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THE DETERMINANTS OF FOREIGN DIRECT INVESTMENT INFLOWS IN ETHIOPIA

(TIME SERIES DATA ANALYSIS FROM 1998 UP TO 2018)

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By GEREMEW GENDIMO SEYO

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DECLARATION

I hereby declare that MBA thesis entitled, **"The Determinants of Foreign Direct Investment Inflows in Ethiopia (Time Series Data Analysis From 1998 Up To 2018)"**is my original work, and has not been presented for a degree/diploma in any other University, and that all sources of material used for the thesis have been duly acknowledged.

 Name: Geremew Gendimo seyo

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ADVISORS' APPROVAL SHEET

This is to certify that the thesis entitled, **"The Determinants of Foreign Direct Investment Inflows in Ethiopia (Time Series Data Analysis From 1998 Up To 2018)"** Submitted in partial fulfillment of the requirements for the Degree of Master of business administration in finance has been carried out by Mr **GEREMEW GENDIMO SEYO** under my supervision. Therefore, I recommend that the student has fulfilled the requirements and hence hereby approved the thesis to submit to department.

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GRADUATE PROGRAM

EXAMINERS APPROVAL SHEET

We, the undersigned, members of the Board of Examiners of the final open defense by **Geremew Gendimo Seyo** have read and evaluated his thesis entitled ,**"The Determinants of Foreign Direct Investment Inflows in Ethiopia (Time Series Data Analysis From 1998 Up To 2018)"**and examined the candidate. This is therefore to certify that the thesis has been accepted in partial fulfillment of the requirement of Degree of Master of Business Administration in Finance.

Approved by the Board of Examiners:

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Internal examiner (Name)   **Signature**   **Date**

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External examiner (Name)   **Signature**   **Date**

Acknowledgments

Contents   Page

List of Table

List of figures

List of Equation

List of Acronyms

ADB	Development Bank
ADF	Augmented Dickey Fuller
ARDA	Auto Regressive Distributed Lagged
BOP	Balance of Payment
EIC	Ethiopia Investment Commission
EXC	Exchange Rate
EPRDF	Ethiopia People Revolution Democratic Front
FDI	Foreign Direct Investment
GDP	Gross Domestic Production
GDPP	Gross Domestic per Capital
IMF	International Monetary Fun
IFC	International Finance Corporation
NBE	National Bank of Ethiopia
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary Least Square
RGDP	Real Gross Domestic Product
SPSS	Statistical Package for Social Sciences
TNCs	Transnational corporations
UNCTAD	United Nation Conference on Trade and Development
WB	World Bank
WTO	World Trade Organization
WDI	World Development Indicators

Abstract

This research paper is aimed to explain the causal effect of determinants of the foreign direct investment inflow in Ethiopia on time series data analysis for the consequence last two decades from 1998-2018. To attain the objective of the study, explanatory research design was applied. Before proceed to analyze the collected data, the data's stationary and integration test has been conducted to the end of maintaining the relevancy and validity of the paper. Using Eviews application, the stationary of the data has been checked at level and first difference. Both short and long run integration among the independent and dependent variables were observed. Besides to this the correlation test has been conducted in order to known what kinds of association each variables has with the FDI. Based on the finding except inflation rate, the rest variables have positive and strong correlation with FDI. Based on analyses of secondary date of time series finding of the analysis indicates only 61 % of determinants are influenced the foreign direct investment inflows in to Ethiopia and the others rest one hold by others factors which are not mentioned under the study. Then *try to identify those factors. According to the reports and the response of the concerned bodies in investment Bureau, the leading determining factor towards FDI is the political instability. Low access to modern market and corruption of the country followed by unclear and complex autocracy and policy related problem are major other factor accounted for decline foreign direct investment over years.*

Key Word: Foreign Direct Investment (FDI), Political Situation, Ethiopian Investment Commission   (EIC)

CHAPTER ONE

1. Introduction

The main objective of any country is to achieve and to endure economic growth both in the present generation and the upcoming generation. Economic growth is highly reliant on the efficient utilization of economic indicators of the country. There are many different factors contributed to one's country economy development studies by different authors. Among those factors foreign direct investment has its own contribution which focus on the some determinants of the country indicates foreign direct investment. Foreign Direct Investment (FDI) is defined as a cross border investment made by one company or investor from one country to a company of a host country for mutual benefit of the investment and international economic integration ((OECD, 2013).

In the era of globalization, foreign direct investment has become significant source of external finance for developing nations to improve economic conditions and deprive international trade boundaries. The benefits of FDI have been massively crucial in economic growth of developing countries such as Ethiopia. It provides sources of new technologies, technological expertise, capital, and scientific and managerial practices. Moreover, inflow of foreign direct flow will contribute to encourage the economic transition of developing country to a market based economy, attain international competitiveness and increase employment opportunities ((IMF, 2011)

The period 1980 –1995 when foreign direct investment inflows started increasing to developing countries is also associated with the liberalization of many developing countries. Prior to 1980, Latin American countries suffered from a debt crisis and the failure of their import substitution policies. Thus, many Latin American countries opened up their economies in 1980in order to help their economies recover, by lowering trade barriers and privatizing state owned companies. Consequently, foreign direct investment inflows into Latin America surged during 1980 –61984, contributing to the 3% growth of FDI inflows into developing countries. In 1985, China began steadily opening up its economy due to its lack of capital after the failure of the Cultural Revolution. As a result, FDI inflows into developing countries during the period 1985 –1990 grew at the considerable rate of 22%. India also opened up its economy after its currency crisis

in 1991 and implemented a series of reforms. Both the liberalization of China and India led to a 54% growth rate of FDI to Asia in 1993 (Phung, H., 2016)

The recipient countries with better endowment of human capital are more likely to benefit from FDI-induced technology transfer, as spillover from foreign affiliate to local enterprise is more likely. This is also known as the host country's absorptive capacity. Likewise, institutional development such as the rule of law, level of corruption, protection of property rights, the quality of public management and unrestricted government interference are crucial factors that determine technology and know-how transfer from foreign affiliates to domestic firms (Nunnenkamp, P. & Spatz, J, 2003)

Foreign Direct investment (FDI) is playing a great role for economic development in developed and developing countries. The host country will benefit as FDI creates employment opportunities, promotes economic growth and facilitates technology transfer ((UNCTAD, 2010)((Agrawal, Khan M, 2011).In addition to these, the foreign direct investment is seen to fill the gap between domestic investments and savings in most developing countries as their income and savings are very low ((Mottaleb, 2010)((kalirajan, 2010)

(Mateev, M, 2009) Also studied determinants of FDI, but in Central and South-eastern Europe and his findings also argue for that economic stability is an important determinant of FDI inflow. Mateev came to the conclusion that a lower risk of default may signal for improved macroeconomic stability and his findings show that it is significantly positively related to FDI inflow. (Valli M and Masih M , 2014) Investigated the relationship between inflation and FDI in South Africa and concluded that the variables have an inverse relationship. This means that higher inflation leads to lower FDI as it would lead to a reduction of the real returns of investments in that country.

Studies conducted investment in manufacturing sector in different countries Central and Eastern Europe. The findings suggest that FDI will benefit from increasing the openness of the country as it makes international trade flows more available. Exchange rates are another determinant of FDI that several researchers have studied. Weaker exchange rates in the host country are associated with more FDI inflows as it becomes cheaper for investors to invest there. (Resmini, L , 2000). (Froot, K and Jeremy C , 1991) .Have found evidence of that specific relationship in their study. They concluded that exchange rates impact on FDI that a weaker exchange rate in a

host country will lead to more FDI inflows as their assets become cheaper compared to the assets in the investor's home country.

(Serven L & Salimano, 1991) Also investigated economic adjustment and FDI performance for fifteen developing countries; they pooled cross sectional time series data from 1975 to 1988. The investment equation estimated in the study used exchange rate and inflation as proxies for instability and in such case instability was measured by the coefficient of the variation of relevant variable over three years. The two measures were found to be jointly significant in producing negative effect on investment.

Based on the studies mentioned above our country have some limited paper on the variable even if some studies are conducted by different researcher To gain the benefit most developing countries like Ethiopia are trying to attract foreign direct investment by framing different policies such as trade liberalization, privatization of public sectors and creating an attractive macroeconomic investment environment. Currently the government of Ethiopia has on the progress economic reforms which aim as attracting foreign direct investment and fast economic growth of the country. Therefore, this study was try to see what determinants of FDI are and to what extent determinants influence foreign direct investment inflows in Ethiopia based on time series data analysis and in-depth interview with concerned body.

1.1 Rationale of the Study

In the interconnected global world, the determinants of economic performance difference across countries are prominent issues. Developed countries have excess capacity to invest, however, low level of investment due to lack of capital is the main hurdle for the economic growth of developing countries. Investment whether domestic or foreign, is an essential ingredient for sustainable growth; productive investment translates in to productive output. Especially where domestic investment is insufficient to steer a country towards its long run potential growth path, the role of foreign investment becomes indispensable (ADB, 2004) Foreign direct investment is one of the most striking features of the global economy today. The rapid growth in FDI over the last few decades has spurred a large body of empirical literature to examine the determinants and the growth enhancing effects of FDI. The effects of FDI can be wide ranging since FDI typically encompasses packages of capital as well as technical, managerial and organizational know-how. FDI is particularly important for developing countries since it provides access to

resources that would otherwise be unavailable to these countries. Its contribution to economic development and therefore poverty reduction comes through its role as a conduit for transferring advanced technology and organizational forms to the host country, triggering technological and other spillovers to privately owned enterprises, assisting human capital formation, contributing to international trade integration, and helping to create a more competitive business environment (Ikiara, M, 2003).

As FDI is insulating factors for balancing shortage of local domestic investment, many developing countries are badly in need of higher economic growth and development. The need to meet the objective of faster economic growth and low level of capital accumulation are conflicting in nature; there exists wider saving and investment gap which means low level of saving habit and capital accumulations in developing and developed. To solve this problem, foreign direct investment served as a source of capital in most less developed countries. They are now actively seeking foreign investment by taking measures that include economic and political reforms designed to improve their investment environment. In 1991, Ethiopia's transition to a market oriented economy started. Since then, the government has made a broad range of policy reforms, including liberalization of foreign trade regime, decentralization of economic & political power, deregulation of domestic price and devaluation of the national currency. In addition, the government of Ethiopia is currently on the progress of open the public sector for domestic and foreign investors to attract capital accumulations to achieve fast economic growth and become middle line income countries.

In addition, the investment code has been amended several times in order to meet the demands of both domestic and foreign investors. In Ethiopia, the gap between domestic investment and savings has remained wide due to the low levels of income and domestic savings. FDI as a source of capital and other business know-how is therefore desperately essential to finance growth and development. Between 1990 and 2017, gross domestic investment as a proportion of GDP rose from 13.81 per cent to 38.816 percent, while gross domestic savings rose from 7.15 percent to 25.7 percent (UNCTAD, 2017) this saving gap can be filled by loans and development assistance from multilateral agencies such as the World Bank or by private foreign investment. Given this, FDI is the most important alternative source of foreign capital for these countries. In view of this important role of foreign direct investment, it is essential to understand

the extent of determinants' influence on foreign direct investment under Ethiopian economic situation.

1.2 Statement of the Problem

Investment is one of the crucial variables in driving economic growth and development of one's country in the world. Hence, foreign direct investment is believed to serve as a strong mechanism for the encouragement and spread of business opportunities throughout developing and industrialized economies thereby enhancing economic development. It has been argued in numerous studies that FDI contributes positively to economic development of developing and developed countries.

Many studies have been conducted over time looking for factors affecting FDI into a given country. Singh and Jun(1995)empirically analyzed various factors including political risk, business conditions, and macroeconomic variables that have influenced FDI flows to developing countries Sparks et al. (2014) concludes that only 22. 46 % of the variation of countries' foreign direct investment can be explained by economic factors. Even if there is a question about the relevance of the Country Liquidity Index using as a proxy for economic factors, the statement that economic determinants are not sufficient for the explanation of the implication of foreign direct investment need to be correct. Study made by Eregha in African countries reveals that although the FDI inflow to Africa is low, FDI has a positive impact on domestic investment and economic growth. The study also adds that FDI inflow primarily depends on the country's policies, infrastructure, institutions, reliability, and consistent financial sector. Foreign direct investment generally considers infringing the domestic investment. The bi variety and multivariate estimations of this study also pointed that FDI crowds out the domestic investment (P.Erega, 2011).The studies carried out by (Getinet A and Hirut A, 2005). Indicate that growth rate of real GDP, export orientation, and liberalization, among others, have positive impact on FDI. On the other hand, macroeconomic instability and poor infrastructure have negative impact on FDI. These findings imply that liberalization of the trade and regulatory regimes, stable macroeconomic and political environment, and major improvements in infrastructure are essential to attract FDI to Ethiopia. However based on studies above mentioned are not includes data of recent years up to 2018   More over the studies conducted on determinants of FDI in Ethiopia have limitation of to what extent that independent variables are influence on FDI and what the combination effect independent variables on FDI. Therefore the researcher aspired to

identify the extent of determinants factors influence on FDI inflows for last 20 years using times series data.

1.3 Research Questions

Therefore, this study answers the following research questions

1. To what extents exchange rate, trade openness, inflation rate Infrastructural development, GDPP and RGDP affects foreign direct investment inflows in Ethiopia?
2. What are relationship effects of determinants on FDI in Ethiopia?

1.4 Objectives of the Study

The following general and specific objectives are outlined in order to solve the problems that initiate in this study

1.4.1 General Objective

The main objective of the study is to examine the extent of determinants' influence of foreign direct investment of Ethiopia using time series data regression models analysis.

1.4.2 Specific Objectives of the Study

The researcher intended:

1. To explain the effect of exchange rate variability on foreign direct investment inflows in Ethiopia.
2. To ascertain the extents to which infrastructural development affects foreign direct investment inflows in Ethiopia.
3. To examines the effect of trade openness on foreign direct investment inflows in Ethiopia.
4. To examines the effect of inflation rate on foreign direct investment in Ethiopia.
5. To see the Association of RGDPP and FDI.
6. To assess effect of GDPP on FDI.

1.5 Scope of Study

The study carried out on time series data analysis recorded in since 1998 up to 2018 consecutive years to understand the association or extent of influence of FDI determinants in Ethiopia. The study is specially limited to selected offices like investment commission annual reports, national bank of Ethiopia annual reports ,trade ministries annual reports analysis for last 20 years and variables which identified as exchange rate, trade openness, and inflation rate Infrastructural development, GDPP and RGDP affects foreign direct investment with influence effect on foreign direct investment.

1.6 Significance of the Study

This study has examined foreign direct investment determinants in Ethiopia using time series data analysis in order to identify main determinants of FDI and its benefit to economic growth.

➤ It helps Ethiopian investment policy makers and investors to overcome the challenges as well as to draw effective road map for their project.

➤ It enables the government to follow appropriate fiscal policy schemes that would match with the current economic situation of the country.

➤ The result of this study expected to provide a better understanding about the practical challenges of FDI.

➤ Even though the study is conducted on Ethiopia, the results from this study may also hold for other developing countries, especially for most Sub-Saharan countries

➤ Furthermore, the study could also help in formatting relevant policies for domestic saving and investment of the country.

➤ The paper might serve as a reference material for other researchers who will conduct related researches.

1.7 Limitation of the Paper

The study concentrated mainly on the determinants of foreign direct investment inflows in Ethiopia within variable limited to trade openness, inflation rate, Infrastructural development, GDPP and RGDP Due to limited availability of data it was not possible to include all independent variables under this study. Finance for collecting data, shortage of data and data will not be available at the right time and the right place is main limitation of the study.

1.8 Organization of the Study

The paper has organized in to five chapters. The first chapter, the introduction part, focused on rational of the study, statement of the problem, objective of the study, significance of the study, scope of the study and organization of the paper. The second chapter deals with literature review. The third chapter contains methodology which contains introduction, research design, source of data and collection techniques, and method of data analysis and presentation. The fourth chapter deals with deals results and discussion. Summary, conclusion recommendation has also included in the last fifth chapter.

CHAPTER TWO

2. Literature Review

2.1. Introduction

This research examine the extent of the determinants 'influence on Foreign Direct Investment and economic growth and explores various determinants to attract FDI for developing countries and emerging economies under circumstance different determinants in Ethiopia. Supporting Academic journals, published works of well-known economists and papers studied on the topic have been reviewed. The Ethiopian investment policy and foreign direct investment policy in Ethiopia have been reviewed. Furthermore, different results of previous studies on FDI and proposed theories have been discussed, compared and contrasted throughout the literature review.

2, 1.1 Conceptual Definitions

FDI: The World Bank World Development Indicators(2012)defined Foreign Direct Investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. In line with the approach used in the FDI literature, the dependent variable used in this study FDI is measured as the net foreign direct investment inflows as a percentage of GDP.FDI has innumerable other effects on the host country's economy. It influences the income, production, prices, employment, economic growth, development and general welfare of the recipient country. It is also probably one of the most significant factors leading to the globalization of the international economy. Thus, the enormous increase in FDI flows across countries is one of the clearest signs of the globalization of the world economy over the past 20 years (UNCTAD, 2006)

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

There are three types of international capital flows (Figure 2.1); portfolio investment, foreign direct investment and loans ((IMF, 1993).Portfolio investment is the investment in bonds, stocks and equities. Investors purchase bonds and stocks from foreign countries hoping to get more return. Portfolio investment is related to interest rate change. According to the Cross border Capital flow international capital flow is showed as in the following chart.

Figure2.1- International capital flow

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                        ┌─────────────────────────┐
                        │  Cross border Capital flow │
                        └─────────────────────────┘
          ┌──────────────────┬──────────────────────┐
┌───────────────────┐  ┌──────────────┐   ┌──────────────────┐
│ Portfolio investment │  │ Foreign direct│   │ Other (bank loans)│
└───────────────────┘  │  investment  │   └──────────────────┘
                       └──────────────┘
                   ┌──────────┴──────────┐
              ┌──────────┐        ┌──────────┐
              │ Vertical │        │ Horizontal│
              └──────────┘        └──────────┘
          ┌───────┴────────┐
    ┌──────────┐    ┌──────────┐
    │ Forward  │    │ Backward │
    │ oriented │    │ oriented │
    └──────────┘    └──────────┘
```
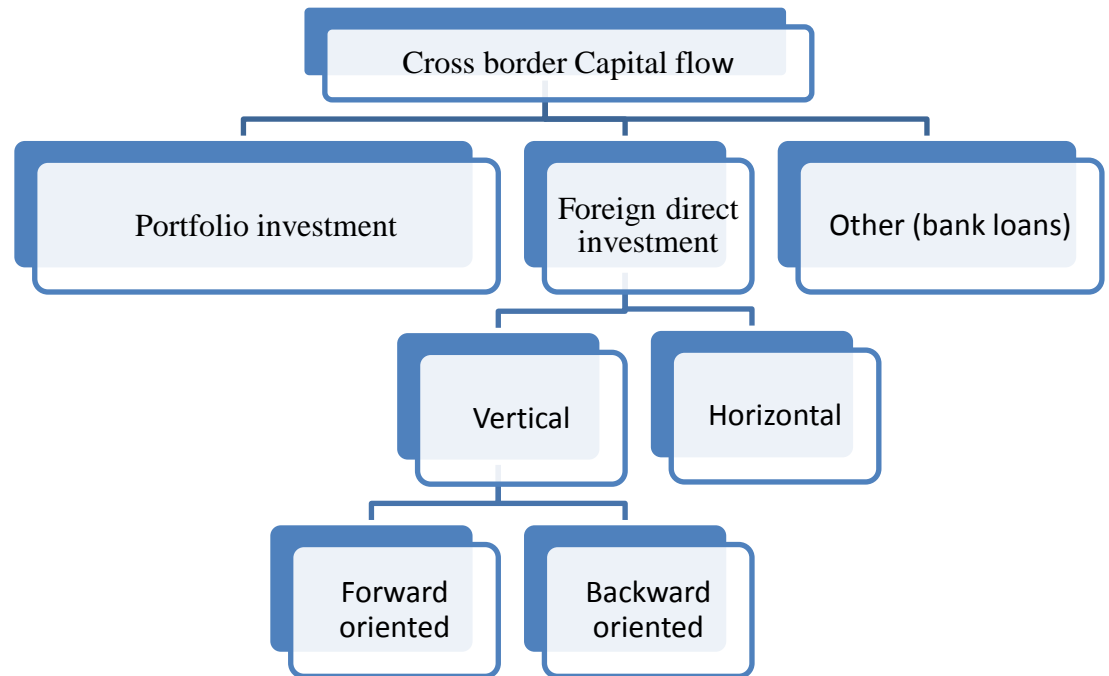
Source: (protsenko,A, 2004)

Foreign direct investment is international investment made by a resident entity in one economy (direct investors) with the objective of establishing a lasting interest in an enterprise resident in an economy other than that of the investor (direct investment enterprise). Lasting interest implies the existence of a long term relationship between the direct investor and enterprise and a significant degree of influence by the direct investor on the management of the direct investment enterprises. Direct investment involves both the initial transaction between the two entities and all subsequent capital transactions between them and among affiliated enterprises, both incorporated and unincorporated.

Horizontal Foreign direct investment: When multinational enterprises invest in different countries to produce the same goods and services we call it horizontal foreign direct investment

Vertical Foreign direct investment:-Multinational enterprises benefit from factor price difference and trade cost in the vertical foreign direct investment.

2.1.2 Foreign Direct Investment Trends

FDI trends During 1980's worldwide outflow of FDI increased by 29 percent growth rate of a year, it was three times faster than world export and four times faster than world output((UNCTAD, 2010)One of the reasons for increase in inflow of FDI in 1980's was the shift in sectors from raw materials to service and technology intensive manufacturing. In the 1950's mainly the FDI focused on raw materials however during 1980's and 1990's it shifted to service and technology-intensive manufacturing. Moreover international foreign direct investment policies Active Policies Passive Policies Aligned with countries Development objectives Left mainly to the comparative advantage of a national production through FDI is seen as complement and substitute for international trade and it eliminates trade barrier. Based on World Investment Report (2010) half of global foreign direct investment inflow goes to developing and transitional economies (UNCTAD, 2010). And one quartet of global foreign direct investment outflow is invested by developing and transition countries. The spread and importance of foreign direct investment varies from region to region. Early 1980's when FDI was becoming popular, the rate of FDI industries spread in Asia. This was in search of the cheapest labor which gave incentive for the increment of FDI in Asia. But these days the direction has shifted to other countries including Africa (OECD, 2005) Due to the recession since 2008 the world economy has declined by 2 percent. As a result the amount of FDI inflow in some part of the world was low. However, FDI inflow has recovered from 2010 onward. World investment report (2010) identifies the factors that influence future FDI inflow globally from 2010 onwards i.e. macroeconomic factors, firm level factors, and policy factors. Macroeconomic factors include gross domestic product, gross fixed capital formation, and the interest rate and commodity prices. Firm level factors are profit and liquidity position (cash holding). Yet, risks and uncertainties such as instability of global financial system (high inflation and instable exchange rate) may affect FDI inflow negatively (UNCTAD, 2010). According to UNCTAD 2010 report variables like exchange rate and inflation rate have significant on the FDI inflows.

2.2 Theoretical Literature Review and Explanations of FDI

Various theories have been developed since the World War II to explain foreign direct investment. These theories state that a number of determinants both at micro and macro level could explain FDI flows in a particular country or a particular region. In accordance with the OECD, benchmark Definition, Foreign Direct Investment (FDI) is said to be an investment which entails a long duration equation and is an indication of sustained interest and authority by a hosted firm in an economy (foreign direct investor or origin firm) in a firm hosted in a country other than that of the foreign direct investor (FDI firm or associated firm of foreign affiliate). FDI entails both the initial dealing between two enterprises and all following money dealing between them and amid the associated firm, both integrated and non-integrated ((OECD, 2008).

2.2.1 International Trade Theory

The theoretical explanations of FDI largely stem from traditional theories of international trade that are based on the theory of comparative advantage and differences in factors endowments between countries. Multinational companies are usually attracted to a particular country by the comparative advantage that the country or region offers. For instance, multinational companies may establish foreign subsidiaries in one country to take advantage of its lower labor costs or its large market size. Thus, in their basic form, traditional theories of international trade do offer some explanation of FDI. Nonetheless, the traditional trade theories do not provide full answers as to why multinational companies prefer to operate in a foreign country rather than engaging in exporting or licensing, which are alternatives to FDI. This has led to the development of alternative explanations of FDI (Harrison Dalkiran E. and Elsey, E., 2000).

2.2.2 The Theory of Portfolio Investment

The theory of portfolio investment (the neoclassical financial theory of portfolio flows) is one of the earliest explanations of FDI. The basis for this explanation lies in interest rate differentials between countries. Capital, according to this explanation, moves in response to changes in interest rate differentials between countries/regions and multinational companies are simply viewed as arbitrageur of capital from countries where its return is low to countries where it is high. This explanation, however, fails to account for the cross movements of capital between/across countries. In practice, capital moves in both directions between countries. In addition, that capital is only a complementary factor in direct investment and that this theory does not explain why firms go abroad contribute to the criticism of the neoclassical theory of portfolio investment (Harrison,A Dalkiran, E and Elsey, E , 2000).

2.2.3 Vernon's Product Life Cycle Theory

The product life cycle theory was developed by (Vernon, R., 1966). this theory has contributed significantly in the analysis of foreign direct investment. Vernon analyzed four production stages commencing with invention of new product. Vernon's product life cycle theory gives insight why and how export is replaced by foreign direct investment. He based his work on US enterprises that were producing for domestic market and later on for international market. Vernon tried to comprehend the shift of international trade and international investment. At the first stage, the enterprises are more focused on the domestic market. And then in the next stage, when the product matures, enterprises start exporting to developed countries. At this stage the innovating enterprises enjoys the profit of the sales of newly invented product until rival enterprises copy and produce the same product. Later when the demand for the product increases the product will be standardized. At advanced stage, when the product is standardized, the enterprises would think less developed countries could be good production place. Economies of scale, transportation and labor cost are the determinant factor for location choice. Since less developed countries are rich in labor, the products which will be produced are labor intensive products. This is made mentioned of in Hecksher-Ohlin theorem. Though, according to Vernon the low cost location hypothesis is not the only reason leading entrepreneurs to decide and invest in other countries. He further argues that any threat to the enterprises can be seen as motivating force for the action. Generally, a government which imports the product structure import substitution policy in order to increase employment and enhance growth. This could be a threat for the exporting enterprises. So the entrepreneurs prefer to go and invest in this country. Vernon put the threat as "galvanizing force" for international investment. He stated that an international investment by the exporter therefore becomes a prudent means of forestalling the loss of a market. In this case, the yield on the investment is seen largely as the avoidance of a loss of income to the system In the fourth stage, the home countries will be an importer since the production decreases. Nevertheless, this theory is criticized as some enterprises skip export in the process and go directly to invest.

2.2.4 The Eclectic Theory of FDI

The British economist John Dunning is one of the famous scholars on the issue of foreign direct investment. He developed a framework in which he described three firms advantages of foreign direct investment, these are: Ownership advantages, Location-specific advantages and Internalization advantages. Ownership advantages comprise patents, trade-marks and goodwill. This will help the firms to compete easily in the host country. It would have been difficult to get this advantage in home country. Location-specific advantages contain all things which make the firm more profitable to produce and sell in the host country, instead of producing at home and export to other country. In view of the fact that the firms will be planted in host countries it saves the trouble of trade barriers like tariffs, quotas, transport cost. Accessing the market will be easy. Internalization advantage refers to the advantage of multinational enterprises (MNEs) caused by ownership advantage inside the host country.

(Dunning, J. & Lundan S, 2008) .Disaggregated multinational enterprises activity in to Market seekers, Natural resource seekers, Efficiency seekers and Strategic asset or capability seekers to give a clear reason behind foreign production

1. **Market Seekers:** multinational enterprises (MNEs) engaged in a market seeking investment in order to get access to large market and hoping that the market grows in the future. This includes accessing domestic market and neighboring countries" market. The good things of market seeking FDI are reduced production and transaction costs, easily adopt local taste and preferences, they can be familiarized with the local language, business culture, legal requirement and market procedures. And there will be no trade barriers such as tariffs.

2. **Natural resource seekers:** these are multinational enterprises (MNEs) which are searching for natural recourses at a lesser cost compared to their country (if they have the resources) to take the advantage of making more profit out of it. The main motive of these enterprises is getting high quality resources at a lesser (lower) cost to be more profitable and competitive in markets where they offer their products for sale. Resource seeking FDI is also disaggregated into three. Foremost are multinational enterprises (MNEs) which are engaged in primary production and manufacturing that look for raw materials and physical resources. They are mainly motivated by plentiful and low cost resources. The major resources that most multinational enterprises are seeking are

minerals, fuels, agricultural products and metals. Some resources are „location bound‟, which can be found only in host countries. This is location-specific advantage that MNEs enjoys by investing in host countries which are rich in resources. The second resource seeking FDI are those enterprises which are searching for cheap unskilled or semiskilled labor. This is known as labor seeking investment. Normally when the labor cost of the home country increase MNEs may shift to other countries where there are low labor costs. The third types of resource seeking FDI are those multinational enterprises that want to gain access to technology, organizational and managerial skills, information and marketing know-how.

3. **Efficiency Seeker:** These are the MNE‟s which invest in different countries to take the advantage of both resource endowment and economies of scale. For e.g. to invest in developing countries to produce labor intensive goods and to invest in developed countries to produce capital intensive goods, the intension of efficiency seeker MNE is to take the advantage of factor endowments, cultures, institutional arrangements, demand patterns, economic policies and market structures through the focusing of production in a few number of places to supply numerous markets

4. **The strategic asset seeker**: The major aspire of strategic asset seeker multinational enterprises (MNEs) are to sustain and reinforce their competitiveness to dominate global market. (Dunning, J. & Lundan S, 2008).

2.2.5 The International Model of Uppsala School

This model introduced by Johnson and Wiedersheim-Paul (1975) from the University of Uppsala (Sweden) states that generally a multi-national corporation (MNC) does not commence its activities by making gigantic FDIs. It first operates in the domestic market and then gradually expands its activity abroad. They called this gradual mutation the establishment chain. The establishment chain is comprised of four stages. During the first stage, the MNC –to be just produces and sells its goods and services at home. It does not undertake any regular export activity because of lack of expertise and a tendency to avoid risk. During the second stage, the firm starts its international involvement by exporting its goods and services to neighboring countries and countries it knows well via independent representatives (agents). The psychic distance between the firm's home country and a given country, via, differences in language,

culture, political system, level of education, level of industrial stage, and the size of the potential market is expected to be playing a less important role compared to its psychic distance. The firm enters the third stage of the establishment of when it begins establishing sales subsidiaries. The firm may decide to start selling in small markets that are similar to the domestic one or in larger markets. The fourth stage is the setting up or the acquisition of manufacturing facilities abroad. The establishment of manufacturing facilities abroad is influenced by several forces; psychic distances, tariffs, nontariff barriers, transport costs etc. It follows that it is hard to observe any correlation between manufacturing facilities establishment and psychic distance. 15 Johnson and Wiedersheim-Paul (1975) made it clear that firms especially those with extensive experience from other foreign market are not expected to follow the whole four stages to become MNCs skips in stages can be observed. However, the firm's internationalization models are also criticized in that they do not explain why firms go multinational. They merely, describe how they go multinational (Accolley.et. al.1997).

2.2.6 Industrial Organization Theory of FDI

Hymer's (1976) pioneering study on multinational companies draws attention to the role of 10multinational companies as global industrial organizations. Hymer's major contribution was to shift attention away from neoclassical financial theory. He argued that the need to exercise control over operation is the main motive for FDI than the mere flow of capital. Capital is used to facilitate the establishment of FDI rather than an end in itself. He states that for firms to engage in cross border activities, they must possess some kind of monopolistic advantages. The advantages result from a foreign company's ownership of patents, know how, managerial skills and so on and these advantages are unavailable to local companies. His argument relies on the existence of market imperfections, such as difficulty of marketing and pricing know how, or in some cases markets may not exist for such products, or if they exist, they may involve huge transaction costs or time-lags. In such cases it would be more efficient for the company to engage in direct investment than exporting or licensing. FDI will allow the companies to control and exploit their monopoly power to the full. Hymer's argument led the way to the development of internalizations theory. According to this theory the firms internalize their activities whenever there are inefficiencies in dealing with the external market and FDI would occur when this internalization involves operation across countries (Harrison et al, 2000).

2.5 Empirical Literatures Review

In an effort to examine the performance, promotion and prospect of FDI in Africa Dupasquier and Osakwe, point out that the poor performance of Africa in FDI attraction 1970s and 1980s were connected to trade restrictions and capital controls as part of a policy of import substitution industrialization aimed at protecting domestic industries and conserving scarce foreign exchange reserves imposed by many countries. The reason why foreign investors are hesitant to invest in Africa, despite its immense profitable opportunities is the relatively high degree of uncertainty in the region which exposes firms to significant risks. This uncertainty in the African region has manifested in political instability which are reflected in the incidence of wars, frequent military interventions, and religious and ethnic conflicts, other factors includes macroeconomic instability which is seen in incidence of currency crashes, double digit inflation, and excessive budget deficits and lack of transparent policies, GDP growth and market size, poor infrastructure, inhospitable regulatory environment, high protectionism, high dependence on commodities, increased competition, corruption and weak governance, poor and ineffective marketing strategy, are the most noticeable (Dupasquier C. and Osakwe P, 2006),According to this concepts performance and promotion foreign direct investment in Africa is affected by sum up both controllable and non-controllable factor but more of that factors are controllable factors which can controlled to attract foreign investors and minimize the risk encounter during investment path.

 Empirically investigated the determinants of FD in Uganda and found the three factors to be very critical in attracting FDI: the macro economic factors, environment .political stability and police consistency. Other factors are that determine FDI in Uganda are infrastructure and institutional bottlenecks. The implication on therefore is that no matter what the government does (privatization, generous incentives through tax holidays tax exemption) failure to tackle the factors outlined above will lead to less FDI flows (Obwona, M, 2001)

(Balasubramanyam,V Salisu, M.& Sapsford, D, 1996) investigated how foreign direct investment impacted economic growth in developing countries using cross-sectional data and the Ordinary Least Square (OLS) regression method. They found that FDI has a positive impact on economic growth only in countries that have export promoting strategy. This supports the "Bhagwatihypotessis" that the growth impact of FDI is positive for export promoting countries than import substituting countries, emphasizing on the role of trade regime on FDI impact.

According to these studies countries follows export oriented rather than import   is are more beneficiary in attracting FDI.

(IFC and FIAS, 1997) Conducted a study on FDI performance in sub Saharan Africa .It was observed that market size is one of the most important considerations in making investment location decisions. Potential investors also look at levels of FDI as very important indicators of quality of business climate. Another essential and motivating factor that was identified is the quality of infrastructure .It was noted that the relative ease of doing business depends upon the availability and efficiency of transport, communication and energy. More broadly, the degree of industrialization attained in the   host country is an important determinant of FDI location especially for the more technical industries such as electronics.

In 1998, Borensztein studied the impact of FDI in economic growth in 61 industrial and developing countries over the past two decades. The outcomes of his study expose that the FDI has a momentous contribution to economic growth of a country compared to domestic investment. However, the amount of growth is highly dependent on the level of human resource available. (Borensztein, E De Gregorio & Lee J, 1998).On the contrary, Carkovic and Levin (2002) have studied the impacts of FDI on economic growth of 69 developing nations, but found no empirical evidence showing evident effects of FDI on economic growth. However, they concluded that the advantages of FDI to boost economy could are limited to local conditions, including local financial markets and educational level of the host country. Concurrently, Hermes and Lensik examined the correlation among local conditions, FDI and economic growth in 2003. Their findings indicated clear evidence that only developed nations with dynamic financial markets realize significant gains from foreign investments with substantial growth rates (Hermes, N and Lensink, R, 2003).

An empirical work of (Magnus,F. J. & Fosu,O.A., 2008)for Gahanna economy found that therein a one way causal relationship between FDI and GDP growth in Ghana and the direction of causality is from FDI to growth. A few scholars have also emphasized on the way in which the growth effects of FDI depends on the financial market conditions of the recipient country. Emphasize that growth effect of FDI depends on sound financial markets of the host country The study made by two person used cross-country data for the period of 1975-1995 and found that FDI alone playas vague role in promoting economic growth, however, when several

financial development measures are included positive effects are found. Durham (2004) used data for 80 countries from 1979-1998 and found that it is also necessary for a country to have a strong institutional capacity and investor friendly legal framework for FDI to have a positive effect on growth (Alfaro et al(2008) and Durham(2004)) Similarly (Olofsdotter, K, 1998) argues that the beneficial effect of FDI is stronger in those countries with higher level of institutional capacity.

Through the analysis of FDI determinants in 25 developing countries between 1990 and 1998, Nauro Campos and Yuko Kinoshita have found the influencing factors of geographical FDI distribution and have classified those empirical findings into three categories. First category contains comparative advantage sources such as: market size, level of economic development, infrastructure, abundance of natural resources, and macroeconomic stability. Host countries' institutional quality is the second classification and it includes rule of law, level of bureaucracy and executive restrictions. The third group of FDI determinants depends on the host country's efforts to attract foreign capital into the country and structural reform being the crucial part of those efforts. Structural reforms consider financial reforms, trade and privatization reforms and other attractive policies developed by host countries to acquire foreign investment. (Campos, N and Kinoshita, Y, 2002).

Devaluations a monetary policy tool used by countries that have a fixed exchange rate or semi-fixed exchange rate. In theory, currency devaluation is a tool for enhancing the exports sector of the economy. Devaluation increases the price of a country's imports relative to that of its exports; therefore exporters obtain higher domestic currency revenues from a particular export quantity while imports contract due to the higher domestic currency price of imports. Thus, devaluation performs similar to a tax on imports and a subsidy to exports. That causes the trade balance to recover. This tends to improve the foreign sector, which increases output in the economy (Kandil, M Berument, H and Dincer, N, 2007).

Exchange rate devaluations have a twofold role in explaining variations in FDI. On the one hand, the real value of foreign investors' capital increases when the host country's currency is devalued. On the other hand, frequent and continuous declines in the value of host country's currency would decrease FDI inflow, as it creates high uncertainty (Acc97).Study conducted in Korea revealed that real exchange rate against source country's currency has a positive effect on the inward FDI. This means that depreciation of Korean Won promotes the inward FDI. This

result strengthens other results that the multinationals utilize cost advantages or real wage and interest differentials of the host country and tend to export their final products (Han, D Taek-Dong Y. Shiyong, Y and Young-Man, Y, 2005).

Privatization provides a concrete vehicle for TNCS to invest in a country. It has generated substantial amounts of FDI in many developing economies. Sound privatization programs have three main characteristics: political commitment, business orientation, and transparency. Large-scale privatization programs send a signal to foreign investors that a government is taking steps to create a climate conducive to FDI. Thus, FDI in privatization of infrastructure enterprises (e.g. Telecommunications) and industrial enterprises would have great impact on other FDI flows (IFC & FIAS, 1997).

(Asiedu,E, 2002) The main objective of the study was figuring out whether the factors that affect FDI in developing countries affect African countries specifically Sub-Saharan African. There were 71 countries selected for her study (32 were Sub-Saharan African countries and 39 were non-Sub-Saharan African countries). Cross sectional data were used for the period from 1988 to 1997. OLS method was employed to analyze the data. The variable FDI was used as dependent variable and return on investment, infrastructure development, openness of the host country, political risk, and financial depth, size of government, inflation rate, and GDP growth rate used as explanatory variables. The study result shows that trade openness has positive impact on both Sub-Saharan and non-Sub-Saharan Africa. However, Sub-Saharan Africa received less FDI than non-Sub-Saharan African. This is because, as Asiedu (2002) argued, Sub-Saharan Africa countries are less open than other regions. While infrastructure development has positive impact on the FDI inflow in non-sub-Saharan Africa, it has no significant effect on sub-Saharan Africa. The study suggests that the same policy cannot be effective in different regions.

(Ohazulike, O., 2012), Studied the effect of exchange rate fluctuations, infrastructure and inflation on FDI inflow in Nigeria. Using econometric tools of OLS multiple regression, unit root, co-integration and Granger causality tests to analyses the data, it was revealed on the one hand that exchange rate fluctuations and infrastructure had positive but insignificant relationships with FDI while on the other hand inflation was negatively but significantly related

with FDI in Nigeria. The study also revealed a unidirectional relationship between inflation and FDI.

Real growth domestic product (RGDP): Investment is the basic element of Gross Domestic Product (GDP) and the only one that allows domestic production to enhance. It also affects the consumer and government spending; especially the latter through increased tax revenues (Carlos and Eddi, 2015).On the other hand, real growth domestic product has also a power to attract foreign direct investors.

Inflation and Exchange rate: When a country's currency devalues, it is considered as an opportunity for foreign investors to purchase assets at a reduced cost. This is especially true when foreign firms have identified specific assets in their targeted markets (Blonigen, B, 1997).Frequent and erratic changes in the exchange rate of the domestic currency affect the inflow of FDI. (Barrell, R. and Pain, N , 1996), find that investors tend to postpone their investment when the currency in the targeted market strengthens.

The availability of well-developed infrastructure will reduce the cost of doing Business for foreign investors and enable them to maximize the rate of return on investment (Morisset, J., 2001). Therefore, countries with good infrastructures expected to attract more FDI. Gross fixed capital formation (percent of GDP) has been included to proxy infrastructure development. FDI is expected to have a positive relationship with the infrastructure of the host countries.
Trade Openness: Trade openness promotes FDI and it measured as the ratio of export to GDP. (Singh, H Jun, K, 1995), Study indicates that exports, particularly manufacturing exports are significant determinants of FDI inflow and the test shows that there is strong evidence that exports precede FDI flows.

(Liargovas, P and K. S. Skandalis, 2012), Studied the relation between FDI and trade openness including other variables: exchange rate stability, nominal GDP, GDP per capita and political risk. FDI were taken as dependent variable and other variables were independent variables. 36 developing countries all over the world selected for the study (12 Latin American, 10 Asian, 4 African, 4 Common wealth of independent states and 6 Eastern European countries). The study covers the period from 1990 –2008. Fixed effects model which is one of Panel regression analysis methods were employed to analyze the data. The results disclosed that political

stability, exchange rate stability, market size, trade openness are the factors that affect FDI inflow positively. More specifically, trade openness has positive impact on inflow of FDI in the long run.

2.6.1 Studies in Ethiopia

The empirical studies regarding the effects of FDI on the economy that focuses on Ethiopia have been very limited. Among the limited studies conducted in Ethiopia some are discussed as follow.

The study carried out by (Solomon B. , 2017) show that macroeconomic instability and financial health, among others, have negative impact on FDI. These findings imply that financial health and macroeconomic stability are essential to attract FDI to Ethiopia.

The studies carried out by private investment in Ethiopia is influenced positively by domestic market, return to capital trade openness and liberalization measures, infrastructural facilities and FDI but negatively by government activities, macroeconomic uncertainty and political instability. Hence, enhancing demand augmenting and trade liberalization policies, improving infrastructural facilities and maintaining macroeconomic and political stabilities should be among the main ingredient sofa policy package designed to promote private investment in Ethiopia. Furthermore, the operations of the public sector and other institutions will need new thinking.

According to (Solomon, M.W., 2008) through its effect on the cost of inputs and the price of outputs, inflation reduces the real return on investment and firms' competitiveness. Hence, countries that pursue policies that reduce inflation rate have better chance in attracting FDI. Low and predictable inflation rate is central for the long-term investment of both domestic and foreign companies. Therefore, higher and unpredictable inflation will decrease the inflow of FDI.

(Getinet A & Hirut A, 2005),, Did time series analysis to assess determinants of FDI in Ethiopia. The data covered the period over 1974 -2001.The study focused on market size (Real GDP per capita and real GDP growth rate are included as a measure of market attractiveness), export orientation (export as a percentage of GDP), macroeconomic stability (rate of inflation based on consumer price index), infrastructure (gross fixed capital formation and number of telephones), Human capital (rate of adult illiteracy) and trade liberalization. There are four

regression models. The sign and significance of the variables; GDP per capita (positive but not significant), Growth rate of GDP (positive and significant in three models out of four), export orientation (positive and significant in all models), inflation (negative and significant), trade liberalization dummy (positive and significant), telephone per 1000 (negative and significant), gross fixed capital formation (negative and insignificant) and illiteracy (negative but insignificant). The study findings show that the growth rate of real GDP, export orientation and trade liberalization are found to have positive impact on FDI inflow to Ethiopia. Macroeconomic instability and poor infrastructure have negative impact on FDI. The result suggests that in Ethiopia, trade liberalization, stable macroeconomic and political environment and good infrastructure are essential to attract more FDI.

(Befekadu ,D and Kibre,M, 1994)in their study on the possible effect of the 1992 devaluation on the Ethiopian trade balance, argued that in the short-to-medium term both imports and import substitute goods are unlikely to respond to price changes given the structure of the Ethiopian economy. According to them if devaluation of birr succeeds in decreasing imports, it is likely to reduce capacity utilization and therefore output growth. Thus, the decrease in the current account deficit would be at the cost of the growth of the economy. For them, though the increases in domestic currency prices are necessary, they are definitely not sufficient to increases the volume of exportable. Furthermore, they argued that the greater foreign exchange availability from higher exports and from easier access to foreign capital made it possible to translate the increase in demand into actual import.

2.6 Conceptual Framework

The conceptual framework of this study mainly relied on the dependent and independent variables of the study which is mainly derived from the topic of the study in considering of previously done researches. Here, the dependent variables refers to foreign direct investment flows and the independent variables which are expected to determinants of FDI are privatization, inflation rate, foreign exchange rate, GDPP, RGDP and open trade.

Determinants of foreign direct investment infrastructure development, inflation rate, foreign exchange rate, GDPP, RGDP and open trade)

Foreign direct investment flow
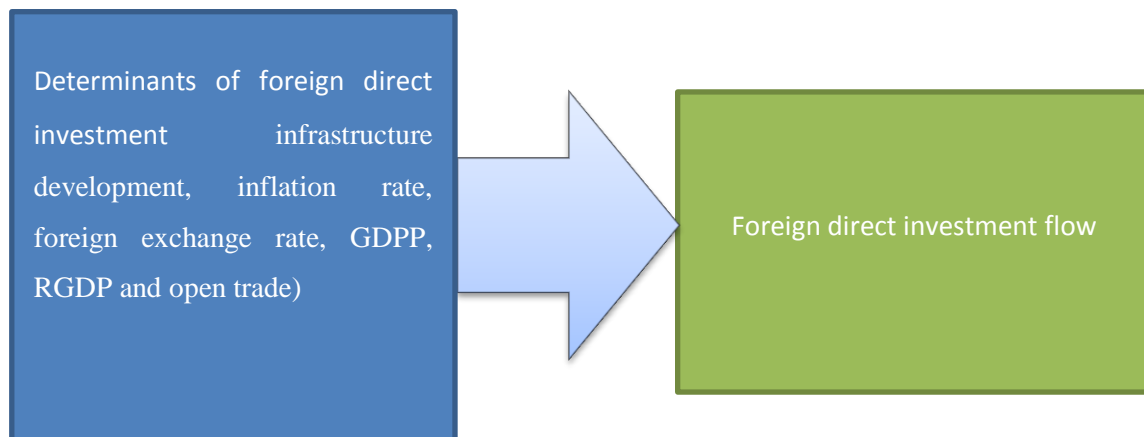
Figure 2- Conceptual framework of the study   Source- Literature review

As it is try to depict on the conceptual framework developed above, the determinants of FDI could have a power of affecting investment in Ethiopia depending on the country situation. In other word, the determinants extent of influence could determine by other factors like, weather/climate change, human and natural hazards police autocracy etc. For example Ethiopia has carried out three distractive political events since past years. After Ethio- Eritrea war, the second political events that created distrust of the government are 2005 political election, which is a root cause for political instability in the country for long lasting period. So this research concept is targeted on what is the extent of determinants effect on Ethiopian foreign direct investment within the consequence of 20 years. What motivate the researcher is what the strength of FDI determinants that create variability of foreign direct investment inflows in Ethiopia in consequence of 20 as well as combination effects of in depended variables on FDI

CHAPTER THREE

3. Research Methodology

Here in this section, the research methods being designed, econometric model developed, sources of data, approaches to data collection are presented. Further, detailed description of modes used to study the determinants of FDI and limitations of this research work have been provided. The important data have been collected analyzed with necessary interpretation   and the result have discussed under clear manner and reported with accurate and relevant.

3.1 Research Design

In the methodological design, two types economic reasons are applicable, the inductive and the deductive research approach. According to Saunders((Saunders,M , 2003), the deductive approach developed a theory and/or hypothesis and designs a research strategy to test this hypothesis, where as in the inductive approach data is collected and theory developed as a result of data analysis. Usually, Critical realists rely on what is known as reproduction or abduction. In this study, deductive, in accordance with the positivist research paradigm is applied. Other distinction is made between exploratory, descriptive, and explanatory method's (Gummesson, 2000). Exploratory research method is defined as a way of better comprehending the nature of the problem since very few information is available in that area. A descriptive study enables to explore new issues and to describe the characteristics of the variables of interest in a situation. Explanatory research is defined as an attempt to connect ideas to understand cause and effect, i.e. researcher wants to explain what is going on and how dependent and independent variables come together and interact (Sekaran,U, 2003) Based on that methodological designs researcher applies explanatory research methodology for this study. In addition to this design, quantitative and qualitative or mixed research approaches have been used in research methodologies. Quantitative approach uses numerical data whereas qualitative concentrates merely on non-numerical data which is also supportive for describing quantitative data of the study. In order to seek convergence of outcomes, this study follows mixed research design where existing numerical and non-numerical data had been collected and analyzed with the regress and granger causal tests. Therefore, the combination of these two independent methods helped to corroborate the results within this research work being undertaken.

3.2 Data Sources

Both primary and secondary data have been used to undertake this particular research project and this triangulation contributes to validity and reliability and corroboration of research Findings within this study. The primary source of the data is the interviewers selected from Ethiopia investment commission officer who are directly concerned that are promotion department, licensing and regulation director, planning and development commission officers.

Secondary data is both quantitative and qualitative contain raw and published summaries that are collected and stored by government departments and investment commission. Therefore, academic journals, surveys undertaken by the researchers, official statistical reports of World Trade Organization (WTO), world bank(WB), Ethiopian investment commission(EIC), national bank of Ethiopia(NBE),previously studied researches and annual reports of legal offices are used as secondary data sources of the study.

3.3 Data Collection Techniques

Existing information concerning the determinants of foreign direct investment and the statistical reports incorporated from Ethiopian investment commission, WTO and reviewing websites of FDI related organization have been exploited in scientific way. In addition to this, the researcher has used in-depth interview with higher government authorities in order to get information about the constraints and trends of FDI flow in Ethiopia on the course of time. The data collected through in-depth interview have the role of triangulating result found using regression analysis model.

3.4 Economic Model Design

3.4.1 Econometric Model

In view of the dynamic nature of the study, an econometric equation formulated on the basis of which the relationship between the variables (dependent and independent) was determined. To maintain the relevancy of the data as well as validity of the finding, stationary and co-integration concept approached has been followed.

Stationary: A time series is stationary if its mean and variance are constant over time and the value of the co-variance between the two time periods depends only on the distance or gap or lag between the two periods and not the actual time at which the covariance is computed. A regression based on non-stationary time series data will often lead to a problem of spurious

regression, where by the results obtain suggest that there are statistically significant relationship between the variable when in fact all that is obtained is evidence of contemporaneous correlations rather than meaningful causal relation(Gujarati,2004). Thus, before estimating a time series data, it is better to test for stationary, by conducting a unit-root test. Therefore, this study utilizes the Augmented Dickey-Fuller (ADF) statistics for a unit-root test.

The series data included from foreign direct investment, gross domestic product per capital, rate of gross domestic product, open trade, exchange rate and inflation rate of Ethiopia which have been incorporated for the last 20 years since 1998. These data were analyzed using Evies version 11. According to Augmented Dickey-Fuller (ADF) statistics for a unit-root test some variables are stationary at order 1 that is stationary after first difference and the rest are variables are stationary at order first.

Co-integration: according to (Teshome, H, 2010), an important issue in econometrics is the need to integrate short-term dynamic with long-run equilibrium. The analysis of short-run dynamics is often done by first eliminating trends in the variable usually by differencing. The procedure, however, throws out potential long-run relationship about which economic theories have a lot to say.

In order to obtain the short run and the long-run dynamics, one can appeal what is known as co integration. The interpretation of co-integration is that two or more series are linked to form an equilibrium relationship spanning the long-run, then even if the series are non-stationary, they will move together over time and the difference between them will be stationary. The test for co-integration is to test whether the residual from the level regression are stationary.

As it has been described based on the stationary test, the series are integrated of different order. That is having a combination of I (0) and I (1) series. Therefore performing co-integration test is necessary to establish a long run relationship. When the series found to be a combination of I (0) and I (1) series, the appropriate co-integration test is Auto Regressive distributed lagged (ARDL) bound test approached was used for this study.

To develop econometric model free from spurious problem, the researcher has tested for the stationary and co-integration of the variables. According to the stationary test, variables become stationary at order level and order first. The important point should not forget in the Eviews analysis is we should be quite sure all the variables are not stationary at order level. If all the variables unit root test acquired the series stationary at order level (I(0), no need to any correlation test.it is not necessary to estimate short run co-integration model. in short, the short

run test use to check when the variables stationary test become a combination of I(0) and (1). To take a decision, time series data has been tested for its stationary using unit root test. Based on the unit root test, the series become stationary in level and order first (I(0) and I(1). Due to this, two things should be considered; the co-integration of the variables has been tested using ARDL and bound test rather than Johnson co-integration test. Because Jhonson co-integration test use only for the series data that become stationary at a combination I (0) and I (1).

The times series data has been analyzed by linear regression using econometric model called statistical package for social science The regression of the independent variables such as, exchange rate, inflation rate, GDPR, RGDP, infrastructural development and trade openness, on the dependent variable of foreign direct investment have been estimated using the ordinary least square (OLS) method due to its characteristics of being the best linear unbiased estimator.

The Liner econometric model will be state as

FDI = F (ER, IR, GDPP, RGDP, OT, IFD……….)

Which leads to an ordinary least square formulated as?

$FDI = B0 + B1ER + B_2IR + B3GDPP + B_4RGDP + B_5OT + B6IFD + err$

Where: FDI= Foreign Direct Investment

1. ER=Exchange rate
2. IR= Inflation Rate
3. GDPP= Gross Domestic Product Per capital
4. RGDP= Rate of Gross Domestic Product
5. OT=Trade openness (export plus import upon GDP)
6. IFD=Infrastructural Development
7. err=Stochastic Error Term

Equation 1-linear model equation developed

3.6 Data Analysis and Interpretation

Both quantitative and Qualitative data collected through secondary data source have been analyzed and interpreted based on deduction method along Econometric model developed. The

required variables scrutinized from the literatures and reports of various institutions have been drawn on conceptual framework in the form of dependent and independent variables to pave road map to the general research skeleton. The regression model have been used to specify the relationship of dependent variables FDI to function combination of independent variables after regroups process of stationary and integration test using Eviews version 11. Using both Eviews and SPSS software, the researcher has tested the correlation as well causal relationship among the variables in short and long run integration of the dependent and independent variables. Depending on the result of the regression test, in-depth interview has held with officers of planning and development commission and investment commission to triangulate the validity of the finding as well as devised recommendation.

CHAPTER FOUR

4.1 General characterizes Foreign Direct Investment in Ethiopia

Soon after EPRDF government controlled power 1991, the climate for foreign investment has improved dramatically. The government looks forward for incentives to attract more foreign investors. In 1996, a revised investment proclamation was approved that created additional incentives for foreign investors. Major provisions included duty-free entry of most capital goods and a cut in the capital gains tax from 40 to 10%. In addition, the government opened a number of previously closed sectors of the economy to foreign investment, although financial services, large-scale power production, telecommunications, and other public utilities remain off limits. Official estimates are that as of June 1996, 52 foreign investors ha d been given licenses. In 1998, amendments to the 1996 investment proclamation allowed Ethiopian expatriates and permanent residents the ability to invest in industries that had previously been reserved for nationals only. The inflow of foreign direct investment (FDI) peaked in 1997 at $288.5 million and has declined sharply since. In 2000, FDI inflow was $134 million and in 2001, $19 million only and again it increased to 255 million in 2002, 465 million in the year 2003, 545 million in the year 2004, 221million in the year 2005 and 364million in the year 2006. To the worst in 2017 and 2018 the FDI sharply declined to 97,212.3 and 84,595.0 respectively (NBE, 2018).

4.2 Policies Adopted to Facilitate FDI in Ethiopia

The government is doing a lot of interesting things to incentivize investors and I think because of where Ethiopia is and its development, it is a new time for new companies to come in (Washington, Interview)". Like most least developed countries (LDCs), Ethiopia has been making efforts to improve its investment environment over the years by, for instance, reducing taxes, establishing an Ethiopian investment commission (EIC) to better assist foreign investors and by abolishing FDI-related restrictions. Essentially, the country has established a "one-stop" shop for dealing with investor requests. Furthermore, increased attention has been paid to policy initiatives at the bilateral, regional, and multilateral levels in order to enhance international cooperation and/or integration in matters relating to FDI .The state has adopted new measures and revised old foreign investment legislation, making it progressively more liberal and

development-oriented. As a result, the investment environment for FDI and MNCs in Ethiopia has gradually improved over the decades (UNCTAD,EIA, 2002,2013).

Implementing market oriented development strategies encourages the role of the private sector involvement in the development process (UNCTAD, 2011). According to UNCTAD 2004, the process of liberalization has picked up sharply the past few years. As one indication, the service delivery by the EIC (a government office mandated in promoting investment in Ethiopia) is incredibly efficient and effective. In the past, the issuing of investment licenses took well over three months, now it takes a little over three hours. This is about as clear as a signal as possible that foreign investors are welcome in Ethiopia. In Ethiopia, the policy intervention and performance to benefit from FDI received different degrees of attention and recognition by the different regimes Ethiopian economic performance is directly associated to the political and natural shocks the country has faced. The Ethiopian economy's performance can be classified and analyzed through three periods of political regimes in the country, the imperial regimes from 1960-1973, the Derg regime from 1974-1991 and the Ethiopian People Revolutionary Democratic Front (EPRDF) from 1991-present.None of them was able to bring remarkable growth to the country though the current government is making a significant and promising effort.

4.3 Result and Discussion of the Analysis

Under this chapter the researcher has assessed the nature of Ethiopia's FDI for the last 20 years, and the government's response to boost foreign direct investment inflow. Based on the data collected the researcher analyzed and tested causal relationship between dependent and independent variable. Each parts of the finding is reported on the time series data analysis result in coordination of the interview and research findings about Ethiopia's FDI.

4.1.1 ARDL and Short Run Integration Test

The table drawn bellow is to estimate the short run integration between the dependent and independent variables usingEviews, version 11.

Dependent Variable: FDI

- ❖ Method ARDL
- ❖ Date: 03/06/20 Time: 23:16
- ❖ Sample (adjusted): 2 20   ✓
- ❖ Included observations: 19 after adjustments
- ❖ Maximum dependent lags: 2 (Automatic selection)
- ❖ Model selection method: Akaike info criterion (AIC)
- ❖ Dynamic regressor (1 lag, automatic): ER GDPP IR OT RGDP IFD
- ❖ Fixed regressor: C
- ❖ Number of models evaluated: 128
- ❖ Selected Model: ARDL(1, 0, 1, 0, 1, 0, 0)

Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
FDI(-1)	2.418316579270795	0.3525516069332939	6.859468320983609	7.39447308027167e-05
ER	-8851.094982918419	2673.120318917213	-3.311147246265251	0.009067316917488108
GDPP	0.1928910399233592	0.0352490812378766	5.472228868084363	0.0003941173666152955
GDPP(-1)	-0.5948661830603656	0.03633666578247784	-16.37096222920982	5.266319251744226e-08
IR	272.1600785843373	115.0413957481076	2.365757793657629	0.04220132592496444
OT	-0.0002234359903243788	0.0002460133060729961	-0.908227257667444	0.3874312142230282
OT(-1)	0.001247196039894264	0.0005425138551010964	2.298920162438712	0.04708250557970011
RGDP	0.0195303000631507	0.01248692355132686	1.564060193279186	0.1522418012677765
IFD	0.1236451913962821	0.0155995949346178	7.926179616490889	2.383463478149976e-05
C	78067.29004549955	21203.25076896038	3.681854772938069	0.005060890872250021

R-squared	0.993331343986972	Mean dependent var		17814.805
Adjusted R-squared	0.986662687973944	S.D. dependent var		26348.21891006798

S.E. of regression	3042.884155787337	Akaike info criterion	19.18441640370968
Sum squared resid	83332295.86987451	Schwarz criterion	19.68148955063938
Log likelihood	-172.251955835242	Hannan-Quinn criter.	19.2685409295224
F-statistic	148.9552530594447	Durbin-Watson stat	3.151799264439336
Prob(F-statistic)	1.049246727418063e-08		

Table 1 ARDL and short run integration test   Source – own survey, 2020

The above table is the short run test over the association of independent and dependent variables as a whole. Based on the result two variables that are FDI and IFD are not integrated at short run integration test. In other word, in the short run test the dependent variable FDI is not co-integrated. In considering of the objective of the study, the short run test couldn't be functional as long as the dependent variable is statistically insignificant. However the shocks happen in the short run would be corrected in the long run model tests.

4.1.2 ARDL Long Run Form and Bounds Test

ARDL model based on co-integration of Long Run Form and Bounds Test of variables and the result of co-integration test is attached as below with description.

Dependent Variable: D(FDI)
- Selected Model: ARDL(1, 0, 1, 0, 1, 0, 0)
- Case 2: Restricted Constant and No Trend
- Date: 03/06/20   Time: 22:23
- Sample: 1 20

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Sign if.I(0)		I(1)
		Asymptotic: n=1000		
F-statistic	146.9151448832554	10%	1.99	2.94
K	6	5%	2.27	3.28
		2.5%	2.55	3.61
		1%	2.88	3.99

Table 2-ARDL Long Run Form and Bounds Test   Source-ownsurvey,2020

To test unity roots analysis with econometric model designed in the model development base of the study. It is important to identify the correlation that arises from the trend of dependent and independent variables in underlying with causal relationship. To attain objective of a relation, data were tested for Unit Root or Non-Stationary. Regression of none stationary time series will lead to spurious estimates. Unit Root tests deal with the situation where estimation result claim statistical significance of the long run relation between variables in a given regression analysis just because of trending relations among these variables than presence of true momentous casual relations. Since the unit root tests indicated that most of the series variables have a different order of integration, more robust counteraction analysis is then tested using the ARDL bounds testing approach. The results showed that there are long-run counteraction relationships between FDI and exchange rate. Noted, however, that the focus of this study is FDI as the dependent variable and not the other way around. Meanwhile, the associated estimated long-run coefficients based on ARDL models between FDI and exchange rate are shown in Table 3. The results show that all the coefficients have the correct sign as expected.

F STATIC: As data shows above from the table the f value should be greater than I (0) and I (1) significant value in order to reject the null hypothesis of no level relationship. In other word unless the F- Statistic greater than the critical value of the I(0) and I(1), we do not reject the null hypothesis of no levels relationship. However, as we see at the above table F-statistics that is 146.9 is greater than I (0) and I (1) even at 1% marginal error. This means, we can reject the null hypothesis and accept the alternative hypothesis of there is co-integration equation among the variables in the long run relationship.

4.2. Residual Co-Integration Test

The table below is the residual stationary test of FDI, IR, OT, RGD, ER and GDPP. As the table describes, all variables except RGDP are stationary. If their residual is stationary in other hand all the variables are co- integrated in their long run relationship.

Levels Equation

Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ER	6240.563716366631	1658.37377878020 6	3.763062221688521	0.004463897661508351
GDPP	0.283417079805743	0.04491844216293 088	6.309592812184258	0.0001393875397161955
IFD	-0.08717742794761032	0.01812903507551 17	-4.808718587861726	0.0009619638439650845
OT	-0.0007218134967415105	0.00022474460112 41568	-3.211705612197357	0.01062980876864768
IR	-191.889513640367	71.2075164402547 6	-2.69479295491745	0.02460261411758268
RGDP	-0.01377005694539019	0.01020407821652 849	-1.349466032422759	0.2101511543810129
C	-55042.21778584693	11931.1536302672 5	-4.613319004309393	0.001266312425945421

Table 3 Residual ⎰Co-Integration Test

Source our survey 2020

EC = FDI - (6240.5637*ER + 0.2834*GDPP -0.0872*IFD -0.0007*OT -191.8895*IR - 0.0138*RGDP - 55042.2178)

Equation 2- error correction equation

Test for co-integration: Having tested our time-series for stationary, the next step of our time-series analysis is testing for co-integration which amounts to checking whether the linear combination of the variables is (also) stationary or not. It requires that the variables of interest have the same order of integration. It is only when the variables are integrated of the same order that a linear relationship among them can be expected. Variables are said to be co-integrated if a

long run equilibrium relationship exists among them. Engle and Granger (1987) argue that for such relationships to exist, the error terms of the model should be stationary. We have applied the Engle-Granger procedure to test for co-integration. The first stage of the co-integration test involves estimating model/equation and saving the error terms. Then the DF and ADF tests are applied on the error terms. If the error terms are found to be stationary, the variables are said to be co-integrated and this necessitates the estimation of an Error Correction Model involving long run relationships. If, on the other hand, the variables are not co-integrated, then the modeling should proceed with the differenced time-series. In other words, an error correction model is not required.

As it is clearly depicted on the above table, the p values of all variables except RGDP including the constants are less than 0.05, which implies the existence of co-integration in the long run. The equation below the table exhibits the residual of the variable in their long term causal relationship. The constant coefficient implies that -55042.21778584693. Refers to the rate of error correction in the long run. In other word the P value is insured us the equation is significant and non-spurious. If the long run relationship is true, what kinds of relationship each independent variables has with the dependent variables in their long run relationship have been tested using Pairwise Granger Causality Tests. The result of the granger causality test would be one directional or two directional causality relations. One directional refers to the causal relationship in one demotion only, whereas two direction means two variables can influence each other in their long ran relationship.

4.3 Casual Relationship between dependent and independent variable

The existence of co-integration among the variables indicates causal relationship among the variables. Even if, it does not specify the direction of causality. To understand the direction of causality Pair-wise Granger causality and no causality test was applied. In testing for Granger no causality or causality, via-a-via variables are usually analyzed together while testing for their co. interaction.

4.3.1 Pair wise Granger Causality Tests on FDI vs. ER

Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause ER	18	2.432065537744526	0.1266920786684335
ER does not Granger Cause FDI		14.12172479222494	0.00055058503728334071

Table 4- Pair wise Granger Causality Tests on FDI Vs. ER-   Source- Own Survey Test 2020

Date: 03/06/20   Time: 23:10
Sample: 1 20

The causal relationship between foreign direct investment and exchange rate as you can see from the above table, it has unidirectional causal relationship. In the first row of the table, the P value 0.126 is greater than 0.05. Since the p value is out of our considered interval, we should not reject the null hypothesis of FDI does not Granger Cause ER. In other word foreign direct investment does not cause for exchange rate change. In contrary to this, the p value of the second row implies that the Exchange rate does cause for foreign direct investment change in Ethiopia. In other words, the since the p value of the second row less than 0.05, we can reject the null hypothesis of ER does not Granger Cause FDI. To sum up, based on the Pairwise Granger Causality Tests, foreign direct investment influence on the exchange rate. Inversely, exchange rate cause for the foreign direct investment of Ethiopia in the long run pair association.

4.3.2 Pair wise Granger Causality Tests on FDI vs. IFD

Null hypothesis		f-statics	Prob.
IFD does not Granger Cause FDI	18	13.21285376642306	0.3441240477198483
FDI does not Granger Cause IFD		0.025130612822114	0.79838437983491531

Table 5- Pair wise Granger Causality Tests on FDI Vs. IFD   source our survey 2020

In the Pairwise Granger causality test, the p value is less than 0.05, which means we can reject the null. On other hand we accepted the alternative hypothesis of infrastructural development Granger cause to foreign direct investment. However, foreign direct investment flow doesn't have Granger cause for the infrastructural development Granger. Therefore, infrastructural development Granger does strong causal relation on foreign direct investment. But foreign direct investment doesn't

Granger causal relation on infrastructural development Granger. It is only infrastructural development Granger contribute for the change on foreign direct investment.

4.3.3 Pair wise Granger Causality Tests on FDI vs. GDPP

Based on the p value, we enforced to admit the null hypothesis in both rows. Neither the foreign direct investment nor gross domestic product per capital does Granger cause for each other.

Null Hypothesis:	Ob.	F-Statistic	Prob.
FDI does not Granger Cause GDPP	18	28.4351438397616	1.789494368151913e-05
GDPP does not Granger Cause FDI		63.72654426707944	1.912838837889589e-07

Table 6- Pairwise Granger Causality Tests on FDI vs. GPPP   Source- own survey 2020

Based on the above table p value is greater than 0.05 which means 1.78 .this implies that FDI or GDPP does not has granger causality effect on each other's.

4.3.4 Pairwise Granger Causality Tests on FDI vs. IR
Here also, the foreign direct investment inflow and the inflation rate have no causal association based on Pairwise Granger Causality Tests. As the p value of the table tells us, the null hypothesis should be accepted. Thus, neither inflations rate nor the foreign direct investment does granger cause each other.

Null hypothesis		f-statics	Prob.
IR does not Granger Cause FDI	18	1.159280392409735	0.3441240477198483
FDI does not Granger Cause IR		0.5546079724225186	0.5873041461016921

Table 7-Pairwise Granger Causality Tests on FDI Vs. IR   Source- own survey 2020

4.3.5 Pairwise Granger Causality Tests on FDIVs OT
In the Pairwise Granger causality test, the p value is less than 0.05, which means we can reject the null. On other hand we accepted the alternative hypothesis of openness of trade Granger

cause to foreign direct investment. However, foreign direct investment flow doesn't have Granger cause for the Openness of trade in Ethiopia. To sum up, Openness in trade does strong causal relation on foreign direct investment. But foreign direct investment doesn't Granger causal relation on openness on trade. It is only openness in trade contribute for the change on foreign direct investment.

Null hypothesis	ob.	F- statistic	Prob.
OT does not Granger Cause FDI	18	10.40275396642306	0.002005456578416301
FDI does not Granger Cause OT		0.03170160517802114	0.9688702775382552

Table 8-*Pairwise Granger Causality Tests on FD Vs.OTSource – own survey*

4.3.6 Pairwise Granger Causality Tests on FDI Vs. RGDP

Null hypothesis	ob.	F- statistic	Pob.
RGDP does not Granger Cause FDI	18	8.894019366426896	0.003682549831695033
FDI does not Granger Cause RGDP		0.609558621368719	0.5584183246572096

Table 9- *Pairwise Granger Causality Tests on FDI Vs. RGDP*   *Source- own survey*

As we can decide based on the p value, the first row null hypothesis is rejected since the p value is less than the 0.05 marginal errors. Nevertheless the reverse is not true in the second row. In the second row then p value is beyond the expected marginal error. Which means, the 55% of the above statistics could be occur by chance? So we can conclude by accepting the null hypothesis of foreign investment does not Granger cause for rate of gross domestic product.

4.4 Correlations Test

The pair granger causality test depicted what kinds of relation exist between two variables. Whereas the correlation test drown below provide descriptive image over each variables association for the last 20 years in the country. To more understanding, let us see the correlation between the dependent and independent variables as the following.

		FDI	ER	IR	GDPP	RGDP	OT	IFD
FDI	Pearson Correlation	1	.716**	-.116	.613**	.707**	.692**	.587**
	Sig. (2-tailed)		.000	.625	.004	.000	.001	.006
	N	20	20	20	20	20	20	20
ER	Pearson Correlation	.716**	1	-.198	.879**	.970**	.948**	.629**
	Sig. (2-tailed)	.000		.404	.000	.000	.000	.003
	N	20	20	20	20	20	20	20
IR	Pearson Correlation	-.116	-.198	1	-.095	-.162	-.222	-.338
	Sig. (2-tailed)	.625	.404		.689	.495	.346	.146
	N	20	20	20	20	20	20	20
GDPP	Pearson Correlation	.613**	.879**	-.095	1	.891**	.795**	.288
	Sig. (2-tailed)	.004	.000	.689		.000	.000	.218
	N	20	20	20	20	20	20	20
RGDP	Pearson Correlation	.707**	.970**	-.162	.891**	1	.950**	.560*
	Sig. (2-tailed)	.000	.000	.495	.000		.000	.010
	N	20	20	20	20	20	20	20
OT	Pearson Correlation	.692**	.948**	-.222	.795**	.950**	1	.553*
	Sig. (2-tailed)	.001	.000	.346	.000	.000		.011
	N	20	20	20	20	20	20	20
IFD	Pearson Correlation	.587**	.629**	-.338	.288	.560*	.553*	1
	Sig. (2-tailed)	.006	.003	.146	.218	.010	.011	
	N	20	20	20	20	20	20	20

Table 10- correlation test   source own survey 2020

As the above table clearly depicted the correlation between the variables are both negative and positive coefficients which indicates strong and fragile correlation. The degree of the correlation between the dependent and independent variables exhibited by the coefficient signal reported either in negative or positive number in range of 1 to -1. The coefficient that describes the correlation between the variables does not exceed or lowered to out of the range of -1 to 1. If the coefficient of the number approached to 1, the correlation between the variables indicates the existence of strong positive correlation. That means the variables increase or decrease correspondingly to the same direction. Unlike to this, if the coefficient of the variable described in negative signal and approached to -1, it exhibited the existence of negative strong correlation between the variables. But if the both the negative and positive signaled coefficients that approached to 0, we can define the association between the variables weak correlation. Therefore, in considering of these premises, let us see the correlation between each independent variable with dependent variable of the study that is foreign direct investment inflow (FDI).

4.4.1 Correlations Test of FDI and ER

The correlation between FDI with ER is 0.716^{**} with 0.00 p value which implies the existing of statistically significant association with strong positive correlation. In other saying when the national currency devaluation rate continuously escalates up, the foreign direct investment inflow also increase in the same manner. Similarly if the national exchange rate shows downward inclination, the foreign direct investment would decline too. Exchange rate devaluations have a twofold role in explaining variations in FDI. On the one hand, the real value of foreign investors' capital increases when the host country's currency is devalued. On the other hand, frequent and continuous declines in the value of host country's currency would decrease FDI inflow, as it creates high uncertainty (Accolley, et.al, 1997). However; in Ethiopia the exchange rate have positive correlation even if still there is steady devaluation of the national currency of the country.

According to Teshome's work on the relationship between FDI and inflation rate, inflation have a direct consequence on the investors' profit. Through its effect on the cost of inputs and the price of

outputs, inflation reduces the real return on investment and firms' competitiveness. Hence, countries that pursue policies that reduce inflation rate have better chance in attracting FDI. Low and predictable inflation rate is central for the long-term investment of both domestic and foreign companies. Therefore, higher and unpredictable inflation will decrease the inflow of FDI.

4.4.2 Correlations Test of FDI and IR

The correlation coefficient between foreign direct investment and inflation rate is -.116 in negative signal at 0.625 P value with no star (*). This implies that there is negative correlation between the dependent variable (FDI) and independent variable (IR) the variable is significant at 5% percent level of significance.. However, the p values tell us statistically the correlation between two variables is insignificant. A one percent increase change in inflation rate will cause change in FDI flows to decrease by approximately 11.6% percent assuming that other variables are constant.

4.4.3 Correlations Test of FDI and GDPP

The FDI has strong positive correlation with domestic product per capital at 0.004 significant values. The coefficient 0.613** tell us the existence of positive association between the independent and dependent variable. In the same way, the association between independent variable RGDP (rate of gross domestic product) and dependent variable, FD is positive at 0.004 P value. Based on the table, the coefficient of the two variables is 0.707^{**} which is close to 1implies the existence of strong correlation between the two variables. To sum up having better GDP and GDPP help the country to attract foreign direct investment.

4.4.4 Correlations Test of FDI and OT

The FDI has strong positive correlation with openness of trade host country at $.692^{**}$ significant values. The coefficient 0.613** tell us the existence of positive association between the independent and dependent variable. Trade openness of the host country was found to be significant in attracting FDI into Ethiopia positively, and the variable has the same sign with the predicted one. Given other things constant, a 1 percent increase change in trade openness of the host country causes the inflow of change in FDI to increase approximately 0.69

4.4.5 Correlations Test of FDI and RGDP

The correlation between FDI with RGDP is .707[**]with 0.00 p value which implies the existing of statistically significant association with strong positive correlation. In other saying when the real growth domestic product continuously escalates up, the foreign direct investment inflow also increase in the same manner. Similarly if the RGDP shows downward inclination, the foreign direct investment would decline too.

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4.4.6 Correlations Test of FDI and IFD

The FDI has strong positive correlation with infrastructure development host country at .587[**] significant values. The coefficient .587[**]tell us the existence of positive association between the independent and dependent variable. Infrastructure development of the host country was found to be significant in attracting FDI into Ethiopia positively.

4.5 Ordinary Least Square (OLS) Estimation Result

The table below is a regression that describing about all variables causal relation in determining of the foreign direct investment inflow in Ethiopia in the long run model. Here it is better to see important points of the table in order to know if the regression is functional to estimate the degree of independent variables influence on Ethiopian foreign direct investment inflow.

Dependent Variable: FDI

Method: Least Squares

Date: 03/07/20   Time: 15:41

Sample: 1 20

Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36347.03040132282	43098.33947646541	0.8433510627751849	0.4142809156586983
ER	-5477.784667580878	6021.688635229608	-0.909675840018256	0.3795504906724847
GDPP	0.1444737325308057	0.1116387040593105	1.294118681761577	0.2181425482560597
IFD	0.103813728327381	0.0585293185982557	1.773704714383517	0.09952318283797742
IR	418.489323943909	509.8466714349084	0.8208140748788571	0.4265481169528998
OT	0.0009311724253659488	0.0008108119910440924	1.148444319584947	0.2714788698186828
RGDP	-0.02387264799072088	0.05951800020571475	-0.4010996321820083	0.6948616434833078

R-squared	0.6121118807340098	Mean dependent var	16927.41475
Adjusted R-squared	0.4330865949189373	S.D. dependent var	25950.71327322509
S.E. of regression	19539.23977674291	Akaike info criterion	22.86745418799497
Sum squared resid	4963164583.689678	Schwarz criterion	23.21596048373887
Log likelihood	-221.6745418799498	Hannan-Quinn criter.	22.93548627825044
F-statistic	3.419136452971802	Durbin-Watson stat	2.214238269257915
Prob(F-statistic)	0.02993419671337615		

Table 11- OLS Estimation result   source – own survey

Estimation Command:
========================
LS FDI C ER GDPP IFD IR OT RGDP

========================
FDI = C(1) + C(2)*ER + C(3)*GDPP + C(4)*IFD + C(5)*IR + C(6)*OT + C(7)*RGDP+E

Here C refers to constant that is Beta (B)

Substituted Coefficients:
========================
FDI = 36347.0304013 - 5477.78466758*ER + 0.144473732531*GDPP + 0.103813728327*IFD + 418.489323944*IR + 0.000931172425366*OT - 0.0238726479907*RGDP+E

Equation 3-Estimation Equation:

R-squared: Squared coefficient tells us what % of variability in the DV is accounted for by all of the IVs together. Thus, 61% of the independent variables could influence the foreign direct investment. The remaining 39% influenced by the external variables. Let check if the regression is free from spurious model. Even if we try to address the spuriously design model using stationary and co-integration test, still it is necessary to check if there is a symptom of spurious in our estimation model. One of the symptoms which implies the existence of spurious statistic is the value of R-square and the Durban Watson stat. when R square coefficient greater than the Durbin-Watson stat value, the model can be defined as spurious.

Based on this premises, the R^- square value0.6121118807340098 is less than Durbin-Watson stat value 0.2.214238269257915, this means our model is not spurious or non-sense. In other word R- squared is assured as our model is best fitted.

Adjusted R-squared;   In the short run adjusted Required is 0.43 indicates that the goodness of fit for the overall model very is very high and the model is acceptable one

To determine each variables whether they are statically significant, the prob. what we call P value should be less than our marginal error point 0.05. In considering of this premise, all of the independent variables' values are greater than 0.05 that is all the independent variables are statistically insignificant. So that the null hypothesis of the dependent variables does not influence Ethiopian foreign direct investments accepted based on OLS result. If it's so, there should be something behind Ethiopian foreign direct investment development beyond the above listed independent variables.
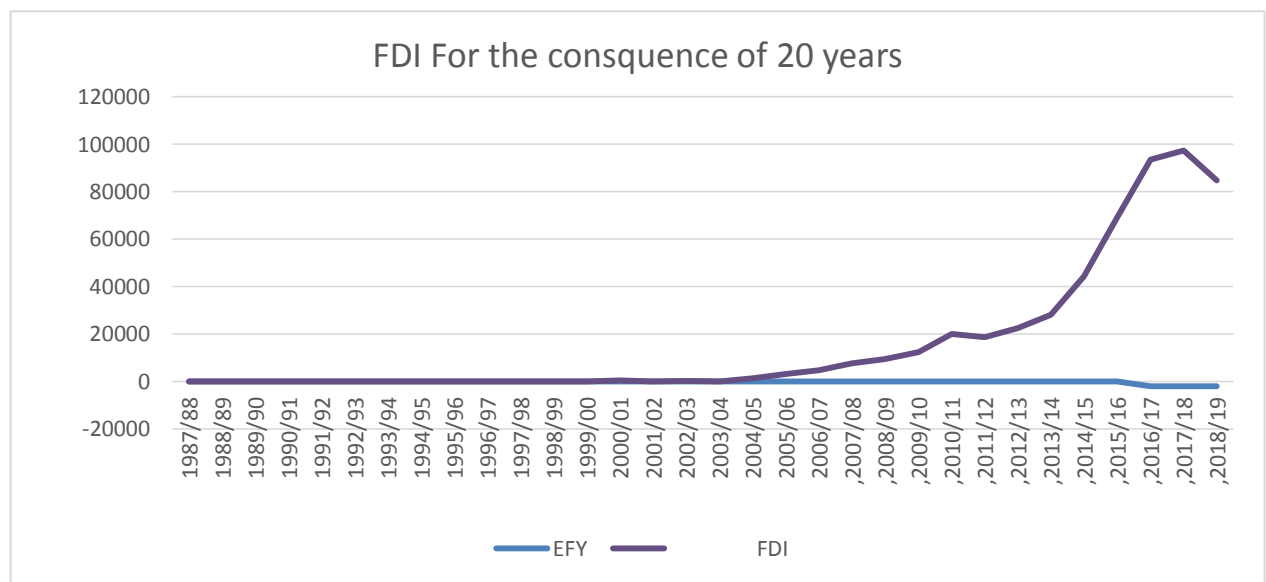
4.6 Foreign Direct Investment Inflows in Ethiopia for Consequence of 20 years

Ye ars	1997-1999	00/01		00/02	2002/3	2004/5	2005/6	2006/7	2007/8	2008/9	
FDI	n/a	n/a		432.2	0	122.3	10.3	1,297.80	3,169.40	4,583.60	
Ye ars	2009/10	2010/11		2011/12	2012/13	20013/14	2014/15	2015/16	2016/17	2017/18	2018/19
FDI	12,379.10	20,026.40		18,497.60	22,409.00	27,982.10	44,254.00	68,988.60	93,483.10	97,212.30	84.595

Table 12 FDI inflows for 20 years   source NBE 2020
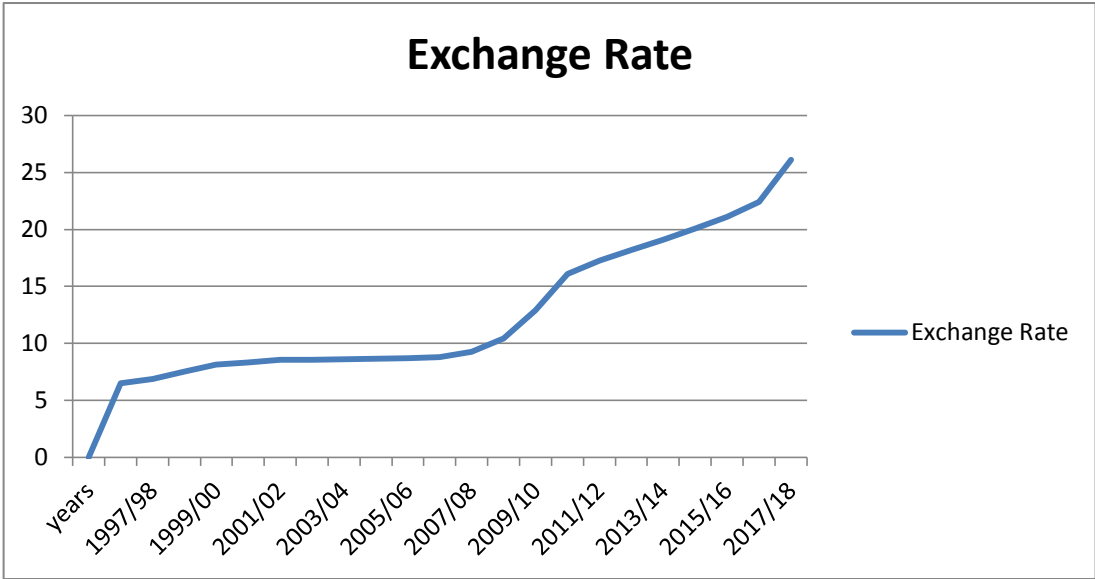
Figure 3- FDI chart

Source- own survey 2020

Based on the chart, Ethiopian foreign direct investment has been continuously rising, but in recent time the foreign direct investment faced a challenge of declining. Even if the state has been taking such impressive measurements, still Ethiopian foreign direct investment development has been showing a signal of declining. Let see a chart that

reveals Ethiopia's FDI development since 1988. It is sharply increase in the base year and in recent time decline in high rate shown below.

4.7 Exchange rate for consequence of 20 years

Exchange Rate

The relationship between FDI flows and exchange rate movements are based on the currency of host country interims of domestic currency. The chart above shows continuous increase in the consequence of twenty years. This leads to argument of positive relationship between FDI and exchange rate   is similar with strong positive correlation test in analysis.

4.8 Inflation rate for consequence of 20 years

inflation rate

Based on the figure it shows that inflation rate is increase but in recent time the foreign direct investment faced a challenge of declining. Even if the state has been taking such impressive measurements, still Ethiopian foreign direct investment de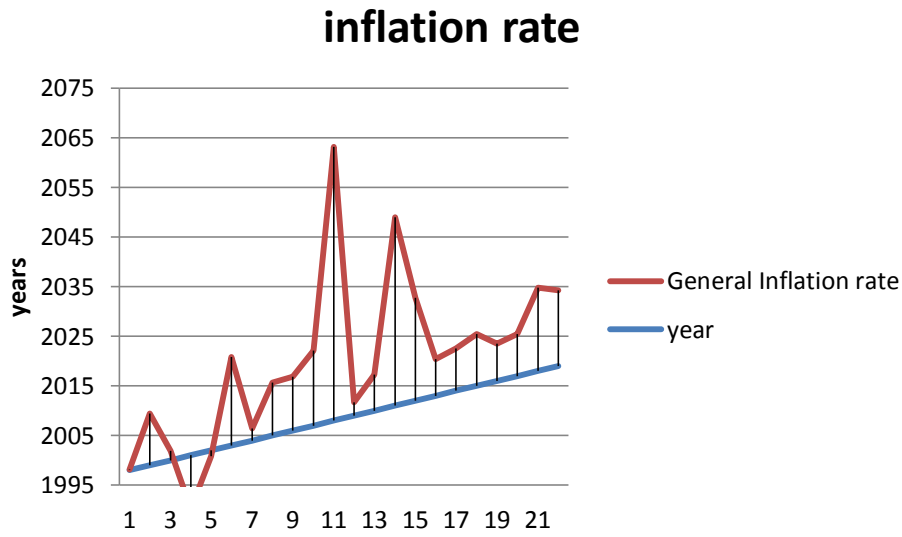velopment has been showing a signal of declining. It is sharply increase in the base year and in recent time decline in high rate shown above. Therefore as it indicated our finding there is negative relationship between inflation rate and foreign direct investment in Ethiopia .The rest charts are on appendix parts .

4.9 Analysis of Primary Data

Based on analyses of secondary date of time series and finding of the analysis indicates only 61 % of determinants are influenced the foreign direct investment inflows in to Ethiopia and the others rest one hold by others factors which are not mentioned under the study. Therefore the researcher has tried to further investigate the external factor accounted for the rest pressures influence of foreign direct inflow to Ethiopia. To answer these basic questions, the investigator has explored the annual reports national bank of Ethiopia, annual reports of ministry of finance, annual report Ethiopia investment commission, annual reports of planning and development of Ethiopia and made interview over the government's efforts to overcome the declining rate of FDI. The researcher has prepared over all two general questions and others rise by following two general questions at the time interview because of questions are open ended questions ones.

The researcher tries to address the six expert officers who are directly related with questions those two from planning and development commission and four from Ethiopian investment commission and result get from the officers are discussed below.

"What are the external factors accounted for Ethiopian foreign direct investment inflow"?

The factors that are accounted for Ethiopian foreign direct investment inflow declining inclination over time are mentioned as political instability, police bureaucracy, corruption and modern market are leading ones others are in consideration.

To overcome this problem as primary data get through interview from the concerned bodies of Ethiopia investment commission officers, government has developed different mechanisms to attract foreign investor and actuate domestic investors by providing incentives and promotion packages including recovery of distraction project by political instability with support of rise fund and facilitation of loans as well as providing customs duty exemptions, income tax exemptions non-fiscal incentives includes permission of import machinery and equipment necessary for their investment projects through suppliers' credit and right to make the following remittances out of Ethiopia in convertible foreign currency; profits and dividends; principals and interest payments on external loans; payments related to technology transfer agreements; proceeds from the sale or liquidation of an enterprise; compensation paid to an investor; and proceeds from the sale or transfer of shares or partial ownership of an enterprise to a domestic investor.

"Why Ethiopia's FDI is sharply declining while the government is still doing different things to maintain the FDI development up"?

Based on the in-depth interview, foreign direct investment is not run as expected to be. The FDI was in a continuous progress before five to six years, and then the progress seems like get stagnant and declines down ward for the last three to four years. As of the Interviewee, a different factor has been accounted for downward recession of FDI in recent time. What are the factors mentioned by the interview accounted for FDI change of downward?

According to the interview participants, in Ethiopia a number of investment projects were distract in recent years do political instability but the government have make distraction recover by providing regional and federal government support based on the damage they encountered, and some of the investors has reject the government finance due to believe of imbalance recover

of project damage and terminate their projects that may cause currently decline investment as internally as well externally.

According to (Teshome, H, 2010) the, time takes to have investment license because of bureaucracy in Ethiopia better than other countries. But in Ethiopia, the officers used the bureaucracy as a pretext to uphold their personal interest rather than the public interest. Even the interview participants have admitted the existence of illegal negotiation against the country's interest.

CHAPTER FIVE

5 .Summary, Conclusion and Recommendation

5.1 Summary

The main objective of this study is to explain the association between the FDI determinants with dependent variable and independent using 20 years' time series data. To attain the objective of this study, the researcher employed explanatory research design. Since the data used for analysis includes both qualitative and quantitative data, mixed research approaches has been used to analysis data.

The independent variables identified as determinants of foreign direct investment of Ethiopia are inflation rate, exchange rate, and gross domestic product per capital, rate of gross domestic product, infrastructural development and open trade. On other hand the dependent variable is foreign direct investment of Ethiopia. Both primary and secondary source of data have been collected through interview, data analysis reports and review literatures. In order to check the extent of the independent variables influence on FDI, the researcher opted time series regression analysis using EVIEWS and SPSS software. To maintain the relevant and validity of the paper so as to eliminate spurious econometric model, the researcher have been checked stationery and co-integration test of time series data using unit root test. On the course of stationary test of the variables, almost the entire variable found to be stationary at the first difference. That means the time serious data become stationary at level and first difference. Due to this, the researcher do not used Johnson integration test as long as it needs all variables become stationary either at level or first difference. Thus, Auto Regressive distributed lagged (ARDL) BOUND test approached is found proper to test the co-integration of each variable.

Soon after EPRDF government controlled power 1991, the climate for foreign investment has improved dramatically. Private investment policies are more liberal, commercial performance standards have been applied to public enterprises, tax and tariffs have been reformed, and the currency has been devalued by 58%. The devaluation was the policy action required for the rescheduling of Ethiopia's foreign debt in 1992. Foreign exchange is now auctioned (Teshome, 2015). Ethiopian foreign direct investment is sensitive to political circumstances. Moreover the

determinants of FDI other variables such political corruption and police autocracy are some variables that influence the FDI inflows.

In the short run co-integration analysis, the R^2 coefficient exhibits the dependent variables accounted around 99% for the independent variables. It is only less than 1% external variables influence the dependent variables. However, the above analysis in the part four suspected for spurious regression as long as the R-squared is greater than Durbin-Watson stat. Indeed; FDI and IFD variables' P value is greater than the confidence interval 0.05 which implies statistically insignificant variables. However, in the long run co-integration test, the F value that is 146.9 is greater than I (0) and I (1) even at 1% of confidence interval. This indicates, there is co-integration among the variables in the long run.

In the long run co-integration test, the p value of all variables except RGDP including the constant are lower than 0.05, which implies that the variables has causal relationship in the long run. According to Pairwise Granger Causality Tests all variables relation with dependent variables look like the following result.

- ❖ In pair relationship between FDI and ER, ER does have Granger causal effect on FDI, but FDI doesn't.
- ❖ Neither the foreign direct investment (FDI) nor gross domestic product per capital (GDPP) does Granger cause for each other.
- ❖ Neither inflations rate nor the foreign direct investment does granger cause each other.
- ❖ Openness in trade does strong causal relation on foreign direct investment. But foreign direct investment doesn't Granger causal effect on open trade.
- ❖ RGDP does granger causal effect on FDI but FDI doesn't granger causal effect on RGDP.

According to correlation test, except the inflation rate, the rest independent variables such as GDPP, RGDP, ER, OT, IFD have positive correlation with our dependent variable, foreign direct investment with P value lower than 0.05. But inflation rate association with FDI is defined in negative correlation and statistically insignificant. On the OLS estimation test all variables P value is lower than 0.05, which is not statistically significant. Similarly, R squared

coefficient tell us the econometric model is not fit well and the independent variables accounted only 61% for FDI change, but the rest 39% contributed by external variables.

The other issues raised by participants which are most dominant problems for FDI inflows political instability, complex and unclear police bureaucracy, corruption related problems have been identified as the most determinants of FDI. In others way some variables like low lobar cost ,expedience investment option

5.2 Conclusion

The research questions of the study try to be answered using explanatory research design assisted with qualitative and quantitative data. To check the extent of dependent variables effect on Ethiopian foreign direct investment flow, the researcher has used time series data analysis using Eviews and SPSS software.

To check the relevancy and validity of the econometric model which is developed based on OLS regression method, the researcher has tested for the stationary and co-integration of the time series data using unit root test. Based on the report of Unit root test, time series data is stationary at level and first difference root test. Due to this the researcher do not used Johnson co-integration test which is suitable if the series is either stationary at level or first difference. So that the researcher used Auto Regressive distributed lagged (ARDL) BOUND test approached in order to see the co-integration of the variables.

On the other hand the researcher reviewed change of foreign investment status within government changes in last few years. Soon after EPRDF government controlled power 1991, the climate for foreign investment has improved dramatically. Private investment policies are more liberal, commercial performance standards have been applied to public enterprises, tax and tariffs have been reformed, and the currency has been devalued by 58%. The devaluation was the policy action required for the rescheduling of Ethiopia's foreign debt in 1992. Foreign exchange is now auctioned.

Ethiopian foreign direct investment is sensitive to political circumstances. Due to Ethio-Eritrea conflict from the year 1991 to the year 2002 and the political unrest in the year 2005, has contributed for foreign direct investment sharply declined. To rehearse the rapid development of FDI, the government of Ethiopia has taken different measurements including privatization of

formerly solely reserved government owned investment areas. However, still the FDI series statistics chart shows downward inclination.

Based on the ARDL short run co-integration estimating test, dependent variables' P value is lower than 0.05 which implies statistically significant. But the FDI and IFD found statistically in significant.

In the long run co-integration test, the p value of all variables except RGDP including the constant are lower than 0.05, which implies that the variables has causal relationship in the long run. According to Pairwise Granger Causality Tests all variables relation with dependent variables look like the following result.

- ❖ In pair relationship between FDI and ER, ER does Granger causal effect on FDI, but FDI doesn't.
- ❖ Neither the foreign direct investment (FDI) nor gross domestic product per capital (GDPP) does Granger cause for each other.
- ❖ Neither inflations rate nor the foreign direct investment does granger cause each other.
- ❖ Openness in trade does strong causal relation on foreign direct investment. But foreign direct investment doesn't Granger causal effect on open trade.
- ❖ RGDP does granger causal effect on FDI but FDI doesn't granger causal effect on RGDP.

According to correlation test, except the inflation rate, the rest independent variables such as GDPP, RGDP, ER, OT, IFD have positive correlation with our dependent variable, foreign direct investment with P value lower than 0.05. But inflation rate association with FDI is defined in negative correlation and statistically insignificant. All dependent variables except inflation rate have positive and strong association with Ethiopia's foreign direct investment inflow. But inflation rate has weak and negative correlation with FDI.

On the OLS estimation test all variables' P value is lower than 0.05, which is not statistically significant. Similarly, R squared coefficient tell us the econometric model is not fit well and the independent variables accounted only 61% for FDI change, but the rest 39% contributed by external variables. Therefore the independent variables listed as the determinants of FDI have been found uncertain about their effect on Ethiopian foreign direct investment.

5.3 Recommendation

Based on the reviewed literature, data analyzed and findings of the study the researchers has forward some point to subjective parts and investors who are involved in foreign direct investment as well as government in order to sustain and increase foreign investor engagement in Ethiopia,

➢ The positive and significant effects of exchange rate on foreign direct investment have a great role in explaining variations on foreign direct investment implies. Insignificant effect in short is not influence the FDI but Significant effect on foreign direct investment inflows in Ethiopia in the long run pair association is also has great value in the long run foreign investment growth lead valuable economic growth. However exchange rate variability could discourage investment. So concerned bodies must be follow exchange variation to handle its effect on FDI.

➢ The negative and significant impact of inflation indicates the importance of a more focused macroeconomic policy environment that supports the economy and builds confidence for potential investors. Possible measures should needs to take to contain inflation and stabilize exchange rate through the adoption of sound fiscal and monetary policies. Otherwise, we enable to increase FDI involvement in the economy.

➢ The significantly positive effect of trade openness on FDI indicates that an efficient environment that comes with an open economy is likely to attract foreign investors. Moreover the government have made number of policies reforms have realized about trade openness but still further measures needs to encouraging trade openness similar to encouragement of export –import and domestic and foreign investor in the economic activities. .Besides, the Ethiopia government should also work by giving priority to stabilizing the political environment, ensuring peace and security to citizens and ensure as well as attract foreign investors.

➢ The government in inclined with private entrepreneurs encouragement, should also create jobs opportunity to increase foreign direct investment and consequently capital formation to a level significant enough effects on economy growth of the country.

➢ The key factors in the desirability of investments are the transport costs and poor levels of infrastructure the country and have significant effect on foreign direct investment. A country may have low labor costs but if there are high transport costs to get goods onto

the world market are drawback investors. Therefore like Ethiopia countries that have landlocked country should need more well developed infrastructure to attract foreign investors.

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➢ The relevant investment and monitoring institutions or agencies like the Ethiopia investment commission (EIC) should be encouraged and empowered to evolve strategies aimed at assessing the progress made in adopting measures to create an investor-friendly environment mainly in areas of investor protection and investment facilitation. Government should be able to convince the investors regarding non-commercial risks, such as political risk, environment of uncertainty and perceived risks.

➢ Based the external factors accounted for determinants of foreign direct investment are political instability, corruption and police autocracy are main factors foreign as well as domestic investors, So the government should need secure political as strength anticorruption law and need to revised to eliminate police autocracy of investment to increase the involvement of foreign and domestic investors involvement in the economy,

References

Accolley, et.al. (1997). he Determinants and Impact of Foreign Direct investmen. *London: London Metropolitan University*.

ADB. (2004). *Asian Develoment Bank.*

Agrawal, Khan M. (2011). Impact of foregin direct investment on GDP. *A Comparative Study of China and India. International Journal of Business and Management6 (10): p71*, 71.

Alfaro et al(2008) and Durham(2004). (n.d.). Foreign Direct Investment and Growth: Does the Sector Matter?Boston: Harvard Business School. Mimeograph.

Alfaro et al) and Durham. (2004 2008). Foreign Direct Investment and Growth:. *Does the Sector Matter?Boston: Harvard Business School. Mimeograph*.

Amanuel, M. (2014). Factors Affecting FDI Flow in Ethiopi. *An Empirical Investigation. National Graduate Institute for Policy Studies (GRIPS) 7-22-1 Roppongi, Minato-ku | Tokyo 106-8677 | Japan* .

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

Asiedu,E. (2002). Determinants of Foregin Direct Iinvestment to Developing Countires. *is Africa Different?World Devlopement30(1):*, 107-119.

Balasubramanyam,V Salisu, M.& Sapsford, D. (1996). Foreign direct investmentand growth in EP and IS Countries. *Economic Journal*, 106(434), 92–105.

Barrell, R. and Pain, N . (1996). An econometric analysis of U.S. foreign direct investment. *The Review of Economics and Statistics, 78(2), 200-207.* .

Befekadu ,D and Kibre,M. (1994). post- Devalation Ethiopia Economy. *Fromstagnation to stagnation*.

Blonigen, B. (1997). Firm-specific assets and the link between exchange rates and foreign direct investment. *The American Economic Review, 87(3), 447-465.* .

Borensztein, E De Gregorio & Lee J. (1998). How does foreign investment affecteconomic growth? *Journal of International Economics*.

Campos, N and Kinoshita, Y. (2002). Foreign direct investment as technology transferred. *Some panel evidence from the transition economies. Manchester School 70 (3): 398–419. doi:10.1111/manc.2002.70.issue-3.*

Carlos and Eddi. (2015). Foreign direct investment and gross domestic product growth. *International Conference on Applied Economics, ICOAE 2015, 2-4 July 2015, Kazan, Russia.Procedia Economics and Finance 24 (2015) 198 – 207.*

Dunning, J. & Lundan S. (2008). .Cheltenham: Edward Elgar. *Multinational enterprises and the global economy*.

Dunning,J. (1993). Multinational enterprises and the global economy.Cheltenham.

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

EIA. (2013). Invest in Ethiopia: An investment guide to Ethiopia, Opportunities and Conditions,. *Ethiopia Investment Agency*.

EIC. (2013). An investment guide to Ethiopia, Opportunities and Conditions, Ethiopia Investment Agency. . *Invest in Ethiopia:.*

FNG. (2002). *Federal Negarit Gazeta of the Federal Democratic Republic of Ethiopia, 8thYear No. 27, ADDIS ABABA-2ndJuly 2002.*

Froot, K and Jeremy C . (1991). xchange Rates and Foreign Direct Investment: An Imperfect Capital Markets Approach. *Quarterly Journal of Economics, Vol.*, 06(4): 1191–1217.

Geda.et.al. (2001). Macroeconomic performance in Post Derg Ethiopia,. *NortheastAfrican Studies 8, No. 1,*, 159-204.

Getinet A and Hirut A. (2005). eterminants of Foreign Direct Investment in Ethiopia: a time-series analysi. *Paper presented at the 4th Internation Conference on the Ethiopian Economy, 10-12 Jun 2006, Addis Ababa, Ethiopia.*

Getinet A & Hirut A. (2005). determinants of foreign direct investment in Ethiopia;-a time series econometric analysis. *West Minister research institute, London, UK .*

Getinet A and Hirut A. (2005). Determinats of foregin dirct investment inin Ethiopia. *: a time series data anaysis,.paper presented at th 4th international conferance on the ethiopia Economy ,10-12 Addis Ababa Ethiopia.*

Goldberg L.and Klien M,. (1997). Foreign Direct Investment, Trade and Real Exchange Rate Linkages in South East Asia and Latin America. *NBER Working Paper No 6344.. Massachusetts, USA.*

Haile A. (2006). Determinats of foregin dircet investment in ethiopia. *Atime series analysis paperprepared for the 4thinternational conference on the Ethiopian Economy1 Addis Ababa Ethiopia0-12june .*

Han, D Taek-Dong Y. Shiyong, Y and Young-Man, Y. (2005). n the Impacts of Regional Trading Arrangements on FDI:. *The Case of The Korea-China-Japan FTA, Korea Trade Review, 88Vol. 30.*

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

Harrison,A Dalkiran, E and Elsey, E . (2000). nternational Business. *Global Competition from a European Perspective, Oxford: New York: Oxford University Press.*

Hermes, N and Lensink, R. (2003). Foreign direct investment, financial development and economic growth. *Journal of Development Studies 40 (1): 142–63. doi:10.1080/00220380412331293707. [Taylor & Francis Online], [Web of Science ®].*

Hymer.S.H. (1976). a study of direct foreign investment. Cambridge. *the international operation of national firms*.

IFC and FIAS. (1997). IFC lessons of Experience 5, Foreign Direct Investment. Washington D.C ,USA.

Ikiara, M. (2003). Foreign Direct Investment, Technology Transfer and Poverty Alleviation. *Africa's Hopes and Dilemma, African Technology Policy Studies Network Special Paper Series No. 16*, 16.

IMF. (1977). *Balance of Payments Manual. . .*Washington, DC: 4thed.

IMF. (1993). *.Balance of Payment Manual . Retrieved on May fromhttp://www.imf.org/external/np/sta/bop/BOPman.pdf.* Washington D.C: (5 th edition).

IMF. (2011). *Foreign Direct Investment in Developing Countries*.

IMF. (2011). Foreign Direct Investment in Developing Countries" Available at http://www.imf.org/external/pubs/ft./found/2011/03/mallampa.htm. *IMF*.

kalirajan. (2010).). Determinants of Foreign Direct Investment in Developing Countries;. *A comparative analysis Margin;the journal of Applied Economic Research volume 13*, 4(4):369-404.

Kandil, M Berument, H and Dincer, N. (2007). The effects of exchange rate fluctuationson economic activity in Turkey. *Journal of Asian Economics18 (2007) 466–489*.

Liargovas, P and K. S. Skandalis. (2012). Foreign Direct Investment and Trade Openness. *TheCase of Developing Economies. Social indicators research: 1-9*.

Magnus,F. J. & Fosu,O.A. (2008). Bivariate Causality Analysis between FDI Inflows andEconomic Growth in Ghana. *International Research Journal of Finance andEconomics,*, 15, 104-112.

Markaki, J. (2011). Ethiopia the Last two Frontiers. *Eastern Africa Serious, James Currey*.

Mateev, M. (2009). Determinants of Foreign Direct Investment in Central and Southeastern Europe:. *New Empirical Tests. Oxford Journal* , 8(1), 133-149.

MoFED. (2010). Growth and Transformation Plan (GTP) 2010/11-2014/15), Addis Ababa,September.

Morisset, J. (2001). Foreign Direct Investment in Africa. *Policies Also matter, Transnational Corporation, 9(2), 107-125.*

Mottaleb. (2010).). Determinants of Foreign Direct Investment in Developing Countries;. *A Comparative Analysis. Margin: The Journal of Applied Economic Research*.

NBE. (2018). Annula report. *National Bank of Ethiopia*.

Nunnenkamp, P. & Spatz, J. (2003). Foreign Direct Investment and Economic Growth inDeveloping Countries:. *How Relevant Are Host-country and Industry Characteristics? Germany Kiel Institute for World Economics*.

Obwona, M. (2001). Determinants of FDI and their Impact on Economic. *Growth in Uganda, Economic Policy Research Centre: African Development Bank* .

OECD. (2005). FDI. *Regulatory Environment for Foreign Direct Investment, Investment for Africa Development: Making it happen, Roundtable organized under the joint auspices of NEPD and the OECD Investment Committee, Entebbe, Uganda*.

OECD. (2008). Economic. *EnvironmentalandSocialStatisticsAvailableat:http://www.oecdilibrary.org/sites/factbook-*.

OECD. (2013). Economic,Environmenttal and Social Statistics Availbile at :http//www.oecdilibrary.or g/sites/facbook-. *OECD*.

Ohazulike, O. (2012). The effect of exchange rate fluctuation, infrastructures and inflation on FDI inflows into Nigeria (1986-2009). Being an M.Sc. *Thesis Submitted to the Department of Banking and Finance, Nnamdi Azikiwe University, Awka*.

Olofsdotter, K. (1998). Foreign direct investment, country capabilities and economic growth. *Review of World Economics 134 (3): 534–47.* .

P.Erega. (2011). The dynamic linkages between foreign direct investment and domestic investment in ECOWAS countries. *A panel cointegration analysis,*.

p.Eregha. (2011). "The dynamic linkages between foreign direct investment and domestic investment in ECOWAS countries: a panel cointegration analysis," in Proceedings of the Conference of the Centre for the Study of African Economics, Oxford University, Oxfo.

Phung, H. (2016). determinanats of FDI into developing countries.

protsenko,A. (2004). Foregin Direct Investment:. *Vertical and horizontal Foreign Direct Investments in transition Counties,Ludwig-Maximilians-unversity Munchen.*

Resmini, L . (2000). he Determinants of Foreign Direct Investment in the CEECs. *Economics of Transition, Vol. 8*, 8(3), pp. 665–89.

Saunders,M . (2003). Research Methodfor Business Students, London, Pearson Higher Education .

Sekaran,U. (2003). *Resarch Method for Business, a Skill Building Approch, .* Hoboken NJ, USA: John Wiley& Sons, Inc.: 4thed).

Serven L & Salimano. (1991). Private investment and macroeconomic Adjustment:. *A Survey World Bank Research Observer*, 7 (1): 95-114.

Singh, H Jun, K. (1995). Some New Evidence on the Determinantsof Foreign Direct Investment in Developing Countries. *The World Bank Policy Research Working Paper, No, 1531*.

Solomon B. . (2017). Determinants of Foreign Direct Investment Inflow to Ethiopia:. *Time Series Analysis.*

Solomon B. (2018). Determinants of Foreign Direct Investment Inflow toEthiopia:. *Time Series Analysis*.

Solomon, B. (2018). Determinants of Foreign Direct Investment Inflow to Ethiopia: Time Series Analysis", Addis Ababa: Addis Ababa university. .

Solomon, M.W. (2008). eterminants of Foreign Direct Investment in Ethiopia. *Msc. Thesis, Maastricht Graduate School of Governance, Maastricht University, The Netherlands.*

Teshome, H. (2010). eterminants of foreign direct investment in Ethiopia".

Teshome, H. (2010). eterminants of foreign direct investment in Ethiopia", Arbaminch: Arbanch university.

UNCTAD. (2006). World Investment Report: Non-Equity modes of International ProductionDevelopment. *Non-Equity modes of International Production , United Nations Conference on Trade and Development. New York and Geneva, United Nations*.

UNCTAD. (2010). *Online, FDI/TNC database (www.unctad-org/fdistatistics).*

UNCTAD. (2010). FDI. *Online, FDI/TNC database (www.unctad-org/fdistatistics).*

UNCTAD. (2010). *Online, FDI/TNC database (www.unctad-org/fdistatistics).*

UNCTAD. (2010). *World Investment Report: The Triad In Foreign Direct Investment.* New York and Geneva: Umi ted Nations.

UNCTAD. (2011). Foreign Direct Investment in LDCs:. *essons Learned from the Decade 2001-2010 and the Way Forward, United Nations, New York and Geneva*.

UNCTAD. (2011). World Investment Report. *: Non-Equity modes of International Production Development, United Nations Conference on Trade and Development. New York and Geneva, United Nations*.

UNCTAD. (2017). Ethiopian Investment and Innovation policyReview. *United Nations. World Bank (2017), World Development Indicators 2008, Washington D.C.*

UNCTAD,EIA. (2002,2013). World Investment Report:. *TNCs & Export Competitiveness, NewYork and Geneva*.

UNCTAD-ICC. (2000). World Investment Report: . *TNCs & Export Competitiveness, NewYork and Geneva*.

UNCTADICC. (2004). An investment Guide to Ethiopia, Opportunities, and Conditions, The International Champers of Commerce, . *The World Business Organization*.

Valli M and Masih M . (2014). is there any causality between inflation and FDI in an `inflation targeting' regime? *Evidence from South Africa", MPRA Paper No.* , 60246.

Vernon, R. (1966). International investment and international trade in the product cycle. *The Quarterly Journal of Economics, 190-207. http://dx.doi.org/10.2307/1880689*.

Appendix 1

RESID
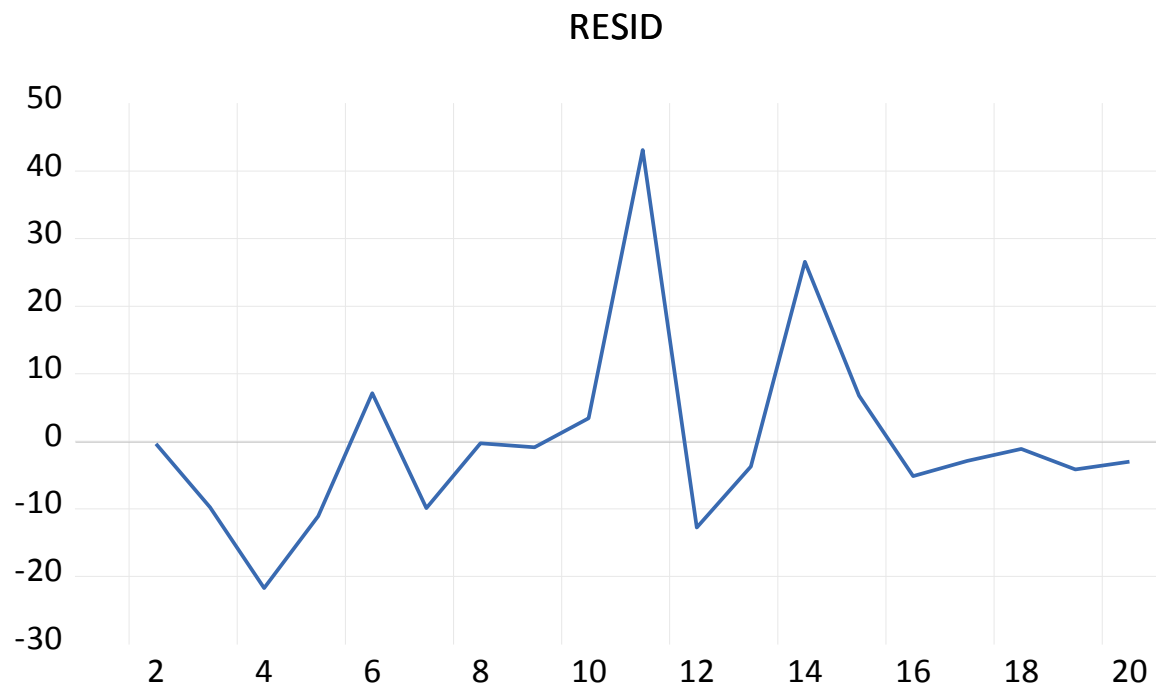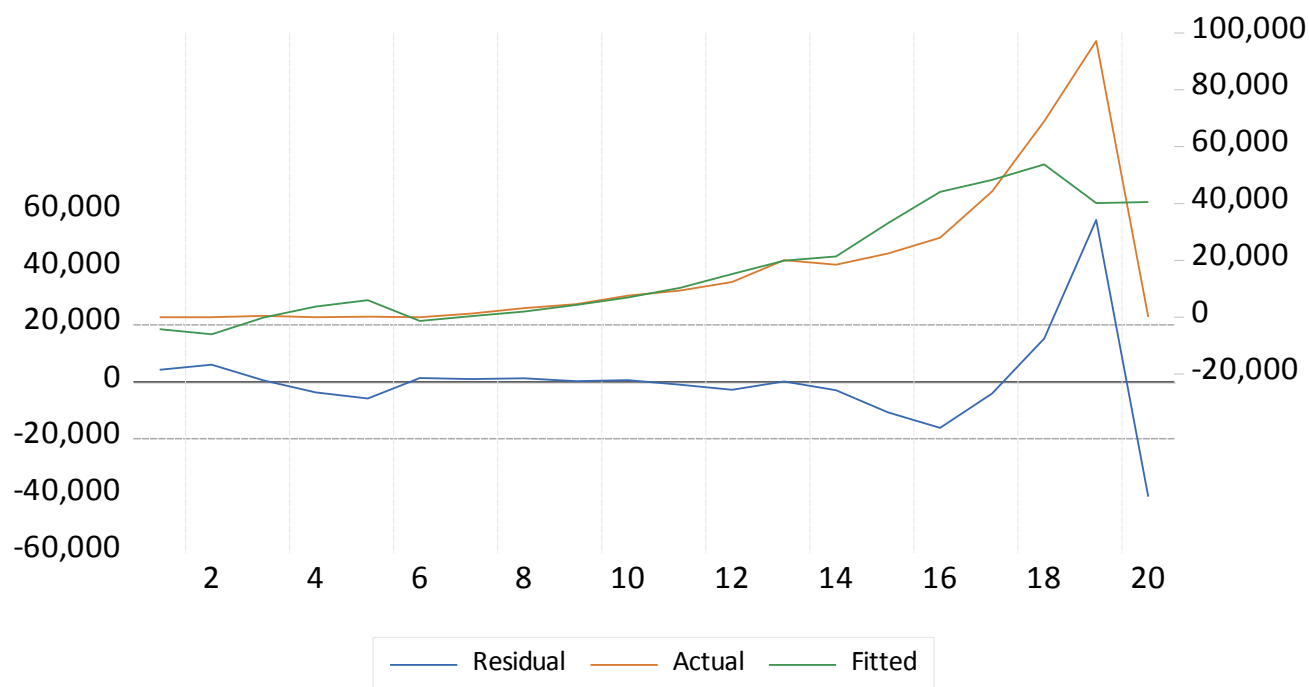
Appendix 2 inflation

December 2016= 100

| Year | Annual Inflation Rate | | |
	General Inflation rate	Food Inflation rate	Non-food inflation rate
1995	14.8	20.5	4.4
1996	-9.0	-12.0	-3.3
1997	-2.7	-1.5	-5.4
1998	0.1	-5.1	0.8
1999	10.4	14.4	0.1
2000	1.9	1.0	6.4
2001	-10.8	-18.3	-1.5
2002	-1.2	-2.2	-0.1
2003	17.8	33.7	1.1
2004	2.4	2.2	2.6
2005	10.7	14.0	6.2
2006	10.8	10.7	11.1
2007	15.1	18.2	10.9
2008	55.2	78.3	23.2
2009	2.7	-3.4	15.0
2010	7.3	0.0	19.8
2011	38.0	45.3	27.8
2012	20.8	25.4	15.8
2013	7.4	3.7	11.9
2014	8.5	6.2	11.0
2015	10.4	12.5	8.2
2016	7.5	7.1	7.9
2017	8.4	9.4	7.0
2018	16.8	14.1	20.0
2019	15.3	19.8	10.1

Appendix 3

GDP in Millions of Birr

Period	RGDP	NGDP	G/cap.fomn	G/D/saving
1997/98	167,917.47	57,187.81	42,820.90	19,994.00
1998/99	178,512.68	55,051.44	44,833.87	26,419.32
1999/00	364,984.33	61,273.00	44,195.48	23,493.97
2000/01	392,058.84	62,030.14	50,811.48	28,247.59
2001/02	398,464.76	60,760.84	57,784.27	20,357.25
2002/03	390,102.91	67,080.55	52,049.64	16,276.69
2003/04	435,859.45	77,880.38	70,593.37	36,728.25
2004/05	490,970.44	101,034.41	70,718.50	25,838.18
2005/06	547,625.36	125,711.85	83,153.02	25,020.33
2006/07	612,217.20	164,741.51	81,345.91	41,662.05
2007/08	680,706.93	238,672.23	91,085.66	34,245.20
2008/09	749,058.85	326,026.16	100,693.33	39,689.63
2009/10	828,212.74	365,482.53	123,117.54	42,391.81
2010/11	922,512.81	489,127.28	165,379.70	88,843.00
2011/12.	1,002,766.88	710,011.53	207,608.27	107,641.30
2012/13	1,102,467.82	818,870.12	210,908.35	108,776.88
2013/14	1,216,015.26	1,002,350.92	259,172.96	140,048.67
2014/15	1,342,555.90	1,226,637.36	296,900.88	165,250.63
2015/16	1,449,397.45	1,449,397.45	585,665.00	324,413.00
2016/17	1,596,481.63	1,703,798.22	659,734.08	383,500.94
2017/18	1,719,491.33	2,064,789.24	625,312.81	445,314.48
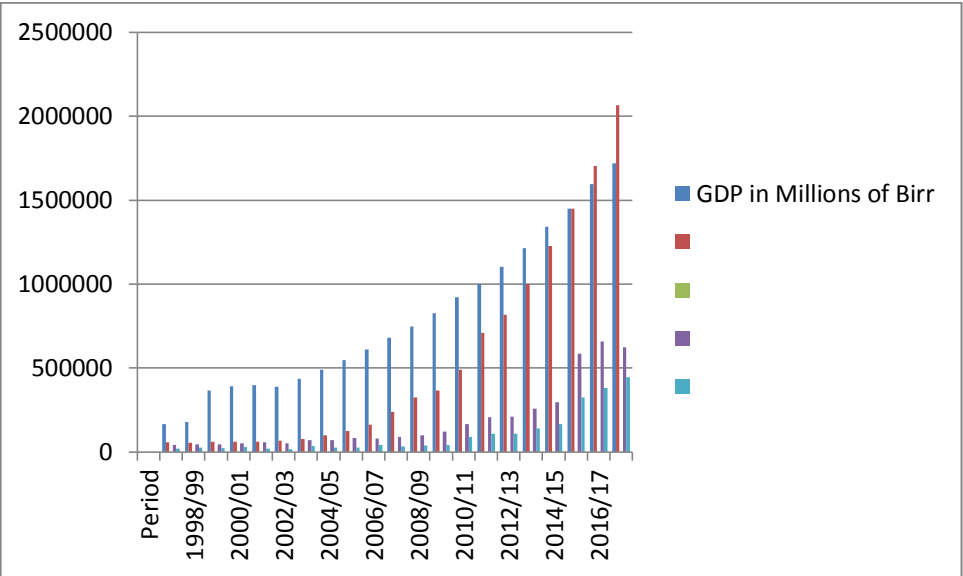
Years	import	Export
1995/96	7,708,246.5	2,539,056
1996/97	8,505,200.0	3,485,626
1997/98	9,338,458.9	4,142,514
1998/99	11,702,004.0	3,637,260
1999/00	11,438,661.3	3,957,802
2000/01	12,313,956.1	3,866,606
2001/02	14,485,289.0	3,864,320
2002/03	16,067,347.5	4,142,356
2003/04	22,295,689.7	5,176,644
2004/05	31,434,174.0	7,331,258
2005/06	39,873,075.1	8,685,376
2006/07	45,126,437.9	10,457,615
2007/08	63,146,946.3	13,649,339
2008/09	84,677,193.1	15,217,753
2009/10	108,956,272.3	26,115,306
2010/11	129,693,361.9	44,525,565
2011/12	191,587,138.7	54,494,767
2012/13	196,871,016.1	56,014,326
2013/14	251,047,517.9	62,243,000
2014/15	330,794,232.9	59,860,381
2015/16	353,013,855.7	59,726,300.6
2016/17	352,453,569.0	63,685,744.0
2017/18	397,115,467.6	72,712,994.7
2018/19	423,394,150.7	73,574,227.3

Data Source: Ethiopian Customs Authority.
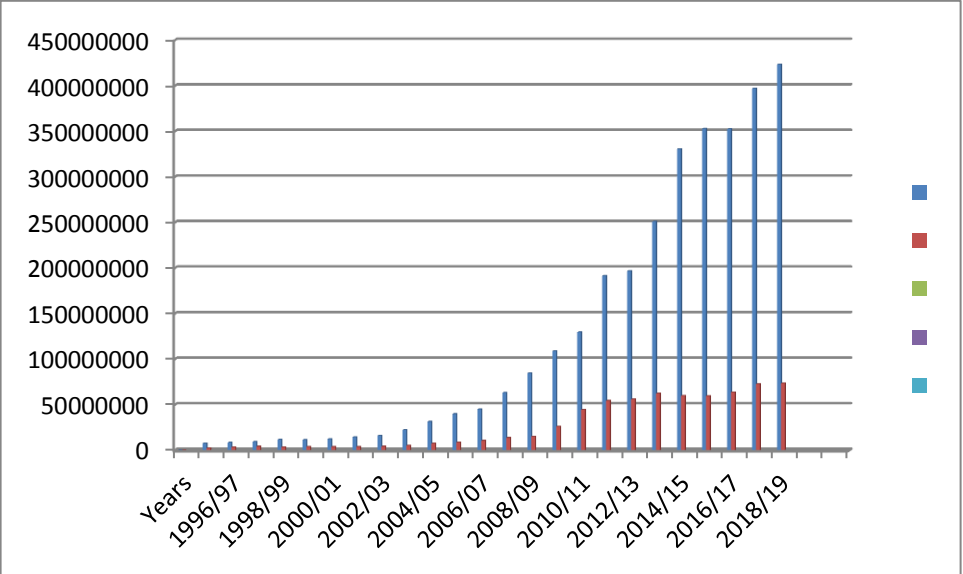
Appendix 4 Sample of IFD

	indicator of Infrastructure and transport characteristics	2011	2012	2013	2014	2015	2016	2017	2018
1	Internet users, percent of population	1.1	2.9	4.6	7.7	13.86	15.37	18.62	
2	Broadband internet subscribers	6353	8535	2E+05	471285	478000	559000	62950	
3	Fixed broadband internet subscribers per 100 people	0.01	0.01	0.25	0.48	0.47	0.54	0.03	
4	Mobile phone subscribers, in millions	14.13	20.5	25.65	30.49	42.31	51.22	39.6	39.54
5	Mobile phone subscribers, per 100 people	15.67	22.1	26.89	31.08	41.96	49.44	37.22	36.2
6	Airline passengers of domestically owned airlines	4.44	5	5.67	6.27	7.07	8.24	9.57	11.5
7	Railroad lines, total length in km						754	754	
8	Quality of railroad infrastructure,	1.3	1.43	1.49	1.64	2.72	3.4	2.9	2.9
9	Quality of port infrastructure,	3.85	3.49	3.1	2.62	3.2	3.5	2.7	2.8
10	International Internet bandwidth per Internet user, kb/s		5.36	6.97	4.78	6.71	5		
11	Quality of air transport infrastructure,	5.26	5.13	5.35	5.26	4.26	3.7	4.2	4
12	Mobile network coverage, percent of the population		10	10	73	73	90		
13	Quality of roads,	4.05	4.09	4.07	3.79	3.72	3.7	3.3	3.3
	Total	6403	8615	2E+05	471452.1	478199	559988	63822.14	100.2

SOURCE :
www.theglobaleconomy.com

69