is not involved in community projects in Ethiopia.

4.4.4 Linssen Roses

The third Dutch company analysed in this thesis that is investing in Ethiopia is Linssen Roses. In 1988, Linssen Roses is established by the parents of my respondent, mr. Linssen. In 1995, Linssen took over the firm from his parents. His brothers are also involved in the organization. The firm is growing different types of roses and is headquartered in Venlo. In The Netherlands, they have five hectare of greenhouses. The roses are sold at different auction markets.

In the year 2000, Linssen Roses owned seven hectare in The Netherlands and were thinking of expansion. However, according to Linssen, expansion in The Netherlands would strategically not be interesting, because of the high costs. Therefore, Linssen went to Uganda to see if there were possibilities. Eventually, he could choose between Ethiopia and Kenya and Linssen decided to go to Kenya, because it was easier to invest in that country. According to Linssen, Ethiopia was not yet ready for it. In 2002, Linssen started investing in Kenya, but stayed in touch with people in Ethiopia. In 2004, Linssen thought Ethiopia was ready and he started a project within the PSOM. In July this year, he sold the operations in Kenya and now Linssen Roses only has a production facility of roses in Ethiopia.

The PSOM project

When Linssen had the idea of setting up a production facility, Ethiopia was not included in the list of countries for the PSOM. Linssen talked several times with the EVD and, eventually, Ethiopia was also a possible country for PSOM projects. Linssen Roses was the first company to open a PSOM project in the country. The local partner, which is a requirement of the PSOM, is Linssen's wife (who is Ethiopian). Usually, the PSOM requires a local company to be the partner in the investment project, however, they saw potential in the investment of Linssen Roses and agreed on this arrangement.

The PSOM project of Linssen Roses is the set up of a production facility of roses in Ethiopia. In 2005, they started with 10 hectare of land and in 2006 this increased with another 15 hectare. In 2006, due to heavy hailstone storms, this was ruined and in 2007 they rebuild the 15 hectare. This year they are building another 20 hectare. At the end of this year they will have around 40 hectare of land in Ethiopia.

Impact analysis

For the investment of Linssen Roses in Ethiopia also the following four factors indicating the economic impact are analysed: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. In the first year of the project, 120 jobs were created. This has grown to 850 jobs and will increase to 1000 jobs at the end of this year, when the expansion in hectares will be ready for operation. Over 75 percent of the employees are women. According to Linssen, women are a more stable factor

than men, because women like to do the same activity for a couple of years, but men like to earn status in the years they work and therefore give more trouble.

From the group of employees, ten are staff members which are the managers of all specific units within the firm, like the personnel, the irrigation, the administration, crop protection, etcetera. Besides these staff members there are 25 supervisors, which are all responsible for their own group of employees and their own activity. Women are supervised by women. According to Linssen, this is done on purpose, because in Kenya male supervision over women had led to sexual intimidation and Linssen liked to avoid that in Ethiopia.

The employees earn a salary that is above local standards and receive a raise every year. Furthermore, there is transportation and medical costs are covered for all employees. There is also a provident fund, which is a kind of pension regulation. The employee saves ten percent of his/her salary and the firm increases this with 15 percent, so in total they save 25 percent for their pension. Furthermore, women can have a six weeks (fully paid) leave when they are pregnant and give birth. There are no meals provided.

According to Linssen, the impact of the newly created jobs is clearly visible in the villages around the firm. He says that women, who first did not have a job and were dependent on their husbands earnings, now earn money and are more independent, thereby increasing their self esteem. According to Linssen, they also wear nice dresses, whereas they first walked in old clothes. Furthermore, in the villages they first lived in cottages and now build small houses from stone. They also build little houses which people can rent when they work in the firm.

Knowledge transfer. All the employees, including the supervisors, are trained within the firm and no employee is selected by their education. The reason, according to Linssen, is that people who are not trained at all can be trained exactly the way you like. Linssen says that it is more difficult to let people forget other structures, when they are trained elsewhere, and learn knew ones.

Private sector linkages. The main products, like fertilizer and greenhouses, are imported. According to Linssen, the reason is that they are not available in Ethiopia or only via a trading company. However, Linssen likes to buy these main products from the producers, in this way he is in control and independent and can build storages of these products himself. The services, several smaller inputs and transport needed for the investment project are mainly bought in Ethiopia, like the

repair and maintenance, tools, air transport, etcetera. In total, Linssen estimates the number of private sector linkages on 25 firms.

Community development. In this last impact indicator, the impact of the investment on a broader scale is analysed. Linssen Roses is involved in several community projects. They arranged electricity and modernized a primary school in a village close to the firm. Furthermore, they helped to finance a stadium in another village. According to Linssen, it is important to also fulfil a public role in the society where you operate. In this way, you build a good relationship with the people and government, which makes it easier to operate in the country. Finally, with the investment project, Linssen Roses developed a new industry in the county in which many already followed him.

4.4.5 Trabocca

Trabocca is the fourth and last Dutch company studied in this thesis that is investing in Ethiopia. In 2004, Trabocca is founded by mr. Simons and the company is headquartered in Amsterdam. Trabocca is part of The Organic Corporation Inc. (TOC) which is a holding company whose companies specialize in the global trade of agricultural commodities, like fresh fruits and vegetables. Trabocca specializes in the sourcing and selling of organic and non-organic products from many countries, for example Ethiopia, Tanzania, Senegal, Indonesia and the Dominican Republic. They mainly focus on coffee, whereby they sell raw coffee beans as well as roasted coffee beans. Besides their investment project in Ethiopia, which contributes for 95 percent of their turnover, Trabocca does not have other foreign subsidiaries, but does have trade relations with many countries. Their clients are mainly from the USA, but they also have a growing client base in Asia. According to Simons, the client base in Europe is still small, but also increasing.

The PSOM project

The aim of the investment project of Trabocca in Ethiopia is to improve the quality of the production and processing of organic coffee in the country. In order to establish this, Trabocca bought ten machines and with these machines they created ten little factories. For each farmer in their network, there is a factory within a ten kilometres distance. Farmers can use these factories for the processing of the berries. They also bought packing machines for the farmers. In total, over 35.000 farmers are involved in the project. Besides the machines, Trabocca also arrange the certification for the production of organic coffee for each farmer.

The investment project is set up in a partnership between Trabocca and two trade unions. The tasks are divided: the trade unions have a good infrastructure of farmers and Trabocca is responsible for the whole set up of the project. There is no smooth cooperation between the trade unions and Trabocca. According to Simons, often managers fled from the country, meaning they constantly work with different people. Furthermore, Simons mentions that when there are problems, they are not mentioned and therefore can not be solved immediately, which causes delays. A last difficulty, according to Simons, is that the importance of the quality of the coffee is not acknowledged.

Impact analysis

Like the other projects, the economic impact of the investment project of Trabocca in Ethiopia is also analysed on the following four factors: direct employment creation, knowledge transfer, private sector linkages and community development.

Direct employment creation. In total five people are directly employed in the project. These jobs are in different areas: an export quality manager, a manager for the warehouses, logistics and samples, a person who roasts the coffee, a secretary and a cleaner. They also liked to employ people within the unions, in order to do, for example, quality checks. However, according to Simons, this was not possible due to the strong hierarchic construction of the union. All employees in the investment project are Ethiopian. The employees have a salary above average and there is medical insurance.

Knowledge transfer. The employees are trained when necessary, for example in recognizing the quality of coffee. Furthermore, all the farmers in the network are trained on field and irrigation management and warehousing.

Private sector linkages. In the project, Trabocca works with 35.000 farmers. However, they also work with farmers besides the project. The farmers with whom they work are paid in advance, which is not the standard in the industry. However, according to Simons, it helps the farmers to survive in the period that the berries need to be harvested and processed and after that the beans need to be transported. They also arrange the organic certification for the farmers and pay the farmers a premium on top of the price. According to Simons, due to the investment project the farmers have a 400 percent higher turnover, which indirectly creates many jobs at the farms and in transportation. The transport is locally arranged and is the responsibility of the farmers.

Community development. In this last impact indicator, the broader impact of the investment project on the community and economy is analysed. In the project, Trabocca works with many farmers, for which they all arranged organic certification and improved the production and hereby, indirectly, many people in the coffee sector benefit. At the moment, Trabocca is not involved in specific community projects. However, according to Simons, they are working on a new investment project on improving the production of coffee, whereby also a medical clinic and a water hole for the village are included.

4.4.6 Doing business in Ethiopia and future investments

Positive issues of doing business in Ethiopia, mentioned by the respondents, are the safety and lack of corruption in the country. The respondents also mention the tax system. Furthermore, the respondents see Ethiopia as a high potential country, because there is a large market and much land available in combination with a unique climate. The economic stability is also mentioned as a positive factor of doing business in the country. Guns, from the project Holland Car of Trento, mentions that the national investment agency in Ethiopia can provide a lot of detailed information on the country and facilitates well with planning investments in the country.

The respondents also mentions several issues that form an obstacle of doing business in Ethiopia. A first aspect is the large state intervention in the country, which, according to the respondents, results in a lot of bureaucracy and inefficient state owned companies. For example, the power station is not able to provide energy for the whole country. Respondents are in general also not satisfied with the infrastructure. The lack of a harbor and the few good roads form an obstacle of doing business for most of the respondents. Another factor mentioned by the respondents, is that there are limited financial services in the country. A negative aspect mentioned by De Looper from Celtic, is the Arabic style of doing business in Ethiopia, which makes, according to De Looper, that they constantly search for holes in the contract. Just like in Ghana, the respondents experienced several difficulties, but mentioned also that you just need to adapt to the African style of doing business. This African style was again explained described as taking into account that people do not come on time at appointments, be detailed in the descriptions of agreements and invest in relationships.

When looking at the future prospective of investments, the four respondents are all already planning other investments in sub-Saharan Africa within a timeframe of five years. Celtic is planning a new production facility in Ethiopia and is also

investigating the possibilities for service offices in Sudan and the Ivory Coast. Guns, who did the investment of Holland Car for Trento, has investigated several possible projects outside the car industry, but so far there was no good opportunity for these investments. Linssen is planning a fruit project in Ethiopia and Trabocca is looking at the possibilities for another investment project again in coffee in Ethiopia.

4.5 Comparing countries and economic impact

In the previous two sections, the eight investment projects of Dutch companies in Ghana and Ethiopia were analysed. In this section a comparison is given between the two countries and the economic impact of the investment projects of the companies. The comparisons of the countries is based on the determinants and ease of doing business and in the comparison of the impact the differences between projects and investment strategies are analysed.

4.5.1 Comparing countries

Ghana and Ethiopia are similar countries in a way that they both do not have very large resource endowments, are politically stable and experience economic growth. In general, the same general determinants were mentioned for both countries, but for Ghana former trade relations and economic growth were more often mentioned and for Ethiopia factors like safety, political stability, favourable tax systems and a low level of corruption were often important.

However, according to the respondents, the determinants for the specific investment strategies were more important in determining the investment flows. When comparing the determinants for firms following an asset and market oriented approach, the main determinants differ between the strategies, but are the same for both countries. When looking at asset oriented firms, the climate and geographical location, which is close to the European end market, were important determinants for these type of firms in both Ghana and Ethiopia. Whereas, market oriented firms in both countries mentioned the large market and specific opportunities in the country.

When looking at the ease of doing business, both countries were experienced as safe. The respondents experienced corruption more in Ghana than in Ethiopia. According to De Looper, who has investments in both countries, Ghana is more corrupt, but the corruption in Ghana is embedded in a structure of sharing and caring for each other, resulting in giving money for every little service that is provided to

you. However, according to De Looper, this type of corruption is not as aggressive as, for example, the corruption in Kenya.

In Ethiopia, the trade relations were more often experienced as difficult. According to the respondents, the infrastructure in both countries was not good, but the harbour in Ghana was a positive factor. In both countries, the energy provision was perceived as bad by the respondents. Also large state intervention was felt in both countries, but in Ethiopia more often than in Ghana. The taxes in both countries were experienced as favourable.

All respondents experienced difficulties and for both countries most respondents mentioned that in order to be successful you need to adapt to the African way of doing business, meaning that you take into account that people do not (always) come on time at appointments, that you need to be detailed in the descriptions of agreements (in order to avoid miscommunication and holes in the contract) and that it is important to invest in relationships. However, when comparing the experiences of the respondents, in Ghana the importance of relationships was more often mentioned and in Ethiopia the detailed descriptions of agreements were more important.

4.5.2   Comparing the economic impact of investment projects

When comparing the impact of the investment projects a distinction is made between the direct impact and the indirect impact. The direct impact is seen in the four channels that were analyzed in the impact analysis and the indirect impact is that part of the indicator 'community development' where the general impact on the host economy in terms of attracting new business is analyzed. In table 4.3, an overview is given of the direct impact of the companies in terms of employees, labour conditions, private sector linkages, knowledge transfer and community projects. The employees and private sector linkages are given in absolute numbers. The number for labour conditions is established by looking at the following conditions which each counts for one point: salary above average, provision of transport, meals, medical costs/insurance, percentage of women above 50, provision of a provident fund, pregnancy arrangements and trips.

The number for knowledge transfer is also established by looking at different factors that each count for one point: necessary training employees, long term technical training employees, training of others in the community, providing university fund and providing internships in foreign countries. Finally, the community project indicator shows if firms do any project in the community (1) or not (0). It

was not possible to also include the impact of the investment project on the economy (like the extent in which the investment projects attracts new businesses) in the table, because this is difficult to measure quantitatively. As can be seen there are two question marks in the table. The first question mark, for the labour conditions in the project of Van Vliet, is due to the fact that the project is still not in operation and they do not have an overview of the exact labour conditions yet. The second question mark for the private sector linkages at the project of Tongu Fruits, is because Den Heijer could not provide the number and could also not make an estimation. However, they have a network of farmers and therefore the number will definitely be above 10.

Table 4.3 Impact Analysis Investment Projects

	Country	Strategy	Number of Employees	Labour Conditions (1-6)	Knowledge transfer (1-5)	Private sector linkages	Community Project (0-1)
Teeuwissen	Ghana	Market	62	3	2	<10	1
Van Vliet	Ghana	Market	25	3?	2	<10	0
Trento	Ethiopia	Market	150	3	2	50-100	0
Celtic	Ethiopia	Market	20	5	3	<10	0
Sitos	Ghana	Asset	1200	6	3	<10	1
Tongu Fruits	Ghana	Asset	150	5	1	>10?	0
Linssen Roses	Ethiopia	Asset	1000	6	1	25	1
Trabocca	Ethiopia	Asset	5	2	2	>35.000	0

In the table, it is shown that no investment project has exactly the same impact. However, in this section a general comparison is made between the two FDI strategies. In the table, the first four firms follow market oriented investments strategies and the last four firms are focused on assets in the country. When comparing these two different groups, in general, the asset oriented firms have more employees and private sector linkages than the market oriented firms. Furthermore, the asset oriented firms on average also have a higher score on labour conditions. The indicator for knowledge transfer and community projects is not substantially higher for one of the two groups of firms. When studying purely the direct impact of the firms in this sample, the asset oriented firms have a larger impact on the economy and community, but the results are different for each project.

Besides the direct impact, the investment projects also have an indirect impact on the specific sector and the economy. Market oriented firms like Celtic and

Van Vliet brought services in the country, which facilitates investments of other businesses. According to De Looper from Celtic, foreign clients feel comfortable about investing in the country, because Celtic can provide the service for their cold store systems. The market oriented firms Teeuwissen and Trento brought production facilities in new industries in the country, which can stimulate the development of these new industries in the country.

Asset oriented firms like Trabocca and Tongu Fruits improved and increased existing agricultural industries in the country. And the asset oriented firms, Linssen Roses and Sitos, both started a new activity in the agricultural industry, which can be an example for others. According to Linssen from Linssen Roses, already many Dutch companies followed him, which resulted in a large flower industry in Ethiopia within a few years.

In conclusion, even though all firms studied in this thesis follow an asset development strategy, the individual strategies of the firms resulted in a different impact on the economy for all projects. In general, it can be concluded that the direct impact of the firms studied in this thesis is larger for the asset oriented firms than for the market oriented firms. However, the market oriented firms studied in this thesis brought new industries or services into the countries, which can to a larger extent attract new businesses in different sectors than the projects of the asset oriented firms, who mainly improved existing businesses or brought new activities within the already existing agricultural industry.

4.6   Conclusions

In this chapter, the third research question was addressed: what are the determinants and economic impact of Dutch investments in Ghana and Ethiopia? Again several sub research questions were used to answer this question. The first sub research question was related to the total of Dutch investments in sub-Saharan Africa. The idea was to see how many firms invest in the region and in which sectors and countries they invest, in order to see if there is a trend. However, no institution, embassy or agency was able to present a complete list. Therefore, further research on this topic would be interesting.

In analysing the second sub research question, the focus was on the determinants of investing in Ghana and Ethiopia. The analysis showed that the set of main determinants is the same for both countries, but in Ghana more often the former trade relations and economic growth were mentioned and for Ethiopia factors

like safety, political stability, favourable tax systems and a low level of corruption were important. However, for both countries the determinants related to the specific investment strategies were more important in determining the investments and were different for both strategies. For the asset oriented firms, the climate and geographical location, which is close to the European end market, were determinants in both Ghana and Ethiopia. Whereas, market oriented firms in both countries mentioned the large market and specific opportunities in the country.

The third sub research question is related to the economic impact of the investment projects. In analysing the impact of the different investment projects of Dutch firms in Ghana and Ethiopia, a measure for economic impact was used that consisted of four factors: direct employment creation, knowledge transfer, private sector linkages and community development. In the last section, a comparison was made between the impact of the investment projects of the asset and market oriented firms. It was interesting to see that all the firms had a different impact on the local economy, which means the specific activity and individual firm strategy are also important in determining the economic impact. When looking at the direct impact of firms, the impact of asset oriented firms was larger than the impact of market oriented firms. However, when looking at the indirect impact on the sector and economy, market oriented firms to a larger extent attract and stimulate new businesses in different sectors in the country.

In the fourth sub research question, the focus was on the ease of doing business and the future prospective. In the analysis it was shown that although all firms experienced difficulties, it is possible to be successful by adapting to the African way of doing business. Furthermore, most firms had plans for future investments.

In conclusion, the investment projects of Dutch firms in Ghana and Ethiopia are determined by specific country and strategy determinants and all investment projects have a substantial, but different, impact on the economy. However, it must be mentioned, that the overall large impact of the investment projects is also determined by the requirements of the PSOM and therefore these results are not an overview of the average impact of investments by small and medium sized companies in sub-Saharan Africa.

Conclusions, discussion and recommendations

In this thesis, differences between sub-Saharan African countries in FDI determinants and the economic impact of FDI inflows were analysed. This topic was studied in two ways: a statistical analysis was performed on FDI inflows in different groups of sub-Saharan African countries and in a qualitative research the focus was on Dutch investment projects in Ghana and Ethiopia. In these concluding words, first the three research questions are addressed. After that, a discussion based on the theory is shown. Finally, several recommendations for firms investing in sub-Saharan Africa are given.

The three research questions

In the first part of this thesis, the statistical analysis, two research questions were addressed: What are the differences in the main factors determining FDI inflows between resource rich and resource poor FDI receiving sub-Saharan African countries? And: Do macro conditions influence the relationship between FDI inflows and economic growth in sub-Saharan African countries? The results of the analysis for the first question show, that there are indeed differences in the main factors determining FDI inflows. In resource rich countries, the natural resources and infrastructure form the main determinants of FDI inflows. Whereas, FDI inflows in resource poor countries are mainly determined by economic growth and trade openness.

In addressing the second research question in this thesis, where the focus is on the impact of FDI inflows on economic growth, three sub research questions were answered. The first sub research question was: Are there differences in the relationship between FDI inflows and economic growth between resource rich and resource poor sub-Saharan African countries? The results of the analysis addressing this question show that there is a stronger relationship between the two variables in resource poor than in resource rich countries.

The second sub research question that was also addressing the relationship between FDI inflows and economic growth is related to the importance of the interaction of FDI with education, finance and trade openness for the relationship between FDI inflows and economic growth in resource rich and resource poor sub-Saharan African countries. In the analysis, it was shown that for resource rich countries the interaction of FDI with education and credit was significantly positive

for economic growth. Whereas, for resource poor countries only the interaction with education was significant, however, the sign was negative.

The last sub research question, that is related to the relationship between FDI inflows and economic growth, was focused on the importance of the amount of FDI inflows for this relationship in sub-Saharan African countries. The results show, that in countries with small amounts of FDI inflows the relationship between FDI inflows and economic growth is positive and significant and that there is no significant relationship between FDI and economic growth in the groups with medium or large amounts of FDI inflows.

In the analysis on Dutch investment projects in Ghana and Ethiopia, the third research question was addressed: What are the determinants and economic impact of Dutch investments in Ghana and Ethiopia? Again several sub research questions were answered. The first sub research question is related to the total of Dutch investments in sub-Saharan Africa. The idea was to see how many firms invest in the region and in which sectors and countries they invest, in order to see if there is a trend. However, no institution, embassy or agency was able to present a complete list.

In analysing the second sub research question on Dutch investments in Ghana and Ethiopia, the focus was on the determinants of investing in Ghana and Ethiopia. It was shown that there are differences in the main determinants between the countries, but more importantly, also between the different investment strategies of firms. The total set of general country determinants was similar, but for Ghana, former trade relations and economic growth were more often mentioned and for Ethiopia factors like safety, political stability, favourable tax systems and a low level of corruption were important determinants. However, the determinants for the specific investment strategies were more important in determining the investments. For asset oriented firms, the climate and geographical location, which is close to the European end market, were important determinants in both Ghana and Ethiopia. Whereas, market oriented firms in both countries mentioned the large market and specific opportunities in the country.

The third sub research question on Dutch investments in Ghana and Ethiopia was related to the impact of the investments on the local economy. When looking at the direct impact of firms, the employment created, labour conditions, knowledge transfer, private sector linkages and community development were taken into account. It was shown that all investment projects had a different impact on the local

75

economy. However, in general, the direct impact of asset oriented firms was larger than the direct impact of market oriented firms. But, when looking at the indirect impact of the investments on the sector and economy, market oriented firms to a greater extent attracted new businesses in different sectors by bringing new industries or services. However, it is important to mention that in this thesis only a small number of firms are analysed and the firms all invest with the PSOM which already requires a substantial impact on the economy. Therefore, these results can not be seen as a general representation of all small and medium sized firms investing in sub-Saharan Africa.

In conclusion, in this thesis the heterogeneity of FDI is shown. This heterogeneity of FDI inflows was seen in both the determinants and economic impact of FDI inflows. It was shown that there are differences in determinants between countries, but also between different types of FDI. The differences in economic impact of FDI inflows were seen between different types of FDI, but also between the individual strategies of firms.

A brief discussion

In this brief discussion the main results of this thesis are discussed in the light of the existing literature on the topic. Hereby, the new insights brought by this analysis are shown and suggestions for further research are given.

In previous literature, studies analysing FDI determinants or the relationship between FDI inflows and economic growth focus on one group of sub-Saharan African countries and conclude with a set of determinants for the whole region or show whether they find a relationship between FDI and economic growth for the whole region. However, as was already shown in the theoretical framework, there are different types of FDI. These different types of FDI are determined by different factors and have a different impact on economic growth. Therefore, this thesis contributes to the existing literature by showing that there are differences between resource rich and resource poor countries in the main factors determining FDI inflows and the relationship between FDI inflows and economic growth. Furthermore, firm level studies on FDI and the economic impact of investments are often performed on large multinational companies. This thesis, contributes to the existing literature by providing an overview of investments of small and medium sized companies.

When looking at the results, the analysis of FDI determinants in this thesis shows, that the natural resource endowment is only important in determining FDI inflows in resource rich countries. In resource poor countries economic growth and

trade openness are FDI determinants. This result might be obvious, but in the existing literature, the natural resource endowment is often treated as an important determinant of FDI for the whole region. The differences in determinants were related to the differences in types of FDI that dominate in the countries. The analysis on Dutch investment in Ghana and Ethiopia also showed that there are strong differences in determinants for different types of FDI. Therefore, this research contributes to the literature on FDI determinants by showing that specific types of FDI determine the main FDI determinants.

Many studies have analysed the relationship between FDI inflows and economic growth, however, they find mixed results. As mentioned before, often one large group of countries is studied. In the analysis in this thesis, it was shown that this relationship between FDI and economic growth is stronger in resource poor than in resource rich countries. The weaker relationship between FDI inflows and economic growth in resource rich countries was expected and can be explained by the fact that FDI in resource rich countries is mainly targeted at natural resources. And, for example Alfaro (2003) showed, that FDI in the primary sector has a negative impact on economic growth.

The same argument can also be mentioned when looking at the results of the analysis on the relationship between FDI inflows and economic growth for groups of countries with different amounts of FDI inflows. The countries with the smallest amount of FDI inflows show the strongest relationship between the two variables. When knowing that the group of countries with small amounts of FDI inflows is the only group where no countries with large resource endowment included, this finding again indirectly shows that even when the amount of FDI inflows is much larger, FDI targeted at natural resources has a limited impact on economic growth.

Furthermore, in literature the interaction of FDI with education, finance and trade openness is often found to be important for the relationship between FDI inflows and economic growth. The analysis in this thesis showed that indeed the interaction of FDI in resource rich countries with education and finance has a positive impact on the relationship between FDI inflows and economic growth. Whereas, in this thesis, the interaction of FDI with trade openness is not found to be of significant importance. For resource poor countries there is no positive interaction effect found, only a negative interaction effect between FDI and education. A possible explanation for this results can be found in the small amount of FDI inflows in these countries, due to which the interaction effect may not be noticed.

Furthermore, the qualitative research on Dutch investments showed that the economic impact of FDI is not only determined by the type of FDI, but depends also on the specific activity and individual strategy of the firm. In the theoretical framework, a distinction was made between cost minimization and asset development strategies. And even though the firms studied in this thesis can all be categorized as following an asset development strategy and could be divided in two main groups of FDI (market and asset oriented), they all still had a different impact on the economy, due to the different activities and specific strategy they followed.

In conclusion, this thesis shows that it is important to be careful with general statements on FDI determinants and the economic impact of FDI. In literature, the different types of FDI are mentioned and described, however, often general statements of FDI are given. In this thesis, I showed that these different types of FDI are determined by different factors and have a different impact on economic growth.

Finally, this thesis also has its limitations and calls for further research. In the statistical analysis and in the qualitative research a small number of units (whether it were countries or firms) were analysed. Therefore, in order to verify the results, further research on a larger scale is necessary. Furthermore, in this thesis, the focus was mainly on differences between sub-Saharan African countries with different natural resource endowments. However, in the research on Dutch investments it became clear that for example also the geographical location, colonial history, language, institutional and political system are important factors in determining FDI and/or influencing the relationship between FDI and economic growth. Therefore, further research on differences in FDI determinants and the impact of FDI on economic growth, whereby these and other factors are analysed is interesting and would contribute to a better picture of the heterogeneity in determinants and economic impact of FDI inflows.

Several recommendations for investing in sub-Saharan Africa

For this thesis, eight Dutch investment projects in Ghana and Ethiopia were analyzed. In analysing these projects, several lessons learned by the respondents in doing business and setting up an investment project in Ghana/Ethiopia could be translated into recommendations for firms that are planning (other) investments in the region. These recommendations, are especially for Ghana and Ethiopia, but because these are already applicable to both countries, they may also be valid for firms investing in other sub-Saharan African countries. However, as this thesis already showed, there are definitely differences between countries.

A first practical recommendation is that it is important to take into account delays, especially in the set up phase of an investment project. Whether it was due to electricity brake downs, heavy rainstorms, the bureaucratic system, corruption or other factors, most of the investment projects studied in this thesis were delayed. Secondly, in order to be successful it is necessary to adapt to the African way of doing business, meaning that you take into account that people are (often) not on time for appointments, that you describe agreements in detail (in order to avoid miscommunication and holes in the contract) and that you invest in personal relationships. Thirdly, investing in employees and the community is beneficial for the success of the investment project. Companies that invested in their employees by providing good labour conditions experienced benefits in the form of loyal employees and a good work ethic. And companies that invested in the community with different projects experienced good cooperation with the local government and could influence the development of specific business sectors in the country.

Hopefully, these three recommendations can help firms that are already investing or planning to invest in Ghana, Ethiopia or elsewhere in sub-Saharan Africa with the set up of a successful investment project.

References

Afrika Studiecentrum Leiden (2007), *Kaart van Afrika: Buitenlandse investeringen*, Retrieved April 19 from: http://www.ascleiden.nl/Publications/Themakaart.aspx

Agosin, M. and Mayer, R. (2000), *Foreign Investment in Developing Countries: Does It Crowd in Domestic Investment?* UNCTAD Discussion Paper # 146.

Aitken, B. and A. Harrison (1991), "Are There Spillovers From Foreign Direct Investment? Evidence from Panel Data for Venezuela," mimeo, (Boston: MIT).

Alfaro, L. (2003). *Foreign direct investment and Growth: Does the Sector Matter?* Harvard Business School.

Asiedu, E. (2001), On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different? *World Development*, Vol. 30, No. 1, pp. 107-119, 2002.

Asiedu, E. (2006), *Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Stability,* United Nations University, 2006.

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

Bartlett, A. and S. Ghoshal (2000), *Transnational Management – Text, Cases, and Readings in Cross-Border Management*, Singapore: McGraw-Hill

Basu, P., Chakraborty, C. and Reagle, D. (2003), Liberalization, FDI, and Growth in Developing Countries: A Panel Cointegration Approach, *Economic Inquiry*, 41, 3, 510-16

Basu, P. and Guariglia, A. (2007), Foreign Direct Investment, inequality, and growth. *Journal of Macroeconomics* 29 (2007) 824-839.

Bende-Nabende, A. (2002), Foreign Direct investment determinants in Sub-Saharan Africa: A co-integration analysis. *Economics Bulletin*, Vol. 6, No. 4, pp. 1-19.

Bird, F. (2003), The value-added approach to business ethics – Ethical reflections on the Challenges Facing International Businesses in Developing Areas, *Zeitschrift fur Wirtschafts- und Unternehmensethik*, 4, 2, 148-166

Blomstrom, M. (1986), "Foreign Investment and Productive Efficiency: The Case of Mexico," *Journal of Industrial Economics,* Vol. 15, pp. 97-110.

Blowfield, M. (2004), *Business & Economic Development – Agriculture Report* 2004, Retrieved April 27 from: http://www.economicfoodprint.org/fileadmin/agriculture_report_2004.pdf

Borenszstein, E., De Gregorio, J. and Lee, J.-W. (1998), How does foreign direct investment affect economic growth? *Journal of International Economics*, 45, 1, 115-35.

Cantwell, J. (1997), Globalization and development in Africa. In: Dunning, J. and Hamdani, K., eds. *The New Globalism and Developing Countries*. Tokyo: UNU Press

Carkovic, M. and Levine, R. (2002), *Does Foreign Direct Investment Accelerate Economic Growth?* Working paper, University of Minnesota Department of Finance, Retrieved march 29 from: www//ssrn.com/abstract=314924.

Choe, J. I. (2003), Do Foreign Direct Investment and Gross Domestic Investment Promote Economic Growth?, *Review of Development Economics*, 7, 1, 44-57.

Chowdhury, A. and Mavrotas, G. (2006), FDI and Growth: What Causes What? *The World Economy*, Vol. 29, No. 1, pp. 9-19, January 2006

De Melo, L. R. (1997), Foreign Direct Investment in Developing Countries and Growth: A Selective Survey, *Journal of Development Studies*, 34, 1, 1-34.

De Melo, L.R. (1999), Foreign Direct Investment-led Growth: Evidence from Times Series and Panel Data, *Oxford Economic Papers*, 51, 1, 133-51.

Findlay, R. (1978), "Relative Backwardness, Direct Foreign Investment, and the Transfer of Technology: A Simple Dynamic Model," *Quarterly Journal of Economics,* Vol. 92, pp. 1-16.

Gastanaga, V., Nugent, J.B., and Pashamova, B. (1998), Host country reforms and FDI inflows: How much difference do they make? *World Development*, 26(7), 1299-1314.

Gorg, H. and Greenaway, D. (2004), Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment? *World Bank Research Observer*, Oxford University Press, vol. 19(2), pages 171-197.

Gujarati, D. N. (2003), Basic Econometrics, McGraw-Hill Companies, Inc., fourth edition.

Hansen, H and Rand, J. (2006), *On the Causal Links Between FDI and Growth in Developing Countries*, University of Copenhagen and Development Economics Research Groups (DERG), Copenhagen.

Hermes, N. and Lensink, R. (2003), FDI, financial development and economic growth, *Journal of Development Studies*, Vol. 40. No. 1, October 2003, pp. 143-162.

Herzer, D., Klasen, S. and Nowak-Lehmann, F. (2008), In search of FDI-led growth in developing countries: The way forward, *Economic Modeling* (2008), doi:10.1016/j.econmod.2007.11.005

Hillen and Van Geelen (2000), *Afrika-Europa, Wederzijdse kansen in de nieuwe economie*, Den Haag: Stichting Maatschappij en Onderneming.

Kandiero, T. and Chitiga, M. (2003), *Trade Openness and Foreign Direct Investment in Africa*, Economic Society of Southern Africa, Annual Conference, University of Pretoria.

Karnani, A. (2007a), *Misfortune at the Bottom of the Pyramid*. University of Michigan, USA.

Karnani, A. (2007b), The Mirage of Marketing to the Bottom of the Pyramid: How the private sector can help alleviate poverty. *California management Review*, Vol. 49, No. 4.

Kokko, A., (1994), "Technology, Market Characteristics, and Spillovers," *Journal of Development Economics,* Vol. 43, pp. 279-293.

Kokko, A., Tansini, R. and Zejan, M. (1996), "Local Technological Capability and Spillovers from FDI in the Uruguyuan Manufacturing Sector," *Journal of Development Studies,* Vol. 34, pp. 602-611.

Lall, S. (1980), "Vertical Interfirm Linkages in LDCs: An Empirical Study," *Oxford Bulletin of Economics and Statistics,* Vol. 42, pp. 203-226.

Nair-Richert, U. and D. Weinhold (2001), Causality tests for Cross-country Panels: A new look on FDI and Economic Growth in Developing Countries, *Oxford Bulletin of Economics and Statistics*, 63, 2, 153-71.

Naudé, W.F. and Krugell, W.A. (2005), Investigating the Determinants of Foreign Direct Investment in Africa, using panel data. North-West University, South Africa.

Navaretti and Venables (2004), *Multinational Firms in the World Economy,* Princeton University Press.

NEPAD (2001), The New Partnership for Africa's Development, Retrieved May 5 from: http://www.nepad.org/2005/files/documents/inbrief.pdf

OECD (2002), *Foreign Direct Investment for Development* – Maximising Benefits, Minimizing Costs: Overview, Retrieved May 1 from: www.oecd.org/dataoecd/47/51/1959815.pdf

Onyeiwu, S. and Shrestha, H. (2004), Determinants of Foreign Direct Investment in Africa, *Journal of Developing Societies*, 2004; 20; 89.

Oxfam (2002), *Rigged Rules and Double Standards – Trade Globalization and the Fight against Poverty*. Retried may 5 from http://www.maketradefair.com/assets/english/report_english.pdf

Pigato, M. (2001), *The Foreign Direct Investment Environment in Africa*. Retrieved September 9 from: www.worldbank.org/afr/wps/wp15.pdf

Prahalad, C.K. (2004), *The fortune at the Bottom of the Pyramid: Eradicating poverty through profits.* Wharton School Publishing.

Prahalad, C.K. and A. Hammond (2002), *What Works: Serving the World's Poor, Profitably: A Private Sector Strategy for Global Digital Opportunity*, World Resources Institute Digital Dividend.

Prahalad, C.K. and S. Hart (2002), The Fortune at the Bottom of the Pyramid: Low-income markets present a prodigious opportunity for the world's wealthiest companies – to seek their fortunes and bring prosperity to the aspiring poor. *Strategy & business*, 26, 54 -67

PSOM (2008), *Programma Samenwerking Opkomende Markten, Instructies Tweede Aanbesteding 2008, Versie: Ghana*. Economische Voorlichtingsdienst, The Neterlands.

Schneider, F., and=and Frey, B.S. (1985), Economic and political determinants of foreign direct investment. *World Development*, 13(2), 161-175.

UNCTAD (1999), *World Investment Report 1999*. United Nations publication, New York and Geneva.

UNCTAD (2001), *Trade and Investment Report 2001*. United Nations publication, New York and Geneva.

UNCTAD (2002), *World Investment Report 2002*. United Nations Publication, New York and Geneva.

UNCTAD (2005*), Economic Development in Africa – Rethinking the Role of Foreign Direct Investment.* Retrieved May 5 from: http://www.unctad.org/en/docs/gdsafrica20051_en.pdf

UNCTAD (2008), World Investment Report 2007: *Transnational Corporations, Extractive Industries and Development*, United Nations Conference on Trade and Development.

WBCSD (2004), *Doing business with the poor, a field guide – Learning Journeys of Leading Companies on the Road to Sustainable Livelihood Business*, retrieved April 27 from: http://www.wbcsd.org/web/publications/sl-field-guide.pdf

WDI. *World Development Indicators*, retrieved, June 9 from: www.worldbank.org

WEI. *World Education Indicators*, retrieved, June 13 from: www.worldbank.org

WGI. *World Governance Indicators*, retrieved June 9 from: www.wordlbank.org

Zhang, K. H. (2001), Does Foreign Direct Investment Promote Economic Growth? Evidence from East Asia and Latin America, *Contemporary Economic Policy*, 19, 2, 175-85.

Appendix 1a

<u>Correlation Matrixes</u>

Determinants Model Variables - All 14 countries

	Nat. Res.	Ec. Growth	Inflation	Openness	Education	Infrastructure	Corruption	Stability	Rule of law
Nat. Res.	1.000.000	0.100396	-0.008166	0.075999	0.330522	0.262151	-0.504692	-0.125604	-0.228169
Ec. Growth	0.100396	1.000.000	0.086093	0.055325	0.543892	0.229334	-0.363428	-0.648323	-0.560375
Inflation	-0.008166	0.086093	1.000.000	-0.009851	0.133079	-0.157795	-0.265509	-0.287348	-0.214021
Openness	0.075999	0.055325	-0.009851	1.000.000	0.489144	0.403954	0.236769	0.336560	0.504553
Education	0.330522	0.543892	0.133079	0.489144	1.000.000	0.573174	-0.234826	-0.175605	-0.107642
Infrastructure	0.262151	0.229334	-0.157795	0.403954	0.573174	1.000.000	0.089703	0.142756	0.190660
Corruption	-0.504692	-0.363428	-0.265509	0.236769	-0.234826	0.089703	1.000.000	0.544882	0.653839
Stability	-0.125604	-0.648323	-0.287348	0.336560	-0.175605	0.142756	0.544882	1.000.000	0.819444
Rule of law	-0.228169	-0.560375	-0.214021	0.504553	-0.107642	0.190660	0.653839	0.819444	1.000.000

Determinants Model Variables – Resource rich countries

	Nat. Res.	Ec. Growth	Inflation	Openness	Education	Infrastruc.	Corruption	Stability	Rule of law
Nat. Res.	1.000000	0.150342	-0.863495	0.565009	0.322736	0.467033	0.362608	0.088192	0.322115
Ec. Growth	0.150342	1.000000	0.013143	-0.345096	-0.081294	0.044428	-0.759916	-0.647574	-0.821130
Inflation	-0.863495	0.013143	1.000000	-0.310525	-0.291766	-0.308216	-0.337754	-0.212190	-0.345066
Openness	0.565009	-0.345096	-0.310525	1.000000	0.516551	0.582089	0.733155	0.539685	0.701693
Education	0.322736	-0.081294	-0.291766	0.516551	1.000000	0.921905	0.412146	0.581696	0.398906
Infrastructure	0.467033	0.044428	-0.308216	0.582089	0.921905	1.000000	0.364544	0.531067	0.364788
Corruption	0.362608	-0.759916	-0.337754	0.733155	0.412146	0.364544	1.000000	0.715894	0.975706
Stability	0.088192	-0.647574	-0.212190	0.539685	0.581696	0.531067	0.715894	1.000000	0.780158
Rule of law	0.322115	-0.821130	-0.345066	0.701693	0.398906	0.364788	0.975706	0.780158	1.000000

Determinants Model Variables – Resource medium countries

	Nat. Res.	Ec. Growth	Inflation	Openness	Education	Infrastructure	Corruption	Stability	Rule of law
Nat. Res.	1.000000	-0.274045	-0.490363	-0.532130	-0.357701	-0.020592	0.283160	-0.111566	-0.198600
Ec. Growth	-0.274045	1.000000	0.226385	0.120241	0.898815	0.469955	-0.765485	-0.265653	-0.370807
Inflation	-0.490363	0.226385	1.000000	-0.003951	0.130736	-0.223080	-0.162816	-0.307499	-0.259368
Openness	-0.532130	0.120241	-0.003951	1.000000	0.062978	0.473394	0.074560	0.707317	0.793230
Education	-0.357701	0.898815	0.130736	0.062978	1.000000	0.348703	-0.862219	-0.340212	-0.437556
Infrastructure	-0.020592	0.469955	-0.223080	0.473394	0.348703	1.000000	-0.037897	0.437821	0.325603
Corruption	0.283160	-0.765485	-0.162816	0.074560	-0.862219	-0.037897	1.000000	0.524844	0.592472
Stability	-0.111566	-0.265653	-0.307499	0.707317	-0.340212	0.437821	0.524844	1.000000	0.848891
Rule of law	-0.198600	-0.370807	-0.259368	0.793230	-0.437556	0.325603	0.592472	0.848891	1.000000

Determinants Model Variables – Resource poor countries

	Nat. Res.	Ec. Growth	Inflation	Openness	Education	Infrastructure	Corruption	Stability	Rule of law
Nat. Res.	1.000.000	0.332152	0.329422	0.741085	0.129041	0.545769	0.026058	0.016841	0.051440
Ec. Growth	0.332152	1.000.000	0.067567	0.478173	0.374453	0.437287	-0.401692	-0.453622	-0.433094
Inflation	0.329422	0.067567	1.000.000	0.565199	0.028873	0.625500	-0.184666	0.344068	0.631254
Openness	0.741085	0.478173	0.565199	1.000.000	0.557440	0.920573	-0.106880	0.055800	0.257270
Education	0.129041	0.374453	0.028873	0.557440	1.000.000	0.580311	-0.100035	-0.038061	-0.095535
Infrastructure	0.545769	0.437287	0.625500	0.920573	0.580311	1.000.000	-0.001782	0.082994	0.316769
Corruption	0.026058	-0.401692	-0.184666	-0.106880	-0.100035	-0.001782	1.000.000	0.500034	0.248408
Stability	0.016841	-0.453622	0.344068	0.055800	-0.038061	0.082994	0.500034	1.000.000	0.811655
Rule of law	0.051440	-0.433094	0.631254	0.257270	-0.095535	0.316769	0.248408	0.811655	1.000.000

Appendix 1b

Correlation Matrixes

Economic Growth Model variables – all 14 countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	0.261159	0.047338	0.069462	-0.299294
Inflation	0.261159	1.000.000	-0.024189	0.158686	-0.253822
Openness	0.047338	-0.024189	1.000.000	0.394198	0.333402
Education	0.069462	0.158686	0.394198	1.000.000	0.067623
Credit	-0.299294	-0.253822	0.333402	0.067623	1.000.000

Economic Growth Model variables – Resource rich countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	0.206120	-0.112136	-0.089412	-0.360951
Inflation	0.206120	1.000.000	-0.190148	-0.142791	-0.365717
Openness	-0.112136	-0.190148	1.000.000	0.424197	0.509165
Education	-0.089412	-0.142791	0.424197	1.000.000	-0.037292
Credit	-0.360951	-0.365717	0.509165	-0.037292	1.000.000

Economic Growth Model variables – Resource medium countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	-0.172791	0.195035	-0.225114	-0.270502
Inflation	-0.172791	1.000.000	0.266200	0.173299	0.335198
Openness	0.195035	0.266200	1.000.000	0.072774	0.552677
Education	-0.225114	0.173299	0.072774	1.000.000	0.453137
Credit	-0.270502	0.335198	0.552677	0.453137	1.000.000

Economic Growth Model variables – Resource poor countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	0.004934	0.301962	0.203314	0.172704
Inflation	0.004934	1.000.000	0.221191	0.597188	-0.471862
Openness	0.301962	0.221191	1.000.000	0.621282	0.296421
Education	0.203314	0.597188	0.621282	1.000.000	-0.056842
Credit	0.172704	-0.471862	0.296421	-0.056842	1.000.000

Appendix 1c

Correlation Matrixes

Economic Growth Model variables – Large FDI countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	0.001399	0.724031	-0.125615	-0.392020
Inflation	0.001399	1.000.000	0.396655	-0.260109	-0.230723
Openness	`0.724031`	0.396655	1.000.000	-0.193710	-0.184565
Education	-0.125615	-0.260109	-0.193710	1.000.000	0.306385
Credit	-0.392020	-0.230723	-0.184565	0.306385	1.000.000

Economic Growth Model variables – Medium FDI countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	0.393397	0.142745	-0.135967	-0.117010
Inflation	0.393397	1.000.000	0.125438	0.086831	-0.404559
Openness	0.142745	0.125438	1.000.000	0.395897	0.166942
Education	-0.135967	0.086831	0.395897	1.000.000	-0.190439
Credit	-0.117010	-0.404559	0.166942	-0.190439	1.000.000

Economic Growth Model variables – Small FDI countries

	FDI	Inflation	Openness	Education	Credit
FDI	1.000.000	-0.057377	0.242675	-0.067254	-0.091303
Inflation	-0.057377	1.000.000	0.305696	0.181079	0.269628
Openness	0.242675	0.305696	1.000.000	0.428370	0.649265
Education	-0.067254	0.181079	0.428370	1.000.000	0.677110
Credit	-0.091303	0.269628	0.649265	0.677110	1.000.000

Appendix 2a

Results Determinants Model all 14 Countries

Independent Variable: FDI/GDP+1	1	2	3	4	5	6
Natural Resources	0.000119 (0.0009)**	0.000161 (0.0001)**	0.000287 (0.0000)**	0.000451 (0.0193)**	0.000417 (0.0010)**	0.000483 (0.0004)**
Economic growth	0.003974 (0.0009)**	0.006276 (0.0000)**	0.011469 (0.0000)**	0.0017479 (0.0084)**	0.008604 (0.2667)	0.020943 (0.0083)**
Inflation	-0.000073 (0.1787)	-0.000076 (0.1767)	-0.000051 (0.4773)			
Openness	-0.000018 (0.7369)	-0.000143 (0.0218)**	-0.000094 (0.3224)			
Infrastructure		0.000066 (0.0228)**	0.000026 (0.6163)			
Education			-0.000409 (0.0557)*	-0.000897 (0.0130)**	-0.000709 (0.0483)**	-0.000998 (0.0098)**
Corruption				-0.000194 (0.9849)		
Political Stability					-0.010615 (0.0909)*	
Rule of law						0.007505 (0.4858)
R2	0.105316	0.186124	0.290736	0.332235	0.375665	0.339819

* significant at the 5 percent level / * significant at the 10 percent level

Appendix 2b

Results Determinants Model Resource Medium Countries

Independent Variable: FDI/GDP+1	1	2	3	4	5	6	7
Natural Resources	0.000255 (0.0000)**	0.000287 (0.0000)**	0.000386 (0.0008)**	0.000306 (0.0824)*	0.000285 (0.0730)**	0.000383 (0.0351)**	0.000361 (0.0828)*
Economic growth	0.000626 (0.5700)	0.001369 (0.3488)					
Inflation	-0.000030 (0.8115)	-0.000003 (0.9851)	-0.000060 (0.7655)	0.000078 (0.7706)			0.000148 (0.6108)
Openness	-0.000090 (0.2494)	0.000090 (0.3076)	0.000209 (0.1255)			0.000539 (0.0275)**	
Infrastructure		0.000010 (0.7924)	-0.000002 (0.9682)	-0.000053 (0.2182)	-0.000028 (0.5821)	-0.000057 (0.2106)	
Education			0.000123 (0.4218)		0.000027 (0.9078)		
Corruption				0.016908 (0.0185)**			0.016371 (0.0462)**
Political Stability						0.001371 (0.7813)	-0.003072 (0.6033)
Rule of law					0.009561 (0.2224)		
R2	0.226695	0.247419	0.279322	0.409449	0.336471	0.348233	0.356493

** significant at the 5 percent level / * significant at the 10 percent level

Appendix 3

Results Economic Growth Model

Results Economic Growth Model all 14 countries

Independent Variable: log(GDP)	1	2	3
FDI	5.859369 (0.0001)**	5.112819 (0.0008)**	7.477887 (0.0000)**
Inflation	0.000063 (0.6966)	0.000176 (0.1926)	0.000285 (0.440)
Openness	-0.002814 (0.1249)	-0.005121 (0.0353)**	-0.008510 (0.0016)**
Education		0.04069 (0.0000)**	0.042129 (0.0000)**
Credit			0.020143 (0.0009)**
R2	0.034888	0.307537	0.358595

** significant at the 5 percent level / * significant at the 10 percent level

Results Economic Growth Model for the 4 Resource Medium Countries

Independent Variable: log(GDP)	1	2	3
FDI	5.051257 (0.4955)	8.083148 (0.0847)*	9.445865 (0.0542)*
Inflation	-0.003547 (0.7097)	-0.000952 (0.8583)	-0.001333 (0.8030)
Openness	0.002346 (0.6740)	0.000519 (0.8855)	-0.002156 (0.6323)
Education		0.066715 (0.0000)**	0.064735 (0.0000)**
Credit			0.006450 (0.3236)
R2	0.005937	0.822179	0.824887

** significant at the 5 percent level / * significant at the 10 percent level

Appendix 4

<u>PSOM: Programme for Co-operation with Emerging Markets</u>

Target group: The target group for PSOM consists of Dutch* companies or consortia of Dutch companies, which execute projects in cooperation with local companies. PSOM is particularly suitable for companies which already have experience in doing business in the PSOM country and want to expand their activities there.

* In Cape Verde, Malawi, Mali, Mozambique, Rwanda, Uganda and Zambia foreign companies based in a developing country can also apply for a PSOM grant.

Objective and project contribution: PSOM aims at encouraging Dutch investments in emerging markets in Eastern Europe, Africa, Asia, the Middle East and Latin America. The programme stimulates pilot investments in the private sector and promotes trade relations as the motor behind sustainable economic development in countries in transition and developing countries. Investments generate employment, income and knowledge and therefore contribute to strengthening and diversifying the local private sector.

The PSOM programme is open for projects targeted at any sector of the economy.

The total project costs and PSOM contribution per project differ between the various countries. For most countries the contribution is 50 percent of the project budget up to a maximum of EUR 750,000.

For the so called Least Developed Countries from the DAC list the contribution is 60 percent of the total budget up to a maximum of EUR 495,000.

According to OECD rules the maximum of the total project costs for the least developed countries is set at EUR 825,000. For other countries this maximum is set at EUR 1,500,000.

Project requirements: Your investment project could fit our conditions and criteria if you meet at least the following requirements:

- You are a Dutch* company and aim at setting up a new activity in partnership with a local partner in one of the PSOM countries.
- You and your local partner are financially sound, have relevant expertise and experience in the market and enter into a long term trade or investment relation.
- The applicant should be a company registered in the commercial register at the Chamber of Commerce in the Netherlands. The recipient should be a private company, officially registered in the recipient country. There is no limitation in the percentage of shares of the recipient company which are owned by Dutch companies.
- You do not have the financial means to implement your plans nor can you obtain funds from a bank to finance your business plan.
- Your proposal is commercially feasible in medium or long term and has a positive effect on the local economy of the recipient country in terms of creating additional employment, introducing new technology, improving livelihoods and resulting in improved environmental conditions.
- Your project leads to additional investments and increase in turnover.
- You are both capable to finance your own contribution, required capital and will manage to pre-finance part of the project equipment.

Countries:

Countries with a 50 percent contribution per project

1. Albania	12. Ghana	24. Pakistan
2. Armenia	13. Guatemala	25. Peru
3. Bolivia	14. Honduras	26. Philippines
4. Bosnia-Herzegovina	15. Indonesia	27. South Africa
5. Brazil	16. Kenya	28. Sri Lanka
6. China	17. Kosovo	29. Surinam
7. Colombia	18. Macedonia	30. Thailand
8. Ecuador	19. Moldova	31. Vietnam
9. Egypt	20. Mongolia	
10. El Salvador	21. Morocco	
11. Georgia	22. Namibia	
	23. Nicaragua	

Countries with a 60 percent contribution per project

32. Bangladesh	38. Madagascar	44. Senegal
33. Benin	39. Malawi	45. Sudan
34. Burkina Faso	40. Mali	46. Tanzania
35. Cape Verde	41. Mozambique	47. Uganda
36. Ethiopia	42. Nepal	48. Yemen
37. Gambia	43. Rwanda	49. Zambia

NB 1: For Afghanistan, Burundi, Palestinian Authorities, Sierra Leone and the southern states of Sudan, a separate tender has been opened on June 25th, 2008, called PSOM Plus.

NB 2: For the moment the PSOM programme is no longer open to India, Montenegro, the Russian Federation, Serbia, Turkey and Ukraine.

Appendix 5

Topics semi-structured interview

Dutch investments in Ghana and Ethiopia

Researcher: Bernadet Neutel – Van Engelenhoven
                (bernadet.neutel@gmail.com / 06 23 53 45 85)
Institution: Rijksuniversiteit Groningen

---

1. General information

- Founding of the company and brief history
- Main activity and sector
- Size: number of employees
- Clients
- Number of Dutch facilities
- Number of foreign subsidiaries
- Competition in industry

---

2. Investment project in Ghana/Ethiopia

- Reason to invest in sub-Saharan Africa
- Reason to invest in Ghana/Ethiopia
- First in the industry or follower
- Strategy: costs, assets or market

- Location in Ghana/Ethiopia
- Product/activity
- Clients
- Start en duration of the project
- Local partner: first contact and type of company
- Task division in joint venture
- Cooperation with local partner
- Adaptations for the activity or market
- Reason to invest with PSOM
- Total budget

---

3. Economic impact

3.1 Jobs and labour conditions

Education / skills	Examples	Number
No – low	production/transport	
Low - medium	Special skills/administration	
Medium - high	Manager/supervisor	
High	Board/director	

- Number of jobs created
- Type of jobs created
- Men/women and nationality
- Wages
- Secondary conditions (transport, meals, insurance, pension fund, education, etcetera.)
- Training → content / target group / trainer / length

3.2 Suppliers
- Total number of suppliers
- Nationality
- Sectors
- Additional jobs created
- Investments in suppliers (knowledge transfer, financial support, etcetera)
- Success cooperation

3.3 Distribution, transportation and sales
- Within own company or outsourced
- Additional jobs created
- Success cooperation

3.4 Market and competition
- Competition in industry in Ghana/Ethiopia
    - Number of competitors
    - Demand
    - Trend
- Only for market oriented investments:
    - Marketing strategy

3.3 Product/project
- Impact/value of the project/product for:
    - Economic development in Ghana/Ethiopia
    - Only for market oriented investments, impact on local consumers:
        Price / quality / type of product: need?

3.5 Taxes

3.6 Community projects

4. Doing business in Ghana/Ethiopia

- Positive and negative aspects
- Trend
- Success of the investment project

5. Future prospective own investments within 5 years

- Own investments in Ghana/Ethiopia will increase, decrease or stay the same + reason

- Own investments in sub-Sahara Africa will increase, decrease or stay the same + reason and names of countries in there are plants to invest

6. Trend Dutch investments in Ghana/Ethiopia

- Number and type of firms
- In 5 years, Dutch investments in Ghana/Ethiopia will increase, decrease or stay the same
- In 5 years, Dutch investments in sub-Saharan Africa will increase, decrease or stay the same

7. End: Questions?