



**ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES**

**DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN ETHIOPIA**

**By:**

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**SGS/0510/2011A**

**JUNE 2020**

**ADDIS ABABA, ETHIOPIA**

**DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN ETHIOPIA**

**BY**

**FEVEN GEZAHEGN**

**SGS/0510/2011A**

**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL OF  
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**ST. MARY'S UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**  
**CERTIFICATION**

This is to certify that the thesis prepared by Feven Gezahegn, entitled “Determinants of Foreign Direct Investment in Ethiopia” and submitted in partial fulfillment of the requirements for Masters of Business Administration (MBA) in Accounting and Finance degree complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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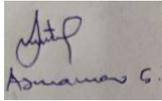
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## DECLARATION

I, Feven Gezahegn, declare that this paper prepared for the partial fulfillment of the requirements for MBA in Accounting & Finance entitled “Determinants of Foreign Direct Investment in Ethiopia” is prepared with my own effort. I assert that this thesis has not been submitted earlier for the award of any other degree or diploma anywhere else, and that all sources of materials used for the thesis have been duly acknowledged.

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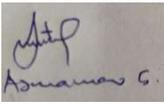
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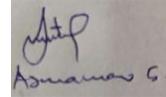
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## ENDORSEMENT

This thesis has been submitted to St. Mary's University College, School of Graduate Studies for examination with my approval as a university advisor.

Asmamaw Getie (Ass. Professor)

Advisor

A small rectangular image showing a handwritten signature in blue ink. The signature is stylized and appears to be 'Asmamaw G.' with a period at the end.

Signature

St. Mary's University School of Graduate Studies, Addis Ababa/ June 2020

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## **LIST OF ACRONYMS**

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

IMF: International Monetary Fund

LDCs: Less Developing Countries

MNC: Multinational Companies

MNE: Multinational Enterprises

NBE: National Bank of Ethiopia

OECD: Organization for Economic Cooperation and Development

OLS: Ordinary Least Square

US: United State

UNCD: United Nation Conference on trade and Development.

## ABSTRACT

*This paper tries to examine the determinants of foreign direct investment in Ethiopia. The study applies multiple linear regression model by using time series data that cover over period of 1992 to 2018 the time series data was collected from NBE and World Bank dataset and the data was analyzed using EViews 8. The variables used in the study were market size, inflation rate, exchange rate, and trade openness. The finding states that market size in the form of real GDP per capital and exchange rate have positive impacts on FDI while trade openness in the form of ratio of export to GDP and Inflation rate have negative impact on FDI in Ethiopia. On the other hand, from those variables market size and trade openness significant to FDI while inflation rate and exchange rate was insignificant to FDI. As per findings the recommendation also forwarded. The government better give attention to factors that boost domestic investment since it has been established by the study that the success focuses on creating conducive investment environment to attract more capital inflow. The domestic investment can attract or encourage foreign investor to invest in Ethiopia. Also, the government better focus on increasing export goods and service by minimizing transportation cost and create simple export system because it is vital for attract foreign direct investor in Ethiopia and foster foreign currency.*

Keywords: Foreign direct investment, FDI determinates

# **CHAPTER ONE**

## **INTRODUCTION**

The study discussed about the determinants of foreign direct investment in Ethiopia. This chapter present background of the study, Statement of the problem, Objectives of the study and Research Hypothesis, Scope of the study, limitation of the study, and Significance of the study, and Organization of the paper.

### **1.1 Background of the Study**

FDI is known as the principal vehicles for improving the economic process of a country, especially the developing countries. This largely takes place through the entry of multinational corporations (MNCs) which utilize various spillover effects on the host countries. The most kind of spillover includes transfer of technology that have direct contributes to the rise in productive capital stock, technological growth, transfer of managerial skills and global market access. The importance of FDI has been given due importance within the development of the economy by many countries (Hooda, 2011).

The role of foreign direct investment (FDI) in driving economic growth and development has been an area of increasing interest since the early 1960's. It initially considered unhelpful, negative, and bringing inappropriate technology to developing countries, but it is now seen as beneficial and developing countries around the world are trying to provide a welcoming climate for investment (UNCTAD, 2006). The volume of FDI has increased throughout the world due to the increasing speed of globalization. Especially since the early 1980's, FDI has been growing at a phenomenal rate and the world market for it has become more competitive. Although Ethiopia is one of the developing countries in the world with a large proportion if its population living under poverty line. The International Monetary Fund (IMF) state Ethiopia is the fastest-growing economy in sub-Saharan Africa and According to the IMF, foreign direct investment growth was 27.6% in 2016/17, with investments going into new industrial parks and privatization inflows. After a decade of continuous expansion with the real GDP growth average of 9.43% per annum, in 2016. Although the real GDP rise to 9.50% in 2017. Hence, the country needs additional source of capital in order

to minimize the gap between saving and investment, which can come from foreign direct investment.

For countries like Ethiopia the motivations for hosting foreign direct investment are economic growth and development. By adding to domestic savings, foreign direct investment makes it possible to raise rates of capital accumulation in both physical and human resources. Numerous researchers consider that the benefits accrued from FDI include the attainment of new technology, create employment, human capital development, contribution to international trade, expanding domestic investment, and increasing tax revenue engendered by FDI (Jenkins and Thomas, 2002). Stable economic growth is highly determined by the rate of investment, which in turn is mainly determined by the national savings level and as stated earlier national savings level of Ethiopia is quite low.

Due to this investment-saving gap the Ethiopian government has been trying to build various incentive packages ever since the country's liberalization. The government of Ethiopia is revised its 1960 commercial code to accelerate investment and alleviate of operations. Areas of focus include expounding regulations for potential investors, regulating suitable accounting practices to assess tax and other operating liabilities more accurately, increasing protection for shareholders and provisions for insolvency filings as well as upgrading of trade and registration processes. The revised Investment Code of 1996, as well as the Investment Proclamation provide incentives for development-related investments and have gradually detached most of the sectorial restrictions on investment. However, Ethiopia's investment code excludes foreign investment in banking, insurance, and financial services. Some of the reforms made to attract FDI include privatization of state-owned enterprises, liberalization of trade policy, reduction of import tariff rates, elimination of nontariff barriers, devaluation and deregulation of price and exchange rate controls (Remla, 2012). Given the previously mentioned benefits of FDI it is important to explore the performance of FDI in Ethiopia and to study what factors attract FDI into the country.

## 1.2 Statement of the Problem

Foreign direct investment has a gradually important role in the development of capital scarce in developing countries. This is because, it is not only stable source of capital inflows, but it also helps in technological transfer and employment generation (Getinet and Hirut, 2006). FDI also provides a sustainable way for developing countries to increase their saving and achieve economic growth. However, flows of FDI have varied across developing countries.

Many studies have been conducted over time looking for factors affecting FDI in Ethiopia Daniel (2009) on the determinants of FDI inflow Ethiopia to identify the potential determinants in Ethiopia for the period of 1991-2007 and Solomon (2008) the study was determinants of FDI in Ethiopia based on secondary data for the period of 1995-2006. Also (Berhane, 2015) studied An Analysis of Foreign Direct Investment for the period of 1974 to 2013, (Tesfaye, 2019) studied Determinants of Foreign Direct Investment in Ethiopia over the period of 2008 to 2015, and (Abebe, 2019) Determinants of Foreign Direct Investment Inflow to Ethiopia over the period of 1992 to 2017.

However, the previous studies were identified different potential determinants. For instance, (Abebe, 2019) found that in long run market size measured by real GDP per capita has negative but its effect is non-significant, exchange rate and trade openness have positive impact, but their effect is insignificant. On the other hand, inflation rate has negative impact on FDI inflow in long term and in short run the real GDP per capita, trade openness and inflation rate have negative impact on net FDI inflow. In short run exchange rate has positive impact on net inflow and also (Berhane, 2015) found that in the long run explanatory variable such as infrastructure development, the domestic market size, Human Capital, openness, and external debt are found positively related and statistically significant while inflation rate is negatively related and statistically significant and in the short run Gross Fixed Capital Formation and inflation become negatively related and they are statistically significant while Gross Domestic Product is positively related to attracts more FDI. Those studies used time series data's in order to understand the effects of determinants on FDI in Ethiopia. Though, the period used for the studies were different. Thus, the potential determinants favorably attract FDI in Ethiopia might change from the period to the period. As per the studies made in the area of determinants of Foreign Direct Investment the scope

and the extent lacks to cover the current tremendous growth and prevalence of FDI therefore this study cover from 1992 to 2018 recent data and this paper try to pin out the main determinants of FDI.

### **1.3. Objectives of the Study**

#### **1.3.1 General Objective of the study**

The general objective of this study is to examine the determinants of foreign direct investment in Ethiopia.

#### **1.3.2 Specific Objectives of the study**

- To investigate the effect of exchange rate on FDI flow into Ethiopia
- To examine the effect of trade openness on FDI flows into Ethiopia
- To examine the effect of inflation rate on FDI.
- To examine the role of GDP on the inflow of FDI to Ethiopia.

### **1.4. Research Hypothesis**

These hypotheses are prediction about the outcome of the results, and they may be written as alternative hypothesis specifying the exact results to be expected (more or less, higher, or lower of something). They also may be stated in the null form, indicating no expected difference or no relationship between groups on a dependent variable (Creswell, 2009). Therefore, in order to achieve this objective, the following hypotheses are formulated and were tested regarding the determinants of foreign direct investment in Ethiopia.

Hypothesis 1: Exchange rate has a significant effect on FDI in Ethiopia

Hypothesis 2: Trade openness has a significant effect on FDI in Ethiopia

Hypothesis 3: Inflation rate has a significant effect on FDI in Ethiopia

Hypothesis 4: GDP has a significant effect on FDI in Ethiopia

## **1.5. Significance of the Study**

The purpose of the study is to identify variables which determines the FDI in Ethiopia, and also the research findings likely signals area that needs attention by policy makers in order to attract more FDI in to the country and this paper also an important input for investor that are seeking information about investment environment in Ethiopia. This study will also important as a reference for other researchers in the future investigate the determinants of FDI in Ethiopia. Furthermore, the study will give additional/extend the current knowledge in the area of FDI determinants in Ethiopia.

## **1.6. Scope of the Study**

The scope of this study is the determinants of foreign direct investment in Ethiopia. The geographical scope of the study was defined Ethiopia and countries other than this boundary are not subjected to this study. The data considered for this study cover from 1992 to 2018. The time period for the study selected based on the data availability and the source of the data from National Bank of Ethiopia, and World Bank annual report in order to provide the finding results for the study objectives.

## **1.7. Limitation of the Study**

The limitation of the study was difficult to make an analysis beyond the stated period there is shortage of data to get for all needed data. Meanwhile the source of data is secondary data i.e. time series data, variation of data from one institution to another which make the statistical artefacts like financial round tripping were the basic problems that challenges to tackle this problem the study was take the data which similar more than two institutions by comparing it from NBE and World Bank dataset.

## **1.8. Organization of the Paper**

The study organized into five chapter. The first chapter is Introduction it contains background of the study, statement of the problem, research hypothesis and objectives of the study, significance of the study, Scope of the study, and limitation of the study.

The second chapter present an overview of the theoretical and empirical literatures on the determinants of FDI in Ethiopia and summary of literature gap.

The third chapter discusses about methods of the study. It consists research design, sources of the data, measurement of variables, data analysis techniques, data validity and reliability of instruments, and Ethical Considerations.

The fourth chapter discusses about data analysis and discussion; and finally, the last chapter discusses about the Summary, Conclusion the main findings, and recommendation as well.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

This literature review aimed to provide more inclusive theoretical concepts of determinants of Foreign Direct Investment. The literature review consists of three subsections. The first sub section discusses theoretical literature review about Definition of FDI, theories of foreign direct investment (FDI), Types of FDI, and Benefits of FDI and Determinants of FDI. The second subsection deals with Empirical literature review and the last subsection deals with the summary of literature gap between of Determinants of FDI.

#### **2.2. Theoretical Literature Review**

##### **2.2.1. Definition of FDI**

Foreign direct investment has been defined in several ways. According to (Hailu, 2010) Foreign Direct Investment (FDI) is a powerful instrument of economic development, especially for the developing countries. It enables capital-poor countries, like most African countries, to form physical capital, create employment opportunities, develop productive capacity, improve skills of local labour through transfer of technology and managerial know-how, and help assimilate the domestic economy with the global economy.

Foreign direct investment is not only a capital movement. In addition to capital, a controlled Affiliate often receives direct input of managerial skills, technology, new strategy and other tangible and intangible assets. Disparate portfolio investors, direct foreign investors have significant control over the management of foreign subsidiary. In reality, balance of payment accountants describes FDI as any flow of lending to, or purchase of ownership in, a foreign

enterprise that is largely owned by the domestic companies of the investing country” (Thomas A. and Peter H. 2000).

## **2.2.2. Theories of Foreign Direct Investment (FDI)**

### **2.2.2.1 Micro-level Theories of FDI**

There are four types micro-level theories of FDI that attempted to explain why multinational companies prefer to operate in foreign countries. The following point will discuss different FDI theories and FDI related theories developed by different authors at different period.

#### **2.2.2.1.1 The Early Neoclassical and Portfolio Investment Approaches**

This theory is one of the initial explanations of FDI. According to this theory, interest rate variances between countries are the main reasons why MNCs operate outside their home country. Capital under this theory moves from a country where the rate of return is low to a country with a high return on capital. The theory is based on a perfect competition and risk-free capital movements assumptions (Harison et al. 2000). Considering the traditional view, neoclassical scholars regard the presence of FDI as the different return on capital between different nations. Such kind of perspective encourages multinational corporations to invest their capital assets from low return to high return countries to acquire more profit. But capital flow is not always one way. Particularly, the presence of risk and barriers to capital movement will erode the authenticity of the theory, and capital can easily flow in any direction or from both sides (Hosseni, 2005).

#### **2.2.2.1.2 The Product Life Cycle Theory of FDI**

Product life cycle developed by Vernon in 1966. This theory argues that FDI was the consequence to the threat of losing markets as products matured as well as the need for cheaper factor costs in the face of competition (Latorre, 2008). This theory provides an explanation of how factors such as the accessibility of high and low capital, superior management, discovery of new processes, product differentiations etc. Therefore, production shifts from the high-cost home country to the relatively low-cost developing country. Hence, FDI is the stage in the product lifecycle that follows the maturity stage (Dunning, 1993). Vernon’s product life cycle theory is a vigorous theory because it deals with changes overtime. Nevertheless, the theory is not verified by empirical

evidence, as some multinational companies start their operations at home and abroad simultaneously (Chen, 1983).

#### 2.2.2.1.3 Internalization Theory of FDI

This theory seeks to explain why multinational companies open subsidiaries in foreign countries than selling their technology. The theory was pioneered by Hymer (1976). As cited on Abiyot (2013), Hymer argued that the needs to exercise control over operation is the main motives for FDI than the ordinary flow of capital. He declares that for firms to take part in cross-border activities, they must retain monopolistic advantages. The advantages result from foreign company's ownership of patents, know-how, managerial skills and so on and these advantages are inaccessible to local companies. His argument relies on the presence of market imperfections, such as complexity of marketing and pricing know-how, or in some cases markets may not exist for such products, or if they exist, they may involve massive transaction costs or time-lags. In such cases it would be more efficient for the company to participate in direct investment than exporting or licensing. FDI will allow the companies to control and utilize their monopoly power to the full.

#### 2.2.2.1.4 The Eclectic Theory of FDI

Eclectic paradigm credited to Dunning (1977, 1993). The theory provides a framework that group's micro- and macro-level determinants to examine why and where multinational companies (MNCs) invest overseas. The Ownership, Localization, and Internalization model of Dunning (1980) is the first theory to provide a broader analysis of the determinants of foreign direct investment. The principal hypothesis of the paradigm of international production by Dunning (1988) is that "firms become MNE or engage in production in a foreign country if and when three interconnected conditions are satisfied; ownership, localization and internalization advantages .Dunning (1988) defines the three advantages as follows

- i. The ownership-specific advantages: allow a firm to compete with others in the markets it operates regardless of the disadvantages of being foreign because it is able to have access to, and utilize and export natural resources and resource-based products that are available. These advantages may evolve from the firm's capability to coordinate balancing activities

such as manufacturing and distribution, and the ability to utilize differences between countries.

- ii. Location advantage: unlike ownership advantages, location advantages are country specific advantages. Multinational Companies (MNCs) in order to fully realize the benefit of firm specific advantages, they should consider the location advantage of the host country. This includes convenience and low cost of natural resource, sufficient infrastructure, political and macroeconomic stability. Therefore, the location advantage of the host country is one crucial factor that determines the investment decision of MNCs.
- iii. Internalization advantages: if a firm has the ownership advantages revealed above, it will be more favorable to use them itself than lease or sell them to foreign firms; and this it does through an enlargement of its existing value added chains or adding new ones in foreign markets. In other words, internalization of transactions works through protecting against unwanted market failure (by avoiding trade costs such as costs of enforcing property rights, quotas, tariffs and price controls) and exploit government incentives that encourage MNEs.

Different MNEs may perhaps have different kinds of investment incentives. The motives for firms to participate in foreign production activities can be classified into four groups: market seeking, resource seeking, efficiency seeking and strategic asset seeking (Dunning, 1993).

Market seeking: The main aim of FDI is to provide goods and service to local and district market. The investors who are pursuing market size for investment need to have host countries which have a large market size, high potential of market growth and high per capital income.

Resource seeking FDI: FDI is carried out when the investing firm's aim is to get access to the resources in the host country which are not available in-home country. For Instance, natural resources, raw materials, or low-cost labor.

Efficiency seeking FDI: Efficiency seeking FDI is the investor will invest to get an advantage when there is a common governance of geographically discrete activities, especially in the occurrence of economies of scope and magnitude and diversification of risk.

Strategic asset seeking FDI: FDI intended at developing firm specific advantage that helps them to expand. Their purpose is to provide new financial capital and corresponding assets.

### **2.2.2.2 Macro-Level Determinants of FDI**

The macro-level determinants of FDI include any host country's circumstances that affect the inflow of FDI, such as market size, the economic growth rate, GDP, infrastructure, natural resource, the political situations, etc.

**Market Size:** The size of the domestic market is a major determinant of FDI. The wealth and development of a country can be used as a substitute to measure the size of the domestic market. Most commonly, per capita income which is a sign of effective demand used to measure the size of local market. The GDP of a country and the population size are also used as an indicator to measure the size of local market. A large market can help firms producing tangible products to achieve magnitude and extent economies. The domestic market growth rate which is measured is measured in terms of population and GDP growth rate also determines the inflow of FDI into a country (UNCTAD, 1998).

**Natural Resource:** Historically, natural resources are the most important determinants of FDI. From the 19th century up to the eve of the Second World War about 60% of the world stock of FDI was in natural resources (Dunning, 1993). Berhanu (1999) remarked that countries that have adequate deposit of some minerals can attract foreign investors mainly those involved in exploitation of natural resources.

**Level of Infrastructure:** Infrastructure development has a great role in the expansion of FDI because efficient and adequate infrastructure implies better access to natural resources and potential market. According to Berhanu (1999) convenience and consistency of telecommunication services developed, and adequate road and air transport services, reliable water and electricity supply facilities have paramount importance for the profitability of foreign companies' and in attracting FDI.

**Low Level Cost:** Neoclassical economists noted that labor cost is one of the factors that affect the investment decision of foreign investors and this fact has been proven in numerous locations. UNCTAD (2004a) reported that accessibility of cheap labor in China is taking jobs from Europe

and United States. In addition to cheap labor, the output labor ratio (labor productivity) also determines the inflow FDI.

**Inflation:** Through the effect of inflation, on the cost of inputs and the price outputs, it reduces the real return on investment and firms' competitiveness. Low and predictable inflation rate is crucial for the long-term investment of both domestic and foreign companies. Hence, high and unpredictable inflation will decrease the inflow of FDI (Berhanu, 1998).

**Exchange Rate Variability:** According to Goldberg and Klien (1997), frequent and erratic changes in exchange rate of the domestic currency affect the inflow of FDI. Exchange rate devaluation has two roles in explaining variations in FDI. First, the real value of foreign investors' capital increases when the host country's currency is devaluated. Second, regular, and continuous declines the value of host country's currency would decrease FDI inflows because of creating uncertainty (Accoley et al, 1997).

**Foreign Debt:** Excess foreign debt is one source of instability and uncertainty in macroeconomic environment of underdeveloped countries and hence this foreign debt is likely to affect adversely the inflow of FDI. It may also signal imminent fiscal crises and foreshadow the future economic situation in a country (Serven and Solimano, 1992).

**Fiscal Deficit:** The fiscal deficit of the government, whether it is financed through printing additional bank notes or through taxation, decreases the real return on investment (Ibid). In addition, in many developing countries it is apparent that due to excessive government borrowing the financial resources available for the private sector are limited and the interest rate is high. Expansionary fiscal policy may be also important for the expansion of public sector investments on infrastructure (UNCTAD, 1998). Generally, the overall impact of fiscal deficit as empirically tested by different studies is ambiguous. However, the theory postulates that there is a negative relationship between fiscal deficit and FDI inflows (Acolley et al, 1997).

**Geographical Proximity:** According to Jinayu (1997), current global economic structure, geographical proximity, and cultural and linguistic affinities are becoming are one important determinant of foreign direct investment.

**Political Stability:** The economic process of a country and the inflow of FDI into a country can be disrupted by unsettled political disputes and crises. Political instabilities can affect FDI until the storm weathers away or turn away for good (Berhanu and Kibre, 2003).

**Legal and Regulatory Framework:** Stable, transparent, and reliable legal and regulatory frameworks promote both domestic and foreign investment while an inefficient and ineffective legal system is an impediment to enforce laws and contracts (Ibid, 2003).

**Privatization:** Sound privatization programs have three main characteristics political commitment, business orientation and transparency. Large scale programs send a signal to foreign investors that a government is taking measures to create conducive environment to FDI (IFC & FIAS, 1997).

**Investment Promotion Strategy and Incentive Structure:** Investment incentives are one of FDI policy instruments used to attract foreign investors. However, the effectiveness of the incentives is highly determined by the country's level of development (UNCTAD, 1997).

**Other determinants of FDI:** In addition to the above-mentioned macroeconomic determinants, there are also other determinants. Some of them are contract law, the image of the host country, accessibility of investment fund, governance, human resource development, degree of openness, urbanization, coherent and stable macro & sectoral policies, etc. (e.g. Birhanu and Kibre, (2003), Asiedu, (2002), UNCTAD, 1998).

### **2.2.3. Types of FDI**

According to Protsenko (2004) FDI can be divided in to two based on the reasons for firms to go multinational or the motives behind the investment. These reasons are either to serve a foreign market or to get lower cost inputs. Based on these reasons FDI is divided into horizontal and vertical.

**Horizontal FDI:** refers to the foreign manufacturing of products and services roughly like those the firm produces in its home market where each plant serves the local market from the local

production. This type of FDI is called horizontal because the multinational replicates the similar activities in different countries. This type of FDI is also known as market-seeking and the motive behind the investment is to serve the local and regional markets or to avoid transportation costs. Here market size and market growth of the host economy engage in important roles. The horizontal models can arise between similar activities in different countries.

**Vertical FDI:** refers to those multinationals that fragment production process geographically in order to utilize differences in relative factor costs. It is labeled vertical because MNE split up the production chain vertically by outsourcing some production stages abroad (Chrysochoidis, 1997). This type of FDI is based on the idea, that distinct parts of the production process have different input requirements. Since the input prices vary across countries it becomes profitable to split production, conducting for example labor intensive production stages in countries with low labor costs (Protsenko 2003).

To bring together the approaches of vertical and horizontal FDI, (Markusen, 1997) develops the Knowledge Capital model. He expresses in one model factor costs and market access as the driving forces for vertical and horizontal FDI. Therefore, both types of FDI can arise within a single model depending on the country's characteristics.

#### **2.2.4. The Benefits and Costs of FDI**

The benefits and the drawbacks of FDI is essential to formulate a policy. Even if, in recent times, the policy that favors FDI dominates, there are two different views as to the role of FDI in developing economies. On the other hand, it is argued that FDI benefits the host country, for instance, by creating employment opportunities and bringing new technologies. In contrast, the other group claims that the adverse effects of FDI outweigh its benefits (Teshome, 2010).

##### **2.2.4.1 Pro-FDI Views**

Foreign direct investment is an alternative source to fill the gap between savings and the required investment. Foreign firms bring not only financial capital but also managerial techniques as well as, entrepreneurial and technological skills that lack in domestic investment and these skills can be transferred to domestic firms through different channels. The governments' budget deficits can also be filled by profit-tax may be collected from transnational companies (Todaro, 1992).

The total amount of foreign exchange that can be obtained from export and net public foreign aid falls short of foreign exchange that is required by LDCs. FDI can help to fill this gap by reducing part or the entire deficit in the balance-of-payments. Moreover, multinational companies manufacturing products that can be exported are able to generate net positive export earnings (Todaro, 1992). FDI can also play important role by creating employment opportunities and by integrating the host-country economy into the world economy (OECD, 2002).

#### 2.2.4.2 Anti-FDI Views

On the other hand, a group of scholars strongly argues with the Pro- FDI views. Their first counter argument says that multinational corporations increase income for low-income groups, which have low tendency to save. If individuals do not save enough, the gap between savings and investments cannot be closed. Besides, foreign firms may also fail to reinvest the profit they generate in the host country; hamper the growth of domestic enterprises and domestic investment by importing the input and intermediary product from their affiliates in other countries. FDI might also hinder the development of original skills as the result of multinational companies' influence over local companies (Todaro, 1992, Solomon 2008, Teshome 2010). It is expected that government's budget deficits can also be fixed by collecting profit-tax from transnational companies or from foreign direct investors. However, governments often enter into exclusive agreements with foreign firms and provide tax holidays, tariff protections, and investment allowances (this is common here in Ethiopia). Due to these reasons, the taxes that can be collected will not be up to the required level or becomes quite small. Moreover, most of the time foreign direct investors participates in tax avoidance and tax evasion practices. For example, these firms can avoid local taxation by transfer pricing techniques -a method used to reduce local profit level by paying artificially inflated prices to the intermediate products purchased from abroad subsidiaries (Thomas A. and Peter H. 2000).

## **2.3. Empirical Literature Review**

Globally, many empirical studies were conducted to identify the factors that affect FDI. Nevertheless, the variables which we identified as determinants of FDI vary from study to study and from country to country. This review focuses on the empirical studies conducted on determinants of FDI in developing countries especially African countries and specifically in Ethiopia.

### **2.3.1 Determinants of FDI in Developing Countries**

The study by (Khachoo and Khan, 2012) identified the key determinants of FDI inflows to developing countries, 32 developing countries were sampled, and the data covered the period over 1982- 2008. Panel regression methods were used. The dependent variables GDP (Market size), total reserves, electric power consumption, wage rate and openness (export plus import divided by GDP). The result illustrates that large market size, more resources, good infrastructures, and less labor cost have positive effect on FDI inflow to developing countries. The positive relationship between GDP and FDI inflow reveals the country with large market size can attract more FDI. More resources have also positive effect on FDI inflow to host country. In addition to these, good infrastructures are also the determinant of FDI inflow. Moreover, low labor cost can also motivate MNC"s to invest in a country where there is low wage rate. However, has shown that openness does not have impact on FDI inflow which is contrary to theories and to some empirical studies.

(Gichamo, 2012) examined the determinants of inward foreign direct investment in Sub Saharan Africa using the panel data from the period 1986 to 2010. The models used for the study were pooled ordinary least square method, fixed effect method and random effect method. Fourteen Sub-Saharan Africa countries were sampled for the study. Trade openness, gross domestic product, gross domestic product growth, gross domestic product per capita, telephone line (per 100 people), gross fixed capital formation, inflation and the lag of FDI are explanatory variables whereas the stock of FDI inflow is dependent variable. The study concludes that trade openness, gross domestic product, inflation, and lag of FDI are the most significant determinants of foreign direct investment inflows to sub-Saharan Africa.

(Rhodah, 2012) was studied about the determinants of foreign direct investment in Kenya. The objective of the study was to examine the factors that influence FDI flows into Kenya, specifically, the wage rate, exchange rate, trade balance, savings rate, external debt, GDP growth rate, inflation, openness of the economy, policy incentives and macro-economic reforms. The study used time series data collected from secondary sources for period 1970 to 2009. Regression analysis was employed, using Ordinary Least Squares (OLS) to estimate the linear model and best results reported. The results revealed that the exchange rate was the most significant variable in determining FDI inflows in Kenya. Other significant variables were trade balance, wage rate, savings rate, and openness of the economy and policy incentives. But the trade balance and wage rate had a negative effect on FDI. In addition, the rate of inflation, GDP growth rate, external debt and macro-economic reforms had negative effect on FDI inflows.

(Khondokeretal, 2010) used panel data from 68 low-income and lower-middle income developing countries, this study pinpoints the factors that determine FDI inflow to the developing countries. Based on a comparative discussion focusing on why some countries are successful in attracting FDI whereas others are not, the study reveals that countries with larger GDP and high GDP growth rate, higher proportion of international trade and with more business approachable environment are more successful in attracting FDI.

### **2.3.2 Determinants of FDI Specifically in Ethiopia**

(Mohapatra, 2014) he studied FDI inflow in Ethiopia for the period of 1992-2012. The aim of the study was examined the numerous potential determinants of FDI inflow in Ethiopia for mentioned period using econometric model used by UNCTAD. He was found that from selected 14 potential determinants (Gross capital formation, trade, import, export, trade openness, exchange rate, gross national expenditures, transport service, cost of starting business, growth of GDP, gross saving, external debt, inflation and GDP per capita) trade, imports, exports, trade openness, official exchange rate, gross capital formation, gross national expenditure and transport services found to the significant determinants of FDI inflows to Ethiopia during the period 1992 to 2012. However, GDP growth, cost of Starting business, gross savings, inflation, external debt, and GDP per capita

found to be nonsignificant determinants of FDI inflows to Ethiopia during the above-mentioned period.

(Tesfaye, 2019), did a study on the determinants of foreign direct investment in Ethiopia. The aim of the study was examined prominent determinants of FDI, and the findings of the study was economic growth, macroeconomic stability, openness trade are important determinants of foreign direct investment. Finally, the researcher recommended that the policy makers should give due attention to promoting liberalization and implementing sound economic policies that can ensure macroeconomic stability in the country.

Another research done (Abebe, 2019) on the determinants of FDI Inflow to Ethiopia and the main objectives of the study was examine the potential determinants of FDI inflow. The major finding was GDP and Inflation rate have negative impact on FDI, but exchange rate and trade openness have positive impact on FDI. The researcher recommended that the government should focus on indicate exchange rate depreciation positive effect, the policy makers should review to increases on timely bases while controlling other factors increases inflationary level.

Also (Berhane, 2015) has conducted a research about An Analysis of Foreign Direct Investment: The Case of Ethiopia and the major finding was in the long run explanatory variable such as infrastructure development, the domestic market size, Human Capital, openness, and external debt are found positively related and statistically significant while inflation rate is negatively related and statistically significant and in the short run Gross Fixed Capital Formation and inflation become negatively related and they are statistically significant while Gross Domestic Product is positively related and statistically significant that supports the hypothesis that the intensifying economy attracts more FDI.

And (Sommie, 2016) has studied about the determinants of FDI in Ethiopia. The study used time series data over the period of 1974 to 2015 and the major finding of the study was that market size in the form of real GDP per capita and infrastructure in the form of gross fixed capital formation have positive effects whereas macroeconomic volatility (both inflation and exchange rates), export alignment and illiteracy have negative impacts on FDI inflow to Ethiopia. On the other hand, from those variables exchange rate, illiteracy rate and export orientation affect FDI significantly while market size, infrastructure and inflation have insignificant effect on FDI inflow to Ethiopia.

Finally, the researcher recommends that market size, infrastructure, the financial sector and the export sector should be improved by giving special attention.

(Tolesa.2009) on the determinants of FDI inflow Ethiopia to identify the potential determinants in Ethiopia for the period of 1991-2007 used multi regression for data analysis by testing GDP growth rate (potential market), market size, Infrastructure TELE, Infrastructure ELEC, inflation rate, external debt to export ratio (financial stability), openness and educational level as the determinants of FDI. He found that financial stability is most significant determinant and negatively related and inflation rate is also found as an important determinant furthermore Infrastructure ELEC is relatively significant and positive relation with FDI.

(Woldemeskel, 2008) the study was determinants of FDI in Ethiopia based on secondary data for the period of 1995-2006. He found that factors that deter FDI flows into Ethiopia are: low level of effective demand due to the limited purchasing power of the people, absence of some important natural resources like petroleum, low level of infrastructure development, excessive bureaucracy, inefficient and ineffective legal system, unstable political environment, lack of skilled force, lack of liberalization and slow process of the privatization program.

## **2.4. Summary of Literature Gap**

A critical review of the literature has shown that FDI in developing world and particularly Ethiopia is affected by inflation, exchange rate, market size, infrastructure, trade openness, and human resource. In recent studies that measure determinants of foreign direct investment in Ethiopia studied by Daniel (2009); Solomon (2018); Berhane (2015); Tesfaye (2019); Abebe (2019) are some of the studies which conducted about the determinants of foreign direct investments in Ethiopia.

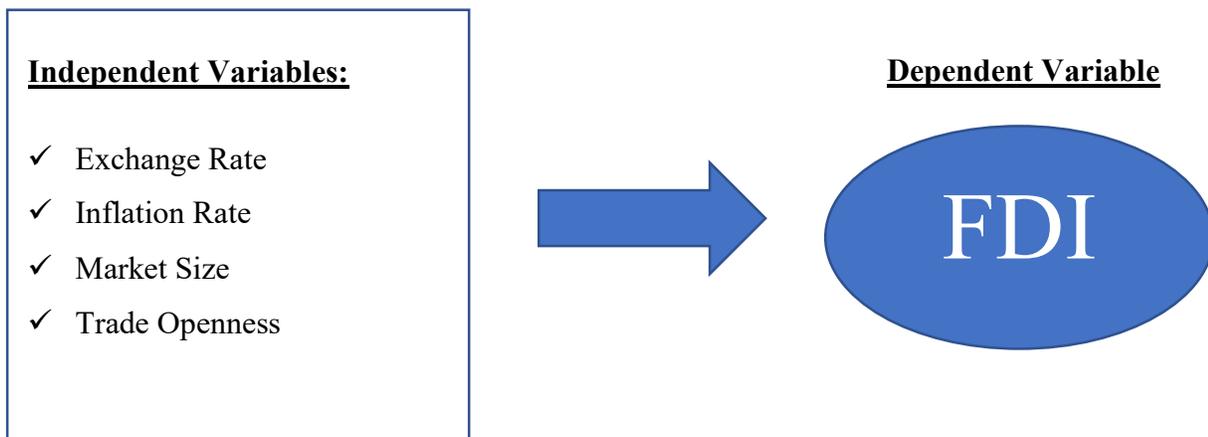
However, the previous studies were identified different potential determinants. Potential determinants cannot be single out commonly for all countries at the same time and potential determinants of FDI can be changed through time, a determinant have significant impact in one period it might be not important determinant on other period. From Ethiopian perspective there are empirical evidences made to identify the potential determinants of FDI inflow and the studies found that varied results on potential determinants on their effects on FDI inflows in Ethiopia while

the period used for the studies were different. Thus, the potential determinants favorably attract FDI in Ethiopia might change from the period to the period. As per the studies made in the area of determinants of Foreign Direct Investment the scope and the extent lacks to cover the current tremendous growth and prevalence of FDI therefore this study cover from 1992 to 2018 recent data and this paper try to pin out the main determinants of FDI which factor have positive effect and significant to FDI.

## 2.5. Conceptual framework

Afterward reviewing of theoretical evidences and empirical studies the following conceptual framework for the study is developed. Conceptual frameworks are abstract representations, connected to the research's goal that directs the collection and analysis of data. So to understand the potential determinants of FDI in Ethiopia four determinants of FDI identified, those are;

**Figure 2.5: Conceptual framework**



Source: own computation based on theoretical and empirical review.

## **CHAPTER THREE**

### **RESEARCH METHOD**

#### **3.1. Introduction**

This analysis discussed about the approaches and techniques used when collecting data, analyzing the data and presenting the findings. These include the research design, source of the data, measurement of variables, and data analysis techniques, data validity and reliability of instruments, and ethical considerations.

#### **3.2. Research Design**

According to Creswell (2009) research design is a plan or proposal to conduct research. Also, a good research design allows researcher to draw valid inferences that can advance scientific knowledge. Valid inferences lead to theories that explain phenomenon (Plumper 2008).

The main objective of this study is to examine the determinants of foreign direct investment in Ethiopia for the period of 1992 to 2018. In order to achieve the main objective this study adopt explanatory research that used quantitative approach for data collection and data analysis.

Schindler and Cooper (2001) discussed that explanatory research unlike descriptive research, go beyond observing and describing the condition and tries to explain the reasons of the phenomenon. Explanatory research is devoted to finding Casual relationship among dependent and independent variables. In addition, quantitative approach is best if the problem is identifying factors that influence an outcome and understanding the best predictors of outcomes.

#### **3.3. Sources of the data**

To achieve the research objectives, the study was used secondary data in order to show the gap and the determinants of FDI in Ethiopia. The secondary data was collected from published reports and official web pages of National Bank of Ethiopia and World Bank for the period of 1992-2018. Exchange rate, Inflation Rate, and GDP was collected from annual report of NBE while Openness

trade data was collected from World Bank. The study chooses these organs for the reason of data for selected potential determinants of FDI was only available at macro level with respective institutions.

### **3.4. Definition of Variables**

Many variables were proposed by literatures as determinants of FDI it is impossible to include all of them. Due to this fact I indicated few of them depending on earlier studies specific to a country, the strength of the variable, availability of data and fitness to a specific model. The core variables in the analysis for which data was collected:

**Dependent Variable:** Foreign Direct Investment

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 organization operating in an economy other than that of the investor. The dependent variable used in this study FDI is measured as the net foreign direct investment inflows as a percentage of GDP.

**Independent Variables:**

Trade Openness: Multinational firms engaged in export-oriented production in a foreign country and horizontally fragmenting firms producing at different places will be highly dependent on exporting and importing. Consequently, increased imperfections as a effect of trade restrictions will discourage foreign direct investment. Singh and Jun (1995), Demirhan and Musca (2008), and Campos and Kinoshita (2003) implied that trade openness is a significant determinant. Much FDI is export oriented Trade openness promotes FDI and it is measured as the ratio of export to GDP.

Inflation rate: As it is defined in world development indicator (World Bank, 2014) the calculation of inflation is measured by the consumer price index which indicates the annual percentage change of the average consumer cost in acquiring a basket of goods and services over the interval time.

Exchange rate: Due to the significant amount of capital at stake, investing in a foreign country exposes MNEs to high risk of exchange rate fluctuations. (Froot and Stein, 1991) stated empirical

evidence that increase of currency (in terms of the investors' country's currency) will boost the prosperity of investors and provide them with low cost capital to invest in the foreign country. Consequently, depreciation of exchange rate in a host country will increase inward FDI. In this study exchange rate was represents by the price of one US dollar in ETB. Therefore, increase means depreciation and decrease means appreciation of the local currencies and since FDI will increase with increase in exchange rate/depreciation of local currency, the exchange rate coefficient is expected to have a positive sign.

Market Size and growth: foreign investors are ambitious by profit and they go to countries with large market where they can obtain higher returns to utilize resources efficiently and exploit economies of scale (Chakrabarti, 2001). In this study, market size is substitutes by real per capital GDP and growth rate of real GDP (as market growth potential). Investors look at trend of Real GDP growth rate as an important indicator of the growth potential of the market.

Table 3.4. Summary of Expected sign of Variables used in regression

Dependent and Independent variables	Proxies	Expected Sign
FDI	FDI inflows as percentage of GDP	
Market Size	Real GDP growth rate	+
Trade openness	Ratio of export GDP	+
Exchange rate	Annual average exchange rate	+
Inflation Rate	Annual rate of inflation based on consumer price	-

### 3.5 Model Specification

This study used a model which is developed by Chan and Gemayel, (2004) to examine the determinates of FDI in Ethiopia over the period of 1992-2018 by using multiple linear regression model. This model analyzes the effect of number of variables on FDI and presented as follows:

$$FDI = f(X)$$

Where X includes market size, trade openness, exchange rate, and Inflation rate.

$$FDI = f(RGDP, OPEN, EXR, INF)$$

Where FDI= the net foreign direct investment inflows as percentage of GDP (Measure of FDI)

RGDP= Real GDP growth rate (Measure of market size)

OPEN= Ratio of export GDP (Measure of trade openness)

EXR= Annual average exchange rate (Measure of Exchange rate)

INF= Annual rate of inflation based on consumer price (measure of inflation)

$$FDI = \beta_0 + \beta_1 (RGDP_t) + \beta_2 (OPEN_t) + \beta_3 (EXR_t) + \beta_4 (INF_t) + U_t$$

The coefficients  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  are the parameters of the econometric model, and they clarify the directions and strengths of the relationship between FDI and the factors that used to determine FDI in the model (called Explanatory Variables) and is error term.

### 3.6 Data analysis techniques

Once the data collected from secondary data sources, the next step was analyzing the data to test the research hypotheses. The collected time series data for the period of 1992 to 2018 was analyzed using descriptive statistics and multiple linear regression analysis. The descriptive statistics (Mean, Median, Maximum and Minimum values, and Standard deviation) was used to analyze the general trends model was used to determine the relative importance of each independent variables in

explaining the dependent variable. The multiple linear regression model was conducted by the ordinary least square (OLS) method using Eviews 8 econometric software.

### **3.7. Data validity and reliability of instruments**

The research instrument is going to test for both face and content validity. This done by involving the subject experts and academic advisor. The participants are brief early in advance by the researcher on the need and importance of the study and permission sought for their participation in order to have their full support. This ensure high completion rate and accuracy of the information provided.

## CHAPTER FOUR

### Empirical Results and Discussion

This Chapter analyzes the relationship between Foreign Direct Investment (FDI) and its determinants using annual time series data. The study begins with descriptive statistics with follow other tests and results.

#### 4.1 Descriptive Statistics

Descriptive statistics that shows the mean and standard deviation of the different variables used in the study. It also presents the minimum and maximum values of the variables, which help in getting a picture about the maximum and minimum values of a variable.

A national data is collected on the targeted dependent and independent variables that covered for the period of 1992-2018. The descriptive summary of these variables which includes the mean, median, minimum, maximum, and standard deviation values of these variables.

Table 4 1 Descriptive Statistics

VARIABLES	MEAN	MEDIAN	MAX.	MIN.	STA.DEV
FDI	2.39	2.14	5.58	0	1.87
RGDP	7.76	10.00	13.10	(8.70)	5.40
INF	9.54	8.15	44.36	(8.48)	10.92
EXR	11.80	8.70	27.40	2.80	6.56
OPEN	16.88	12.10	93.60	3.70	19.98

Table 4.1 describe the statistic of the variables for basic model of the study for the total observation of 27 periods. During the period FDI inflows in Ethiopia have reached maximum 5.58% of GDP and the minimum is 0% with mean of 2.39% of GDP with standard deviation of 1.87%. Real GDP per capita had a max value 13.1% and min value -8.7% along with mean 7.76% and standard deviation 5.4%.

The annual exchange rate mean is 11.8 with standard deviation of 6.56 which have max value 27.4 and min value 2.80. Inflation rates have 44.360% max value and -8.48% min value within the period and mean is 9.54% with the standard deviation of 10.92%. Trade openness during the period have a max value of 93.6% and min. value 3.7% to get the mean 16.88% under covered period.

From the statistical summary during the period under the study its observable that inflation rate is highly deviate. Trade openness in the country show that the openness in the country reach 93.6% of real GDP, the trade is become more open. Regarding FDI inflow into Ethiopia the stock inflow is steadily increases during the period. The exchange rate is also increasing from the start of the period, as per standard deviation 6.56% exchange rate is increasing (depreciated) from the period to the period.

## **4.2 Diagnostics Test**

This section is applying the necessary diagnostic tests on the model to check the problems of normality, heteroskedasticity, autocorrelation, and multi-collinearity problems. The output of these tests is reported in Appendix. The study used the White heteroskedasticity test to test heteroskedasticity. Based on White test for heteroscedasticity assumption the P-value should be greater than the significant level Appendix 3 shows 55.6% which is greater than the significant level (5%, 10% & 0.1%) so we will not reject the null hypothesis. And the residual normality result show the normality graph not equally distributed and not bell shaped also our kurtosis shows 2.46 so based on the normality assumption the kurtosis should be equal to 3 therefore, the result is not normally distributed using normality test (Jarque-Bara test of normality). Our model is well specified according to Autocorrelation test. The Value of the autocorrelation interpreted by using Durbin-Watson stat the result of Appendix 2 shows the Dw test is 1.55 which is near to 2 so the result describe that there is no autocorrelation or no evidence in the error terms. Finally, Multicollinearities take place when independent variables in a regression model are correlated. If

the degree of correlation between variables is close enough, it can cause problems when you fit the model and interpret the results. In Appendix 4 shows the multicollinearity matrix result present Exchange Rate and Inflation Rate have some degree of relationship which is 0.4709 and Exchange rate and GDP also have some degree of relationship which is 0.3728 so we will not reject the null hypothesis because our result is below 0.9 or 90%.

### 4.3. Inferential Statistics

#### The Multiple Linear Regression Model Output and Interpretation.

Table 4 3 Model Output

Dependent Variable: FDI				
Method: Least Squares				
Date: 05/07/20 Time: 15:27				
Sample: 1 27				
Included observations: 27				
<hr/> <hr/>				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
<hr/> <hr/>				
C	0.027274	0.009773	2.790622	0.0107
RGDP	0.034590	0.010274	3.366641	0.0028

INF	-0.009029	0.006781	-1.331430	0.1967
EXR	0.029950	0.044399	0.674563	0.5070
OPEN	-0.040430	0.011039	-3.662491	0.0014
<hr/>				
R-squared	0.628022	Mean dependent var	0.023933	
Adjusted R-squared	0.560390	S.D. dependent var	0.018664	
S.E. of regression	0.012375	Akaike info criterion	-5.780704	
Sum squared resid	0.003369	Schwarz criterion	-5.540734	
Log likelihood	83.03950	Hannan-Quinn criter.	-5.709348	
F-statistic	9.285834	Durbin-Watson stat	1.550939	
Prob(F-statistic)	0.000149			
<hr/>				

As the literature supports, before we move on to using and interpreting the multiple linear regression model outputs, we have to do ANOVA test to check the existence of at least one significant independent variable in the model.

**$H_0$ :** Exchange rate, Trade Openness, Inflation Rate, and GDP has an insignificant effect on FDI in Ethiopia.

**$H_1$ :** Out of the four independent variables, at least one has a significant effect on FDI in Ethiopia.

As we use in the table 4.3, the ANOVA F-value turn out to be 9.285834 with a p-value of 0.000149. Thus, at 5% level of significance, the p-value (0.0149%) is smaller than 5% so we reject the null hypothesis. This implies the above regression model contains at least one significant independent variable to explain the FDI in Ethiopia.

Moving on, we will be testing which among the four independent variables is/are significant to explain the dependent variable, FDI in Ethiopia.

*Hypothesis 1: Exchange rate has a significant effect on FDI in Ethiopia*

$H_0$ : Exchange rate has an insignificant effect on FDI in Ethiopia

$H_1$ : Exchange rate has a significant effect on FDI in Ethiopia

As we see in table 4.2, the t-statistic-value for Exchange Rate turn out to be 0.674563 with a p-value of 0.5070. Thus, at 5% level of significance, the p-value (50.7%) is significantly larger than 5% so we do not have sufficient evidence to reject the null hypothesis. This implies the Exchange Rate of the country is not significant to explain the FDI in Ethiopia. The result which is based on the 27 year (1992-2018) the depreciation of local currency had a positive effect on FDI inflow to the country and the study result is consistent with the result of Dereje (2017) and Abebe (2019) they found that the real exchange rate has positive impact on attracting FDI, but it is insignificant.

*Hypothesis 2: Trade openness has a significant effect on FDI in Ethiopia*

$H_0$ : Trade openness has an insignificant effect on FDI in Ethiopia

$H_1$ : Trade openness has a significant effect on FDI in Ethiopia

As we see in table 4.3, the t-statistic-value for Trade Openness turn out to be -3.66249 with a p-value of 0.0014. Thus, at 5% level of significance, the p-value (0.14%) is smaller than 5% so we have sufficient evidence to reject the null hypothesis. This implies the Trade Openness of the country is significant to explain the FDI in Ethiopia. While trade openness increases by one-unit FDI reduce by 0.04 unit. The cause of trade openness affect FDI negatively is different impediments and challenges in the investment environment, such as high transportation cost, convoluted bureaucracy, etc. It makes the export sector incompetent and not profitable in the international market thus to encourage foreign investor to invest in Ethiopia it better to provide less transportation cost and good system. The result of this study is consistent with the study

Demisse (2016), found that openness negatively affects FDI and the result is statistically significant.

*Hypothesis 3: Inflation Rate has a significant effect on FDI in Ethiopia*

$H_0$ : Inflation Rate has an insignificant effect on FDI in Ethiopia

$H_1$ : Inflation Rate has a significant effect on FDI in Ethiopia

As we see in table 4.3, the t-statistic-value for Inflation Rate turn out to be -1.33143 with a p-value of 0.1967. Thus, at 5% level of significance, the p-value (19.67%) is larger than 5% so we do not have sufficient evidence to reject the null hypothesis. This implies the Inflation Rate of the country is not significant to explain the FDI in Ethiopia. The coefficient of this variable is negative and insignificant suggesting that one unit reduces 0.009 units in FDI. The rate of inflation can be viewed as a substitute for the level of economic stability in an economy, considering that one of the classic indicators of loss of fiscal or monetary control is unrestrained inflation. Considering that investors desire to invest in more stable economies, that reflect a high degree of uncertainty, it is reasonable to expect that inflation would have a negative effect on foreign direct investment. High rates of inflation mean high production costs in terms of high prices for inputs, raw materials, electricity and even labour. The study is line with (Rhodah, M., 2012) who found out that Instability in macroeconomic variables as demonstrated by double digit inflation, and excessive budget deficits, limits regions ability to attract foreign investment and Also the finding of inflation rate results similar with Sommie (2016), Mekonnen (2014), and Abebe (2019) they found inflation rate negatively affect FDI and the relationship is statistically not significant.

*Hypothesis 4: GDP has a significant effect on FDI in Ethiopia*

$H_0$ : GDP Rate has an insignificant effect on FDI in Ethiopia

$H_1$ : GDP Rate has a significant effect on FDI in Ethiopia

As we see in table 4.3, the t-statistic-value for GDP Rate turn out to be 3.366641 with a p-value of 0.0028. Thus, at 5% level of significance, the p-value (0.28%) is smaller than 5% so we have a sufficient evidence to reject the null hypothesis. This implies the GDP Rate of the country is significant to explain the FDI in Ethiopia. One percent increase in the real GDP per capital results in a 0.035 increase in the foreign direct investment. High rate of GDP growth is as signals of

country's economic prospects and encourages foreign investors. Keeping up the growth momentum and ascertaining its sustainability is a key to attracting more FDI (Tesfaye, 2019). The result is consistent with the studies of Mohapatra (2012), Mekonnen (2014) and Berhane (2015). In contrast to this result some finding of market size is inconsistent with the studies of Abebe (2019) and Demisse (2016) they found that GDP negatively affects FDI and the relationship is statistically not significant.

### **Final Model and Interpretation:**

$$FDI = 0.027 + 0.035RGDP - 0.009INF + 0.03EXR - 0.04OPEN$$

The regression model result shows that the coefficients of Inflation, and Trade Openness are negative implying a negative correlation with FDI. While real GDP per capita and Exchange Rate have a positive coefficient implying a positive relationship with the dependent variable FDI.

Moreover, when RGDP and EXR increase by one unit each, keeping other variables constant, the FDI increase by 0.035 and 0.03 amounts, respectively. Here, the finding suggests that, the improving market size and Exchange rate of currency in Ethiopia affects FDI inflows positively. On the other hand, when the Inflation and Trade Openness of the country increase by one unit each, keeping other variables constant, FDI decreases by 0.009 and 0.04 amounts, respectively.

### **Coefficient of Determination (R<sup>2</sup>) Interpretation**

As we see in table 4.2, the R-Square value of the mode is 62.8022%. This implies as the model is capable in predicting 62.8% of the dependent variable, FDI, variability by the existing independent variables found in the model. Adjusted R- Squared (coefficient of determination) which is the most commonly used measure of the goodness of fit of a regression also measures the proportion or percentage of the total variation of the independent variable explained by the regression model. The value 0.56 shows that 56 percent measures the proportion or percentage of the total variation of the independent variable explained by the regression model, which is good explanation.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RESEARCH RECOMMENDATION

#### 5.1. Summary and Conclusion

The main objective of this study was to examine the determinants of FDI in Ethiopia. To fulfill this objective, the study reviewed theoretical explanations and empirical literature regarding the determinants of FDI in the context of specially developing countries. This study empirically investigates the possible factors that determine the Foreign Direct Investment in Ethiopia during 1992-2018 by using OLS Method. This study identified different determinants of FDI to see their impact in attracting of FDI. Based on review of previous research, four variables have been identified that generally determine the FDI. The Variables are GDP growth, trade openness, inflation rate, and exchange rate.

These economic variables were used in the time series data's of about twenty-seven years that were collected from secondary sources and taken to test which of these variables highly influence the Foreign Direct Investment. After the selection of variables, the study proceeds to Descriptive Statistics, diagnostic test such as normality, autocorrelation, heteroskedasticity, and multicollinearity approach, and Multiple linear regression.

My empirical analysis reveals that GDP has positive and significant effect on FDI. It means that when real GDP per capital increase by one unit the FDI will increase. High rate of GDP growth signals a country's economic prospects and encourages foreign investors. Keeping up the growth momentum and ascertaining its sustainability is a key to attracting more FDI. While trade openness has negative and statistically significant effect on FDI this implies if trade openness increases by one-unit FDI will decrease the relationship between trade openness and FDI reverse. High export transportation cost, and convoluted bureaucracy. It makes the export sector incompetent and not profitable in the international market thus to encourage foreign investor to invest in Ethiopia it better to provide less transportation cost and good system. However, Inflation rate and exchange rate were insignificant to FDI. However, Inflation rate and exchange rate were statistically insignificant to FDI.

Finally, it can be concluded that the results of this study can be a guideline and provide insight to policymakers such as Ethiopia Investment Commission and national bank of Ethiopia in determining the ways to attract more foreign direct investment to Ethiopia.

## **5.2 Recommendation**

Regardless of reviewed literatures, the study recommends that in order to sustain and to attract more FDI to the country and increase the country's competitiveness on an international level.

- Ethiopia government better focuses on factors that obstruct domestic investments. Because foreign investors will be encouraged to invest in a country if the domestic investors are doing successfully. The positive and significant effect of economic growth on FDI indicates the certainty of economic growth in stimulating investment by foreign as well as domestic investors. As result, it must keep up the growth force and determining its sustainability is a key to increase the inflow of FDI.
- Trade openness of an economy is assumed to raise the level of FDI, the more open an economy is the more likely attract FDI. While the finding shows openness has negative effect in attracting FDI. Trade openness was measured as ratio of export to GDP currently in the country export is small. Thus, the government should focus on increasing export goods and service by reduce transport cost and lifting bureaucratic obstacles which means create a simple system because it is vital for attract foreign direct investor and enough foreign currency.
- It can be seen form the time series analysis that FDI in Ethiopia can be positively affected by GDP. Therefore, policy reforms should be made with regard to these areas in order to boost FDI in the country. In accordance with this the government better give due attention to factors that boost domestic investments since it has been established by the study that the success of domestic investment can influence the location decision of foreign investors. The positive and significant effect of economic growth on FDI indicates the firmness of economic growth in stimulating investment by foreign as well as domestic investors. As result, it better to keep up the growth momentum and ascertaining its sustainability is a key to increase the inflow of FDI.
- Finally, for next researchers who are interested in further studying it is highly recommended that increase the sample size to more than 30 observations. This is because the bigger the sample size, the lower the probability of having multicollinearity, heteroscedasticity, and

autocorrelation problems. This will prevent the needs to split the model but run it as a whole instead. Hypotheses testing will provide researchers with better results in detecting these problems.

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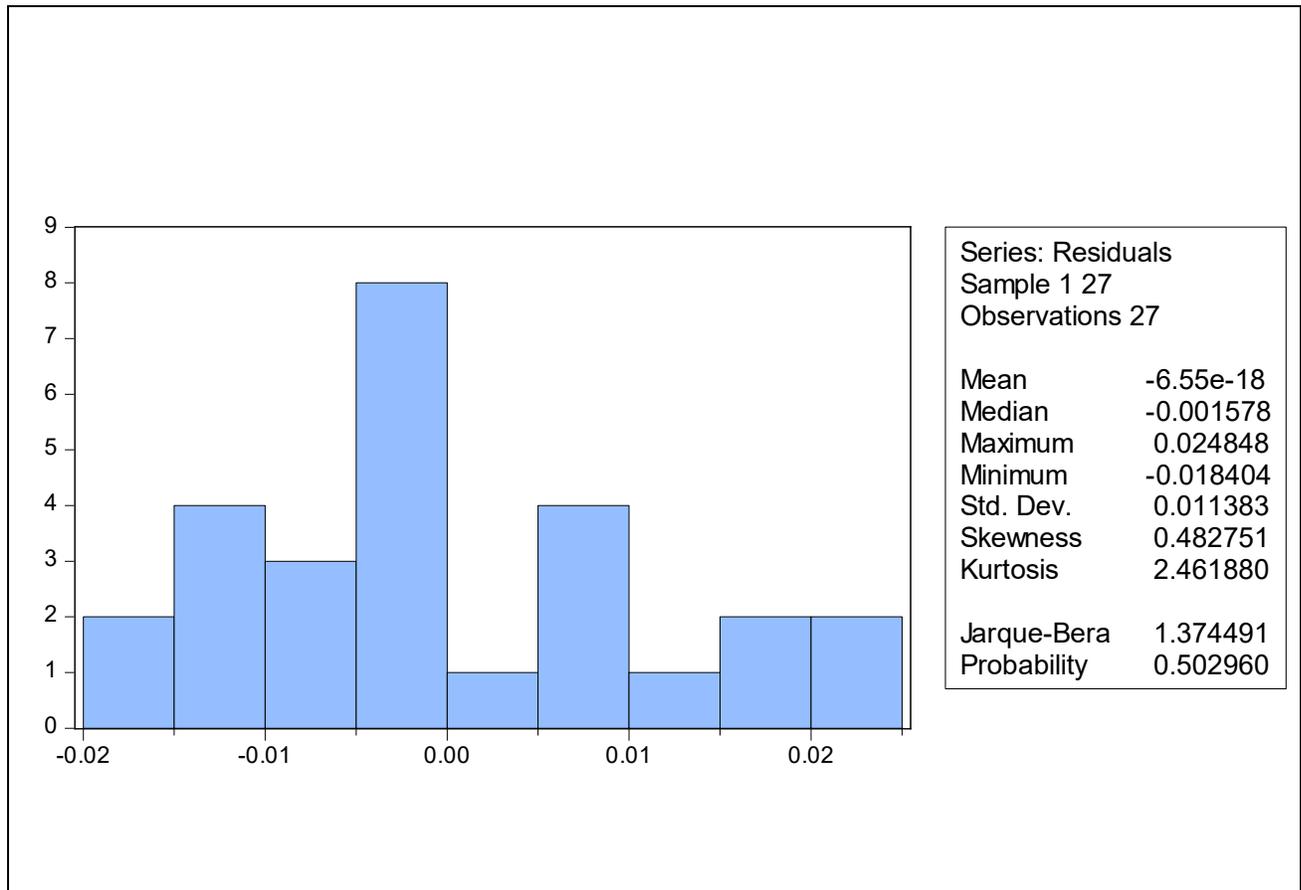
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## APPENDICES

### Appendix 1: Residual Normality Test



Source: Own Computation Using EVewis 8

## Appendix 2: Autocorrelation Test: DW Test

Dependent Variable: FDI

Method: Least Squares

Date: 05/07/20 Time: 15:27

Sample: 1 27

Included observations: 27

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.027274	0.009773	2.790622	0.0107
RGDP	0.034590	0.010274	3.366641	0.0028
INF	-0.009029	0.006781	-1.331430	0.1967
EXR	0.029950	0.044399	0.674563	0.5070
OPEN	-0.040430	0.011039	-3.662491	0.0014

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R-squared	0.628022	Mean dependent var	0.023933
Adjusted R-squared	0.560390	S.D. dependent var	0.018664
S.E. of regression	0.012375	Akaike info criterion	-5.780704
Sum squared resid	0.003369	Schwarz criterion	-5.540734

Log likelihood	83.03950	Hannan-Quinn criter.	-5.709348
F-statistic	9.285834	Durbin-Watson stat	1.550939
Prob(F-statistic)	0.000149		

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### Appendix 3: Heteroskedasticity Test

Heteroskedasticity Test: White

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F-statistic	0.676082	Prob. F (14,12)	0.7599
Obs*R-squared	11.90576	Prob. Chi-Square (14)	0.6139
Scaled explained SS	5.777723	Prob. Chi-Square (14)	0.9718

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Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 05/07/20 Time: 13:35

Sample: 1 27

Included observations: 27

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000340	0.000562	-0.605873	0.5559
RGDP^2	-0.001098	0.000921	-1.192172	0.2562
RGDP*INF	-0.000729	0.000624	-1.167330	0.2657
RGDP*EXR	0.012123	0.005784	2.095989	0.0580
RGDP*OPEN	0.001212	0.001100	1.101867	0.2921
RGDP	-0.001330	0.000824	-1.612701	0.1328
INF^2	-4.09E-05	0.000421	-0.097282	0.9241

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INF*EXR	0.001762	0.005688	0.309735	0.7621
INF*OPEN	0.000594	0.000867	0.684579	0.5066
INF	-0.000475	0.001054	-0.451072	0.6600
EXR^2	-0.040423	0.020312	-1.990091	0.0699
EXR*OPEN	-0.006928	0.005451	-1.270891	0.2279
EXR	0.009165	0.006143	1.492099	0.1615
OPEN^2	-0.001346	0.001031	-1.305708	0.2161
OPEN	0.001715	0.001533	1.118233	0.2854

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R-squared	0.440954	Mean dependent var	0.000125
Adjusted R-squared	-0.211266	S.D. dependent var	0.000154
S.E. of regression	0.000169	Akaike info criterion	-14.23072
Sum squared resid	3.44E-07	Schwarz criterion	-13.51081
Log likelihood	207.1147	Hannan-Quinn criter.	-14.01665
F-statistic	0.676082	Durbin-Watson stat	2.069456
Prob(F-statistic)	0.759863		

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Source: Own Computation Using EVewis 8

## Appendix 4: Multicollinearity Test

	RGDP	INF	EXR	OPEN
RGDP	1.000000	-0.051495	0.372863	-0.072666
INF	-0.051495	1.000000	0.470900	-0.382107
EXR	0.372863	0.470900	1.000000	-0.426693
OPEN	-0.072666	-0.382107	-0.426693	1.000000

Source: Own Computation Using EVewis 8