



DETERMINANTES OF FOREIGN DIRECT INVESTMENT IN ETHIOPIA: TIME SERIES ANALYSIS

ROZINA TEWELDE MESELE

ID1404328

Submitted to the Department of Economics, Indra Gandhi National Open
University in partial fulfillment of the requirements for a Master of Art
Degree in Economics

Indra Gandhi National Open University

Addis Ababa, Ethiopia
June 2016

Abstract

Determinants of Foreign Direct Investment in Ethiopia: Time Series Analysis

Rozina Tewelde Mesele

IGNOU University, 2016

Numerous studies in recent years have focused attention on the determinants of foreign direct investment in developing countries. This paper contributed to this body of knowledge by filling a noticeable gap. Principally, this paper examines the determinant of foreign direct investment in Ethiopia for the period 1981-2014.

In recent years, most developing countries have liberalized their trade and attempted to create enabling environment to attract Foreign Direct Investment (FDI). Ethiopia, like many developing countries, have taken remarkable measures towards liberalizing trade and the macroeconomic regime as well as introducing some measures aimed at improving the FDI structural and regulatory framework. The study gives an extensive look at the theoretical underpinnings and conducts empirical analysis across various developing countries to establish the determining factors of FDI in Ethiopia. The results showed that real GDP (Gross Domestic Product) and liberalization, among others, have positive impact on FDI. On the other hand, macroeconomic instability, real effective exchange rate, adult illiteracy rate and poor infrastructure are found to have adverse impact on FDI. These results entail that liberalization of the trade and regulatory regimes, stable macroeconomic and political environment, and significant improvements in infrastructure are indispensable to attract FDI to our motherland. On the other hand, the annual *capital flight* out of the country is also found to be significant in this study.

Acknowledgment

Throughout the process of writing this thesis, many people have continuously supported me. I am indebted to my supervisor Dr. Dugassa Mulugeta for his valuable comments and suggestions during the development and writing of this research. Without his guidance and persistent help this dissertation would not have been possible.

Most importantly I thank all of my family members supporting, encouraging and surviving me through the years.

Finally I would like to register my profound gratitude to my friends for your interactions, it reduced the academic pressure

Dedication

I sincerely dedicate this work to my parents for their untiring moral support and encouraging me all through my studies without which I would not be who I am today. It is their Unconditional love that motivates me to set higher targets. I also dedicate this thesis to my sisters (Senait Tewelde and Eden Tewelde) and brothers (Elias Tewelde and Bereket Tewelde) who are my nearest surrounds and have provided me with a strong love shield that always surrounds me and never let sadness enter inside.

List of Tables	3
List of Abbreviations	3
CHAPTER ONE	4
1. Introduction	4
1.1. Background	4
1.2. Statement of the Problem	6
1.3. Objectives of the study	9
1.3.1. General objective	9
1.3.2. Specific objectives.....	9
1.4. Scope and Limitations.....	10
1.4.1. Scope of the Study	10
1.4.2. Limitations	10
1.5. Significance of the study.....	10
1.6. Organization of the study	11
CHAPTER TWO	12
2. Literature Review.....	12
2.1. Definitions.....	12
2.2. Theoretical literature	14
2.2.1. The theory of portfolio investment	14
2.2.2. The international model of Uppsala school.....	15
2.2.3. Vernon’s Product-Cycle Hypothesis.....	16
2.2.4. Industrial organization theory of FDI.....	17
2.2.5. Dunning’s Eclectic theory of FDI	18
2.3. Empirical literature	19
CHAPTER THREE	25
3. FDI in Ethiopia	25
3.1. Overview	25
3.2. Regional Distribution of FDI.....	28
3.3. Sectoral Distribution of FDI.....	30
3.4. FDI Flows by Country of Origin	33

3.5.	FDI and Employment in Ethiopia.....	33
3.6.	FDI Regulatory Framework in Ethiopia	35
CHAPTER FOUR	38
4.	Methodology of the Study	38
4.1.	Data Collection.....	38
4.2.	Data Analysis.....	38
4.3.	The Econometric Model.....	38
4.4.	The Econometric Analysis Methodology	39
CHAPTER FIVE	41
5.	Empirical Analysis.....	42
5.1.	Time series properties	42
5.2.	Estimation Result	44
5.3.	Interpretation of the results	45
CHAPTER SIX.....	46
6.	Conclusion and policy implication	46
6.1.	Conclusion.....	46
6.2.	Policy implication	47
7.	References	49
8.	Appendices.....	56

List of Tables

Table 3.1 Summary of Licensed FDI Projects by Region

Table 3.3 Summary of Licensed FDI Projects by Sector

Table 3.4 Employment by FDI in Ethiopia

Table 5.1 Unit root test with trend and intercept term

Table 5.2 Unit root test with trend on residuals

Acronyms and Abbreviations

DCs- Developing countries

EEA- Ethiopian economics Association

ECM- Error Correction mod

ECA: Economic Commission for Africa

FDI- Foreign Direct Investment

GTP- Growth and Transformation Plan

GDP: Gross Domestic Product

IMF: International Monetary Fund

LDCs- Least developing countries

MNCs- Multinational corporations

MNEs- Multinational Enterprises

MOFED- Ministry of Finance and Economic Development

NBE- National Bank of Ethiopia

UNCTAD- United Nations Conference on Trade and Development

CHAPTER ONE

1. Introduction

1.1. Background

In the world, there prevails difference in economic performance across different countries.

Developed countries (DCs) have excess capacity to invest, however, low level of investment due to lack of capital is the main obstacle for the economic growth of less developed countries (LDCs).

Investment whether domestic or foreign, is an essential ingredient for sustainable growth; productive investment translates in to increased output. Especially where domestic resources are insufficient to steer a country towards its long run potential growth path, the role of foreign investment becomes indispensable (Asian development bank, 2004). This rapid growth in foreign direct investment (FDI) over the last few decades has spared a large body of empirical literature to examine the determinants and growth enhancing effects of FDI. The effects of FDI can be wide ranging since typically encompasses packages of capital as well as technical, managerial and organizational know how. FDI is particularly important for the LDCs since it provides access to resources is that would otherwise be unavailable to these countries (Gentinet A. and Hirut A., 2006)

All governments of LDCs are badly in need of higher economic growth and development, but there exists wider saving-investment gap which means low level of saving and capital accumulations. The need to meet the objective of faster economic growth and low level of

capital accumulation are conflicting in nature. To solve this problem, FDI is served as a source of capital in most LDCs.

Until the 1980s most developing countries viewed FDI with great wariness. The sheer size and magnitude of FDI by multinational enterprises (MNEs) were viewed as a threat by host countries, which were concerned about MNEs capacity to influence economic and political affairs these fear were driven by the colonial experience of many developing countries and by the view that FDI was a modern form of economic colonialism and exploitation. In addition, MNEs were frequently suspected of engaging in through their parent companies (Asian development bank, 2004)

In recent years, however, FDI restrictions have been dramatically reduced as a result of a host of factors: accelerating technological change, the emergence of globally integrated production and marketing networks, the existence of bilateral investment treaties, prescriptions from multilateral development banks, and positive evidence from developing countries that have opened their door for FDI, in addition, the drying up of commercial bank lending due to debt crises persuade many developing countries to reform their investment policies to attract more stable form of foreign capital, as FDI appeared to be an attractive to bank loans as a source of capital inflow (Asian development bank, 2004)

Foreign Direct Investment has increased dramatically in the second half of the 20th century. Although world FDI flows have increased rapidly in recent years, roughly three quarters of such FDI flows went to advanced countries, notably the US and the European countries and only the rest went to developing countries. Among developing countries, a large

proportion of FDI was concentrated in a small number countries showing that developing countries face difficulties in attracting foreign investors (United Nations Conference on Trade and Development (UNCTAD), 2007). Moreover, in the process, many developing countries are now actively seeking foreign investment by taking measures that include economic and political reform designed to improve their investment environment.

In Ethiopia, the gap between investment and saving has remained wide due to low level of income and domestic saving (Getinet and Hirut, 2006). Over the past decades, market oriented policy reform in Ethiopia have placed a major emphasis to attract FDI. The country has issued and subsequently revised its investment proclamations and codes. The issue is whether these measures have been successful in drawing meaningful amount of FDI and what actual contributions have these investments provide to the economy. (EEA, 2004)

1.2. Statement of the Problem

FDI is one of the most striking features of the global economy. However, analogous to various economic arenas, FDI and its role have been a major agenda in various socio economic and political debates across the world.

On one hand, majority of scholars (most of whom are economists) argue in favor of FDI in that its benefit to boost the host country's economic growth, through technological transfer, emergence of globally integrated marketing networks, acting as an efficiency demonstration to local investors and so forth, by far outweighs its cost. They further argue that, through the creation of market access for exports, through resisting protectionist

pressure in their home countries to favor imports from affiliates, foreign investors could contribute towards a positive balance of payment and increase government revenue of the host country. FDI considerably contributed for rapid economic growth in developing countries particularly for East Asians by way of augmenting export-led industrialization efforts (Athukorala and Worku, 2003).

While the critics (most of who are politicians) on the other hand, turn the other side of the coin by propagating the proverb, 'don't forget that a bee which holds honey on its mouth has also venom on her sting'. That is to mean that FDI is another new form of matured (economic) colonialism that disguises host country's people from the mainstream of development, moreover, the critics cement their argument further that FDI hinders the development of local firms, adversely affects income distributions or terms of trade or negatively influence and threaten governance and promote rent seeking in host countries.

Some further argue that the role of FDI even for the spectacular export take-off of East Asian newly industrialized countries in the 1960s was not as much as it has been mentioned in many literatures. The key role was played indigenous firms with the help of marketing services provided by foreign buyers- the japans trading houses and the large retail buying groups in developed countries. Perhaps the most important factor behind the East Asian experience was the unique entrepreneurial background of these countries (Athukorala, 1998)

Whatever the debate be, one thing that every one cannot deny is that in LDCs like Ethiopia where majority of the population live below the poverty line (having average real Per capita

GDP of 238 USD (EEA Data base, 2010), there is a chronic shortage of financial, physical as well as human capital and hence access to capital is more than necessity. To do so, there should be capital inflows from outside sources, one those forms is FDI.

Recognizing those aforementioned roles, almost all countries in the world including Ethiopia, despite with some skeptic views, are leaving their gates open for foreign investors. Accordingly, to reap the ample of fruits from these foreign investors, we should first of all identify the basic factors that determine the rate and level of such capital inflows and there by adjust our socioeconomic and political moods to the extent of maintaining our country's interest so as to maximize the developmental benefits of FDI inflows and minimize the potential adverse impacts.

Moreover, the problems faced by those already established foreign investments, such as lack of infrastructure, bureaucratic red tape and other latent hindrances should be critically identified and dealt with by the government and other concerned parties for the better performance of the sub sector.

A natural question which may arise at this point is; what are the factors to attract foreign direct investment in Ethiopia? Many authors tried to explain the determinants of for foreign direct investment but; almost all of the studies were conducted before the world financial crises, they doesn't incorporate the result of the five year Growth and transformation plan (GTP) and also they lack to show the impact of foreign direct investment on capital flight. Therefore, this study will fill the above gaps by raising the following research questions;

- a. How does infrastructure affect the inflow of foreign direct investment in Ethiopia?

- b. To what extent the existing human capital put its impact on the inflow of foreign direct investment?
- c. In what way the macroeconomic stability of the country affect the inflow of FDI?
- d. How does trade liberalization affects the inflow of FDI?
- e. To what extent the countries real exchange rate affects the inflow of FDI?

1.3. Objectives of the study

1.3.1. General objective

The general objective of the study is to assess the basic factors which determine the magnitude and amount of FDI inflow in Ethiopia.

1.3.2. Specific objectives

The specific objectives include:

- To examine the role of infrastructure on the inflow of FDI to the country.
- To critically analyze the contributions of human capital on the inflow of FDI to the country.
- To investigate the impact of macroeconomic stability on the inflow of FDI.
- To assess the role of trade liberalization on the inflow of FDI
- To analyze the effect of real exchange rate on the inflow of FDI.

1.4. Scope and Limitations

1.4.1. Scope of the Study

The horizon of the study relies on the contributions, determinants and challenges of FDI in Ethiopian economy.

1.4.2. Limitations

The study will have various limitations, which are beyond the capacity of the researcher. Since the topic is very vast, it is difficult to portray all the details and clear picture of FDI inflows in the economy.

1.5. Significance of the study

Though the study is challenged by those aforementioned and other latent limitations and even if it may not give a complete picture of the sub sector, the study will be relevant for various reasons:

- It will provide some policy implications as how to alleviate the prevailing constraints of the sub sector.
- It will point out the major areas where the government and other concerned parties have to give due emphasis to attract foreign capital.
- It will inspire other foreign investors to turn their face towards Ethiopia.

1.6. Organization of the study

The study was organized in six chapters. Chapter two was reviewed both theoretical and empirical literature. Chapter three was highlighted an overview of FDI inflow trends and interface of FDI and Competition Policy. Chapter four was looked at the methodology of the study. Chapter five was display the results, analysis of the results and discussions of the results. Chapter six was consisted of summary of findings, conclusions and policy recommendations.

CHAPTER TWO

2. Literature Review

2.1. Definitions

Foreign Direct Investment can be defined as an investment made by a firm or an entity based in one country, into a firm or entity based in another country. According to the World Bank, foreign direct investment is defined as “an investment made to acquire a lasting management in an enterprise operating in a country other than that of the investor.” According to the IMF (1993) Balance of payment manual, an investment by a foreign investor is regarded as FDI if the direct investor holds at least 10 percent of the ordinary share or voting power of a firm.

Countries differ in the threshold value for foreign equity ownership which they take as evidence of a direct investment relationship. This is the level of participation at or above which the direct investor is normally regarded as having an effective say in the management of the enterprise involved. The threshold value usually applied for FDI is 10%, for data on the operations of TNCs; it involves chosen ranges of between 10-50% (UNCTAD, 2011).

According to Chryssochoidis, Millar and Clegg (1997), there are five different types of FDI. The first type of FDI is made to gain access to specific factors of production, e.g. resources, technical knowledge, patent or brand names etc. owned by a company in the host country. If such factors of production are not available in the home economy of the

foreign company, and are not easy to transfer, then the foreign firm must invest locally in order to secure access. The second type of FDI is developed by Raymond Vernon in his product cycle hypothesis. According to this model the company shall invest in order to gain access to cheaper factors of production, e.g. low cost labor. The government of the host country may encourage this type of FDI if it is pursuing an export oriented development strategy. Since it may provide some form of investment incentive to the foreign company, in form of subsidies, grants and tax concessions. If the government is using an import substitution policy instead, foreign companies may only be allowed to participate in the home economy if they possess technical or managerial know-how that is not available to domestic industry. Such know how may be transferred through licensing. It can also result in a joint venture with a local partner.

The third type of FDI involves international competitors undertaking mutual investment in one another, e.g. through cross-shareholdings or through establishment of joint venture, in order to gain access to each other's product ranges. As a result of increased competition among similar products and R&D-induced specializations this type of FDI emerged. Both companies often find it difficult to compete in each other's home market or in third-country markets for each other's products. If none of the products gain the dominant advantage, the two companies can invest in each other's area of knowledge and promote sub-product specialization in production.

The fourth type of FDI concerns the access to customers in the host country market. In this type of FDI there is no observed shift in comparative advantage either to or from the host

country. Export from the company's home base may be impossible, for example, certain services, or the capability to request immediate design modifications. The limited tradability of many services has been an important factor explaining the growth of FDI in these sectors.

The fifth type of FDI relates to the trade divisionary aspect of regional integration. This type occurs when there are location advantages for foreign companies in their home country but the existence of tariffs or other barriers of trade prevent the companies from exporting to the host country. The foreign companies therefore jump the barriers by establishing a local presence within the host economy in order to gain access to the local market. The local manufacturing presence need only be sufficient to circumvent the trade barriers, since the foreign company wants to maintain as much of the value-added in its home economy.

2.2. Theoretical literature

2.2.1. The theory of portfolio investment

The theory of portfolio investment (the neoclassical financial theory of portfolio flows) is one of the earliest explanations of FDI the basis for this explanations lies in interest rate differentials between countries. Capital according to this explanation, move in response to changes in interest rate differentials between countries/ regions and multinational companies are simply viewed as arbitrage of capital from countries where its return is low to countries where it is high. This explanation, however, fails to account for the cross movement of capital movement between countries. In addition that capital is only a complementary factor in direct investment and that this theory does not explain why firms

go a broad contribute to be the criticism of the neoclassical theory of portfolio investment. (Harrison et al, 2000)

2.2.2. The international model of Uppsala school

This model introduced by Johnson and Wiedersheim-Paul (1975) from the University of Uppsala (Sweden) states that generally a multi-national corporation (MNC) does not commence its activities by making gigantic FDIs. It first operates in the domestic market and then gradually expands its activity abroad. They called this gradual mutation the establishment chain. The establishment chain is comprised of four stages. During the first stage, the MNC – to be just produces and sells its goods and services at home. It does not undertake any regular export activity because of lack of expertise and a tendency to avoid risk. During the second stage, the firm starts its international involvement by exporting its goods and services to neighboring countries and countries it knows well via independent representatives (agents). The psychic distance between the firm's home country and a given country, viz, differences in language, culture, political system, level of education, level of industrial stage, and the size of the potential market is expected to be playing a less important role compared to its psychic distance. The firm enters the third stage of the establishment of when it begins establishing sales subsidiaries. The firm may decide to start selling in small markets that are similar to the domestic one or in larger markets. The fourth stage is the setting up or the acquisition of manufacturing facilities abroad. The establishment of manufacturing facilities abroad is influenced by several forces; psychic distances, tariffs, nontariff barriers, transport costs etc. It follows that it is hard to observe any correlation between manufacturing facilities establishment and psychic distance.

Johnson and Wiedersheim- Paul (1975) made it clear that firms especially those with extensive experience from other foreign market are not expected to follow the whole four stages to become MNCs skips in stages can be observed.

However, the firm's internationalization models are also criticized in that they do not explain why firms go multinational. They merely, describe how they go multinational. (Accolley D etal, 1997)

2.2.3. Vernon's Product-Cycle Hypothesis

Vernon's product life cycle theory is another explanation of FDI worthy of some discussion. This theory focuses on the role of innovation and economies of scale in determining trade patterns. It states that FDI is a stage in the life cycle of a new product from its invention to maturity. A new product is first manufactured in the home country for the home market. When the home market is saturated, the product is exported to other countries. At later stages, when the new product reaches maturity and loses its uniqueness, competition from similar rival products becomes more intense. At this stage producers would then look for lower cost foreign locations. This theory shows how market seeking and cost reduction motives of companies lead to FDI. It also explains the behaviors of multinational companies and how they take advantage of different countries that are at different levels of development. Additionally, it has been noted that Vernon's theory perceives foreign direct investment as a defensive strategy by firms to protect their existing market position (Dunning 1993). Knickerbocker (1973), following Vernon's theory, argues that there is follow-the-leader type of defensive FDI especially in industries characterized by oligopoly. His argument relies on uncertainty and risk aversion behavior of oligopolists.

This theory suggests that firms go abroad because of oligopolistic reaction which is “an interactive kind of corporate behavior by which rivals in industries composed of a few large firms counter one another’s moves by making similar moves themselves” (Knickerbocker, 1973). However, this theory does not explain why FDI is more efficient than exporting or licensing for expanding abroad. (Getinet A. and Hirut A, 2006)

2.2.4. Industrial organization theory of FDI

Hymer’s (1976) pioneering study on multinational companies draws attention to the role of multinational companies as global industrial organizations. Hymer’s major contribution was to shift attention away from neoclassical financial theory. He argued that the need to exercise control over operation is the main motive for FDI than the mere flow of capital. Capital is used to facilitate the establishment of FDI rather than an end in itself. He states that for firms to engage in cross border activities, they must possess some kind of monopolistic advantages. The advantages result from a foreign company’s ownership of patents, know how, managerial skills and so on and these advantages are unavailable to local companies. His argument relies on the existence of market imperfections, such as difficulty of marketing and pricing know how, or in some cases markets may not exist for such products, or if they exist, they may involve huge transaction costs or time-lags. In such cases it would be more efficient for the company to engage in direct investment than exporting or licensing. FDI will allow the companies to control and exploit their monopoly power to the full. Hymer’s argument led the way to the development of internalization theory. According to this theory the firms internalize their activities whenever there are inefficiencies in dealing with the external market and FDI would occur when this

internalization involves operation across countries (Harrison et al, 2000).

2.2.5. Dunning's Eclectic theory of FDI

In Dunning's eclectic theory, the ownership and internalization advantages are firm specific features whilst the location advantages are country specific characteristics which the host country can influence directly. In general, countries that have location advantages can attract more FDI. But firms do not undertake FDI only for the presence of location specific advantages in the host country. Their location choice decisions consider the profitability with which the ownership and internalization advantage can be combined with the location ones. Dunning (1993) pointed out that the principal objective of firms in undertaking foreign production is to advance their long-term profitability. In addition to the profitability motives, some firms may undertake FDI as part of their corporate strategies. For instance, firms may try to spread or reduce risks, and to match competitors' actions. In general Dunning (1993) identified three possible motives for FDI:

Market seeking FDI: refers to FDI for the purpose of serving local and regional markets. Host countries' characteristics that can attract market-seeking FDI include market size of the host country, per capita income and growth (potential) of the market. *Resource/asset seeking FDI*: refers to FDI for the purpose of acquiring resources which are not available in the home country. Such resources include natural resources, availability of raw materials, and productivity and availability of skilled and unskilled labor. *Efficiency seeking FDI*: This kind of FDI occurs when the firm can gain from the common governance of geographically dispersed activities, especially in the presence of economics of scale and scope and diversification of risk. (Accolley, D etal, 1997) The above three motives of FDI

are categorized under economic determinants of FDI. Besides these economic determinants, there are also two other crucial determinants of FDI: host country FDI policy framework and business facilitation. According to the 2004 UNCTAD World Investment Report, the policy framework for FDI includes: economic, political and social stability, rules regulating entry and operation of FDI, standard of treatment of foreign affiliates, policies on functioning and structure of the markets, international agreement on FDI, privatization policy, trade policy and tax policy. Business facilitation refers to the ease with which business can be conducted in the host country. The most important business facilitations include investment promotions and incentives, hassle costs related to corruption and administrative efficiency, development of financial institutions, enforceability of contracts and protection of property rights, and quality of life.

2.3. Empirical literature

Empirically, according to many studies conducted on the determinants of FDI in Africa argue that FDI inflow is attracted largely by natural resource endowments. In Africa almost 40 percent of FDI has been in the primary sector, particularly oil and mineral extraction business. Countries like Angola, Botswana, Namibia and Nigeria who are endowed with oil and mineral resources have received foreign investment targeted at the oil and minerals sectors of their economy (Basu and Srinivasan, 2002). Morisset (2000) indicate in his study that, on a survey conducted on 29 African countries, there is a high correlation between FDI inflows and total value of natural resources in each country. (Getinet A. Hirut A., 2006)

As stated on UNCTAD world investment report, 2004, though natural resource abundance

is a common factor explaining much of the FDI inflows, the few successful African countries have also put particular attention to the creation of favorable economic, social and political environment for FDI. Other countries, such as Mauritius and Seychelles have managed to attract FDI by tailoring their FDI policies through liberalization, export orientation, tax and other investment incentives. Moreover, some countries like Lesotho and Swaziland have attracted FDI because they are near to South Africa and investors wishing to serve the large market in South Africa have located their subsidiaries in these countries.

According to Musila and Sigure (2006) and Dupasquier and Osakwe (2006), FDI in Africa is dependent on the development of infrastructure. Also, other studies on developing countries (Mengistu and Adams, 2007; Cotton and Ramachandran, 2001); emerging economies (Zhaing, 2001); Western Balkan Countries (Kersan-Skabic and Orlic, 2007) and Southeast European Countries (Botric and Škuflic, 2006) show the significant role of infrastructure development in attracting the inflow of FDI. However, the results of a study on US FDI flow to Africa by Nnadozie and Osili (2004) find less robust evidence on the role of infrastructure on foreign direct investment. Results from Anyanwu and Erhijakpor (2004) indicate that telecommunications infrastructures economic growth, openness and significantly increase FDI inflows to Africa while credit to the private sector, export processing zones, and capital gains tax have significantly negative effect.

Gholami et al (2006) uses a sample of 23 developed and developing countries observed for the period 1976–99 based on ICT data availability to show that in developed countries, existing ICT infrastructure attracts FDI; a higher level of ICT investment leads to a higher

level of FDI inflows but in developing countries the direction of causality goes instead from FDI to ICT. Findings by Sekkat and Veganzones-Varoudakis (2007) indicate that infrastructure availability, openness, and sound economic and political conditions are important for South Asia, Africa, and the Middle East in attracting FDI. In a study of South East European Countries (SEECs), Dauti (2008) identifies ICT infrastructure market as the major factor positively influencing FDI inflows while seeking factors (GDP growth, GDP per capita, GDP level) have perverse signs, showing significantly negative effects on FDI inflows.

Using panel data, Root and Ahmed (1979) have also investigated the determinants of non-extractive direct investment inflows for 70 developing countries over the period 1966-70. Their analysis focuses on testing the significance of the economic, social and political variables in explaining the determinants of FDI. They found out that developing countries that have attracted the most non-extractive direct foreign investment are those that have substantial urbanization, a relatively advanced infrastructure, comparatively high growth rates in per capita GDP, and political stability. Asiedu (2002) has also expressed a similar view analyzing the impact of natural resources, infrastructure and openness to trade on FDI flows to Sub-Saharan Africa. Her findings indicate that FDI in Africa is not solely determined by availability of natural resources and that governments can play an important role in directing FDI through trade reform, macroeconomic and political stability, efficient institutions and improvement in infrastructure. Several other studies find that countries that have a higher degree of openness attract more FDI. Chakrabarti's (2001) finds openness to trade, measured by exports plus imports to GDP, being positively correlated with FDI.

Morisset (2000) finds a positive and significant correlation between trade openness and the investment climate for 29 African countries. Their findings indicate that FDI responds significantly to increased openness in the whole economy and in the services sector in particular. In general, the empirical evidence supports the theoretical argument in favor of favorable government policies and liberal trade regimes as important determinants of FDI. It has been argued that macroeconomic stability, government policies and political variables are more important determinants of FDI in Africa than the market variables. Lemi and Asefa (2001) also arrive at similar conclusions. Their study examines the impact of economic and political uncertainty on foreign direct investment flow to 31 African countries. Their study indicates that for U.S. manufacturing FDI in particular, Political stability and government policy commitment are the most important factors. Moreover economic factors such as labor, trade connection, size of the export sector, external debt, and market size of the countries are found to be significant determinants of FDI flows to African countries. Empirically, Salisu (2003) analyses the impact of corruption on FDI in Nigeria and finds corruption having a significant detrimental effect on FDI. In general, greater red tape, more restrictive performance requirements, an unstable political situation, or economic instability would make the host country less attractive for FDI.

Using a panel of 97 countries, Dutta and Roy (2008) investigates the role of political risk in the association of FDI and financial development and show that the impact of financial development on FDI becomes negative beyond a threshold level of financial development while political risk factors affect the relationship by altering the threshold level of financial development. Quazi (2007) estimates the determinants of FDI to nine Latin American

countries, with emphasis on the investment climate, and finds that FDI inflow is significantly boosted by foreign investors' increased familiarity with the host economy, better infrastructure, higher return on investment, and greater trade openness, but the inflow is significantly depressed by lack of economic freedom. Also, FDI inflow is negatively correlated with policy changes that result in higher trade barriers, more repressive taxation, more restrictive foreign investment code, more repressive financial system, and further price and wage controls. The study identifies two factors, namely, excessive bureaucracy and inefficient financial markets, which act as locational disadvantages for Mexico in comparison to its regional „rival“ countries.

Chowdhury and Mavrotas (2006), using data for three countries - Chile, Malaysia and Thailand – find that GDP causes FDI in Chile and not vice versa while in the case of both Malaysia and Thailand, there is strong evidence of a bi-directional causality between GDP and FDI. Klein and Rosnegren (1994), Jeon and Rhee (2008) find strong evidence that relative wealth significantly affects inward foreign direct investment while Brahmairene and Jiranyakul (2001) find that real income is a significant factor determining the inflow of FDI. However, Nnadozie and Osili (2004) find less robust evidence on the role of GDP per capita on FDI inflow but GDP growth is found to have significant impact. Market size is found to play an important role in FDI inflows (Barrell and Pain, 1996; Nigh, 1986; Anyanwu, 1998; Fedderke and Romm, 2006;).

Inflation as a proxy for economic instability has been found to negatively affect FDI inflows (Nnadozie and Osili, 2004; Khair-UZ-Zaman et al, 2006) though the findings of

Brahmasrene and Jiranyakul (2001) indicate otherwise. Trade openness has also been found to be positively associated with FDI inflows (Yih Yun et al., 2000; Asiedu, 2002; Feils and Rahman, 2008).

Human capital, both in terms of quantity and quality, is another important factor in promoting labor intensive and export oriented FDI in particular. Lewis (1999) provides support to the proposition that human capital in host countries is a key determinant of foreign direct investment in developing countries. He notes that education, especially in technical discipline, provides least developed countries with the skills that are required by the multinational companies. Salisu (2003) also finds low level of human capital, as measured by the illiteracy rate, having a discouraging effect on FDI in Nigeria. (Getinet A. and Hirut A., 2006)

CHAPTER THREE

3. FDI in Ethiopia

3.1. Overview

The Ethiopian FDI performance over the study period can be reviewed on the basis of the two regimes that have been in place in the country. The first period, the pre-1991 period relates to the period when policies that were in place were more or less in line with the command system of economic management. The second period, the post-1991 period, signify some move away from the command system and commenced with the stabilization and adjustment programs (SAP) of the World Bank (WB) and the International Monetary Fund (IMF).

The pre-1991 period marked the introduction of the command system of economic management in 1974. The mainly liberal policies of the pre-1974 Imperial/feudal era were replaced with centralized policies that discouraged market economy and private property. The land reform measure that was undertaken in 1975 was one of the major policy reforms that took place immediately. Land was nationalized and private ownership of land ceased. Medium-size and large enterprises were also nationalized.

The government also nationalized and subsequently reorganized private banks and insurance companies. In general, the economic performance of the pre-1991 period was characterized by three phases. During the first phase of the regime 1974-78, economic performance was poor due to the emerging new policies and the nationalization measures. Average annual growth rate of GDP was 0.3 percent while per capita growth was negative. During the second phase of the regime, 1978-80, the economy began to recover and the growth rate increased to 4.6 percent. This period was characterized by stability and it also benefited from good weather. Agricultural production increased at an average annual rate

of 3.6 percent. But in the third phase 1980-1985, the economy performed badly again. The major reason for this was the severe drought that affected almost all regions of the country. After this period the economy continued to stagnate. To tackle the structural problems of the country the government eventually adopted a long-term plan (the Ten Year Perspective Plan). The aim of the plan was to reduce the share of agriculture in GDP, increase the share of industry, increasing foreign exchange earnings, diversification of the country's export sector and real GDP growth of 6.9 percent per annum during the target period. However, most of the targets were not realized. Growth remained at about 2 percent and GDP per capita was negative during the pre-1991 period (Geda and Degefe, 2002)

The investment climate in general and FDI in particular was not encouraging during this period. The problems of political instability, insecurity, and the nationalization of major industries severely discouraged foreign private investment. Realizing the importance of FDI, the government then attempted to revive FDI through the 1983 Joint Venture Proclamation. The proclamation offered incentives such as a five-year period of income tax relief, import and export duty relief, tariff protection and repatriation of profits and capital. However, the proclamation failed to attract foreign investors. In 1989, the government revised the 1983 proclamation by allowing majority foreign ownership in many sectors. It also attempted to provide more protection to investors. However, the political instability and the prolonged civil war at the time further discouraged FDI. The political instability got worse and it consequently led to the overthrow of the regime in 1991.

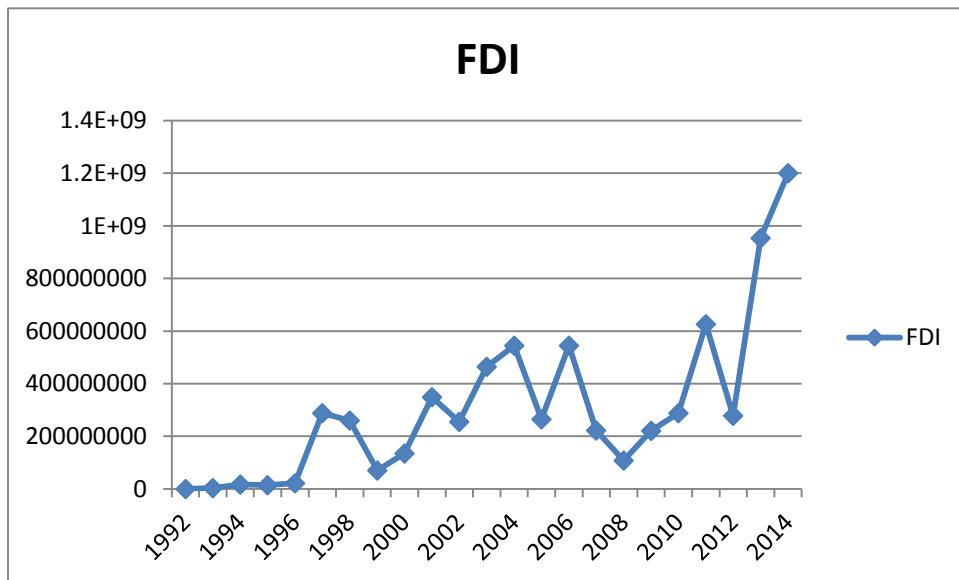
After the downfall of Derge regime in 1991, Ethiopia has been trying to attract foreign investments in many economic sectors by taking the following measures;

- Deregulation of domestic prices
- Devaluation of the national currency by 141.55 percent, from 2.07 birr per dollar to 5 birr per dollar;
- Liberalization of the foreign exchange market

- Elimination of Export taxes except for coffee;
- Lowering of Maximum import duties from 230 percent to 60 percent;
- Simplification of Export licensing regulation and procedure;
- Provision of adequate incentives, strengthening and enhancing institutional support for the export sector.

Although there are some fluctuations, the inflow of FDI to Ethiopia has increased from an annual average of \$131 million in 1995- 2000 to \$312 million in 2001-2006. The total FDI inflow into Ethiopia has increased continuously from US\$ 135 Million in 2000 up to US\$ 545 Million in 2004. Since then, up to 2007 the yearly FDI inflows have varied between US\$ 545 Million and US\$ 265 Million (UNCTAD, 2008). After 2012, the amount of FDI flow to the country registered a sharp increment. The following figure depicted the FDI inflow trend between 1992-2014.

Figure 3.1 FDI Inflows in Ethiopia



Source: UNCTAD World Investment Report 2015

According to the Ethiopian Investment agency, the amount of FDI inflow to the agricultural sector has recorded a remarkable increase since 2005. FDI inflows into the agricultural sector account for 32% of the total Ethiopian FDI inflows. Lucie Weissleder (2009) on his research argues there can be three main reasons that can account for this significant change in the development of the FDI inflows in the sector. The first one is a significant change in the exchange rate of the main investors, leading to a depreciation of the Ethiopian Birr compared with the currencies of the investors. The second reason, especially against the background of the world food crises, is the grabbing of natural resources to secure the food demand in the investor's country. The investment climate of Ethiopia can be seen as the third reason. (Lucie Weissleder, 2009)

However, Ethiopia still remains one of the least FDI recipients in the world. The average annual FDI flows to Ethiopia from 2003 to 2006 were only \$399 million, which is only 1.56% of the total FDI flows into Africa. Ethiopia accounted for only 1% of Africa's inward FDI stock, while representing close to 9% of the population of the continent. Ethiopia's per capita inflows were \$5 in 2006, compared with \$ 39 for African countries as a whole. FDI as a percentage of GDP of Ethiopia was 0.81% in 2006, compared with 1.6% for Africa (Solomon Mamo, 2008).

3.2. Regional Distribution of FDI

Although there is an incentive system encourages foreign investors to invest in the least developed regions (Gambella, Afar, Somali and Benishangul-Gumuz) of the country by providing especial benefits including provision of land free of any charge, their

performance in attracting FDI is very poor (EIA, 2008 and Tagesse, 2001). This makes the flow of FDI to Ethiopia has been unevenly distributed among the various regions.

As it is shown in table 3.2, most of the FDI is destined in Addis Ababa, the capital. Out of the total 1350 projects (from 1992-2011) 840 of the projects were situated in Addis Ababa. This is because of the regions' better infrastructure, stable political environment and better supply of trained man power. Oromia Region has attracted sizable amount of FDI with respect to the amount of capital invested. That is, of the total FDI operating in Ethiopia during 1992-2011, 36.9% of the capital was invested in Oromia. This may be due to the regions proximity to Addis Ababa, availability of natural resource (arable land and favorable climate) and large market size as it is the most populous region in the country. About 4% of the total FDI was invested in the Amhara region.

Conversely, Harari, Gambella, Afar, Somali and Benishangul-Gumuz's performance in attracting FDI has been very poor. For example, there is only one project in Harari and Benishangul-Gumuz Regions each and no foreign investments in the Somali region, since the country opened its door to foreign investors.

Table 3.2 Summary of Licensed FDI Projects by Region since August 22, 1992 -

February 02, 2012

Region	Projs.	000' Birr	%
Addis	842	10,883,557	31.60%
Aba0ba			
Afar	7	335,664	0.97%
Amhara	36	1,427,755	4.15%
B.Gumze	1	50,000	0.14%
Dire Dawa	3	96,100	0.27%
Gambella	2	774,900	2.25%
Harari	1	2,500	0.01%
Multiregional	121	5,993,580	17.15%
Oromia	289	12,698,705	36.97%
SNNPR	35	1,505,399	4.38%
Somali	0	0	0
Tigray	13	574,506	1.67%
Grand Total	1,350	34,342,666	100%

Source: Ethiopian Investment Agency

3.3. Sectoral Distribution of FDI

The distribution of FDI flows to Ethiopia is fairly diversified into various sectors ranging from the primary including all types of agricultural activities and mining & quarrying to

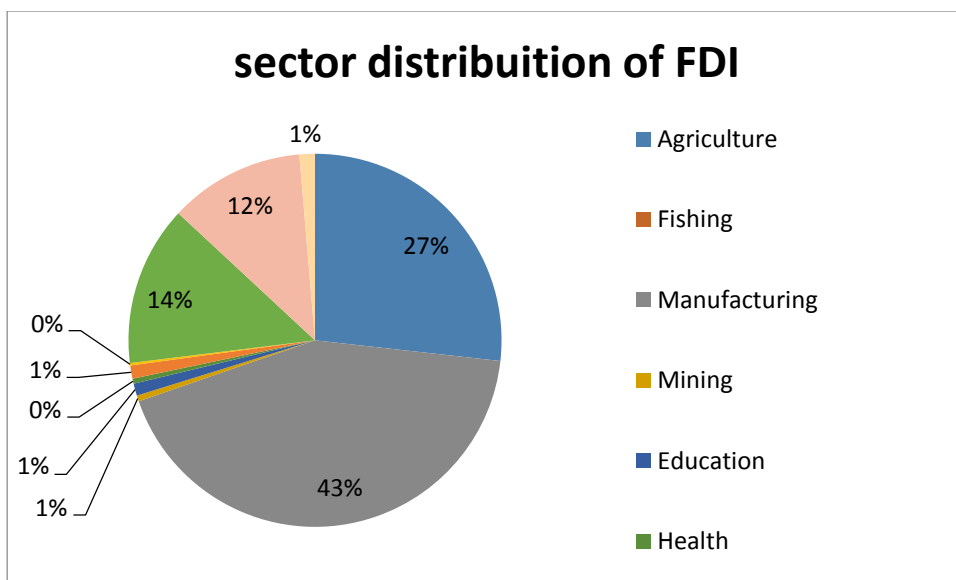
secondary sector or the industrial activities to the tertiary sector including electricity generation, construction, real estate, trade, hotel and tourism, transport service, education and health service.

As can be seen from table 3.3, manufacturing accounted for 42.9% of the total FDI followed by agriculture which accounted for 26.5% from 1992-2012 and real estate, machinery and equipment rental and consultancy service constitutes 13.86% of the total FDI flows to Ethiopia. Construction contracting, including water well drilling constitutes 11.73%. However, the mining, health and tourism industries are areas that have not received much FDI in the country with each accounting for less than 1% of the total inflow.

Table 3.3 Summary of Licensed FDI Projects by Sector since August 22, 1992 - February 02, 2012

Sector	projects	Capital in “000” Birr
Agriculture	195	9,189,119
Fishing		
Manufacturing	530	14,734,522
Mining	11	176,903
Education	35	363,075
Health	29	152,978
Hotels (Including Resort Hotels, Motels and Lodges) and Restaurants	66	394,820
Tour Operation, Transport and Communication	36	75,083
Real estate, Machinery and Equipment		
Rental and Consultancy Service	324	4,761,994
Construction Contracting Including		
Water Well Drilling	83	4,031,191
Electricity		
Others*	41	462,982
Grand Total	1,350	34,342,666

Source: Ethiopian Investment Agency



Source: Ethiopian Investment Agency

3.4. FDI Flows by Country of Origin

During the period 1992-July 2005 Saudi Arabia accounted for half of the FDI flows to Ethiopia. Ethiopian Economic Association (2007) reported that one company- MIDROC group investment, highly dominates FDI flows originating from Saudi Arabia. Other than this company Saudi was followed by the United Kingdom, accounting for 9.4%. France, USA, China and India were the other major source countries during that period. However, now china has the largest investment in the country followed by India, Sudan, and USA.

3.5. FDI and Employment in Ethiopia

As discussed above Ethiopia is one of the least recipients of FDI in Africa. As a result, the amount of people employed in FDI related sectors is very small. As can be seen from table 3.4, employment in FDI accounts for less than one percent of the total labor force in the country during the period of the study.

Table 3.4 Employment by FDI in Ethiopia

year	Employment	% of labor force
1992	693	0.003
1993	1099	0.004
1994	2356	0.009
1995	665	0.002
1996	2906	0.011
1997	3396	0.012
1998	6700	0.024
1999	1778	0.006
2000	8026	0.027
2001	6510	0.021
2002	6308	0.02
2003	20900	0.064
2004	52991	0.157
2005	47830	0.137
2006	107316	0.298
2007	307213	0.827
2008	563789	1.471
2009	297732	0.753
2010	281890	0.691
2011	310079	0.79465
2012	341087	0.91385
2013	392250	1.05092
2014	411862	1.20856

Source: Calculated based on data from Ethiopian Investment Agency and World Bank

Agriculture accounts for most of the employment created, employing more than 900,000 people temporarily and more than 310,000 people permanently. 64% of the total FDI employment goes to this sector. The manufacturing sector accounts for 18% of the total FDI employment in Ethiopia followed by real estate services, which includes machinery,

equipment rentals and consultancy services and construction contracting including water well drilling account for 0.08% and 0.05% respectively.

3.6. FDI Regulatory Framework in Ethiopia

After the fall of the socialist, Derg regime, Ethiopia has adopted a market-oriented economy in 1991. The national investment code has been amended several times since then. The Government initiated a privatization programme in 1995/96. So far over 170 enterprises and units have been privatized. Most of the smaller enterprises and units were sold to domestic investors, whilst a number of the larger enterprises have been acquired by foreign investors. These include a gold mine, Coca-Cola and Pepsi Cola bottling companies, a brewery, meat processing and canning plants, and a tannery. Over the coming years the Government plans to privatize a further 120 enterprises (EIA, 2008).

After obtaining an approval from Ethiopian Investment Authority or regional investment authorities to invest, foreign investors can invest in all economic sectors other than some sectors exclusively reserved for national investors and the government. To encourage indigenous entrepreneurship and the domestic private sector, the financial sector, import trade, small air transport (less than 20 passengers), commercial water & road transport and several small businesses are reserved for national investors(UNCTAD, 2002).

However, now foreign investors are allowed to jointly invest and work with the government in basic infrastructures. For instance, foreign investors are now particularly sought to set up hydroelectric power plants in the country and the government has now liberalized the telecommunication services sector, allowing foreign investors to participate

in telecom activities jointly with the government. Some of the sectors which are open for foreign investors and in which the country is currently seeking include: Manufacturing industries (including food, beverages, chemicals and, pharmaceuticals, plastics, metallic and non-metallic products, paper products, leather and leather products, textiles and garments); Agriculture, including agribusiness and processing for exports; Grade 1 construction contract Real-estate development; Engineering and management consult; Education and health services; and Mining and quarrying of gold, marble and granite.

The initial capital requirement for a wholly foreign-owned enterprise is a minimum of USD 100,000. But wholly foreign-owned consultancies and publishing companies can obtain the investment license with USD 50,000. To invest jointly with Ethiopian investors, foreign investors should invest a minimum of USD 60,000 and the national investors should acquire at least 27 percent of the equity. To encourage export-oriented FDI, foreign enterprises that export at least 75% of their output are not required to meet the minimum capital requirement. Nevertheless, the investment code does not indicate the initial investment is whether in cash or in kind (UNCTAD, 2002).

There are various incentives given to foreign direct investors. These include: exemption from payment of export custom duties, income tax holidays from 2 to 7 years depending on the region and the sector of the investment. All imported capital goods and spare parts worth up to 15% of the value of the capital good are exempted from import tariffs and custom duties. In addition, the foreign investors can carry forward their initial operating losses and apply any depreciation methods for their financial statement.

Besides, all foreign investors are exempted from profit tax for two years. This exemption is extended to 5 years for investors exporting at least 50% of their product and supply 75% of their product as input to exporters. With regards investment guarantees, the investment code provides guarantee for repatriation of capital, interest payments on foreign loans, profit, dividends, asset sell proceeds and technology transfer payments. Except in major cases of public interest, the investment code also provides guarantee against expropriation (EIA, 2008; EEA, 2007).

CHAPTER FOUR

4. Methodology of the Study

4.1. Data Collection

This study completely relies on secondary data sources collected from UNCTAD, the World Bank's WDI (World Development Indicators), MOFED (Ministry of Finance and Economic Development) and NBE (National Bank of Ethiopia).

The choice of independent variables is constrained by data availability, as is mostly the case with time-series data in developing countries. For example, time-series data on some of the factors such as tariff rates, trade taxes, real effective exchange rate, real wages, and corruption index that are used in some studies of this nature are not readily available for Ethiopia over the (entire) study period. Notwithstanding this constraint, this study uses the following variables that are commonly used in studies of FDI.

4.2. Data Analysis

In the analysis, both qualitative and quantitative methods are applied. The qualitative techniques are employed to analyze the challenges the sector has faced and its trends. Descriptive statistics and an econometric technique is employed based on a time series data from 1981 to 2014 to examine the contributions and determinants of FDI respectively. And also

4.3. The Econometric Model

The general form of the model to be estimated has the following form:

$$FDI = f(RGDP, REER, AI, T, INF, L, \epsilon_i)$$

Where

FDI Net FDI inflows as percentage of GDP

RGDP ...Real Gross Domestic Product (proxy of market size and gravity of the economy)

REER...Real Effective Exchange Rate

INF ... Annual rate of inflation based on consumer price index (expressed in decimal)

AIAdult illiteracy rate (proxy of human capital)

T Fixed Telephone lines per 1000 people (proxy of infrastructure)

L..... Liberalization dummy

ϵ_i The error term

4.4. The Econometric Analysis Methodology

This study completely relies on secondary data sources collected from UNCTAD, the World Bank's WDI (World Development Indicators), MOFED (Ministry of Finance and Economic Development) and NBE (National Bank of Ethiopia). In the analysis, an econometric technique is employed based on a time series data from 1981 to 2014. In the classical regression for time series, both the dependent and explanatory variables have to be stationary over time. Stationary time-series is said to exist if the mean and variance are constant over time while the value of the covariance between two periods depends only on

the gap or lag between the two time periods and not the actual time at which the covariance is computed (Gugarati, 2003). If the time-series is non-stationary, the mean, variance or covariance will not be constant and one is likely to end up with spurious regression where statistical inference on the basis of the classical regression model will be invalid. For the purpose of testing the stationarity of the time-series used in this study, Augmented Dickey-Fuller (ADF) tests have been conducted. The null hypothesis in these tests is that the underlying process which generated the time-series is non-stationary, it is integrated to a higher order and must be differenced till it becomes stationary. As can be seen from the results given in Table 1 below, all the variables used in the model are not stationary. This implies that the null hypothesis cannot be rejected and that the time-series has to be differenced. Then conduct the same tests on the first difference of the time series. As can be seen from the test results on the first difference given in Table 1, the null hypothesis has been rejected for all variables indicating that all variables become stationary at their first difference. After testing our time series for stationarity, the next step is testing for co-integration which amounts to checking whether the linear combination of the variables is (also) stationary or not. It requires that the variable of interest have the same order of integration. It is only when the variables are integrated of the same order that a linear relationship among them can be expected. Variables are said to be co-integrated if a long run equilibrium relationship exists among them. Engle and Granger argue that for such relationships to exist, the error terms of the model should be stationary. Then, the Engle Granger procedure is applied to test for co-integration. The first step of the co-integration test requires estimating the model of levels (equation (1)) and predicting the error terms.

Then, ADF test is applied on error terms. If the error terms are found to be stationary, the variables are said to be co-integrated and this necessitates the estimation of an Error Correction Model (ECM) involving long run relations. If, on the other hand, the variables are not co-integrated, then the modeling should proceed with the differenced time series.

Model specification:-The general form of the model to be estimated has the following

$$\ln FDI = \beta_0 + \beta_1 \ln RGDP + \beta_2 \ln REER + \beta_4 \ln AI + \beta_5 \ln T + \beta_6 INF + \beta_7 L + \epsilon_i$$

..... (1)Where

ln...Natural logarithm

FDI Net FDI inflows as percentage of GDP

RGDP ...Real Gross Domestic Product (proxy of market size and gravity of the economy)

REER...Real Effective Exchange Rate

INF ... Annual rate of inflation based on consumer price index (expressed in decimal)

AIAdult illiteracy rate (proxy of human capital)

T Fixed Telephone lines per 1000 people (proxy of infrastructure)

L..... Liberalization dummy

ϵ_i The error term

β'_s Parameter

CHAPTER FIVE

5. Empirical Analysis

5.1. Time series properties

Test of stationery

Table 5.1. Unit root test with trend and intercept term

Variables	ADF	
	Levels	Differences
<i>lnFDI</i>	-3.263	-3.815*
<i>lnRGDP</i>	-3.584	-4.230*
<i>lnREER</i>	-2.520	-4.112*
<i>lnAI</i>	-2.211	-3.605*
<i>lnT</i>	-3.057	-3.695*
<i>INF</i>	-3.057	-4.183*
	(critical value at 5% = -3.600)	

**implies the null hypothesis of non- stationery can be rejected at 5% level of significance.*

The unit root test implies that the null hypothesis of non-stationery cannot be rejected at 5% level of significance for all the variables at level. However for the difference we can safely reject the null hypothesis of non-stationary at 5% level of significance. The unit root test above shows that all the variables used in the model are found to be non-stationary at their level values.

Co-integration Test

Table 5.2 Unit root test with trend on residuals

ADF(test statistic -5.553)
(critical value at 5%= -3.600)

Therefore, the variables in the model are co-integrated using the Engle Granger (1987) approach. The co-integration test suggests the existence of long run equilibrium and hence the formulation of ECM will be possible. (Gujarati D, 2003). The single equation ECM is estimated below.

Test of specification error

Ramsey RESET test is applied using powers of the fitted values of $\Delta \ln \text{FDI}$

Ho: model has no omitted variables

H₁= model has omitted variables

F (3, 17) = 2.09

critical F (3, 17) at 10%=2.44

$$\text{Prob} > F = 0.1390$$

Since critical F (3, 17) at 10%=2.44 > F (3, 17) = 2.09 we do not reject the null hypothesis in favor of the alternative hypothesis, thus there are no omitted variables in the model implying that the model is correctly specified.

5.2. Estimation Result

The ECM includes the differenced variables along with the lag of the residuals in the model with levels.

Source	SS	df	MS	
Model	16.2394484	7	2.31992119	Number of obs = 26
Residual	7.8831823	18	.437954572	F(7, 18) = 5.30
				Prob > F = 0.0020
				R-squared = 0.6732
				Adj R-squared = 0.5461
Total	24.1226307	25	.964905226	Root MSE = .66178

$$\Delta \ln \text{FDI} = -0.1022648 + 2.703001 \Delta \ln \text{RGDP} - 0.1596478 \Delta \ln \text{REER} - 0.2656445 \Delta \ln \text{AI} -$$

$$t = \quad (2.59) \quad (1.76) \quad (-0.70) \quad (-3.06)$$

$$6.206719 \Delta \ln F + 0.1760743 \Delta \ln T + 0.4451319 L - 0.3940309 \text{ECM} \dots (2)$$

$$(-1.31) \quad (-3.98) \quad (5.96) \quad (-2.30)$$

Test of overall significance

To check for the overall significance, we have to test the null hypothesis that all parameters are jointly zero against the alternative .i.e.; all parameters are significantly different from

zero. From the STATA output above, we have the calculated $F= 5.30$ and from the F-table we have the critical value $F(7, 18) = 2.58$, thus we fail to accept the null hypothesis and thus all parameters are jointly significant at 5%.

5.3. Interpretation of the results

From the estimation results and significance tests, the constant term is negative, supports the arguments that each year's *capital flight* out of the country as percentage of GDP is statistically significant. The market size (approximated by RDGP) is found to have a positive effect but does not have a statistically significant impact on net FDI inflows as percentage of GDP in the short run. The negative coefficient of the real effective exchange rate implies depreciation (devaluation) of domestic currency positively affects FDI inflows. Adult illiteracy is found to have a statistically significant adverse impact on net FDI inflows as percentage of GDP. Though not significant in statistical terms, macroeconomic instability (captured by inflation rate) discourages foreign investment. Infrastructure (represented by number of fixed telephone lines per 1000) is found to be statistically significant to encourage FDI inflows. The dummy variable for liberalizing trade and the macroeconomic regime is also significant suggesting that the policy liberalization positively affected the net FDI inflows. The model also shows statistically significant adjustment mechanism with the 40% ECM term. This implies that about 40% of the disequilibrium is adjusted in the current period.

CHAPTER SIX

6. Conclusion and policy implication

6.1. Conclusion

Though there are lots of latent determinants; in the analysis on the factors determining FDI inflows to the country, it is found that:

The market size (approximated by RDGP) is found to have a positive effect but does not have statistically significant impact on net FDI inflows as percentage of GDP in the short run. This might be attributed to the fact that the country's domestic market is too small since our RGDP and per capita RGDP has not shown significant changes over the last three decades. As such, since majority of the foreign investment projects are export oriented, they do not consider the domestic market at their entrance. Thus, the domestic market size having stagnant characteristics has no as such significant impact on the level of FDI inflow.

Depreciation (devaluation) of domestic encourages FDI inflows as it provides excess capacity for the coming foreign investors in terms of increased initial capital and in promoting exports during their operation.

Though cheap, illiterate labor force adversely affects foreign investors since it requires huge adjustment costs at initial periods of operation, which are discouraging for those new foreign investors.

The country's stable macroeconomic settings encourage FDI but not significant since most of these investments are export oriented. As such, Infrastructure is found to be significant and an indispensable input for foreign investment.

The more liberalized the country's economy, the more encouraging the socioeconomic and political settings are for foreign investors.

The annual *capital flight* out of the country as percentage of GDP is statistically significant. This might be partly explained when Ethiopians invest abroad and partly by outflow of corrupted capital by officials in the country.

6.2. Policy implication

A collaborated effort has to be made by the government and concerned bodies to address and stabilize the current macroeconomic instabilities created due to inflation, interest rate hikes, balance of payments disequilibrium, mounting public debt and so forth which discourage those potential investors from entry and adversely affected the operational ones.

The government has to deepen its current effort in developing infrastructural facilities such as road, information and communication technologies and electricity and improving their services which are regarded as necessary conditions to draw sizable FDI. Efforts to demarcate industrial zones might partly address the problem in this respect. However, there needs to assess as to how much this endeavor has been effectively addressing the problem in general and attracting the required volume and type of FDI in particular before additional resources are expanded.

There need to deepen the current effort to expand education all over the country that leads to the improvement of the current adult illiteracy and there by augment the availability of human capital which is found to be one of the basic factors affecting the volume and types of FDI inflows.

The government must review its fiscal, tax, foreign investment regimes and other policies and laws in relation to other countries in Africa, where attracting foreign investors is currently underway. The objective of this review process must be to compare notes with other countries and implement policies and laws that are competitive and conducive to foreign investment. The foreign investment must perceive Ethiopia to be the right place to do business in Africa.

The government has to establish mechanisms to attract the capital flight back to its homeland in the case of investment outflows, and deepen its anti-corruption efforts in case of corrupted capital flights.

7. References

Accolley Delali and perlam joe. (1997), the determinants and impact of Foreign Direct Investment, London Metropolitan University, London

Anyanwu, J. C and Erhijakpor, A. E. O. (2004), "Trends and Determinants of Foreign Direct Investment in Africa", *West African Journal of Monetary and Economic Integration*, Second Half, 21-44.

Anyanwu, J. C. (1998), "An Econometric Investigation of the Determinants of Foreign Investment in Nigeria", in *Nigerian Economic Society (1998), Rekindling Investment for Economic Development in Nigeria*, Ibadan, 219 - 241.

Asian Development Bank (2004), managing FDI in a globalizing economy, Asian experiences, palgrave McMillan, London.

Asiedu, E. (2002), "On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different?", *World Development*, Vol. 30, No. 1, pp. 107–19.

Barrell R and Pain N. (1996) "An Econometric Analysis of U.S. Foreign Direct Investment", *The Review of Economics and Statistics*, 78(2), 200-207

Basu, Anupam and Srinivasan, Krishna, (2002), Foreign Direct Investment in Africa Some Case Studies. IMF Working Paper 61.

Botric V., and Škuflic L. (2006), “Main Determinants of Foreign Direct Investment in the Southeast European Countries”, *Transition Studies Review*, 13(2), 359–377

Brahmasrene T., and Jiranyakul K. (2001), “Foreign Direct Investment in Thailand, What Factors Matter?”, *Proceedings of the Academy for International Business*, 1(2), 13

Chowdhury, A. and Mavrotas, G. (2006), “FDI and Growth: What Causes What?”, *World Economy*, 29 (1), 9-19.

Cotton L. and Ramachandran V. (2001) “Foreign Direct Investment in Emerging Economies Lessons from sub-Saharan Africa” World Institute for Development Economics Research Discussion Paper No. 2001/82

Dauti, B. (2008), *Determinants of Foreign Direct Investment inflow in South East European Countries - Panel Estimation*, Proceedings of the International Conference: Economic & Social Challenges and Problems, Vol. 1, 87-112 (And MPRA Paper No. 18273, October 2009 / 20:01).

Dunning, J.H (1993), Multinational Enterprises and the Global Economy. Wokingham, England: Addison-Wesley.

Dunning, J.H. (1993), *Multinational Enterprises and the Global Economy*, Addison-Wesley.

Dupasquier C. and Osakwe P. N. (2006), “Foreign direct investment in Africa: Performance, challenges, and responsibilities”, *Journal of Asian Economics*, 17, 241–260.

EEA (2004), the role and nature of FDI, lesson printing press, Addis Ababa.

Engle, R.F. and Granger, C.W.J (1987), “Co-integration and Error-correction: Representation, Estimation and Testing”, *Econometrica*, March, Vol.55, pp.251-276.

Fedderke J. W., and Romm A.T. (2006), “Growth impact and determinants of foreign direct investment into South Africa, 1956–2003”, *Economic Modeling*, 23, 738–760.

Feils D. J. and Rahman M. (2008), “Regional Economic Integration and Foreign Direct Investment: The Case of NAFTA”, *Management International Review*, 48(2), 147-163.

Getinet Haile and Hirut Assefa (2006), Determinants of Foreign Direct Investment in Ethiopia: a time series analysis, University of Westminster.

Gholami, R. Lee, S-Y. T. and Heshmati, A. (2006), “The Causal Relationship between Information and Communication Technology and Foreign Direct Investment”, *the World Economy*, Vol. 29, No. 1, 43-62.

Gujarati, D. (2004). *Basic Econometrics*. Fourth Edition. McGraw-Hill Companies

Harrison, Andrew L., Dalkiran, Ertugrul and Elsey, Ena (2000), *International Business: Global Competition from a European Perspective*, Oxford: New York: Oxford University Press.

Hymer, Stephen Herber (1976), *the International Operations of National Firms: A Study of Direct Foreign Investment*. The M.I.T Press.

Jeon B. N. and Rhee S. S. (2008), “The Determinants of Korea’s Foreign Direct Investment from the United States, 1980-2001: An Empirical Investigation of Firm Level Data”, *Contemporary Economic Policy*, 26(1), 118-131.

Kersan-Skabic I. and Orlic E. (2007), Determinants of FDI in CEE, Western Balkan Countries (Is Accession to the EU Important for Attracting FDI?)”, *Economic and Business Review*, 9(4), 333-350.

Khair-UZ-Zaman, Hashim S., & Awan Z. (2006), “Economic Determinants of Foreign Direct Investment in Pakistan”, *Gomal University Journal of Research*, 22, 49-57.

Klein, M. W. and Rosengren, E. S. (1994), “The real exchange rate and foreign direct investment in the United States”, *Journal of International Economics*, 36, 373-89.

Knickerbocker, Frederick T. (1973) *Oligopolistic Reaction and Multinational Enterprise*. Harvard University, USA.

Lemi, Adugna and Asefa, Sisay (2001), Foreign Direct Investment and Uncertainty: Empirical Evidence from Africa, Department of Economics, Western Michigan University.

Lewis, Jason (1999), “Factors Influencing Foreign Direct Investment in Lesser Developed Countries”, *The Park Palace Economist*, Vol. VIII, pp.99-107.

Lucie Weissleder, (2009). “Foreign Direct Investment in the Agricultural Sector in Ethiopia” Eco fair Trade dialogue Discussion Papers No. 12 / October 2009 / English Version.

Mengistu B. and Adams S. (2007), “Foreign Direct Investment, Governance and Economic Development in Developing Countries”, *Journal of Social, Political and Economic Studies*, 32(2), 223-249.

Morisset, J. (2000), “Foreign Direct Investment in Africa- Policies also Matter”, *Transnational Corporation*, 9 (2), pp. 107–125.

Musila J. W. and Sigue S. P. (2006), “Accelerating foreign direct investment flow to Africa: from policy statements to successful strategies”, *Managerial Finance*, 32(7), 577-593.

Nigh D. (1986), “Political Events and the Foreign Direct Investment Decision: An Empirical Examination”, *Managerial and Decision Economics*, 7(2), 99-106.

Nnadozie E. and Osili U. O. (2004), U.S. Foreign Direct Investment in Africa and its Determinants. *UNECA Workshop of Financial Systems and Mobilization in Africa*, Nov 2nd 2004

Quazi, R. M. (2007), “Investment Climate and Foreign Direct Investment: A Study of Selected Countries in Latin America”, *Global Journal of Business Research*, Volume 1, Number 2, 1-13.

Root, Franklin R. and Ahmed, Ahmed A. “Empirical Determinants of Manufacturing Direct Foreign Investment in Developing Countries”, *Economic Development and Cultural Change*, 27:751-767

Salisu, Mohammed (2003), Foreign Direct Investment in Sub-Saharan Africa, The management School, Lancaster University.

Sekkat, K. and Veganzones-Varoudakis, M-A. (2007), “Openness, Investment Climate, and FDI in Developing Countries”, *Review of Development Economics*, 11(4), 607–620.

Solomon Mamo, 2008. “Determinants of Foreign Direct Investment in Ethiopia”
Maastricht Graduate School of Governance Maastricht University Maastricht, the
Netherlands December 30, 2008

UNCTAD (1998), World Investment Report: Trends and Determinants, United
Nations Conference on Trade and Development. New York and Geneva, United
Nations.

UNCTAD (2004), World Investment Report: Foreign Direct investment and the
Challenge of Development, United Nations Conference on Trade and
Development. New York and Geneva, United Nations.

UNCTAD (2007), World Investment Report: Foreign Direct investment and the
Challenge of Development, United Nations Conference on Trade and
Development. New York and Geneva, United Nations.

World Bank (2008), World Development Indicators 2008, Washington D.C.

Yih Yun Y. J., Groenewold N. and Tcha M. (2000), “The Determinants of Foreign
Direct Investment in Australia”, *the Economic Record*, 76 (232), 45-54.

Zhang K. H. (Jul 2001), “What Attracts Foreign Multinational Corporations to
China?” *Contemporary Economic Policy*, 19(3), 336-346.

8. Appendices

Table 3 Estimated partial correlation matrix between variables

	lnFDI	lnRDGP	lnREER	lnAI	lnT	IF	L
ln FDI	1	0.4246	-0.1543	-0.5649	-0.2803	-0.6646	0.7997
lnRDGP		1	-0.0184	0.0316	0.5927	0.3148	-0.1491
lnREER			1	-0.0587	0.0419	0.2759	0.1414
lnAI				1	-0.6287	-0.6339	0.5985
lnT					1	-0.5352	0.3293
IF						1	0.6334
L							1

Table 4 Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lnFDI	27	5.520771	3.307392	-.69	10.37535
lnRDGP	27	2.542431	.3516003	2.05	3.078231
lnREER	27	4.763518	.8203223	2.1	7.6
lnAI	27	4.2867	.1330793	4.04	4.43
lnT	27	.8435968	.782796	-.36	2.15
IF	27	.0531225	.0625494	-.06	.21
L	27	.6296296	.4921029	0	1

. regress lnfdi lnrgdp lnreer lnai lnt l1

Source	SS	df	MS	
Model	276.009452	6	46.0015754	Number of obs = 27
Residual	8.40051081	20	.420025541	F(6, 20) = 109.52
Total	284.409963	26	10.9388447	Prob > F = 0.0000
				R-squared = 0.9705
				Adj R-squared = 0.9616
				Root MSE = .64809

lnfdi	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lnrgdp	3.44273	1.641288	2.10	0.049	.019064	6.866396
lnreer	-.1382602	.1979793	-0.70	0.493	-.5512376	.2747173
lnai	-11.49824	3.756026	-3.06	0.006	-19.33318	-3.66331
lnt	-1.137858	.8711594	-1.31	0.206	-2.955064	.6793491
l1	-12.6753	3.186599	-3.98	0.001	-19.32243	-6.02817
_cons	2.55672	.4292691	5.96	0.000	1.66128	3.452159
	46.73944	18.0174	2.59	0.017	9.155802	84.32308