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**THE IMPACT OF FOREIGN DIRECT INVESTMENT**  
**ON ECONOMIC GROWTH IN ETHIOPIA**

Project Work submitted to the Indira Gandhi National Open University in Partial fulfillment of the requirements for the award of the Degree- Masters of Arts (Economics). I hereby declare that this work has been done by me and has not been submitted elsewhere.

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## ACRONYMS

ADB	African Development Bank
COMESA	Common Market for Eastern and Southern Africa
CSP	Country Strategy Paper
DSF	Debt sustainability framework
EEA	Ethiopian Economic Associations
EIA	Ethiopian Investment Authority
GoE	Government of Ethiopia
GTP	Growth and transformation plan
IFS	International Financial Statistics
LICs	Least Income Countries
MOFED	Ministry of Finance and Economic Development
OECD	Organization for Economic Cooperation and Development
OPIC	Overseas Private Investment Corporation
PASADEP	Plan for Accelerated and Sustained development to end poverty
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
SSA	Sub-Saharan Africa
WDI	World Development Indicator
WIR	World Investment Report

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## ABSTRACT

*The integration of developing countries with the global economy increased sharply in the 1990s with changing in their economic policies and lowering of barriers to trade and investment. Foreign Direct Investment (FDI) is assumed to benefit a poor country like Ethiopia, not only by supplementing domestic investment, but also in terms of employment creation, transfer of technology, increased domestic competition and other positive externalities. The Ethiopia Economy has shifted to a higher growth rate since 2003/04. This has been sustained and during the last five years, over all GDP has grown rapidly at an average rate of 10% per annum. The domestic saving rate was 5.9% in 2005/06 and remained at 5.5% in 2009/10. Likewise consumption remained at much the same level throughout the same period leaving no room for growth in saving (MOFED2010). This suggests that greater effort is needed to increase the rate of domestic saving so that the growing trend of investment in the country could be met in today's fastest growing economy, This paper focuses on the FDI-led growth hypothesis in the case of Ethiopia. The data used for this study has spanned over the period of 1992 till 2011. Besides FDI, three other variables including, Trade openness, Active labor force and Domestic Investment have been included in the study, to regress upon Real GDP of this country. The Cobb-Douglas production function is applied in the model. Economic models of endogenous growth transformed in to the logarithm form have been used to examine the effect of FDI on economic growth. The methodology to test the impact of these variables on Ethiopia's economic growth has been the least squares method. Unit root test has been applied to test the stationarity of the variables. FDI is found to be stationary at first difference while all other variables are stationary at second difference. The cointegration of the variables has been ascertained through application of Augmented Dickey Fuller Test and hence is found to hold in the long run. The error correction model is used to capture both the long run and the short run information using Engle-Granger procedures. The statistical package for the analysis used is Eviews. Our findings indicate that Ethiopians economic performance is positively affected by foreign direct investment but is not significant while its domestic investment and the active labor force have benefitted its economy. Moreover, the nation's, trade have found to have negative impact on its GDP. Following the results and previous studies on the subject this paper recommends: One important policy objective should be to reduce the barriers to FDI effectiveness is to build a diversified economy through investment in human capital and infrastructure and productive capacity. Finally, the Government should aim at attracting specific types of FDI that are able to generate spillover effects in the overall economy*

# 1 INTRODUCTION

## 1.1. General

Many developing countries (LDCs) look at Foreign Direct Investment (FDI) as an engine of growth. FDI is associated with benefits to a host country such as; capital inflows, employment, management skills, and most importantly technological spillover effects to domestic manufacturing<sup>1</sup> firms. The expectation of attaining technological spillovers has motivated many LDCs to adopt policies that can attract foreign firms. For example, Ethiopia has attracted foreign firms by providing incentives such as tax holidays and subsidies in order to attract FDI. As a result, the average annual FDI inflows to Ethiopia have increased. The total FDI inflows into Ethiopia have increased continuously from US\$ 255 Million in 2002 up to US\$ 545 Million in 2004. Since then up to 2007 the yearly FDI inflows have varied between US\$ 545 Million and US\$ 265 Million. There was a progressive increment in FDI inflows from (US\$ 108 Million in 2008 to 288 Million 2010. Finally it declined to 206 Million in 2011 (UNCTAD, 2012).

From empirical studies<sup>2</sup>, the impact of FDI on domestic firms is mixed. Some scholars agree that the presence of foreign firms has positive spillover effects <sup>3</sup> on domestic firms through horizontal and vertical spillovers. However other studies argue that the presence foreign firms may also result into competition effect which may work in the opposite direction resulting in: reduced market share, increased poaching of best workers from their local competitors, and making access to credit more difficult hence forcing domestic firms to produce less output. This means that there are contradictions among scholars.

Over the past few years, African countries have increased their efforts to develop or enhance their national policies and laws with a view to improving the investment climate. Only recently, in May 2007, COMESA adopted an agreement for a Common Investment Area,

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<sup>1</sup> For LDCs, the manufacturing sector in particular is considered as a driving force for modernization and job creation.

<sup>2</sup> For example ,Elizabeth Aseidu,(2007)

<sup>3</sup> Competition is good because it forces domestic firms to become more productive by investing in new technology

which envisages a free investment area by 2010. The Agreement aims at attracting and promoting sustainable FDI by gradually eliminating restrictions and conditions relating to investment and operation of projects. (COMESA, 2009)

Ethiopia on its own established bilateral investment treaties with China, Denmark, Italy, Kuwait, Malaysia, Netherlands, Russia, Sudan, Switzerland, Tunisia, Turkey, Yemen and only recently with Djibouti. Furthermore, double taxation treaties are implemented between Ethiopia and Italy, Kuwait, Romania, Russia, Tunisia, Yemen, Israel and South Africa. An investment agreement with the whole EU does not exist (MOFED, 2010).

The USA has bilateral investment protection agreements with Ethiopia. The investment incentive agreement with the United States provides investment support through its Overseas Private Investment Corporation (OPIC) in the form of investment insurance and reinsurance, debt or equity investment and investment guarantees. On the other hand the government of Ethiopia provides exemption of taxes for all operations and activities undertaken by OPIC in connection with any investment support, and all payments, whether of interest, principal, fees, dividends, premiums or proceeds from liquidation of assets or any other nature. In addition, OPIC will not be subject to any taxes in connection with any transfer which occurs as a result of OPIC role as a creditor in support of investment in Ethiopia. This investment incentive agreement was signed on 24th October 2000 (Getnet, 2009).

The previous Country Strategy Paper (CSP) for Ethiopia (2006-2010) was designed to support the Plan for Accelerated and Sustained Development to End Poverty (PASDEP).<sup>1</sup> it was anchored on three pillars: (i) infrastructure development; (ii) agricultural transformation; and (iii) good governance).

During the PASDEP period, Ethiopia achieved remarkable economic and social progress. The economy grew by 11% on average, which ranked among the highest in Africa. This strong performance puts Ethiopia among the group of Sub-Sahara African (SSA) countries on track to meet most of the Millennium Development Goal (MDG) targets. (MOFED 2010)

## **1.2. Statement of the problems**

Sustainable economic growth is highly determined by the rate of investment which in turn is mainly determined by the national savings level. The national savings level of countries in Africa is quite low. Foreign direct investment (FDI) is an alternative source of capital to bridge the gap between savings and the required investment level (Solomon, 2008)

The Ethiopia Economy has shifted to a higher growth rate since 2003/04. This has been sustained and during the last five years, over all GDP has grown rapidly at an average of 10% per Annum. Agriculture, industry and Service have registered an average annual growth rate of 8.4%, 10% and 14.6% respectively. (Ministry of Finance and Economic development of Ethiopia (GTP, 2009/10) . The percentage share of each of the three sectors, agriculture, industry and services to the overall GDP at the end of the plan period was 41.6, 12.9 and 45.5% respectively. However the underperformance of the industrial sector was more than compensated by the service sector indicating that the structural shift was not yet in the desired direction. From the demand side GDP at current market price has increased at 29.5%. Owing to the increased consumption demand, the domestic saving rate remained lower than the PASADEP target. The domestic saving rate was 5.9% at the beginning of the PASADEP period and remained at 5.5% in 2009/10. Likewise consumption remained at much the same level throughout the PASADEP period leaving no room for growth in saving (MOFED, 2010.). This suggests that in order to meet the growing trend of investment in the country greater effort is needed to increase the rate of domestic saving.

In today's fastest growing economy, it is the size and dynamism of the markets of countries that make them attractive to foreign capital. Small economies like Ethiopia therefore need to enhance its competitive advantage through innovation, technological advancement and value addition. This can convert low value assembly line to one that is driven by innovation and built on attracting talent.

### **1.3. Objectives of the study**

#### **The general objective of the study is:**

To survey, assess and quantify the Impact of FDI on Economic growth in Ethiopia for the period time under study (1992-2011)

#### **The specific objectives of the study are:**

- To depict the trends in FDI and Economic growth relationship in Ethiopia
- To investigate the effect of FDI and economic growth based on the estimated relationship as well as the theoretical and empirical model.
- To consider the short run and long run relationship between FDI and economic growth
- To examine the impact of the current global financial crisis on the relationship and put forward policy recommendations emanating from the findings of the study applied

### **1.4. Significance of the study**

The growth of international production is driven by economic and technological forces. It is also driven by the ongoing liberalization of Foreign Direct Investment (FDI) and trade policies. In this context, globalization offers an unprecedented opportunity for developing countries to achieve faster economic growth through trade and investment. In the period 1970s, international trade grew more rapidly than FDI, and thus international trade was by far than most other important international economic activities. This situation changed dramatically in the middle of the 1980s, when world FDI started to increase sharply. In this period, the world FDI has increased its importance by transferring technologies and establishing marketing and procuring networks for efficient production and sales internationally (Alfaro, 2004).

Through FDI, foreign investors benefit from utilizing their assets and resources efficiently, while FDI recipients benefit from acquiring technologies and from getting involved in international production and trade networks. Enough literature suggests that the FDI inflows

have a positive impact on economic growth of host countries. Although a large volume of econometric literature comprises on the impacts of FDI on economic growth in developing countries, to the best of my knowledge there is not enough studies conducted on the impact of FDI on economic growth in Ethiopia which is the linkage between them. This paper focuses on the FDI-led growth hypothesis in the case of Ethiopia. The study is based on time series data from 1992 to 2012.

The method of analysis involves estimating an econometric model as well as simple calculations such as average and percentage. The model to investigate the impact of FDI on growth factor productivity is endogenous growth model. This provides additional literature on a brief background on the Ethiopian FDI and Economic growth relationship:

- It analyses and depicts the Impact of the FDI inflows on the Ethiopian economic growth.
- It identifies the development opportunities that are created due to FDI inflows in to the country and the challenges that Ethiopia may face

### **1.5. Scope and limitation of the study**

The study tries to explore the impact of foreign direct investment on Economic growth in Ethiopia. The study covers 20 years annual data period from year 1992 to 2011. Even though the study attempts to explore the Impact of Foreign direct investment on Economic growth, yet the study suffers from some limitations. The first limitation arises from the problem of some data inconsistency in limit and quantity that is obtained from different institutions. The other problem is that there is a significant statistical discrepancy between domestic and international sources.

### **1.6. Organization of the study**

This paper is an attempt to examine the impact of FDI on economic growth in concurrence of three other variables including Active labor force, domestic investment, and trade openness.



The rest of the paper is organized as follows: Section 1 is a brief introduction of the study; section 2 discusses the theoretical and empirical literature on the relationship between FDI and economic growth. Data estimation, model specification and definition of variables are given in Section 3. Section 4 provides the empirical findings while Section 5 concludes our findings and discusses our results. Finally comes the reference and the appendix section

## **2. LITERATURE REVIEW**

### **2.1 Concept and definitions**

Foreign direct investment is not just a capital movement. In addition to capital, a controlled subsidiary often receives direct input of managerial skills, technology and other tangible and intangible assets. Unlike portfolio investors, direct foreign investors have substantial control over the management of foreign subsidiary. In fact, “balance of payment accountants define FDI as Any flow of lending to, or purchase of ownership in, a foreign enterprise that is largely owned by the residents (usually firms) of the investing country” (Agosin M.R. and Ricardo Mayer. 2000).

According to the IMF (1993) Balance of payment manual, an investment by a foreign investor is regarded as FDI if the direct investor holds at least 10 percent of the ordinary share or voting power of a firm. There are different types of FDI. These include green field investment, cross border merger and acquisition, and reinvested earnings. Green field investment refers to the establishment of a new firm that in turn enables to create productive assets in a host country. Usually, it is financed by capital coming from the investor’s country. A transfer of ownership of local productive assets to a foreign investor is referred as international or cross border merger and acquisition. Reinvested earnings refer to part or all of the profit that is not repatriated to the investor’s country but reinvested in the host country (UNCTAD, 1998). FDI can also be classified into market-seeking, export- oriented and government initiated FDI.

A market-seeking FDI is highly determined by the growth potential and the size of national market, access to regional & global markets and country-specific consumer preferences. When a foreign firm produces raw materials, intermediate and final goods and sells these products for non-local market, this FDI is referred as export-oriented FDI. An investment is called government initiated FDI, when governments of developing countries invite and give incentives to direct foreign investors to invest in specific sectors and industries with a view to addressing socio-economic problems like unemployment, regional disparities and deficits in

the balance of payment (Agrawal, P. 2000). In a similar vein, again based on the primary motives of the direct foreign investors, FDI can also be classified into the following three groups: Market seeking, resource/asset-seeking and efficiency seeking (UNCTAD, 2007).

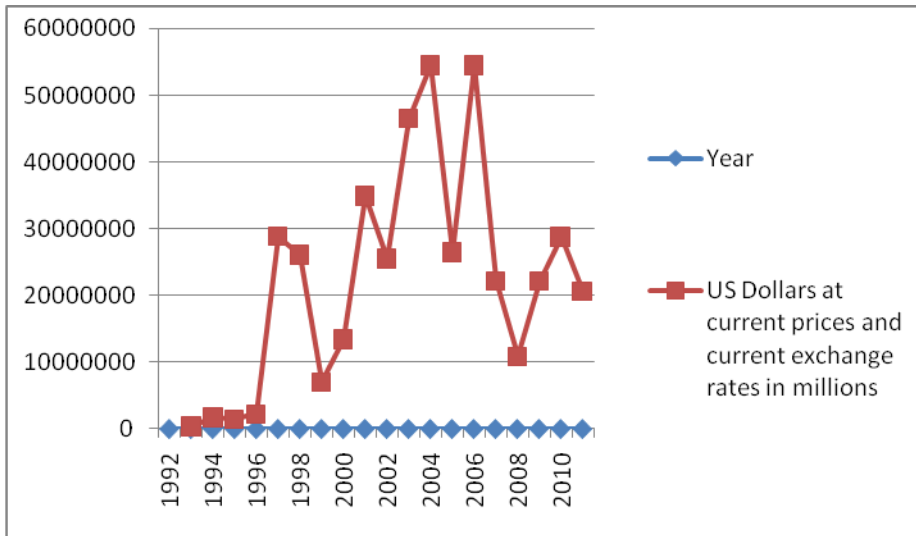
A resource/asset seeking FDI is attracted by availability of low-cost unskilled & skilled labor, strategic natural resources and raw materials. An efficiency-seeking FDI is significantly determined by productivity of labor resource, costs of inputs and intermediate goods (UNCTAD, 1998).

## **2.2. Foreign Direct Investment in Ethiopia**

Ethiopia, has a total population of over 85 million in 2011 “Ethiopia is a federal democratic republic composed of 9 national regional states: Tigray, Afar, Amhara, Oromia, Somali, Benishangul-Gumuz, Southern Nations-Nationalities and Peoples Region (SNNPR), Gambella and Harari, and two Administrative states: Addis Ababa city administration and Dire Dawa Council” (CSA, 2011). It is now close to two decades since Ethiopia started to build a market economy after 17 years (1974-1991) of a state centered and controlled economy.

Numerous macroeconomic reforms have been implemented with the objective of achieving macroeconomic stabilization and growth since 1991. The macroeconomic reforms include privatization of state owned enterprises, liberalization of trade policy, reduction of import tariff rates, elimination of non-tariff barriers, devaluation and deregulation of price & exchange rate controls (UNCTAD, 2002).

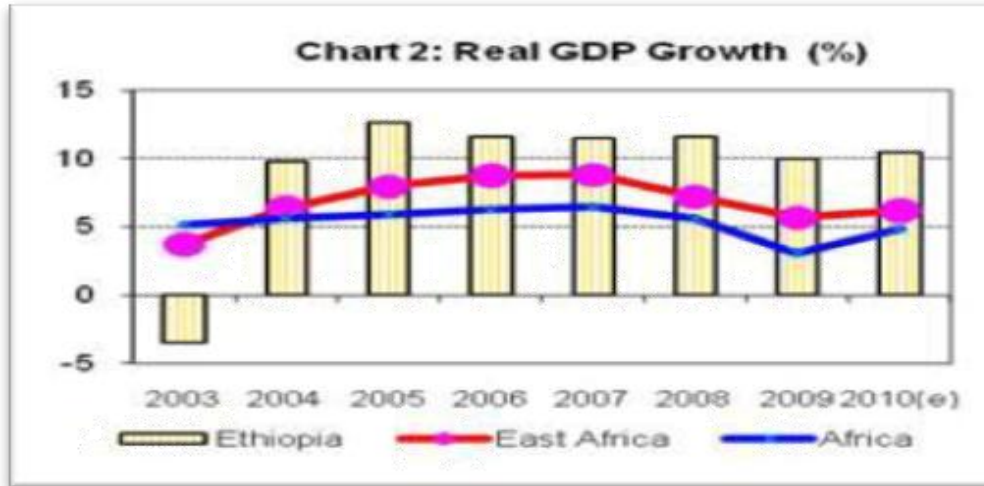
According to World Bank (2008) report, more than 84% of the population lives in rural area. Life expectancy at birth is 43 years, and only 22% of the population has access to improved water sources. The purchasing power of the people is one of the lowest in the world. Ethiopia’s economy was ranked 1729th out of 181 Countries in the world by purchasing power parity with gross domestic product estimated to be USD 41.837billion (IMF 2012). The domestic saving rate was 5.9% at the beginning of the PASADEP period and remained at 5.5% in 2009/10. (MOFED, GTP, 2010).



**Figure 2.1 FDI flow in Ethiopia**

*Source: UNCTAD, UNCTAD stat2012*

Due to the subsistence nature of the economy, it is unlikely to improve the performance of the economy by enhancing private domestic investment. Perhaps, FDI is an important means to fuel growth. The structure of the economy can be decomposed into three main economic sectors: agriculture sector, the industrial sector and the service sector.



**Figure 2.2: Comparison of Real GDP Growth of Ethiopia with Africa**

*Data Source: African development Bank, 2012*

### **The Agriculture Sector**

Agriculture is the mainstay of the Ethiopian economy. The sector's contribution to the GDP of the country is close to 50%, which are 41.6 in 2010. More than 80% of the population is engaged in some form of agricultural activities. Furthermore, agriculture generates 60% of foreign exchange earnings. (MOFED 2011)

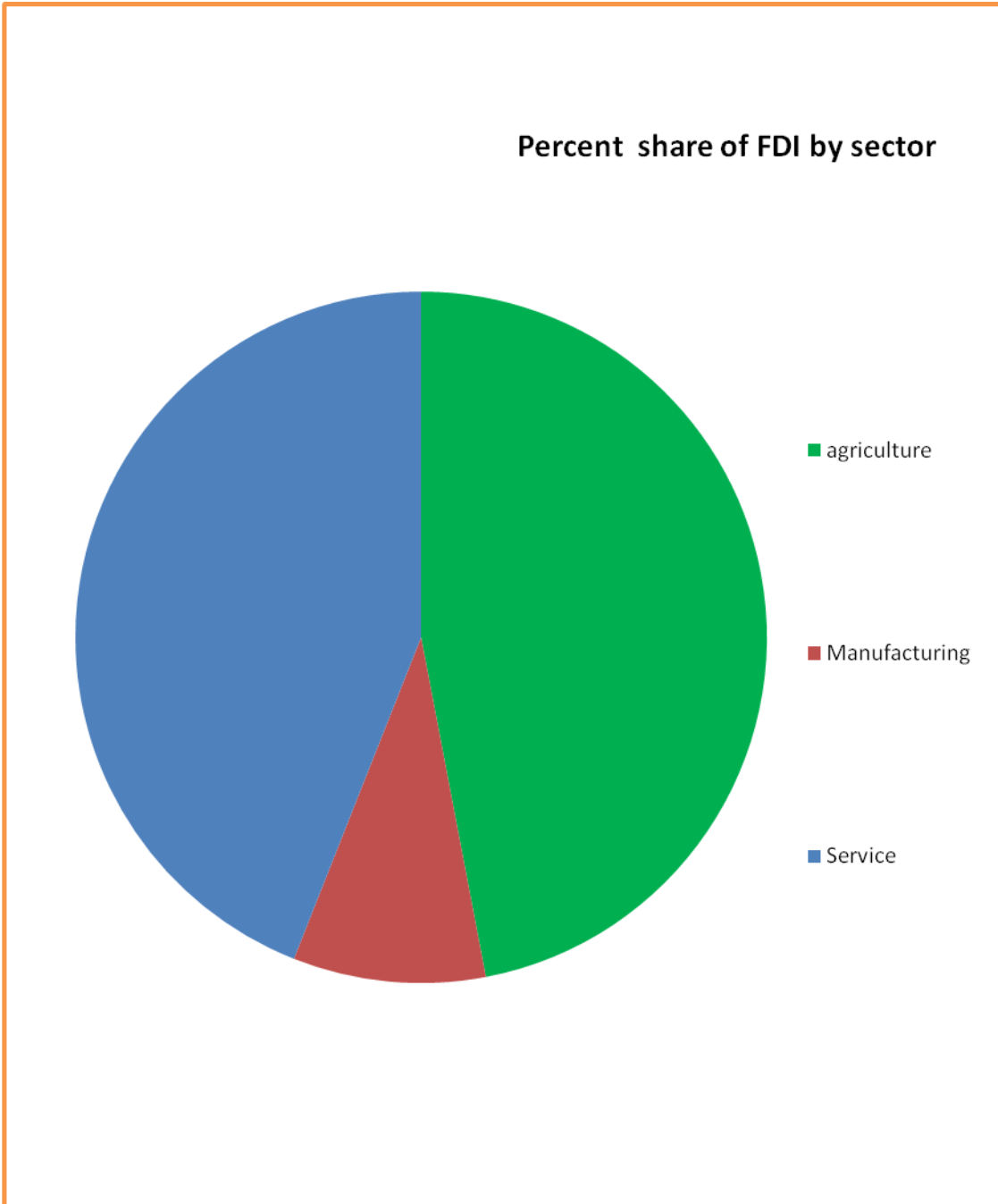
More than 45% of the total population are food insecure and is based on agriculture accounting for almost half of the GDP, 60% of exports and 80% of total employment. High investment flows into this sector leads to high impacts on the total Ethiopian economy. Coffee is the major source of foreign exchange. For example, in 2004/2005, coffee accounted for 41% of foreign exchange earnings of the country. As a result, the sector overwhelmingly influences the performance of the economy. The performance of the agriculture sector, however; is highly determined by availability of suitable weather condition. Recurrent drought and traditional cultivation practices, land fragmentation, low level of fertilizer application and high population growth rate are the prime problems of the sector (EEA, 2009).

## **The Industrial Sector**

Ethiopia is one of the least industrialized economies in the world. Close to half a century, the industrial sector contribution to the GDP ranged between 9 and 11 percent, and the growth rate of the sector is very little compared to the agricultural sector. The employment contribution of the industrial sector is nearly 8 percentage points in 2005 (EEA et.al, 2009). Surprisingly, manufacturing goods export accounted for less than 12% of the total exports (UNCTAD, 2012).

## **The Service Sector**

The service sector is the second largest sector after agriculture. This sector includes trade, hotels & restaurants, transport & communication, banking & insurance, public administration & defense, education, health and other services. From 1991/92-2004/05, the service sector accounted for 45.5% of the GDP of the country, and the employment share of the sector is slightly higher than 10% (MOFED, 2010). In general, the Ethiopian economy is highly dependent on the agriculture sector, and the role of industrial sector is quite limited. This clearly highlights structural weakness of the economy. For most development economists, development is synonymous with industrialization. Thus, the size of the industrial sector should increase so as to ensure sustainable and rapid economic growth.



**Figure 2.3 Percent share of FDI in Ethiopia by Sector**

*Source: Ministry of Finance and Economic development 2011*

### 2.3 Theoretical Reviews

Solow's (1957) pioneering contribution to growth theory has generated the theoretical basis for growth accounting. In this neoclassical view, we can thus decompose the contribution to output growth of the growth rates of inputs such as technology, capital, labor, inward FDI, or by incorporating a vector of additional variables in the estimating equation, such as imports, exports, institutional dummies etc.

Findlay (1978) developed Solow's model and assumed that the growth rate of technology diffusion is an increasing function of FDI. By distinguishing between inputs into foreign capital (a developed country) and domestic capital (a developing country), he argues that an increase in foreign capital increases domestic capital. However, he finds that the rate of technological transfer in a developing country is a decreasing function of both the relative technology gap and the share of FDI in the total capital stock. Mankiw, Romer, and Weil (1992) also modified Solow's model and argued that omitting human capital accumulation in Solow's model would cause biased estimation of the coefficient on saving and population growth. They argued that cross-country variations in income-per-capita are a function of variations in the rate of saving, the rate of population growth, and the level of labor productivity.

The endogenous growth models that began with Romer's (1993) seminal work introduced a theory of technological change into a production process. Helpman (2004) argues that endogenous growth theory emphasized two critical channels for investment to affect economic growth: Firstly, through the impact on the range of available products, and secondly, through the impact on the stock of knowledge accessible for research and development.

Economic models of endogenous growth have been applied to examine the effect of FDI on economic growth through the diffusion of technology (Barro, 1990). FDI can also promote economic growth through creation of dynamic comparative advantages that leads to technological progress (Balasubramanyam et al., 1996; Borensztein et al., 1998). Romer (1990) and Grossman and Helpman (1991) assume that endogenous technological progress is



the main engine of economic growth. Romer (1993) argues that FDI accelerates economic growth through strengthening human capital, the most essential factor in R&D effort; while Grossman and Helpman (1991) emphasize that an increase in competition and innovation will result in technological progress and increase productivity and, thus, promote economic growth in long run.

In contrast to all these positive conclusions, Reis (2001) formulated a model that investigates the effects of FDI on economic growth when investment returns may be repatriated. She states that after the opening up to FDI, domestic firms will be replaced by foreign firm in the R&D sector. This may decrease domestic welfare due to the transfer of capital returns to foreign firms. In this model, the effects of FDI on economic growth depend on the relative strength of the interest rate effects. If the world interest rate is higher than domestic interest rate, FDI has a negative effect on growth, while if the world interest rate is lower than domestic interest it will be vice versa. Furthermore, Firebaugh (1992) lists several additional reasons why FDI inflows may be less profitable than domestic investment and may even be detrimental. The country may gain less from FDI inflows than domestic investment, because of multinationals are less likely to contribute to government revenue; FDI is less likely to encourage local entrepreneurship; multinationals are less likely to reinvest profits; are less likely to develop linkages with domestic firms; and are more likely to use inappropriately capital-intensive techniques. FDI may be detrimental if it “crowds out” domestic businesses and stimulates inappropriate consumption pattern.

## **2.4 Empirical review**

In a widely cited work, Borensztein et al. (1998) examine the effect of FDI on economic growth in cross country regression framework, using data on FDI outflows from OECD countries to sixty-nine developing countries over the period 1970-1989. They find that FDI is an important vehicle for adoption of new technologies, contributing relatively more to growth than domestic investment. In addition, they come across, through the relationship between FDI and the level of human capital, FDI has a significant positive effect on economic growth. However, they qualify their results in as much as the higher productivity of FDI only holds if the host country has a minimum threshold stock of human capital.

Within a new growth framework, Bulasubramanyam et al. (1996) examined the relationship between FDI and growth in the context of differing trade policy regimes, i.e. export promoting and import substituting countries. Using cross section data to analyze forty-six developing countries over the period 1970-1985, they find support for Bhagwati's hypothesis that FDI will increase growth in countries which adopt export promotion policy.

Li and Liu (2005) apply both single equation and simultaneous equation system techniques to investigate endogenous relationship between FDI and economic growth. Based on a panel of data for 84 countries over the period 1970-1999, they find positive effect of FDI on economic growth through its interaction with human capital in developing countries, but a negative effect of FDI on economic growth via its interaction with the technology gap.

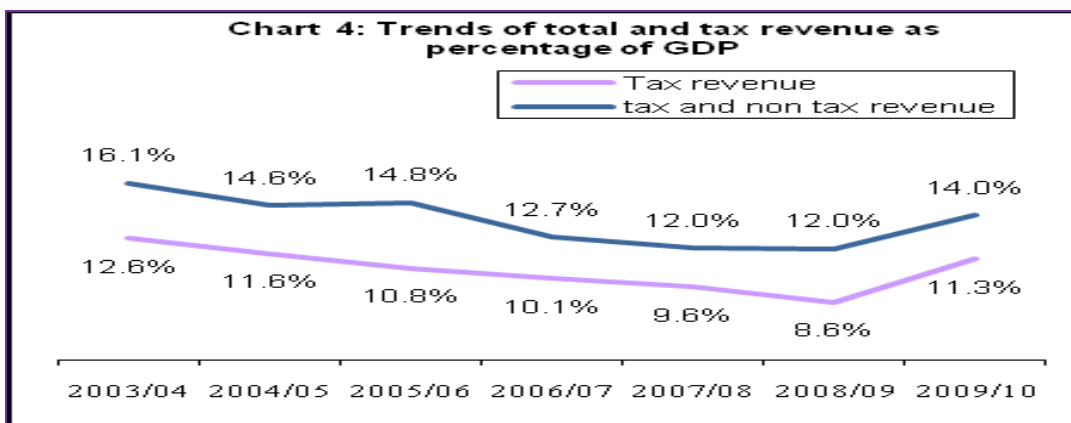
However, as in most other papers, Carkoovic et al. (2005), finds that the benefit to the host country requires adequate human capital, political and economic stability and liberalized market environment. Moreover, the volatility of FDI and the financial adjustment necessary because of this volatility has been observed by economists (Alfaro et al., 2004). These generally argue that countries with well-developed financial markets can not only attract higher volumes of FDI inflows but also allow host countries to gain more extensively from them because of their ability to adjust to the volatility of capital inflows. In contrast with these, *Carkovic* and Levine et.al (2005) utilize General Method of Moment (GMM) to observe the relationship between FDI and economic growth. They use data for 1960-1995 for a large cross-country data set, and find that FDI inflows do not exert influence on economic growth directly or through their effect on human capital. Choe (2003) adapts a panel VAR model to explore the interaction between FDI and economic growth in eighty countries in the period 1971-1995. He finds evidence of Granger causality relationship between FDI and economic growth in either direction but with stronger effects visible from economic growth to FDI rather than the opposite.

Regarding literature on FDI in Ethiopia according to A Survey of the Economic and Trade Relationships between China, India by( EEA 2009,) foreign direct investment (FDI): The FDI inflow has come under pressure due to the credit crunch in China and India making it difficult for Chinese and Indian based companies to obtain fund to invest in Ethiopia.

## 2.5 Working Frame Work

### External Debt Sustainability

According to the 2010 Debt Sustainability Analysis (DSA) undertaken by the IMF and World Bank, Ethiopia's external debt stock is rising largely due to the surge in public enterprises external borrowing. The DSA indicate that the Present Value of debt to GDP and Debt to Exports are projected to rise from 13.5% and 119.1% in 2010 to 18.3% and 129% respectively in 2011, before declining in subsequent years. While external debt indicators are still within the thresholds and Ethiopia's risk of debt distress has been lowered from moderate to low, the situation will require close monitoring, especially public enterprise borrowing. See IMF, 2010, Article IV Consultation and 1st Review of Arrangement under ESF, Washington DC.



**Figure 2.4: Trend of total and tax revenue to percentage of GDP**

*Source: Ministry of Finance and Economic development of Ethiopia, 2011*

## **Control of corruption**

Historically, Ethiopia has a reputation for low tolerance for corruption. However, recent assessments, including Transparency International's Corruption Perception Index and the Ibrahim Index, point to graft as a growing challenge. In 2009, the *Ibrahim index* ranked Ethiopia 30 out of 51 African countries, compared to 24 in 2008. Fighting corruption is a central plank in GoE's good governance agenda. To this end, the Federal Ethics and Anti-Corruption Commission have embarked on vigorous sensitization campaigns. The Commission is conducting value for money audits and integrity reviews in key sectors (including construction) and plans to publish annual corruption surveys. Furthermore, the government of Ethiopia introduced money laundering and anti-terrorism legislation in 2009 and established a Financial Intelligence Unit in National bank of Ethiopia. In addition, Ethiopia is in the process of joining the Extractive Industries Transparency Initiative.

The implementation of Public Financial Management (PFM) reform at both national and regional level in the past decade has led to improvements in Ethiopia's PFM system. For instance, the 2010 Public Expenditure and Financial Accountability (PEFA) indicated improvements in 13 out of 14 indicators. Only the indicator for variance between the budget and actual outturn showed a lower score than in 2007. The 2010 PEFA noted that Ethiopia's PFM system is strong with respect to revenue outturns, arrears monitoring, budget classification, transparency of inter-governmental relations, policy based budgeting and payroll. (IMF, 2010, Article IV Consultation and 1st Review of Arrangement under ESF, Washington DC.)

Ethiopia's regional economic integration is limited. Insular policies arising from domestic upheavals and regional friction are partly to blame. But there are also concerns over revenue losses and the negative impact on domestic industries, regarded to be less competitive than among neighbors. Ethiopia has not ratified the Free Trade Protocol of the Common Market of Eastern and Southern Africa (COMESA), although many other countries in the region have. Still, while landlocked, the country is strategically located in the horn of Africa, and is one of the largest on the continent. It possesses large tracts of productive land with access to water making its transformation into a regional food basket a real possibility. Ethiopia also stands to

gain from exploiting its regional comparative advantage in the production of hydroelectric power. The Government's recent emphasis on linking its infrastructure regionally, often with Bank financing, is a reflection of its keener interest in regional economic integration.

While Ethiopia's exports have grown in recent years; trade volumes are still low relative to the size of the economy. Under GTP, Government of Ethiopia is embarking on a major export drive complemented with an efficient import substitution strategy. The constraints for trade expansion include high trade costs due to weak infrastructure links and poor transport logistics. Ethiopia has been quite successful in picking winners such as the flower industry and FDI has been increasing. However, there is need to open up the trade regime further, and strengthen efforts to promote competitiveness.

The government adjustment efforts have paid off, with macroeconomic stability largely restored. Domestic borrowing has been contained within 1.5% of GDP. Since 2004, when the current growth episode started, tax revenues increased, on average, by 27.3% annually reaching ETB 43.3 billion in 2010—although still only about 11% of GDP. By end 2010, inflation had declined to 8.2%, due largely to good agricultural harvests and stringent monetary policy stance, including credit ceilings and upward adjustment in commercial banks' minimum reserve requirements from 5 to 15%. In August 2010, the Birr was devalued by 17% against the US dollar (MOFED2011). This, coupled with a lower inflation rate, significantly reduced the real exchange rate overvaluation.

### **3. RESEARCH METHODOLOGY**

#### **3.1 Description of the study Area**

Ethiopia is located in Northeast Africa, commonly referred to as Horn of Africa, and is situated east of Sudan, north of Kenya, south of Eritrea, west of Djibouti, and Northeast Somalia. Ethiopia is a country endowed with many resources, diversified topography, and many nationalities. A multi-ethnic society, it serves as the home of about 80 ethnic groups, (CSA 2010).

Ethiopia is one of the most populated countries in Africa, with over 85 million inhabitants, and 84% of the population dwells in rural areas. It is also one of the poorest countries in the world, with gross national income (GNI) at about 220 USD per capita, and is ranking 169 out of 179 countries on the Human Development Index (World Bank, 2009).

Millions of Ethiopians continue to live in absolute poverty. The poverty headcount declined slowly from 45.5 percent in 1995 to 44.2 percent in 2000, with about 28 million Ethiopians below the poverty line. More than 50 percent of Ethiopians remain food insecure, particularly in rural areas. About ten percent of the population is chronically food insecure, (Alemayehu 2008). Over the past fifteen years, Ethiopia has been progressively undertaking economic reforms. The country has been operating a free market economy since 1991. The government introduced the Economic Recovery and Structural adjustment Program in the 1992 to stabilize the macro-economic framework by liberalizing foreign exchange Markets. Structural reforms were initially emphasized in the agricultural sector where various restrictions and quotas were either lifted or lowered. Legal, institutional and policy reforms were also undertaken to promote private sector investment. These economic measures paid positive dividends, reversing years of persistent decline in the per capita gross domestic product (GDP).

The country has been landlocked since the independence of Eritrea in 1993, and the economy is highly dependent on the performance of the agriculture sector, which sustains

over 80 percent of the population and accounts for nearly half(47.5%) of gross domestic product (GDP) and almost all exports ,UNECA, (2002,: 84).

### **3.2 Data Types and data collection**

The data used in this study is obtained from different sources. In particular the study uses annual time series data (in the period of 1992 to 2011). The relationship between FDI and economic growth is examined using data from MOFED and CSA from 1992 to 2011. Other Secondary data for this study are collected from Global Development Finance (GDF) and World Development Indicators (WDI);WDI-CD ROM Version 2012 published by the World Bank, World Investment Report (WIR) published by the UNCTAD, and International Financial Statistics (IFS) published by the International Monetary fund (IMF), The WDI and IFS database includes variables such as GDP, per capita GDP, GDP growth rates, FDI, trade of goods and services, domestic capital formation, , market openness (data of export & import), domestic savings and government expenditures, etc.

The following is a description on the variable we have used in this study, and the way data has been constructed for each variable: FDI inflows are net inflows of investment to acquire a lasting management interest in an enterprise operating in an economy other than the home country of the investor. The measure is the sum of equity capital, reinvestment of earnings, and other long-term and short-term capital. No private portfolio investment is considered in this study. Data of net inflows of FDI as percentage of GDP is collected from WIR and WDI.

GDP in current market price and per capita GDP data have been collected from various publications of local sources such as MOFED and CSA and international data sources of World Bank, UNCTAD, and IMF. The data on annual growth rate of GDP is from World Bank Publications and Economic survey of Ethiopia Degree of openness (XM) has been calculated as the sum of exports and imports divided by GDP. This ratio of trade to GDP provides a measure of the degree of economic openness. Gross domestic investment (GDI) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. It is coded as percentage of GDP. The net foreign direct investment

inflows of as percentage of GDP provides a measure of the level of foreign capital invested in a host country and the labor expressed as the active labor force.

### **3.3 Data analysis**

#### **3.3.1 Econometric models**

##### **3.3.1.1 Model Specification**

The conventional approach is to investigate the relationship between growth and FDI involves regressions for the rate of output growth on the rate of FDI growth. Often, additional explanatory variables for example, the rate of growth of the domestic capital stock, domestic labor force growth) and trade openness as the total of export and import are included in order to control for other influences upon the rate of economic growth. Such models are often presented in terms of a production function-type of framework that treats FDI (foreign capital) as a factor input. The empirical growth literature has identified a number of variables that are typically correlated with economic growth. In the light of the discussion on the variables definition section, the following regression model is specified to measure the effects of FDI on economic growth

The Model is based on the Endogenous theory, as developed by Balausubramanian.Salisu and Sapfordet.al1996) and Borrensztein, Gregorio, &Leeet.al1998). The model is based on the assumption that FDI contributes to economic growth directly through new technologies and other inputs as well as indirectly, through improving human capital, infrastructure, institutions and the level of country's productivity (TFP) depends on FDI and trade ,domestic investment.. As variable, 'A' captures the total factor productivity (TFP) effect on growth in out put. It is assumes that the effect of FDI on growth operates through variable A, and the effect of FDI on A also depends on human capital

To test the hypothesis empirically, the effects of FDI on Economic growth the model used van be specified as follows. it is base on the following production functions previously set in the proposal of this paper



$$Y_t = A_t K_{dt}^\alpha K_{ft}^\lambda L_t^\beta \dots\dots\dots (3.3.1.1)$$

Where dependent Variable Y is the real GDP and the independent variables are FDI is the Foreign direct investment inflows, L is economically active labour force, Kd is the domestic capital investment, Trd is the trade openness and A is the total factor productivity.

$$\ln y_t = b_0 + b_1 \ln k_d + b_2 \ln l + b_3 \ln k_f + b_4 \ln trd + \epsilon_t \dots\dots\dots (3.3.1.2)$$

Yt = Real GDP growth rate,

Kf= net foreign direct investment inflows as percentage of GDP,

trd= trade openness (the sum of total export and import as percentage of GDP),

Kd = Gross domestic investment is coded as percentage of GDP,

l= Active labour force

$\epsilon$  = error term.

b<sub>0</sub> = the constant denotes the factor productivities not capture by the explanatory variables above such as technological progress

Positive relationships are expected between the dependent variable and all explanatory variables. If the model specification is reasonable, the estimated coefficient of FDI will indicate the direction and magnitude of the impact of FDI on economic performance. Appropriate statistical tools of Eviews will be used for the presentation, interpretation and analysis of collected data. The empirical growth literature has identified a number of variables that are typically correlated with economic growth, Barro (1996), Borensztein et. al., (1998), and Carkovic and Levine (2002)]. In the light of the discussion in the literature review section and variables definition section, the following equation is used as the basic model:

GDP per capita Growth = f [(nFDI, ExpoImp, DomsInv, Activelabor,)] Here:

FDI = net foreign direct investment inflows,

ExpoImp = the sum of total export and import,

DomsInv = Gross domestic investment,

Activelabour = Active labour force which is domestic,

First, we test the impact of FDI on economic growth in the period 1991-2011 using the method Ordinary least square regression. Then we discuss our methodology for estimating our empirical model and produced empirical analysis. The model was established using Ordinary Least Square estimation (OLS) using the statistical analysis software Eviews. The multiple coefficient of determination R<sup>2</sup> was used to analyze how well the sample regression line fits the data. Then, the F-Test was conducted to measure overall significance of the estimated regression. Thirdly, the T-Test was used to verify the truth or false of a null hypothesis. Durbin Watson was developed to detect correlation in Least-Squares Regressions. If the value of R<sup>2</sup> was high but the variables were insignificant, then there was an autocorrelation problem. This was followed by the Unit Root Test to determine whether the variables were stationary. Next, the Co-integration test was carried out to form the long-run relationship among the variables. (Engle F.R and Granger 1987)

### **3.3.1.2. Variable Definition and Hypothesis**

The paper is based on the following hypotheses for testing:

1. FDI has positive impact on economic growth in Ethiopia
2. FDI has significant impact on Economic growth of Ethiopia

And this is strengthened by whether there exists a long run relationship between GDP and FDI in Ethiopia the choice of the existing model is based on the fact that it allows for

generation and estimation of all the parameters without resulting into unnecessary data mining. The growth model for the study takes the form:

Equation

$$\ln Y_t = b_0 + b_1 \ln K_t + b_2 \ln L_t + b_3 \ln K_t^2 + b_4 \ln T_t$$

Where variable on the left side is dependent variable and variables on the right side are the exogenous variables. We will assume the hypothesis that there is no relationship between foreign direct investment (FDI) and Economic Growth in terms of GDP. To confirm about our hypothesis, primarily, we have studied the effect of foreign direct investment inflow on economic growth.

The Stationarity Test (Unit Root Test) when dealing with time series data, a number of econometric issues can influence the estimation of parameters using OLS. Regressing of a time series variable on another time series variable using the Ordinary Least Squares (OLS) estimation can obtain a very high R<sup>2</sup>, although there is no meaningful relationship between the variables. This situation reflects the problem of spurious regression between totally unrelated variables generated by a non-stationary process. Therefore, prior to testing Co integration and implementing the any econometric methodology we need to examine the stationarity; for each individual time series,

Most macro economic data are non stationary, i.e. they tend to exhibit a deterministic and/or stochastic trend. Therefore, it is recommended that a stationarity (unit root) test be carried out to test for the order of integration. A series is said to be stationary if the mean and variance are time-invariant. A non-stationary time series will have a time dependent mean or make sure that the variables are stationary, because if they are not, the standard assumptions for asymptotic analysis will not be valid. Therefore, a stochastic process that is said to be stationary simply implies that the mean  $[E(Y_t)]$  and the variance  $[Var(Y_t)]$  of Y remain constant over time for all t, and the covariance  $[Cov(Y_t, Y_s)]$  and hence the correlation between any two values of Y taken from different time periods depends on the difference apart in time between the two values for all  $t \neq s$ .

Since standard regression analysis requires that data series be stationary, it is obviously important that we first test for this requirement to determine whether the series used in the regression process is a difference stationary or a trend stationary. The Augmented Dickey-Fuller Test (ADF).

The simplest DF test starts the following first order autoregressive model.

$$Y_t = \phi Y_{t-1} + U_t \text{-----} (3.3.1.4)$$

Subtracting  $Y_{t-1}$  from both sides gives/

$$\Delta Y_t = \sigma Y_{t-1} + U_t \text{-----} (3.3.3.5)$$

Where  $\sigma = (\phi - 1)$

The test for stationary is conducted on the parameters  $\sigma$ . If  $\sigma = 0$  or  $(\phi = 1)$  it implies the variable  $Y$  is not stationary the hypothesis is formulated as follows

$$H_0 = \sigma = 0 \text{ or } (\phi = 1)$$

$$H_1 = \sigma < 0 \text{ or } (\phi < 1)$$

If including a constant (drift) to the regression is suggested, that is

$$\Delta Y_t = \alpha + \sigma Y_{t-1} + U_t \text{-----} (3.3.3.6)$$

Where  $\alpha$  is constant term

However, if a series contains a deterministic trend, testing for stationary using equation (3.3.3.6) is not valid. Therefore it is important to incorporate time as follows.

$$\Delta Y_t = \alpha + \sigma Y_{t-1} + BT U_t \text{-----} (3.3.3.7)$$

Where  $t$  is the trend element

For the above equations the parameter  $\sigma$  is used while testing for stationarity where the decision is made using a  $t$ -statistics. If the calculated value of  $t$  is less than critical value (reported by Dickey and Fuller) the null hypothesis is accepted and not if otherwise. Rejecting the null hypothesis implies that, there exists stationarity. If a variable that is not stationary in levels appears to be stationary after  $n$ th differences then the variable is said to be integrated of order  $n$   $I(n)$ . However, the degree of freedom (DF) test has a series limitation in that it suffers from residual autocorrelation. To amend this weakness, the DF model is augmented with additional lagged first differences of dependent variable. This is called Augmented Dickey fuller (ADF). Thus incorporating lagged first differences of the dependent term in the above equations gives

$$\Delta Y_t = \sigma Y_{t-1} + \sum_{i=1}^K \phi_j \Delta Y_{t-i} + \mu t \text{-----} (3.3.3.8)$$

$$\Delta Y_t = \alpha + \sigma Y_{t-1} + \sum_{i=1}^K \phi_j \Delta Y_{t-i} + \mu t \text{-----} (3.3.3.9)$$

$$\Delta Y_t = \alpha + BT + \sigma Y_{t-1} + \sum_{i=1}^K \phi_j \Delta Y_{t-i} + \mu t \text{-----} (3.3.3.10)$$

Where  $C$  is constant (drift),  $T$  is a trend  $k$  is the lag length and  $\mu \sim \text{IID}(0, \sigma^2)$

Taking the variables in first difference form presents only the dynamic interaction among the variables with no information about the long run relationship.

We use the Augmented Dickey Fuller (ADF) test which is mostly used to test for unit root. Following equation checks the stationarity of time series data used in the study is white noise error term in the model of unit root test, with a null hypothesis that variable has unit root. The ADF regression test for the existence of unit root of  $y_t$  represents all variables (in the natural logarithmic form), at time  $t$ . The test for a unit root is conducted on the coefficient of  $y_{t-1}$  in the regression. If the coefficient is significantly different from zero (less than zero) then the

hypothesis that  $y$  contains a unit root is rejected. The null and alternative hypothesis for the existence of unit root in variable  $y_t$  is  $H_0: \alpha = 0$  versus  $H_1: \alpha < 0$ . Rejection of the null hypothesis denotes stationarity in the series.

If the ADF test-statistic (t-statistic) is less (in the absolute value) than the Mackinnon critical t-values, the null hypothesis of a unit root cannot be rejected for the time series and hence, one can conclude that the series is non stationary at their levels. The unit root test tests for the existence of a unit root in two cases: with intercept only and with intercept and trend to take into the account the impact of the trend on the series.

Equation Ln

$$t_{\alpha} = b_0 + b_1 \Delta y_{t-1} + b_2 \Delta y_{t-2} + b_3 \Delta y_{t-3} + b_4 \Delta y_{t-4} + \dots + b_k \Delta y_{t-k} + \epsilon_t$$

Where variable on the left side is dependent variable and variables on the right side are the exogenous variables.

**Table 3.1 Unit Root Test Results of ADF**

Variable	Intercept			Intercept and trend		
	ADF(0)	ADF(1)	ADF(2)	ADF(0)	ADF(1)	ADF(2)
<b>Ln Kd</b>	-0.210425	-2.9245	-11.134	-3.07952	-3.6823	-12.88631
<b>Ln Kf</b>	-0.815584	-7.2047	-4.2856	-4.23139	-6.9696	-4.098217
<b>Ln Yt</b>	2.421792	-2.6709	-4.6753	-0.25858	-3.1205	-4.71648
<b>LnL</b>	0.354638	-2.0113	-4.9569	-5.34487	-1.976	-4.80301
<b>LnTrd</b>	-0.596709	-3.3957	-9.1243	-1.95383	-6.9696	-10.34316

*Source: authors own estimation based on the data from MOFED*

- i.** Critical values for 1%, 5% and 10% significance levels for intercept are  $-3.88675$ ,  $-3.05217$  and  $-2.66659$  respectively.
- ii.** Critical values for 1%, 5% and 10% significance levels are  $-4.668$ ,  $-3.733$  and  $-3.31$  respectively.

From the above table, it is found that all variables contain unit root. To make the variables stationary the first difference of all variables were taken and found that the variables were integrated of order one i.e. I (1). The results show that LnGDI, LnGDP, LnDI, and LnTrd, are

level non-stationary at 1%, 5%, and 10% levels, and first difference non stationary 1%, 5%, and 10% levels at both intercept and trend. However, LnFDI is stationary at level first at both intercept and trend.

$$\text{LnGDP} = f(\text{LnFDI}, \text{LnDI}, \text{LnTrd}, \text{LnL}) \text{-----} (3.3.3.12)$$

$$\text{LnGDP} = 11.394 + 0.026\text{LnFDI} + 0.69\text{LnDI} - 0.472\text{LnTrd} + 0.78\text{LnL} + \epsilon t$$

$$t\text{-statistics} \quad (23.694) \quad (0.897262) \quad (13.26619) \quad (2.980506)$$

Whereas: LnGDP is the Natural Logarithm of Real Gross Domestic Product

LnFDI is the Natural Logarithm of Foreign Direct investment

Ln DI is the Natural Logarithm of Domestic investment

Ln Trd is the Log of Trade openness measured as Import and export per real GDP and

LnL is the Log of the active labour force

**Table 3.2: Regression result of FDI and its impact on Economic growth in Ethiopia**



Variable	Coefficient	Std. Error	t-Statistic	Prob.
LnTrd	-0.472327	0.142971	-3.303657	0.0048
LnFDI	0.025603	0.024301	1.053575	0.3088
LnDL	0.694385	0.157901	4.397602	0.0005
LnL	0.780350	0.356876	2.186617	0.0450
C	11.39413	2.644513	4.308592	0.0006
R-squared	0.980353	Mean dependent var		25.02646
Adjusted R-squared	0.975113	S.D. dependent var		0.379006
F-statistic	187.1152	Durbin-Watson stat		1.490846
Prob(F-statistic)	0.000000			

*Source: authors own estimation based on the data from MOFED*

Our findings indicate a Positive relationship exist between our focus variable FDI and dependent variable GDP. However it is not significant at 5% level of significance similarly Trade openness has also exhibited negative relationship with GDP. Active labour force has significant influence on the real GDP. With the exception of Domestic investment which has shown significant influence on our dependent variable. However, co-integration must exist for this relationship to be long-term. According to Engle Granger (1987) [34] procedure, co-integration exists if the residuals are found to be stationary. Hence, we employed Augmented Dickey Fuller Test for this purpose and found to be stationary. The following result is an exhibit of this test. The error term  $\epsilon (-1)$  is significant at difference level one at 1%, 5 % and 10%.

Augmented Dickey-Fuller test statistic: -4.77

1 % level	-3.92
5 % level	-3.07
10% level	-2.68

**Table 3.3 Error Correction Model `**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DDCI	0.128435	0.141983	0.904581	0.3835
DFDI	0.003993	0.013111	0.304583	0.7659
DIMEX	0.006373	0.129958	0.049037	0.9617
DLAB	3.226674	2.736553	1.179102	0.2612
RESIDUALS	0.455724	0.305698	1.490764	0.1618
C	-0.064118	0.092605	-0.692389	0.5019
R-squared	0.394290	Mean dependent var		0.068658
Adjusted R-squared	0.141911	S.D. dependent var		0.048455
F-statistic	1.562292	Durbin-Watson stat		1.827852

*Source: authors own estimation based on the data from MOFED*

Once we have statistical justification for the existence of co integration, we proceed to estimate the error-correction model which accounts for both short-run and long-run information. Given that  $y_t$  and  $x_t$  are co integrated, assuming that  $x_t$  is exogenous, the error correction model can be given by:

$$\Delta y_t = \alpha \Delta x_t + \nu (t-1) + v_t \text{-----} (3.3.3.13)$$

Since full (100%) adjustment is not expected,  $\alpha$  is supposed to be less than 1. It contains long-run information. The estimates measure the short-run dynamics.

Accordingly the model according to the ECM is given by:

$$\Delta GDP_t = \beta_0 + \beta_1 \Delta FDI + \beta_2 \Delta DI + \beta_3 \Delta L + \beta_4 \Delta Trd + \epsilon (-1) + V_t \text{-----} (3.3.3.14)$$

The error correction model estimate is given by

$$\Delta GDP_t = -0.064\beta_0 + 0.004\beta_1 \Delta FDI + 0.128\beta_2 \Delta DI + 3.22\beta_3 \Delta L + 0.0067\beta_4 \Delta Trd + 0.4557\epsilon (-1) + V_t \text{-----} (3.3.3.15)$$

The Engle Granger Testing for Co integration proceeds with first testing the stationarity of the variables, and then applying the Ordinary Least Squares (OLS) Method to estimate the coefficients of the Regression equation and then checking the residuals of the regression for stationarity, if the residuals are stationary then the variables are co integrated or in a long run equilibrium, and the coefficients are regarded as the long term elasticities.

#### 4. RESULTS AND DISCUSSIONS

The following section discusses the results of the test individual for the exogenous variables of the study. The coefficient of Domestic capital is positive and significant and the value 0.69 can be treated as long run elasticity of Domestic Capital. For one unit change in Domestic Capital the Economic growth (GDP) increases by almost 70%. This shows the positive contribution of Domestic Capital formation on economic growth in Ethiopia has been positive, for 1992-2011 These results are in line with the results obtained by (Asiedu 2007), their results for their study show that the coefficient of Domestic Capital is positive and significant with value of 0.51(near the value obtained by this study). The result for domestic capital is also in line with the results of (Balasubramanyam et.al 1999).

The coefficient of labour force is positive and significant, with value 0.78 that can be treated as long run elasticity. For one unit change in labour the economic growth (GDP) increases by 78%. This positive contribution of labour towards the economic growth is also in accordance with the results of other studies.

Trade openness has been widely used with a proxy of trade to GDP ratio in the literature, (Beck et al. 2000 [32]) and (Waheed & Younus, 2010 [33]). We have used Trade as a percentage of GDP as a proxy for trade variable this variable have a negative sign with a result of -0.472 because of high imports as compared to exports in the Ethiopian trade profile case. The results could be justified on the ground that since Ethiopian trade balance has not been very impressive over the last two decades So that it has not played a significant role in economic growth.

The Impact of FDI on economic growth in Ethiopia has been insignificant according to the result obtained in this study which is 0.026. . For one unit change in FDI, the economic growth (GDP) increases only by 2.6 %. This insignificant contribution of FDI towards the economic growth is also in accordance with the results of other several studies concerning developing countries for various reasons.

The data has been taken from World Development Indicators as well as domestic sources such as Ministry of Finance and Economic Development of Ethiopia. Other studies conducted also confirm the results of this study as De Mello (1999) conducted time series as well as panel data estimation. He included a sample of 15 developed and 17 developing countries for the period 1970-90. The study found strong relationship between FDI, capital accumulation, output and productivity growth. The time series estimations suggest that effect of FDI on growth or on capital accumulation and total factor (TFP) varies greatly across the countries.

The effects of FDI on economic growth cannot be materialized without the development of local markets and institutions, an investment friendly policy and administrative framework, as well as the availability of complementary factors of production. The host country conditions prevailing in most of the developing countries include weak institutions, and an insufficient endowment of complementary factors of production, that may seriously constrain growth-enhancing effects of FDI.

## **5 SUMMARY CONCLUSIONS AND RECOMMENDATIONS/IMPLICATIONS**

### **5.1 Summary and Conclusions**

FDI as the results show has not contributed much to the economic growth in Ethiopia for the time period 1992-2011, as compared to domestic capital and labor, therefore it is imperative for the government to make a policy for attracting FDI in such a way that it should be more growth enhancing than growth retarding.. More Greenfield investment should be encouraged along with investment in large scale manufacturing that can improve the exports of the Ethiopia which is in line with the strongest argument for FDI that it stimulates exports for the host country. FDI is believed to transfer technology, promote learning by doing, train labor and in general, results in spill-overs of human skills and technology.

For all this to hold in a given economy several prerequisites are required. The preconditions include presence of a liberal trade regime, a threshold level of endowments of human capital, an adequate domestic market for the goods produced, and effective competition from locally owned firms through both investments in R&D and domestic production. For FDI to be a significant contributor to economic growth, Ethiopia would do better by focusing on improving infrastructure, human resources, developing local entrepreneurship, creating a stable macroeconomic framework and conditions conducive for productive investments to speed up the process of development.

### **5.2 Recommendations and Policy Implications**

The results of the various studies reviewed provide four main implications in terms of diversification, enhancing the absorptive capacity of local firms, providing opportunities for linkages between domestic and foreign investors and a targeted approach to FDI in Ethiopia.

- Diversification from primary to manufacturing and services is believed as one of the major strategies to stimulate development in Ethiopia

- The high levels of governmental corruption in most of the region might limit the positive effect of FDI on economic growth. A solution to this problem is to attract FDI into diversified and higher value-added activities.
- One important policy objective should be to reduce the barriers to FDI effectiveness is to build a diversified economy through investment in human capital and infrastructure and productive capacity.
- The issue of building the human capital and infrastructure is not only important in diversification, but also in being able to make use of the FDI by building absorptive capacity (AC) of the country.
- Government policy must promote FDI that augments domestic capacity or investment. It is important to note that even in China and other Asian countries where FDI has been known to be more effective;
- It is of interest to note that the most important recipient of FDI in SSA in the 1990s in terms of GDP (22%) was Lesotho, but economic growth decelerated over the same period. More importantly, FDI flows to Botswana declined but the economy continued to grow (Ajayi, 2006). This is not to suggest that FDI is not needed in the SSA region, but rather that FDI's growth enhancing effect is possible only when it stimulates domestic capacity of the host country's citizens (Carkovic and Levine, et,al 2005; De Mello, et,al m1999;)
- Finally, the ability of government to promote policies that enhance the domestic capacity of its citizens suggest that government must target or aim at attracting specific types of FDI that are able to generate spillover effects in the overall economy.
- Focus must be given to employ promotional resources to attract a subset of FDI flows rather than FDI in general. (Carkovic and Levine, et,al 2005) claims that FDI has been more productive in Asia (especially China, Taiwan, and South Korea) than other developing countries because of the targeted approach, which involved screening of investment applications and granting differential incentives to different firms and even prohibited.

Accordingly, we conclude by reiterating the fact that whatever the benefits of FDI, the development process must start from within the country, through a strong investment in human capital accumulation and a significant increase in infrastructure provision and raising the domestic saving to significant level in Ethiopia so that a strong basis for a diversified



production system can be established; a means to promote technological learning and technology diffusion.

Policies put in place to attract these foreign investments should be tailored on a regional basis and account for economic convergence within regions in order to be effective. In some regions, the channeling of these FDI flows into investments is missing,

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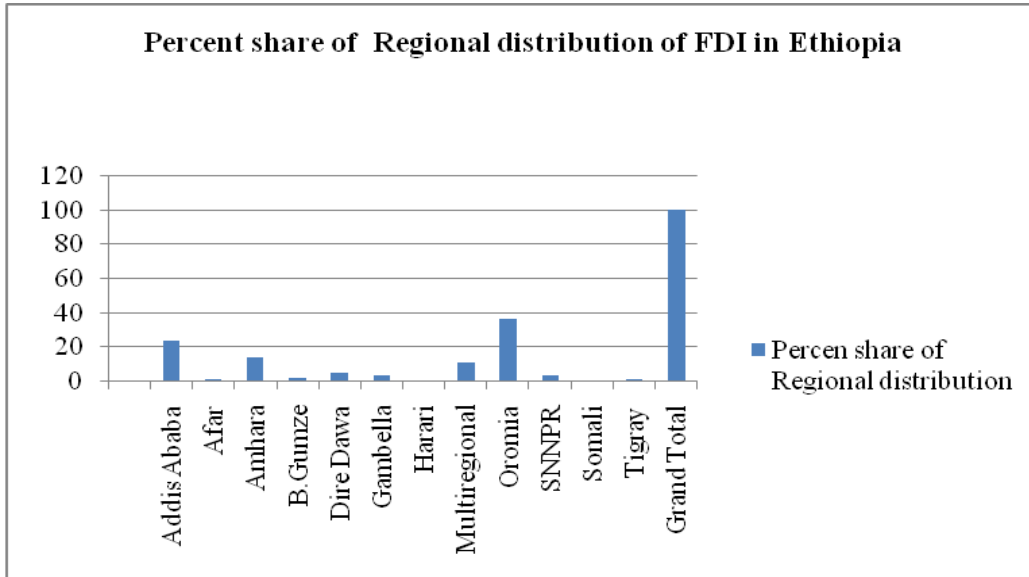
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## APPENDIX



**Figure 2.1 FDI FLOW BY REGION IN ETHIOPIA**

*Source: Ministry of Finance and Economic development of Ethiopia, 2011*





**Figure 2.2 the regional Map of the horn of Africa**

Source: African development Bank

**Table 2.1 FDI IN Ethiopia in US Dollar at current Prices and Current exchange rates in Millions**

Years of investment	FDI inflow
1992	0.17
1993	3.5
1994	17.21
1995	14.14
1996	21.93
1997	288.49
1998	260.67
1999	69.98
2000	134.64
2001	349.4
2002	255
2003	465
2004	545.1
2005	265.112
2006	545.257
2007	222.001
2008	108.538
2009	221.46
2010	288.272
2011	206.09
<b>Total</b>	<b>4281.96</b>

*Data source: UNCTAD stat2012*

**Table 2.2 Global Competitiveness Index 2009-2010 out of 133 countries in the world***Source: UNCTAD the least developed countries report 2012*

<b>Pillars</b>	<b>Ethiopia</b>	<b>Africa</b>
Overall	Score	Score
rank	(1-7)	(1-7)
Global Competitiveness Index	118	3.52
Basic requirements	...	<b>3.70</b>
Institutions	75	3.71
Infrastructure	96	2.74
Macroeconomic stability	116	4.30
Health and primary education	120	4.07
Efficiency enhancers	...	<b>3.32</b>
Higher education and training	125	2.98
Goods market efficiency	106	3.77
Labor market efficiency	69	3.91
Financial market sophistication	127	3.68
Technological readiness	131	2.63
Market size	76	2.87
Innovation enhancers	...	<b>3.17</b>
Business sophistication	118	3.47

*Source: UNCTAD the least developed countries report 2012*

**Table 2.3 Real GDP and Growth Variables data at Constant Prices In millions of Birr (Local currency)**

Real GDP (at constant price )	Domestic Capital Investment (at constant price)	import & export (at constant price)	FDI in Ethiopia (at constant price)	Active labor force in Number
45402.24533	2574.861579	3167.061945	153.8761	22973
45757.29134	3189.245339	3607.060035	87.6576	23625
48609.26534	6328.259771	7702.175449	315.3794	24350
51128.75018	7165.330287	10643.4205	167.4605	25077
56910.88537	9293.552034	14697.77511	554.6636	25670
59481.21602	10687.66828	15653.88999	2462.9806	26356
61170.74932	12294.07424	19812.43943	971.1617	27130
58610.6117	12548.40956	21118.13716	537.0426	27893
62299.38262	13516.31873	23962.532	1342.4889	28972
66920.74452	14644.83917	24254.464	2515.5102	30032
68014.176	16052.14547	26095.678	1641.673389	31153
66586.887	16304.85369	29910.738	2668.41771	32337
74397.096	22704.83762	40280.398	5720.573433	33584
83804.022	25292.74299	53853.17	4621.405246	34898
93474.483	33175.72059	66297.84	40375.16015	35959
104499.701	44294.34493	76941.507	16906.47808	37087
116190.251	56055.26299	104881.7098	60180.01049	38275
127857.279	75377.47375	131518.4954	56075.64328	39511
141368.102	85395.31917	154094.2892	59894.21208	40787
157464.234	130345.0245	248422.2821	68848.37652	42134

*Source: Ministry of Finance and Economic development of Ethiopia, 2011*