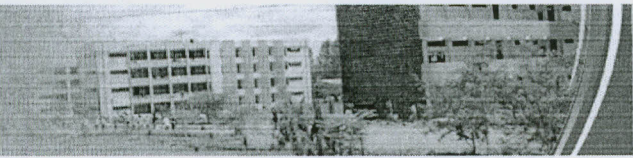




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THE IMPACT OF FOREIGN DIRECT INVESTMENT IN POVERTY
REDUCTION IN ETHIOPIA; A TIME SERIES ANALYSIS.

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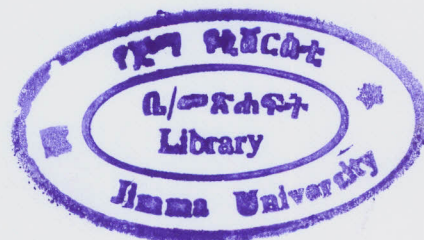
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ABSTRACT

This paper examines the impact of foreign direct investment on poverty reduction in Ethiopia. The study seeks to test the hypothesis that foreign direct investment has no contribution in economic growth and has no direct effect on poverty reduction in Ethiopia. The methodology involves estimating error correction model using time series data for the period 1981-2010. The results indicate that foreign direct investment has significant positive effect on economic growth as well as on the poverty reduction of Ethiopia. Domestic economic conditions such as domestic investment and infrastructure have significant positive effect on both human development index and economic growth, where as openness has a positive effect merely on economic growth. The study recommended that effort should be made to encourage the inflow of foreign direct investment. Even if, foreign direct investment contributes to poverty reduction, parts of the revenues from the investment, which are collected through tax revenue, rental fees, and export and import activities, should be used to promote further economic activities, safety nets as well as investment in infrastructure.

Key words; *Foreign direct investment, Poverty reduction, Economic growth, Ethiopia, Error correction model*

ACRONYMS

FDI	Foreign Direct Investment
<i>LDCs</i>	Least Developing Countries
<i>MDGs</i>	Millennium Development Goals
MOFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
UNCTD	United Nation Conference Trade and Development
UNDP	United Nation Development Program

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CHAPTER ONE

1. INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Frankel and Romer stated that FDI is often seen as one of the important catalysts for economic growth in the developing countries (Frankel & Romer, 1999). FDI is acting as a very important vehicle for developed countries to transfer technology to developing countries. FDI also encourages investment of domestic firms so as to check with foreign investors and improve human capital, also as establishments within the host countries. Moreover, in comparing with alternative capital inflows of a nation, FDI is anticipated to possess stronger effects on economic growth of a nation as FDI provides more than simply capital. Furthermore, FDI offers access to internationally out there technologies and management know-how and should render it easier to penetrate world markets (Nunnenkamp, 2001).

Chudnovsky and Lopez (1999) indicated that the FDI has a potential effect in poverty alleviation in developing countries. Accordingly Chudnovsky and Lopez FDI has direct impacts on poverty through providing opportunities, particularly providing jobs and training to local workers. Foreign investment undertaken in the mode of Greenfield investment may contribute to reducing existing unemployment and underemployment, providing people with income and therefore directly contributing to poverty reduction. In addition, Klein et al argued that FDI contributes to tax income of the state budget and may thus facilitate government-led programs for the poor. Moreover, FDI may induce host governments to invest in infrastructure. If this investment is in poor areas it may benefit the local poor (Klein et al. 2000).

Conversely, Burger (1999) argued that FDI has also indirect impact on poverty through economic growth; i.e. FDI may affect economic growth through raising total capital formation. This is because FDI provides external finance and reduce financial constraints on investment due to low savings in LDCs. Moreover, FDI may crowd in domestic investment through backward and forward linkages further pushing economic growth. In addition, inward investment may induce local governments to invest in infrastructure like

roads, bridges, harbors, water and electricity supply which might facilitate domestic investment as well. More importantly, Blomström and Kokko (1996) have argued that FDI may bring technology, know-how, management and marketing skills to LDCs representing something more than a simple import of capital.

The Millennium Development Goals declaration of the United Nations outlines eight commitments to be reached by developing countries by 2015. The achievement of these goals will contribute to human development and poverty reduction. Unfortunately, most African countries are off-track and need substantial capital investments to get back on track. One main source of these capital investments is Foreign Direct Investments (FDI), since in most African countries, the private sector is perceived as an engine of growth in their National Development Strategies. Hence, FDI will play a critical and crucial role in the achievement of these goals or at least in the reduction of poverty. Moreover, with the widespread of the current financial and economic crisis, the reach of these MDG goals is even more jeopardized since most developed countries are putting in place economic and fiscal policies in order to keep capital at home. According to the World Bank's estimation, remittances will be reduced by 8.3% in 2009 in Sub-Saharan Africa (World Bank, 2009). Such a drastic reduction may imply severe difficulties for many African countries.

According to OECD (2005), FDI can bring many advantages to host countries like bringing technology transfer, raising foreign funds, creating employment opportunities, producing competitive business environment, helping human capital formation which directly or indirectly helps developing countries to alleviate poverty. As a result of these advantages of FDI, several developing countries are currently actively seeking foreign investment by taking measures that embody economic and political reforms designed to enhance their investment environments so as to alleviate poverty. Most African countries have undertaken varied policy measures to form hospitable investment climate for FDI. The main policy measures are: liberalizing controls on foreign exchange & price, liberalizing investment laws & privatization of public enterprises and making stable

macroeconomic environment. The policy frameworks for FDI of African countries are on average no more restrictive than alternative developing nations.

A report released by the UNCTD (2005) showed that FDI into Ethiopia has increased. The report indicates that FDI inflows to Ethiopia increased from US \$255 million in 2002, to \$465 and \$545 million in 2003 and 2004 respectively. Furthermore, while the total FDI inflows around the world have actually decreased since 2002, and in particular flows into developed countries, the total FDI inflows into developing economies have increased, with Africa benefiting from a marked increase from \$12,994 million in 2002 to \$18,090 million in 2004.

Since 1991, the Ethiopian economic system shifted from command economy to a market oriented economy. Ever since, the government has created a broad range of policy reforms, as well as liberalization of foreign trade regime, decentralization of economic & political power, and deregulation of domestic price and devaluation of the national currency in order to alleviate the poverty. Additionally, the investment code has been amended many times so as to fulfill the demand of each domestic and foreign investor (Solomon, 2008). Thus, the paper will aims on analyzing impacts of FDI on poverty reduction in Ethiopia. After the economic reform in the late 1990s Ethiopia achieved high economic growth, rapid poverty reduction, increasing FDI and trade. FDI is also considered an integral component of the economy.

1.2 STATEMENT OF THE PROBLEM

Foreign direct investment (FDI) has been recognized as an important resource for economic development. Many people argue that the flows of FDI could fill the gap between desired investments and domestically mobilized saving (Todaro and Smith, 2003,). It also may increase tax revenues and improve management, technology, as well as labor skills in host countries (Todaro and Smith, 2003, Hayami, 2001). Additionally, FDI may help the host country to break out of the vicious cycle of underdevelopment (Hayami, 2001).

Many scholars widely believe that the benefits accrued from FDI may include the acquisition of new technology, employment creation, human capital development, contribution to international trade integration, enhancing domestic investment, and increasing tax revenue generated by FDI. All of these benefits are expected to contribute to higher economic and employment growth which is an effective tool for achieving improvement in the reduction of poverty. However, the impacts of FDI on poverty depend on many factors including the host countries' institutions and policies, the quality of the labor market, the economic environment, and the investment itself (World Bank, 2000).

Klein et al. (2001) argued that recent capital flow in developing country through the form of FDI contributes to the higher economic growth, which are the most potent tool for alleviating poverty as well as a key tool for achieving MDGs in developing countries.

Third world countries are characterized by the problem of under-development and extreme poverty level. Currently, in Ethiopia government and various development partners are using several approaches in order to maintain broad-based and sustainable economic development in alleviating poverty. Among the approaches to end poverty, one is through provision of conducive investment environments and encouraging investors (both domestic and foreign investors) participation in different sectors of economy. Understanding what factors contributing towards economic development is important in designing and implementing alternative solutions towards alleviating poverty, because there is positive relationship between poverty and level of economic development, i.e. if economy of a given country is advanced poverty is not a problem but if not poverty will be a severe trouble. There is no one and best tool of fighting against poverty. The solutions to poverty are all-around as are its causes. Alternative resolutions are expected to be designed as per the nature of the problem. Currently the world is toward globalization and international economic activities of one country are interdependent upon the others. Presently, economic policy of Ethiopia gives due emphasis on millennium development goals and transformation programs. Among MDGs, one and the hottest economic agenda of Ethiopia is poverty alleviation which will be materialized if

and only if broad-based and sustained economic development becomes economic features of Ethiopia. Therefore, the baseline of this study was to investigate the roles of foreign direct investment in ending poverty; it means the economic implications of foreign direct investment on poverty alleviation in Ethiopia.

1.3 RESEARCH QUESTIONS

While undertaking this study, the researchers were attempting to answer the following questions:

1. How foreign direct investment is contributing to the Ethiopia economic growth?
2. What are the direct effects of foreign direct investment on poverty reduction?

1.4 RESEARCH OBJECTIVE

General objective

The general objective of this study was to examine the impact of foreign direct investment in poverty reduction in Ethiopia.

Specific objectives

1. To investigate the contribution of foreign direct investment to the Ethiopian economic growth.
2. To identify the direct effects of foreign direct investment on poverty reduction in Ethiopia.

1.5 RESEARCH HYPOTHESIS

The following two hypotheses were tested throughout the study:

Ho1= foreign direct investment has no contribution for Ethiopian economic growth.

Ha1=foreign direct investment has contribution for Ethiopian economic growth.

Ho2= foreign direct investment has no direct effect on poverty reduction in Ethiopia.



Ha2=foreign direct investment has direct effect on poverty reduction in Ethiopia.

1.6 SIGNIFICANCES OF THE STUDY

It is obvious that investment is a key factor which determines economic development of a given country and it is the hot issue or agenda of developed and developing countries. Because, while investing in host country different factors which facilitate economic development will be transferred from investors' homeland; such as technological spillover, knowledge spillover, financial outflow, job opportunity, etc. similar to other countries, what is currently practicing in Ethiopia after the downfall of the Derg is attracting foreign investors for their participation in economy of the country. Even if foreign direct investment is believed to contribute positively for the reduction of poverty in Ethiopia, the inflow of foreign direct investment is varying from year to year due to different factors. Therefore, this study will attempt in providing detail understanding about the economic implication of foreign direct investment on Ethiopian economy and poverty reduction for different stakeholders; such as, policy makers, policy implementers, domestic and foreign investors and academicians.

1.7 SCOPE OF THE STUDY

The title of this study was delimited to investigate the impact of foreign direct investment on poverty reduction in Ethiopia from year 1981 up to 2010. The researchers used dependent variables to measure the impact of foreign direct investment on poverty reduction i.e. economic growth and Poverty incidence. The explanatory variables related to economic growth and Poverty incidence are three foreign direct investment variables, Productivity, inflation, infrastructure, degree of openness, Gross domestic investment, and government spending ratio. The study area of this research was delimited in Ethiopia with sample period of 30 years. The methodology used for this study was delimited on more of quantitative method with time series regression analysis.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 THEORETICAL LITERATURES

2.1.1 Review of linkage between FDI, growth and poverty reduction

Foreign direct investment can have direct and indirect impacts on poverty reduction in the host country. The indirect impact of FDI on the reduction of poverty is through economic growth which results in the improvement of living standards due to the increase in GDP, improvement of technology and productivity, as well as the economic environment. The direct impact of FDI on poverty can be seen through the increase in employment and the reduction of people living below the poverty line resulting from the increase in the demand for employment, and the improvement of workforce and safety nets (Dollar and Kraay, 2000).

Economic growth remains a necessary ingredient for poverty reduction. Dollar and Kraay(2000) in their shown that growth tends to lift the incomes of the poor proportionately with overall growth. FDI as a key vehicle to generate growth is thus a most important ingredient for poverty reduction.

FDI has the potential to improve the quality of growth by

- Reducing the volatility of capital flows and incomes
- Improving asset and income distribution at the time of privatization
- Helping improve social and environmental standards
- Helping improve social safety nets and basic services for the poor
- Serving as improved source for new investment capital, allowing countries to raise imports and accumulating capital faster

- It would help encourage technology transfer and increase human capital stock and thereby stimulate the long term productivity and growth of domestic firm; and
- Helpful in expediting the process of economic integration and competitiveness by helping to link developing economies to global supply and production chains.

There is a growing recognition in both developing and developed countries that private capital is an essential component of development finance and necessary counterpart to official donor assistance. According to UNCTAD (1999), FDI occurs when an investor based in one country (the home country) acquires an asset in another country (the host country) with the intent to manage that asset.

Naturally, the relationship between FDI and poverty reduction is segmented into the relationship between FDI and growth on the one hand and that between growth and poverty reduction on the other. Regarding the relationship between FDI and growth, it is generally found that inflows of FDI encourage more rapid economic growth. FDI clearly does make a direct contribution, for example through measurable employment and income generation, but its aggregate impact seen in these terms is very small, and it is the indirect contribution that is of greater consequence. The indirect benefits of FDI for a host country's economic development are transmitted through linkages (backward and forward), spillovers, and demonstration effects and so on. More important, however, is the more qualitative indirect impact of FDI on a whole spectrum of human development issues, such as training, education, gender equality, housing, improved health, community development and so on (Hayami,2001).

Foreign direct investment has been recognized as an important resource for economic development. Todaro and Smith, (2003), Hayami, (2001) recognized that the flows of FDI could fill the gap between desired investment and domestically mobilized saving. They also explained how FDI increase tax revenues and improve management, technology, as well as labor skills in host countries.

Furthermore, Hayami, (2001); Jenkins and Thomas, (2002); World Bank, (2000) widely believe that FDI may help the host country to break out of the vicious cycle of

underdevelopment through the acquisition of new technology, employment creation, human capital development, contribution to international trade integration, enhancing domestic investment, and increasing tax revenue generated by FDI. All of these benefits are expected to contribute to higher economic and employment growth which is an effective tool for achieving improvement in the reduction of poverty.

Social safety nets for the very poor and redistribution of assets and incomes towards them tend to require either important charitable activity or government intervention. Foreign investment can often be important for creating pre-conditions for such intervention. Foreign investors, by virtue of their productivity, can help generate the tax revenue required to fund assistance to the poor through their own tax contribution and indirectly by stimulating growth and thus broadening the tax base.

2.1.2 Impact of FDI on economic growth

Economic theory provides us with many reasons why foreign direct investment may result in enhanced growth performance of the receiving country. In the neoclassical growth literature, FDI is associated positively with output growth because it either increases the volume of investment and/or its productivity, thus putting the economy on a path of higher long-term growth. In an exogenous growth model, FDI has only a level effect in the steady state and no permanent impact on the growth rate, except during the transitional dynamics to the new steady state. The potential role of FDI is much greater in endogenous growth models. In a neoclassical production function, output is generated using capital and labor in the production process. With this framework in mind, FDI can exert an influence on each argument in the production function. FDI increases capital; it may qualitatively improve the factor labor and by transferring new technologies, it also has the potential to raise total factor productivity. Thus, in addition to the direct, capital-augmenting effect, FDI may also have additional indirect (and thus permanent) effects on the growth rate. Most importantly, FDI can permanently increase the growth rate through spillovers and the transfer and diffusion of technologies, ideas, management processes and the like (Kinoshita, 2001).

The literature mentions basically four channels that allow for technological spillovers from FDI to the host economy (Kinoshita, 2001; Halpern and Muraközy, 2005): First, the classical indirect channel for the transmission of technology from FDI to the domestic economy functions via imitation. The effect of FDI depends crucially on factors such as the legal system, regulations, infrastructure and human capital endowments, as well as the complexity of the technology. Secondly and often considered the most important channel, training of local workers in foreign-owned companies generates positive spillovers through the acquisition of human capital. Thirdly, foreign presence increases competition in a market. The impact of FDI on the market structure depends on the size of the technology gap, as well as on entry and exit behavior in the market. Finally, there are vertical or backward spillovers. By purchasing intermediates from foreign suppliers or by selling output to foreign companies, local companies will be affected positively in terms of efficiency and quality of output. Thus, the increased variety of intermediate goods may induce a more effective international specialization in production and this, together with increasing returns to scale in production, will result in higher productivity growth.

Spillovers occur when multinationals are unable to capture all the productivity effects that follow in the host country's local companies as a result of the presence of the multinational (Caves, 1996) companies is mixed. On the one hand, foreign companies spend on average more on training of workers than do local companies. Conversely, foreign-owned companies may skim the market of well-trained workers and – at least in the short run – free-ride on previous training by domestic companies. The smaller the wage differential between foreign and domestic companies, the greater the scope for positive spillovers since this would also allow domestic companies to attract well-trained workers from foreign companies.

2.1.3 Implications of FDI for poverty alleviation

It is widely believed that, given the appropriate host-country policies and a basic level of development, benefits that might accrue from FDI include employment creation, the acquisition of new technology and knowledge, human capital development through

employee training in new business ventures (for example multinational relocating), contribution to international trade integration, creation of a more competitive business environment and enhanced local/domestic enterprise development, flows of ideas and global best practice standards aiding international competitiveness and increased tax revenues from corporate profits generated by FDI. All of these forms of benefits are expected thus to contribute to higher economic and employment growth, which is the most important/effective tool for achieving improvements in human well being or alleviating poverty in developing countries (Burger, 1999).

Among various forms of FDI contributions, it is widely believed that the most important one for reducing poverty is widening access to employment, especially productive employment. Experiences in many developing countries shows that insufficient job opportunities are the result of inadequate levels of investment, both domestic and foreign. Low investment also makes other forms of poverty alleviation more difficult, because lower rates of economic growth than the rate of population growth means that each year more people are added to the ranks of the poor(Burger, 1999).

2.1.4 How does foreign direct investment affect poverty?

Arguments from the literature

FDI's influences on poverty reduction can be classified into indirect and direct impacts. The indirect impact works through FDI's contribution to economic growth given the increasingly accepted role of economic growth in poverty reduction (World Bank 2000; IFC 2000; Dollar and Kraay 2001). In addition, FDI contributes to tax income of the state budget and may thus facilitate government-led programs for the poor (Klein et al. 2000). Moreover, FDI may induce host governments to invest in infrastructure. If this investment is in poor areas it may benefit the local poor. The direct impact of FDI on poverty is assumed to be its effects on unemployment (Chudnovsky and Lopez, 1999; IFC, 2000).

2.1.5 Indirect Effects of FDI on Poverty

Regarding FDI's indirect impact on poverty, FDI may affect economic growth through raising total capital formation. This is because FDI provides external finance and may help reduce financial constraints on investment due to low savings in LDCs. Moreover, FDI may crowd in domestic investment through backward and forward linkages further pushing economic growth. In addition, inward investment may induce local governments to invest in infrastructure like roads, bridges, harbors, water and electricity supply which might facilitate domestic investment as well. Externalities and spillover effects that foreign-invested enterprises may have on domestic ones horizontally and/or vertically have also been recognized as a benefit accruing to host LDCs (Burger, 1999). More importantly, FDI may bring technology, know-how, management and marketing skills to LDCs representing something more than a simple import of capital (Blomström and Kokko, 1996).

Technology Diffusion Impacts of FIEs on local counterparts include (i) technology (including organizational technology) transfer and (ii) technology dissemination.

i) Technology transfer is a formal transfer of technology that works through markets (for example, licensing, joint ventures).

FDI involves technology transfer to host countries in the sense that transnational corporations transfer their physical goods and tacit knowledge, which comprises new skills, technical and organizational capabilities to foreign affiliates and other local related parties in concomitant with injecting capital activities (UNCTAD, 1999,).

Technology transfer through FDI is thus an internalized transfer or an intra-firm transfer, as distinguished from externalized transfer like licensing. Through FDI, more technologies become available in host countries, or host countries can use a larger range of technology and expand their productive base. Moreover, generally new, valuable technologies are more likely to be transferred through FDI than through licensing to unrelated parties to TNCs because of imperfect technology markets aforementioned. In addition, the continued stake of foreign investors in FIEs may induce them to keep the

enterprises updated with technology. In principle, FDI provides an access to the whole range of TNC technological, organizational and skill assets.

ii) Technology dissemination and spillover: these effects occur in informal, non-market mediated channels. They imply the productivity or efficiency benefits accruing to host country enterprises due to the presence of FIEs and these cannot be reaped by FIEs (Blomström and Kokko, 1996). Technology dissemination thus represents an externality or unintentional technology transfer from FIEs. Generally, the less firm-specific the technology the wider the spillover is. Spillovers may be found in different forms: imitation, reverse engineering and spillover from competition.

Technology dissemination and spillover can occur through different channels:

a) Vertical linkage: FIEs may give technical assistance to their suppliers or buyers. Close linkages between FIEs and their local upstream suppliers or subcontractors and downstream distributors seem more likely to lead to (uncompensated) technology dissemination (Blomström et al., 1999). They may also induce workers in FIEs to turn to FIEs' customers or suppliers, and thereby disseminating technology from FIEs.

Technology dissemination through vertical linkages in this sense depends on local content requirements, ownership requirements, the technical capability (the absorptive capability) of local suppliers or customers and (local) market size. Though formal technology diffusion requirements seem to promote technology dissemination notoriously, empirical results do not support this (Kokko and Blomström, 1995; Blomström et al., 1999). This is because these policies may discourage FDI inflows and therefore dissemination effects. Only local technical capability is a widely accepted determinant of technology dissemination in empirical studies (Kokko and Blomström, 1995; UNCTAD, 1999). Market size may affect technology dissemination since in large economies, there may be multiple suppliers and distributors of FIEs, so vertical linkages may be more likely to occur, assuming that local technological capability is not so backward.

b) Labor turnover: technology is embodied not only in equipment, expatriate managers and technicians but also in workers in FIEs. This is acquired through either FIEs' formal training or non-formal training aforementioned. Labour turnover may disseminate technology to other companies in the domestic economy when workers trained or employed by FIEs switch to domestic employers or start running their own business.

This fact may induce foreign investors to pay efficiency wages to productive employees in order to keep them in the FIEs. In other cases, it may discourage foreign investors to invest in local human capital or in host countries that in turn may have more adverse effects on long-run economic growth of host countries. Thus, labour turnover limitations have been conducted in some developing countries.

c) Demonstration effect: this effect refers to the fact that successful introductions of new products or new processes by FIEs may reduce the risk and information costs associated with the adoption of those products or processes thereby stimulating domestic enterprises to follow up through imitation or reverse engineering (i. e. learning-by-watching). This is because in the absence of FIEs, it may be very costly for domestic firms to collect information on new products or processes (Saggi, 2000). The point is that FDI may expand the set of technology available to local enterprises.

The demonstration effect hence tends to depend on the pool of FDI, the technology gap between foreign and local firms and on the competitive environment. The larger the pool of FDI, the greater the possibility that domestic investors can choose the most suitable activity to imitate. The technology gap matters because there might be little scope for domestic enterprises to learn and imitate when foreign technology far exceeds domestic technology. However, this may not be the case if the local workforce possesses a sufficiently high level of education and training. This situation may to some extent be found in Vietnam since the Gov. has long pursued policies that promote education while investment activities, except that of state-owned enterprises, have been discriminated.

The competitive environment might motivate domestic firms to adopt foreign technology in order to successfully compete with foreign firms. This in turn may induce foreign

firms, facing increased spillovers, to use technology with lower quality thereby affecting adversely the demonstration process. Hence the net impact of a competitive environment on the demonstration effect is somehow inconclusive.

d) Market structure effect: The presence of foreign affiliates may make the market more competitive. As a result, local firms, in facing increased competition, tend to use their existing factors of production more efficiently or adopt new foreign technology quicker.

This may, on the one hand, stimulate foreign enterprises to introduce new technology quicker to get a superior position; on the other hand, it may induce them to use technology with lower quality to reduce leakage to domestic firms. Given the positive effects of FDI on local economic growth, the indirect impact of FDI on local poverty then depends upon how economic growth affects poverty. Theoretically, this may occur through different channels. Firstly, economic growth may affect poverty through its impact on investment and employment. On the supply side, according to the flexible accelerator principle, 'an increase in the growth rate of output-an acceleration-is needed to increase the level of investment'. On the demand side, as an economy grows there is increasing demand for existing products or arising demand for new products (UNCTAD, 1999) thereby raising demand for investment. Since investment and technology innovation are the main drive for jobs and worker income, poverty may be improved. Secondly, economic growth may improve (national and local) budgets thereby facilitating (national and local) government spending on social programs, that may directly aim at the poor, and on public investment in infrastructure especially in poor areas. This may create more jobs for the local poor as well as improve their life environment. World Bank (2000) concluded that economic growth is the single most important influence on poverty.

In addition to the effects on growth, FDI may affect local poverty through its contributions to the budget of the host country and through its effect on government investment. FDI's contribution, notably in terms of tax and fee payments, allows the host to raise its spending on social programs. If these programs are targeted at the poor, say, investing in irrigation systems, in rural roads, schools, clean water, health care, FDI may

considerably contribute to local poverty reduction. Moreover, FDI may induce local governments to invest in infrastructure (roads, electricity, water and sanitation supply, etc.) in a way that it benefits the local poor.

2.1.6 Direct Effects of FDI on Poverty

FDI's direct impacts on poverty may work through providing opportunities, particularly providing jobs and training to local workers. To the extent that foreign capital inflows do not replace local investment absolutely and foreign investment takes the mode of Greenfield investment FDI may contribute to reducing existing unemployment and underemployment, providing people with income and therefore directly contributing to poverty reduction. In this sense FDI's impact on poverty works through its impacts on employment. This impact has been considered a major impact of FDI on poverty (Chudnovsky and Lopez 1999, IFC 2000).

FDI's impacts on employment refer not only to employment created within FIEs (direct employment) but also to employment created in related entities vertically or horizontally or macro economically (indirect employment) (UNCTAD 1994). With direct employment, FDI may reduce unemployment or underemployment when it comes under the mode of green-field investment. Green-field investment implies investment which relates to producing distinctive products without close substitutes in the host country.

Conversely, FDI may raise unemployment when it is a merge-and-acquisition activity. This is because merge-and-acquisition activities are usually followed by restructuring the merged enterprise in accordance with the objectives underlying the merge-and-acquisition (UNCTAD, 1999). However, when FDI takes the mode of merge-and-acquisition of moribund enterprises it may help prevent potentially increased unemployment and therefore poverty. In other situations, foreign investors may preempt investment opportunities for any local firms, the resulting direct unemployment impact may not be of great value since similar results would have been occurred otherwise. With regard to indirect employment in vertically related entities, including backward (or upstream) linkages like suppliers, subcontractors, service providers and forward (or

downstream) linkages like distributors, service agents, FDI's implication is more complicated. It may raise employment in backward-linkage entities when it purchases raw materials, spare parts, components and services from them helping them extend operations. On the contrary, FDI may have no effect or even negative effects when it relies on imported inputs. Similarly, FDI may have a positive impact on employment in forward-linkage entities when using local distributors or may not have any positive impact otherwise. With regard to indirect employment in horizontally related entities like local enterprises competing in the same industries with foreign affiliates, FDI may have a negative impact when it out competes these local entities. This kind of effect is especially significant when foreign affiliates with capital intensive and knowledge intensive technologies replace small, and usually labor intensive, enterprises. This may quite be the case since foreign investors are supposed to possess a large pool of technology that may grant them a higher productivity compared with their domestic counterparts equipped with poorer technologies. In contrast, FDI may have a positive impact when it helps the domestic enterprises raise the productivity or the quality of products, unintentionally or compulsory by host governments, thereby expanding their access to the foreign market for example. Macroeconomic effects of FDI on employment refer to employment indirectly generated in the host economy as a result of spending of FIEs' workers or shareholders or employment indirectly replaced due to crowding out effects (UNCTAD, 1994).

In the framework of the Heckscher-Ohlin model, FDI to developing countries may generate adverse effects on unemployment and poverty. This is because (unskilled) labor abundance is assumed to be prevalent in LDCs and this engenders lower relative price of (unskilled) labor compared with developed countries and results in higher relative production of labor-intensive products than in developed countries. FDI inflow may therefore lead to an increase in production of capital-intensive products and a shrinking in the traditional, labor-intensive, sector provided that relative product prices are unchanged, relative factor prices are constant and production technology is the same (Krugman and Obstfeld, 1997). This kind of outsourcing activities may, however, be regarded by developed countries as relatively labor-intensive ones (Feenstra and Hanson,



1997). Demand for skilled labor in the capital-intensive sector in LDCs may thus increase while that for unskilled workers may be left unchanged or even adversely affected. In this sense, FDI's implication on unemployment, especially of unskilled workers, and therefore FDI's implication on poverty, will be adverse. Hence the impacts of FDI on employment are complicated and it is hard to predict the net result. Moreover, assessing FDI's impacts may need to take into account its possibly dynamic impacts. Although employment contraction may occur in the short-run as domestic firms adjust to the competitive pressures from FIEs, in the longer run, employment prospect may improve as domestic firms adapt to the new environment and economic growth induced by FIEs occurs.

Given the potential role of FDI with respect to employment creation and the practice of high unemployment and underemployment in host LDCs, some governments in the host LDCs establish export-processing zones (EPZs) to attract resource-seeking investment by low labor cost, and somewhere, loosen labor standards, among other factors. Though there are widespread issues in these EPZs (ILO 2001), they provide workers with income that otherwise some of them would not have. The fact that FDI in the labor intensive sectors that entail little training like clothing, food processing, electronic assembly industries tend to employ mainly young women may improve the poverty state of low skilled women workers.

FDI's implications on poverty do not work only through increased employment but the quality of employment and the location of employment created are also of concern. FIEs may reduce underemployment in host LDCs by offering jobs with higher pay, better working conditions, training and promotion. FDI in low-wage, low-skill labor industries without or with negligible training or upgrading human capital may help reduce poverty in the short-run but not in the long-run. With less investment in physical and human capital like inward investment in garments, footwear, or electronic assembly, this kind of FDI locks workers in a low-skill state and it can easily move to new places having lower labor costs thereby leaving workers become redundant. In this sense, it is not only that an employment is offered to the poor but also which kind of employment being created and

the sustainability of the employment are of relevance to help the poor. In other cases, the presence of FIEs may erode the wage level as domestic enterprises now try to compete by reducing labor costs (ILO 2001).

Location of employment created by FDI seems to be of direct relevance to poverty reduction. FIEs in areas with high unemployment or underemployment, loosely speaking, poor areas, may raise income directly in such areas. Similarly, in case FDI stimulate migration of domestic investors to poor areas with widespread unemployment or underemployment, it is considered to reduce poverty as well. However, these effects seem rarely to occur except the case of resource-seeking FDI or the host governments have policies to promote investment in such areas to exploit excess labor supply. To the extent that FDI locates in congested urban areas with good infrastructures it may just worsen income distribution and its implication on poverty seem thus negligible. Likewise, FIEs that crowd out local producers in poor areas by their competitiveness or by reliance on imports adversely affect poverty.

Apart from the impact on unemployment and underemployment, FDI may have indirect impact on poverty through its impact on public investment. As infrastructure is a determinant of FDI aforementioned, FDI may induce host governments to invest in infrastructure. If this investment is in poor areas it may benefit the local poor (ILO, 2001).

2.2 EMPIRICAL LITERATURE

Several researches have been devoted to the causality direction between FDI and economic growth using number of econometric techniques including Granger-causality test (the most used test in the literature) and Toda-Yamamoto test. The findings are mixed.

2.2.1 Empirical study in developing Countries experiences

Nair-Reichert and Weinhold, (2001) suggested the dramatic increases in global trends in FDI flows to developing countries both quality and quantity. Vietnam has been reasonably successful in attracting FDI since it implemented its Foreign Investment Law

in 1987. According to Ministry of Planning and Investment, from 1987 to the end of 2003, total FDI inflows to Vietnam were approximately US\$ 40.8 billion in terms of commitments, while the actual inflows were US\$ 25 billion.

Additionally, the significant contribution of FDI to economic growth has been realized through GDP growth, international trade, and employment. Furthermore, the number of people living below the poverty line in Vietnam has been significantly reduced since the opening of the country in 1987. According to a poverty report provided by the World Bank (2003), the percentage of people living below the standard poverty line in Vietnam decreased rapidly from 58 percent in 1993 to 29 percent in 2002.

Study conducted by Bende-Nabende, (1998) which was focused on five South East Asian countries, and found a positive direct link between FDI and economic growth. In the study, he found that FDI for Indonesia, Malaysia and the Philippines are positively correlated with growth, while that for Singapore and Thailand are negatively related. Moreover, the result revealed that FDI stimulated economic growth in those ASEAN countries mostly through human capital and employment. FDI contributes to economic growth directly by creating employment opportunities and indirectly through the creation of employment opportunities in other organizations. Indirect employment created by foreign affiliates in host countries can be large, probably larger than that created directly. With the growth of international production, the share of employment creation by foreign affiliates is growing. Employment creation in host countries has been partly attributed to the labor-intensive nature of the economic activities established by foreign companies. Thus, this gives an indication that labor abundant countries are likely to create more employment by following an outward- looking rather than inward- looking approach.

The existence of FDI in host country also has impact on stock of physical capital and the efficiency of investment in the countries, and thus the effectiveness of domestic investment. Bende-Nabende (1998) found that FDI generated positive impulses on capital formation in the Philippines and Thailand. From his study Bende-Nabende (1998) concluded that inflows of FDI in each province have a positive impact on the economic growth of the province. The higher the inflows of FDI in each province, the higher the

gross domestic product in that province. This indicates the existence of positive consequences of FDI on economic development and growth in the host country which could directly and indirectly affect poverty. Dollar and Kraay (2000), using the Deninger and Squire Database, found that growth tends to increase the incomes of the poor proportionately with the overall growth. FDI is a key figure for generating growth and thus it is an important ingredient for poverty reduction. In the study, they investigated this phenomenon by testing the relationship between the income of the poor (bottom 20% of the income distribution) and overall income using data on income of the poor and mean income for 80 countries over 40 years. They suggested that when overall income increases, on average incomes of the poor increase by exactly the same rate. They also found that openness to international trade and improvement in the rule of law raise incomes of the poor by raising per capita GDP but do not significantly influence the income distribution.

Study conducted by Roemer and Gugerty (1997) indicated that on average the poor do benefit from the growth which they further justified as an increase in the rate of GDP per capita leads to a one for one increase in the average income of the poorest (bottom 40% of income distribution). Kakwani (2000) agree that the positive effects of FDI tend to outweigh the negative effects, resulting in economic growth and poverty reduction. An increase in the growth rate per capita GDP strongly correlates with average incomes of the poor.

Foreign direct investment mainly promotes growth and affects the quality of growth especially poverty reduction and thereby reduces income poverty. It may reduce the adverse shock to the poor from financial instability and improve the capacity management of the government. Nordstrom et al. (1999) suggest that economic integration is generally a positive contributor to poverty alleviation, by allowing people to exploit their productivity potential, promoting economic growth, and helping the country to prevent the unexpected shocks. Although they found no direct links between FDI and poverty reduction, they concluded that the scale effects which are the impact of FDI on growth via economic activities, and employment outweighed the quality effects

which are the direct impact of FDI on poverty reduction, level income of poor, and skill improvement. Tulus Tambunan (2000) from his study suggested that developing countries in Asia, Africa and Latin America have come increasingly to see foreign direct investment (FDI) as a source of economic development, modernization, income growth, employment, and so poverty reduction.

Grossman and Helpman, (1991), Borensztein, et al., (1998) as discussed in more recent theoretical growth models by raising the number of varieties for intermediate goods or capital equipment's FDI can also increase productivity. Indeed, recently, Chowdhury and Mavrotas (2006) test the direction of causality between FDI and GDP growth for three major FDI recipients (Chile, Malaysia and Thailand) between 1969 and 2000. They use the Toda-Yamamoto test instead of the standard Granger causality-type test thoroughly used in the literature. Their empirical findings seem to suggest that GDP causes FDI in Chile and not vice versa, and in both Malaysia and Thailand, there is strong evidence of a bi-directional causality between GDP and FDI. Hansen and Rand (2006) re-examine the causal links between FDI and economic growth in 31 developing countries over 31 years (1970-2000). They use bivariate vector autoregressive (VAR) models for GDP and FDI ratios. They find a strong causal link from FDI to GDP, even in the long run. They also find that GDP Granger-causes FDI, but find no impact on the long-run level of the ratio of FDI over GDP.

Meanwhile, Carkovic and Levine (2005) study the relationship between FDI and economic growth for 72 countries. They find no support for the claim that FDI per se accelerates economic growth. Therefore, the findings in the former two papers contrast with those of the later one. With these mix views on the causality link between FDI and economic growth, some researchers instead analyze the causal relationship between FDI and growth in specific economic sectors or particular regions.

For example, Alfaro (2003) found that the impact of FDI varies greatly across sectors by examining the effect of FDI on growth in the primary, manufacturing, and services sectors. Using cross-country data between 1981 and 1999, her findings suggest that FDI exerts an ambiguous effect on growth in general. However, FDI in the primary sector

seems to have a negative effect on growth, while investments in manufacturing have a positive one. Evidence from the services sector is ambiguous.

Concerning the regional analysis, Apergis et al. (2007) examine the impact of FDI on economic growth using panel data set from 27 European transitional economies over the period 1991-2004. Their empirical findings show that FDI does exhibit a significant positive relationship with economic growth, at least, for those transition countries that are characterized by high levels of income and have implemented successful privatization programs.

A study conducted in Africa by Gaston Gohou and Issouf Soumaré (2009) revealed that that, there is a strong positive relationship between FDI and welfare at the aggregate Africa level.

As we discussed above, several researches have investigated the relationship between FDI and economic growth using FDI variables and GDP growth variables with mixed results. While the literature is ubiquitous on the impact of FDI on economic growth, it is rather poor when the interest is on the impact of FDI on welfare. Basically, most previous studies assume that economic growth and welfare are positively correlated and hence, used GDP growth as a proxy for welfare. However, this implicit assumption has been recently challenged (e.g., Anand and Sen (2000)). Several evidences show that GDP growth can occur while poverty incidence is increasing also.

To overcome this limitation, recently few papers analyze the direct relation between FDI and welfare. Sharma and Gani (2004) is one of the few papers that analyze the link between FDI and welfare using HDI as welfare measure. They find a positive effect of FDI on HDI for and low-income countries between 1975 and 1999.⁶ As far as we know no middle such a study has been done for Ethiopian alone.

CHAPTER THREE

3. METHODOLOGY OF THE STUDY

3.1 STUDY DESIGN

This study employed an explanatory survey research design following more of quantitative approach to examine the impact of foreign direct investment on poverty reduction in Ethiopia. Explanatory research design shows the relationship between two variables.

3.2 DATA SOURCE AND COLLECTION METHODS

Data for the study were obtained from both primary and secondary data sources. The secondary data were collected from published reports and official web pages of Ethiopian Investment Agency, World Bank, UNDP, and NBE. In order to support the secondary data, primary data were obtained through conducting focus group discussion with macroeconomic experts working in National Bank of Ethiopia, MOFED, Ethiopian Economic Association and Ethiopian Investment Agency selected through judgmental sampling method.

3.3 DATA ANALYSIS

Collected data were analyzed and interpreted through the use of different techniques of data analysis and interpretation. Both qualitative and quantitative data was analyzed through the use of qualitative and econometric tool. In order to examine whether foreign direct investment will add values in alleviating poverty in Ethiopia, data collected were analyzed using statistical tools and econometric model, i.e. time series regression model. The econometric tool was helpful in depicting the relationship between dependent and independent variables. A STATA software version 10 package was employed for regression purpose. Further STATA software was used to test stationary, co-integration, model accuracy and other econometric problems like test for multicollinearity, heteroskedasticity, and autocorrelation.

3.4 DESCRIPTION OF VARIABLES

Dependent variables

According to Marta (1999), Hans-Rimbert (2002),Alfaro et al. (2004), Apergis et al. (2007), hung (2002),Gaston and Issouf (2009) FDI has a direct impact through reduction of poverty and indirect impact through economic growth. Thus to show the twofold impact of FDI on poverty, the study were used two dependent variable. Such as;

1. **Poverty incidence:** poverty incidence is a comprehensive measure of well-being in a country as it takes into consideration all aspects of an individual living (health, education, access to basic services, food, etc.) and compares it against the minimum needed for a decent living. Nevertheless, poverty incidence measure is not recorded on an annual basis. These limitations do not allow its use in empirical studies. Therefore, a more appropriate indicator of population wellbeing has been defined recently by the United Nations Development Programme (UNDP) as the Human Development Index (HDI) (Gaston and Issouf, 2009). Therefore, for this study, our main poverty indicator is HDI. According to the UNDP, “The HDI – human development index is a summary composite index that measures a country's average achievements in three basic aspects of human development: health, knowledge, and a decent standard of living.
2. **GDP growth:** it captures economic dimension effect of FDI on poverty through economic growth (Gaston and Issouf, 2009)

Independent variables:

According to the Marta (1999), Hans-Rimbert (2002) ,Alfaro et al. (2004), Apergis et al. (2007), hung(2002),Gaston and Issouf, (2009), the impact of FDI on poverty reduction has two effects. The indirect effect is through increasing economic growth and subsequently, the reduction of poverty and the direct effect is through FDI's direct effects on poverty.

Foreign direct investment variables

According to Alfaro et al. (2004), Apergis et al. (2007), Hung, Gaston and Issouf (2009), FDI is measured by FDI net inflows, which is the sum of equity capital, reinvestment of earnings, long term capital and short-term capital as shown in the Balance of Payment. We use three FDI variables: (i) FDIPOP: per capital FDI or ratio of FDI net inflows over total population; (ii) FDIGDP: ratio of FDI net inflows over GDP; and (iii) FDIGCF: ratio of FDI net inflows over gross capital formation (GCF).

CONTROL VARIABLES

According to Marta (1999), Hans-Rimbert (2002), Alfaro et al. (2004), Apergis et al. (2007), hung (2002), Gaston and Issouf (2009)

- Government spending ratio (GOVSPEND), measured by government total Consumption over GDP, this variable is also used to capture government size
- Inflation measured by the percentage change in GDP deflator ;
- Infrastructure measured by gross fixed capital formation
- Degree of openness (OPENNESS) measured by total imports plus exports over GDP
- Gross domestic investment-measured by gross capital invested by domestic investors.
- Productivity: According to hung, total labor force was used as a proxy of productivity

3.5 MODEL SPECIFICATION

There are many variables that are essential in explaining the relation between FDI inflows and poverty reduction in developing countries (Dunning, 1993). However, it is not possible to include all of them in a given study. Their selection might be based on their level of significance and availability of data. This study will use two regression

analyses to evaluate the relationship between FDI and economic growth, and then the impact of growth and FDI on poverty reduction. Since the study covered the period from 1981 – 2010, using annual data and the variables discussed in the variable description section constitute time series information. Thus to arrive on the desired objectives, econometric regression were undertaken by using time series analysis models.

The specified models were:

Model one: the indirect effect of FDI on poverty reduction

$$\text{Growth} = f(\text{FDIPOP}, \text{FDIGDP}, \text{FDIGCF}, \text{Control variables}) \dots \dots \dots (1)$$

$$\text{GDPGR} = \alpha + \beta * \text{FDI} + \text{ri} * \text{control variables} + \varepsilon \dots \dots \dots (2)$$

Model two: the direct effect of FDI on poverty reduction

$$\text{Poverty incidence} = f(\text{FDIPOP}, \text{FDIGDP}, \text{FDIGCF}, \text{Control variables}) \dots \dots \dots (3)$$

$$\text{HDI} = \alpha + \beta * \text{FDI} + \text{ri} * \text{control variables} + \varepsilon \dots \dots \dots (4)$$

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

In general, in this fourth chapter of the research report, the data set defined in chapter three is presented and analyzed. Besides, in each sub-section brief interpretations are made to the results obtained. This chapter, therefore, preaches about; firstly the discussion of the summary of descriptive statistics results of key variables, secondly, illustration and discussion of the correlation analysis among basic variables, thirdly, interpretations of basic time series tests of stationary, co-integration, heteroscedasticity, autocorrelation, multicollinearity, and model specification, fourthly detail discussions based on the regression results, and Finally, a detail interpretation was made based on the regression results.

4.1 SUMMARY OF DESCRIPTIVE STATISTICS

In this section the results from descriptive statistics are discussed. The descriptive statistics was used in order to get insight into the trend of Human Development Index, GDP growth, per capital FDI, ratio of FDI net inflows over GDP, ratio of FDI net inflows over gross capital formation, and other chosen control variables among the sample period and it is used as base to forward recommendations after determining the relationship between the variables from correlation and regression analyses.

Table 4.1 presents the descriptive statistics of variables over the sample period including the mean distribution, standard deviations, minimum and maximum values of study variables for the study period i.e. 1982 to 2010. The study has used eleven variables for the analysis purpose including three independent variables, two dependent, and six control variables. Those are human development index (HDI) and gross domestic product growth rate (GDPGR) as a dependent variable, Per capital FDI (FDIPOP), ratio of FDI net inflows over GDP (FDIGDP), and ratio of FDI net inflows over gross capital formation (FDIGCF) as an independent variable, government spending (GOVS), Inflation (INF), degree of openness (EIGDP), Gross domestic investment (GDIGDP), Productivity (LF), and infrastructure (GFCF) as a control variable.

VARIABLE	OBS	MEAN	STD. DEV.	MIN	MAX
HDI	29	.2768621	.0372748	.231	.358
GDPGR	29	4.710025	7.025583	-11.1443	13.8596
FDIFOP	29	1.777274	.3177932	-.0672713	7.515159
FDIGDP	29	.0129476	.0173642	-.0004241	.0545507
FDIGCF	29	.0586197	.079007	-.0025595	.2486635
GOVS	29	.1115088	.0269303	.0628798	.1788801
LF	29	.4539367	.0171693	.4369469	.5026929
INF	29	7.458474	10.06864	-6.120973	31.78752
GFCF	29	18.60086	4.373512	10.7136	25.46706
EIGDP	29	29.16829	12.33312	10.83072	50.57914
GDIGDP	29	21.2249	13.0552	10.714	59.02

Table 4.1: Summary of descriptive Statistics

From table 4.1 the mean value of human development index is 0.28 percent and a standard deviation is 0.037 percent. The minimum value of human development index is 0.331 percent while the maximum is 0.358 percent. The growth Ethiopian economy over the sample period, on average, is 4.7 percent as measured by gross domestic product. It deviates from mean value two both sides by 7.03 percent. The minimum and the maximum values are -11.14 percent and 13.86 percent respectively.

To study the impact of foreign direct investment on poverty, this study has used three variables that measure the net inflows foreign direct investment such as FDIFOP, FDIGDP, and FDIGCF. The average net inflow of foreign direct investment in proportion to total population is 1.78 percent. However, the standard deviation of inflows of foreign

direct investment in proportion to total population accounts 0.32 percent. The minimum inflows of foreign direct investment in proportion to total population over the sample period were -0.067 percent and the maximum of 7.52 percent. Regarding to inflows of foreign direct investment in proportion to GDP, the mean value is 0.013 percent with the standard deviation of 0.017 percent. It means on average net inflows foreign direct investment 0.013 percent as compared to the total GDP of the country which is fluctuated by 0.017 percent from its mean over the sample period. Regarding inflows of foreign direct investment in proportion to gross capital formation, the mean value is 0.059 percent with a standard deviation of 0.079 percent. The minimum value of foreign direct investment in proportion to gross capital formation is -0.002 percent while the maximum is 0.249 percent.

The descriptive statistics table also includes the descriptive statistics of control variables used in the study, which are general to the whole the economy of the country. The descriptive statistics of these variables are summarized as follows:

The first control variable government spending in proportion to GDP over the sample period has mean value of 0.11 percent the standard deviation is 0.026 percent with a minimum and maximum value of 0.06 and 0.18 percent respectively. On the other hand, the average productivity of the country measured by labor force in proportion to total population over sample the period accounts 0.45 percent with the standard deviation of 0.017 percent.

In the same way, the descriptive statistics for inflation is also presented in the same table 4.1, which is measured by GDP deflator. The mean value of inflation is 7.45 percent and a standard deviation of 10.06 percent. This deviation shows that the inflation rate fluctuates by 10.06 percent from its mean. The minimum and the maximum values are -6.12 percent and 31.78 percent respectively. On the other hand, the mean of gross fixed capital formation is 18.6 percent in proportion to GDP with the standard deviation of 4.37 percent. The minimum proportion gross fixed capital formation to GDP is 10.71 percent and the maximum of 25.47 percent.

In addition to the above specific variables, openness measured by export and import in proportion to GDP was also used as a one control variable. The average export and import in proportion to GDP over the sample period is 29.17 percent with the standard deviation of 12.33 percent. The minimum value of openness measured by export and import in proportion to GDP is 10.83 percent while the maximum is 50.58 percent.

Finally, domestic investment in proportion to GDP over the study period has 21.22 percent average values and it deviates from the mean by 13.06 percent. The minimum and maximum values of domestic investment in proportion to GDP are 10.71 and 59.02 percent respectively.

4.2 CORRELATION ANALYSIS: RELATIONSHIP BETWEEN FOREIGN DIRECT INVESTMENT AND POVERTY INDICATORS

The descriptive statistics above shows the average values, with their respective variations, the minimum and the maximum values of the variables of the study. In this sub section of the study the results and discussions of the correlation analysis are presented. The correlation analysis was done to analyze the linear relationship between foreign direct investment and poverty indicators in Ethiopia. To examine the relationship among variables, Pearson correlation coefficients were calculated.

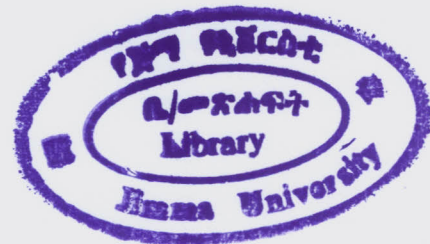
Pearson correlation among explanatory variables (correlation coefficients between three independent variables and six control variables) is also used to test multicollinearity problem of the models of the study. The rule of thumb for multicollinearity problem is that, if the pairwise or zero orders correlation coefficient between independent variable is high, in excess of 0.8, multicollinearity is a serious problem (Gujarati, 2004). In the following two Pearson correlation table the p-values are listed in parenthesis.

4.2.1 Correlation analysis-human development index as a poverty indices proxy

Table 4.2 shows the correlation matrix that predicts the likely relationship of the human development index with three foreign direct investment measures and the control variables of the study.

	HDI	FDIFOP	FDIGDP	FDIGCF	GOVS	GDIGDP	EIGDP	INF	LF	GFCF
HDI	1.0000									
FDIFOP	0.4357 (0.0182)	1.0000								
FDIGDP	0.3483 (0.0641)	0.4906 (0.0000)	1.0000							
FDIGCF	0.3323 (0.0782)	0.4259 (0.0000)	0.5682 (0.0000)	1.0000						
GOVS	-0.0162 (0.9334)	0.3471 (0.0651)	0.3665 (0.0505)	0.3760 (0.0444)	1.0000					
GDIGDP	0.4806 (0.0000)	0.0730 (0.7065)	0.0067 (0.9727)	-0.0130 (0.9465)	-0.1175 (0.5440)	1.0000				
EIGDP	0.2257 (0.0000)	0.3282 (0.0000)	0.5646 (0.0001)	0.3530 (0.0001)	0.3073 (0.1049)	0.5405 (0.0025)	1.0000			
INF	0.3916 (0.0357)	-0.1077 (0.5780)	-0.1494 (0.4392)	-0.1551 (0.4217)	-0.3164 (0.0944)	0.4594 (0.0122)	0.10969 (0.5716)	1.0000		
LF	0.5536 (0.0000)	0.1793 (0.3521)	0.0775 (0.6896)	0.0555 (0.7750)	0.09690 (0.6171)	0.5537 (0.0000)	0.50770 (0.0005)	0.4022 (0.0305)	1.0000	
GFCF	0.5366 (0.5366)	0.5901 (0.0000)	0.5477 (0.0001)	0.5334 (0.0002)	0.3576 (0.0569)	0.4835 (0.0079)	0.3599 (0.0000)	-0.1536 (0.4262)	0.4198 (0.0234)	1.0000

Table 4.2: Correlation Analysis of HDI with FDI and control variables



In table 4.2, using the Pearson correlation, independent variables; per capita foreign direct investment(FDIPOP), ratio of FDI net inflows over GDP (FDIGDP), and ratio of FDI net inflows over gross capital formation (FDIGCF) are positively and significantly correlated at 5 percent and 10 percent level of significance with human development index.

From table 4.2 above, the correlation coefficients of per capita foreign direct investment(FDIPOP), ratio of FDI net inflows over GDP (FDIGDP), and ratio of FDI net inflows over gross capital formation (FDIGCF) with human development index are 43.57, 34.83 and 33.23 percents respectively. This indicates that there is relatively a strong association of between per capital foreign direct investment and human development in contrast with FDIGDP and FDIGCF.

Furthermore, as it can be seen in table 4.2, using pearsons correlation, control variables; Inflation (INF), degree of openness (EIGDP), Gross domestic investment (GDIGDP), and Productivity (LF) are positively and significantly correlated at 1 percent, 5 percent and 10 percent level of significance with human development index. But government spending (GOVS) and infrastructure (GFCF) are insignificantly correlated.

4.2.2 Correlation analysis: Growth rate real gross domestic product as economic growth proxy

Table 4.3 shows, the correlation matrix that predicts the likely relationship of the Growth rate real gross domestic product with per capita foreign direct investment, ratio of FDI net inflows over GDP, and ratio of FDI net inflows over gross capital formation as independent variables and Inflation, degree of openness, Gross domestic investment, government spending, infrastructure and Productivity as a control variable of the study. This table also shows the linear relationship between each independent and control variables used in the study.

	GDPGR	FDIFOP	FDIGDP	FDIGCF	GOVS	GDIGDP	EIGDP	INF	LF	GFCF
GDPGR	1.0000									
FDIFOP	0.1795 (0.0004)	1.0000								
FDIGDP	0.1163 (0.5478)	0.4906 (0.0000)	1.0000							
FDIGCF	0.1078 (0.5778)	0.4259 (0.0000)	0.5682 (0.0000)	1.0000						
GOVS	-0.0196 (0.9198)	0.3471 (0.0651)	0.3665 (0.0505)	0.3760 (0.0444)	1.0000					
GDIGDP	0.3998 (0.0316)	0.0730 (0.7065)	0.0067 (0.9727)	-0.0130 (0.9465)	-0.1175 (0.5440)	1.0000				
EIGDP	0.4934 (0.0065)	0.3282 (0.0000)	0.5646 (0.0001)	0.3530 (0.0001)	0.3073 (0.1049)	0.5405 (0.0025)	1.0000			
INF	-0.2127 (0.2680)	-0.1077 (0.5780)	-0.1494 (0.4392)	-0.1551 (0.4217)	-0.3164 (0.0944)	0.4594 (0.0122)	0.10969 (0.5716)	1.0000		
LF	0.3636 (0.0525)	0.1793 (0.3521)	0.0775 (0.6896)	0.0555 (0.7750)	0.09690 (0.6171)	0.5537 (0.0000)	0.50770 (0.0005)	0.4022 (0.0305)	1.0000	
GFCF	0.4837 (0.0078)	0.5901 (0.0000)	0.5477 (0.0001)	0.5334 (0.0002)	0.3576 (0.0569)	0.4835 (0.0079)	0.3599 (0.0000)	-0.1536 (0.4262)	0.4198 (0.0234)	1.0000

Table 4.3 Correlation Analysis of GDPGR with FDI and control variables

In table 4.3, using the Pearson correlation, independent variable; per capita foreign direct investment is positively and significantly correlated at 1 percent level of significance with the growth rate of real gross domestic product. However, ratio of FDI net inflows over GDP and ratio of FDI net inflows over gross capital formation are insignificantly correlated.

Moreover, table 4.3 indicates, control variables; Gross domestic investment, degree of openness, infrastructure and Productivity are positively and significantly correlated at 1 percent, 5 percent and 10 percent level of significance with growth rate of real gross domestic product. But government spending (GOVS) and inflation were insignificantly correlated. As it is observed on the coefficients values, control variables degree of openness and infrastructure are strongly correlated with growth rate of real gross domestic product at 49.34 percent and 48.37percent in comparison with other control variables.

To sum up the discussion on the correlation analysis, although the pair wise correlations give proof of relationship between two variables; these measures do not allow the researcher to identify causes and effect relationships between the dependent, independent and control variables cumulatively. Simply the correlation result shows the coefficient and the direction of relationship between two variables without considering the collective effect of all the variables of the study. Another shortcoming of correlation analysis is that, it does not provide reliable indicators or coefficients of association in a manner which control for additional explanatory variables. However, it should be noted that a complete assurance about the significance of the relationship between the endogenous and exogenous variables can be obtained from the regression results which are discussed in the forthcoming section

4.3 GOODNESS OF TEST

4.3.1 TESTS FOR STATIONARY

Testing for the existence of unit roots is of major interest in the study of time series models and co-integration. The presence of a unit root implies that the time series under investigation is non-stationary; while the absence of a unit root shows that the stochastic process is stationary (Iyoha and Ekanem, 2002)

According to Granger (1986), stationarity tests are the pre-tests for avoiding spurious regressions. They are the starting point in any cointegration analysis as well as estimation of error correction models. A series is said to be integrated if it accumulates past effects, so that following perturbation the series does not return to any particular “mean” value, hence is non-stationary. Since such a series is non-stationary, the order of integration is therefore determined by the number of times it has to be differenced to attain stationarity. If two or more series are integrated of the same order, there exists the possibility to estimate a linear relationship between them (Engle and Granger, 1987). In this study, the Augmented Dickey Fuller (ADF) test was used to test for unit roots.

The results show that all the variables are non-stationary at levels and first difference because the absolute term ADF statistic is smaller than the absolute term critical value for rejection of hypothesis for unit roots and therefore had to be differenced to make them stationary. This means that the null hypothesis for unit root is not rejected for these variables. As shown in table 4.4, all variable are stationary at their second difference because the absolute term ADF statistic is greater than the absolute term of critical value for rejection of hypothesis for unit root.

Table 4.4: Unit root test on variables

Variable	ADF test statistic		Critical Value		Order of Integration
	With trend	Without trend	With trend	Without trend	
HDI	-6.968	-7.059	-3.596	-2.997	I(2)***
GDPGR	-7.311	-7.468	-3.596	-2.997	I(2)***
FDIFOP	-8.659	-8.845	-3.596	-2.997	I(2)***
FDIGDP	-8.156	-8.332	-3.596	-2.997	I(2)***
FDIGCF	-8.304	-8.482	-3.596	-2.997	I(2)***
GOVS	-6.039	-6.171	-3.596	-2.997	I(2)***
GDIGDP	-8.375	-8.422	-3.596	-2.997	I(2)***
EIGDP	-8.947	-9.186	-3.596	-2.997	I(2)***
INF	-9.942	-10.060	-3.596	-2.997	I(2)***
LF	-6.355	-6.099	-3.596	-2.997	I(2)***
GFCF	-14.119	-14.395	-3.596	-2.997	I(2)***

Thus, the stationary that the study conducted, suggest that the equation (5 and 6) should be estimated, using the differenced variables. The models estimated have the following forms:

$$\Delta\text{HDI} = \beta_1 + \beta_2\Delta\text{GDP} + \beta_3\Delta\text{FDI}/\text{GDP} + \beta_4\Delta\text{EL} + \beta_5\Delta\text{GS} + \varepsilon \dots\dots\dots(5)$$

$$\Delta\text{GDPGR} = \beta_1 + \beta_2\Delta\text{FDI} + \beta_3\Delta\text{GDI} + \beta_4\Delta\text{HC} + \beta_5\Delta\text{PR} + \varepsilon \dots\dots\dots(6)$$

4.3.2 TEST FOR CO-INTEGRATION

After determining the order of integration of the variables, the next step is to determine whether there is cointegration between the variables. This is to establish if the linear relationship of the variables is stationery. If the null hypothesis of no cointegration is rejected then the linear combination of the variables is stationary, hence a non-spurious

long-run relationship exists between the variables and as such consistent estimates of the long run elasticity's are evident (Alemu et al., 2003).

To test for cointegration between these variables, the Engle-Granger residual based approach was employed. According to Engle-Granger (1987) when two non stationery series are integrated, each reveals a tendency to converge systematically in the long-run even though they may drift apart in the short-run. If the residuals were found to be stationary, the co-integrating regression might be taken as a long-run relationship and we could then proceed to the second step, where an Error Correction Model, including those lagged residuals as an error-correction term would be postulated in order to consider the short-run dynamics (Dauti, 2009).

The results show that there is cointegration relationship between the variables, which means that the null hypothesis of no cointegration is rejected because the study finds that the residuals are stationary. This suggests that the variables in equation (3 and 4) are not co-integrated. In other words an error correction model is required. Therefore, the cointegrating regression might be taken as a long-run relationship and we could proceed to the second step, where an Error Correction Model (ECM), including those lagged residuals as an error-correction term would be postulated in order to consider the short-run dynamics.

Table 4.5: The Unit Root tests results on Residuals

	Levels	
	ADF	
	Without trend	With trend
Residuals(model 1)	-7.468 (-2.997)	-7.573 (-3.596)
Residuals(model 2)	-7.564 (-2.997)	-7.404 (-3.596)

4.3.3 Error correction mechanism

In order to make a formal analysis of co-integration approach, we employ the second step of estimation procedure for dynamic modeling suggested by Engle and Granger (Engle and Granger 1987). Hence, in order to model the long run dynamics, when estimating the final short run models (Equation 5 and 6), suggested by Augmented Dickey –Fuller test, we consider the postulation of the lagged residuals as an error correction term, obtained from the OLS estimation of Equation (3 and 4). Following this approach we estimate the co-integration regression shown on Equation (7 and 8), which confirms the presence of long run relationships between the explanatory variables (Gujarati, 2003)

The error correction models are as follows.

$$\Delta\text{HDI} = \beta_1 + \beta_2\Delta\text{GDP} + \beta_3\Delta\text{FDI}/\text{GDP} + \beta_4\Delta\text{EL} + \beta_5\Delta\text{GS} + \nu_{t-1} \dots\dots\dots(7)$$

$$\Delta\text{GDPGR} = \beta_1 + \beta_2\Delta\text{FDI} + \beta_3\Delta\text{GDI} + \beta_4\Delta\text{HC} + \beta_5\Delta\text{PR} + \nu_{t-1} \dots\dots\dots(8)$$

4.3.4 TEST OF AUTOCORRELATION

If Durbin–Watson d statistic is between d_u and $4-d_u$ there is no serial correlation between members of series of observations ordered in time series data of each variable otherwise serial correlation may be a problem for the model (Gujarati, 2004).

Model 1	Durbin-Watson d-statistic =(11,26)	1.688911
Model 2	Durbin-Watson d-statistic=(11,26)	1.692187

Table 4.6: Durbin–Watson d statistic

For the given sample size and given number of explanatory variables, the critical d_L and d_U values at 95 percent are 0.508 and 2.649 respectively and $4-d_u$ is 1.351. So, the result revealed that Durbin–Watson d statistic is between d_u and $4-d_u$ for both models which indicates that there is no serial correlation.

4.3.5 TEST FOR HETEROSKEDASTICITY

If the p-value is greater than the level of significance, the null hypothesis which says The error variance is homogeneous or constant is accepted otherwise it is rejected (Gujarati, 2004).

Table 4.7 Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Variables: fitted values of Δ HDI	
chi2(1)	0.85
Prob > chi2	0.3553
Variables: fitted values of Δ GDPGR	
chi2(1)	4.48
Prob > chi2	0.0343

As the results indicated in the above table, model with human development index as dependent variables has no heteroskedasticity problem. Since the p-value is greater than the level of significance, the researcher accept null hypothesis. Model with growth rate of real gross domestic product as dependent variable was having heteroskedasticity problem because the p-value is less than level of significance, thus the researcher reject null hypothesis. Therefore, robust standard error was used for growth rate of real gross domestic product model to mitigate the problem of heteroskedasticity.

4.3.6 TEST FOR MULTICOLLINEARITY

The VIF technique

The variance inflation factor, VIF, is a measure of the reciprocal of the complement of the inter-correlation among the predictor variables: $VIF = 1/(1 - r^2)$ where r^2 is the multiple correlation between the predictor variable and the other predictors. VIF values greater than 10 indicate possible problem of multicollinearity.

Table 4.8 variance inflation factor

MODEL 1			MODEL 2		
variable	VIF	1/VIF	variable	VIF	1/VIF
FDIGDP	8.03	0.1245	FDIGDP	9.20	0.1036
FDIFOP	6.78	0.1475	FDIFOP	8.75	0.1132
FDIGCF	5.87	0.1704	FDIGCF	8.42	0.1098
GFCF	4.52	0.2214	GFCF	3.75	0.2669
GOVS	3.83	0.2611	GOVS	3.73	0.2678
GDIGDP	2.10	0.4765	GDIGDP	2.32	0.4312
EIGDP	2.08	0.4811	EIGDP	2.23	0.4482
INF	1.53	0.6526	INF	2.00	0.4994
Et-1	1.40	0.7123	Et-1	1.79	0.5572
IF	1.32	0.7566	IF	1.53	0.6552
mean	3.593		mean vif	3.999	
vif					

Thus, in table 4.8 above, there is no VIF score above value 10; i.e., there is no perfect co-linearity among independent variables.

4.3.7 TEST OF MODEL SPECIFICATION

A model specification error can occur when one or more relevant variables are omitted from the model or one or more irrelevant variables are included in the model. If relevant variables are omitted from the model, the common variance they share with included variables may be wrongly attributed to those variables, and the error term is inflated. On the other hand, if irrelevant variables are included in the model, the common variance they share with included variables may be wrongly attributed to them. Model specification errors can substantially affect the estimate of regression coefficients.

Ramsey Omitted Variable Test

The Ramsey omitted variable test runs the Ramsey regression specification error test (RESET) for omitted variables. If p value is insignificant, say, at the 5 percent level, one can accept that the model has no omitted variables (Gujarati, 2004); (wooldridge, 2005).

Table 4.9 Ramsey RESET test

Model 1	F(3, 12)	1.46
	Prob > F	0.2749
Model 2	F(3, 12)	0.26
	Prob > F	0.8547

It is clear from the above table that the p value is insignificant; greater than 5 percent level of significance in both models, so, both models have no omitted variables using any of the standard significance levels.

4.4 Econometrics Analysis through Error correction mechanism: the impact of foreign direct investment on poverty reduction.

This section of the study presents the results and discussions of the econometrics/regression analysis. So far, frameworks of literature review and data analysis of descriptive statistics and correlation analysis were established in order to investigate the impact of foreign direct investment on poverty reduction in Ethiopia. To investigate the impact of foreign direct investment on poverty reduction in Ethiopia (i.e., in order to answer the research questions of the study properly and to test hypothesis), two time series regression models were computed

Table 4.10: Results from co-integration regression, derived from ECM procedure (Equation 7 and 8), and including the lagged residuals

	Model 1 (equation 5) Δ HDI	Model 2 (equation 6) Δ GDPGR
Δ FDIFOP	.0041605** (0.044)	18.28236*** (0.009)
Δ FDIGDP	.7361383* (0.067)	340.673** (0.032)
Δ FDIGCF	.0455863 (0.198)	223.3936 (0.198)
Δ GOVS	-.0057896 (0.841)	40.9723 (0.720)
Δ LF	-.157747 (0.529)	-1432.165* (0.099)
Δ INF	-.0000115 (0.666)	-.3486931*** (0.002)
Δ EIGDP	.0002423 (0.101)	1.966456** (0.020)
Δ GDIGDP	.0002423* (0.051)	.6430837** (0.018)
Δ GFCF	.0003521** (0.025)	1.184687** (0.055)
U_{t-1}	-1.057033*** (0.000)	-.5222996*** (0.051)
_cons	-.0001247 (0.794)	1.340766 (0.469)
Adj R-squared	.05316	0.6982
F statistics	3.84 *** (0.0096)	6.42*** (0.0007)

Before running the regressions, the data sets were tested for stationarity, co-integration, multicollinearity, heteroscedasticity, autocorrelation and for model specification to test goodness of data collected and where fitness of the model specified were discussed above. Thus, the regression analysis (table 4.9 above) was based on the error correction model.

Table 4.10 above revealed that all FDI variables were statistically significant except FDI in proportion to gross capital formation in both models.

The intercept is statistically insignificant, while the error correction mechanism that implies long run equilibrium relationship is statistically significant at 1% level. The coefficient of U_{t-1} tells us how fast Δ HDI and Δ GDPGR changes to disequilibrium changes in explanatory variables. The adjusted R squared values show higher explanatory powers of the explanatory variables in both models. In the first and second regression model independent variables explain the variability of the dependent variable to the extent of 53.16 and 69.82 percent respectively. In addition, the overall significances of both regressions models measured by their respective F statistics are 3.84 and 6.42 with P-values of 0.0096, and 0.0007 respectively indicated that the models were well fitted at 1 percent level of significance.

Accordingly, Table 4.10 gives the main findings of the study on impact of foreign direct investment on poverty reduction in Ethiopia. Thus, its detail interpretation on each variable based on the findings of regression analysis can be discussed in paragraphs as follows.

With regard to foreign direct investment in proportion to population measured by FDIPOP, has statistically significant and positive effects on the human development index and economic growth. This significant and positive result of FDIPOP may signifies that poverty reduction and economic growth is stimulated by the inflows of FDI through the channel of investment, and diffusion of technology, and increase in government revenue, and increases the employment opportunity as well as providing opportunities training, education, gender equality, housing, improved health, community development.

This result is also consistent with the finding of Bende-Nabende (1998) , Nordstrom et al. (1999) and Gaston Gohou and Issouf Soumaré(2009) that the inflows of FDI have a statistically significant effect on economic growth and poverty reduction.

As concern to foreign direct investment in proportion to gross domestic product FDIGDP, has statistically significant and positive effects on the human development index and economic growth. It is significant at 10 percent level of significance in the first and at 5 percent level in second model. This positive and significant effect may signify that the inflow of foreign direct investment contributes for the improvement of living standards due to the increase in GDP, improvement of technology and productivity, as well as it providing jobs and training to local workers. This result is also consistent with the finding of Blomstrom et al. (1996), and Balasubramanyam et al. (1996) that the inflows of FDI have a statistically significant effect on economic growth and poverty reduction. On the other hand, foreign direct investment in proportion to gross capital formation FDIGCF has statistically insignificant effect on both human development index and economic growth.

In the regressions presented in table 4.10, we use different sets of control Variables. The results confirm the expected sign of the control variables. In fact, the country government spending measures seem to have non-significant impact on both human development index and economic growth. Employment, measured by labor force and the macroeconomic instability (inflation), has insignificant seem to have non-significant impact human development index while they have positive and negative impact on economic growth respectively. Openness measured by export and import in proportion to GDP, turn out to be positive and significant effect on economic growth not on human development index. Domestic investment turns out to be positive and significant. Infrastructure, however, measured by the gross fixed capital formation, has a positive significant impact on welfare. Indeed, infrastructure development will improve the standard of living of populations and contribute positively to their overall wellbeing.

4.5 FOCUS GROUP DISCUSSION ANALYSIS

In order to support secondary data analysis about the impact of foreign direct investment on poverty reduction, the study conducted a focus group discussion with macroeconomic experts working in National Bank of Ethiopia, MOFED, Ethiopian economic association and Ethiopian Investment Agency. Most of them replied that since 1992, Ethiopia has made considerable progress in economic and social development. This is due to the favorable policies and strategies that are instrumental in improving the national economy. The Rural Development Policy and Strategy, the Industrial Development Strategy, and other sectorial policies and strategies have initiated a new push towards creating frameworks conducive to economic and social development.

Majority of focus group discussion Participants also mentioned that the Rural Development Policy and Strategy, which is under implementation in the country, underlines that agriculture-centered development will bring about fast economic growth, enable its people become beneficiary of the economic growth, and lay solid foundation for industrial development.

Majority of focus group discussion participants mentioned that the Industrial Development Strategy focuses on export manufacturing with priority given to textile and garments, leather and leather products, agro-processing, construction and small and micro-enterprises.

The economic experts agreed that the government of Ethiopia has revised over three times the Investment Code over the last eighteen years to make it more transparent, attractive and competitive. Major positive changes regarding foreign investments have been introduced through Investment Proclamation No.280/2002 and Regulations No.84/2003(as amended). As a result of the implementation of the above mentioned policies and strategies, agricultural and industrial production, and export trade are growing steadily from year to year both in terms of variety and volume.

Most of participants mentioned that due to the investment-friendly environment created in the country, the inflow of foreign direct investment (FDI) has been increasing over the last eighteen years.

Finally, participants of focus group discuss emphasized on the contribution of foreign direct investment inflow on poverty reduction. Most of them replied that FDI has an impact on poverty reduction which can be analyzed from at least two viewpoints. First on the social side, they replied that poverty reduction and improvement of overall population welfare are the priorities of the developing countries governments. In these countries, the main objective of the government is to improve the living standard of its population as one of its social functions. Thus, the inflows of Foreign investments in Ethiopia currently helps the countries to achieve these priorities as it create jobs, develop local skills and bring new technological progress. Second, on the economic side, they replied that Ethiopia has continued to register strong economic growth for the nine time in a row in 2011/12 placing the country in a remarkable growth track. Thus, they replied that foreign direct investment might be the one of the main contributor to self-sustained GDP per capita growth.

CHAPTER FIVE

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Ethiopia has made a significant progress towards becoming a functioning market economy and establishing a satisfactory track record of macroeconomic stabilization and performance and also good progress has been made in the inflows of FDI. Thus, this paper assesses the impact of foreign direct investments on poverty reduction in Ethiopia. We use as poverty indices measure, respectively the human development index (HDI) and real GDP growth rate. As FDI measure, we use respectively, per capita FDI net inflows, FDI net inflows over GDP and FDI net inflows over gross capital formation. In addition; six control variables (Inflation, degree of openness, Gross domestic investment, government spending, infrastructure and Productivity) were used.

We find that the inflows of FDI have a directly and strongly positive and significant impact on the human development index and real GDP growth in Ethiopia and this strong positive relationship holds even after controlling for government spending, macroeconomic instability (inflation), infrastructure development, openness to trade, productivity and domestic investment. This implies that the inflows of FDI have a strong significant positive impact on poverty reduction and economic growth in Ethiopia. So, the evidence is consistent with the assumption of the direct and indirect effects of FDI on poverty reduction.

5.2 RECOMMENDATION

The findings of this research highlight the importance of the inflows of FDI to the reduction of poverty in Ethiopia. Based on the finding of the positive and significant impacts of inflows of FDI on poverty reduction in the paper, the government policies should promote and encourage FDI to the accomplishment of the Millennium Goals in Ethiopia in 2015. To promote economic growth and poverty reduction, there are some possible policies which the government should follow.

Even though, FDI contributes to poverty reduction, parts of the revenues from FDI, which are collected through tax revenue, rental fees, and export and import activities, should be used to promote further economic activities, safety nets as well as investment in infrastructure. These are believed to have significant and positive effects of FDI on the reduction of poverty. Furthermore, with the participation of foreign companies in social welfare, this could reduce the burden of the government budget to build the safety nets as well as improve other social welfare, which will strength the contribution FDI inflow than the past.

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Appendix

Issues for focus group discussion

1. How can you explain investment climate in Ethiopia? Does Ethiopia is good and attractive enough for foreign investment?
2. The ultimate objective of government in encouraging participation of both domestic and foreign investors is to speed-up economic development of a country. How do you evaluate the contribution foreign direct investment, on technology spillover, capital inflows, creation of job opportunity, and human capital development in Ethiopia?
3. Does foreign direct investment has impacts on domestic investors? If yes how it affects productivity and growth of domestic firms?
4. How can you relate foreign direct investment and Ethiopian economic growth? What are the short run and long run economic contribution of foreign direct investment?
5. How can you explain presently existing trends of poverty, foreign direct investment, and economic growth in Ethiopia?
6. How regional distribution of foreign direct investment is affected in Ethiopia?
7. How do see the effect of foreign direct investment on economic growth and poverty reduction in Ethiopia



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