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DEPARTMENT OF ECONOMICS

IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN ETHIOPIA

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A Thesis Submitted to the Department of Economics, Addis Ababa University in Partial Fulfillment of the Requirement for the Degree of Masters of Science in Economics (*International Economics*)

Advisor: Fantu Guta (PhD)

May, 2025

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Declaration:

I hereby declare that this thesis entitled “Impact of Foreign Direct Investment on Economic Growth in Ethiopia” is my original work, has not been presented for degrees in any other University and all sources of materials used for the thesis have been duly acknowledged.

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Letter of Certification

This is to certify that the thesis prepared by Melaku Shumet, entitled Impact of Foreign Direct Investment on Economic Growth in Ethiopia submitted for the partial fulfilment of the requirement for the Degree of Masters of Science in Economics (International Economics) embodied with the regulation of the University meet the accepted standards with respect to originality and quality.

Signed by the Examining Committee:

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Abstract

This study used time series models and tests to investigate the impact of FDI on Ethiopian economic growth from 1980 to 2022. ADF test for unit root result suggests that some variables are integrated of order one I (1), stationary at their first differences and the remaining variables are integrated of order zero I (0), stationary at their level. Bound test of co-integration test indicates the presence of long-run co-integration among the variables. The long run estimates indicated that human capital and Debt can have a positive impact on economic growth in Ethiopia. For example, debt can be used to finance investments in infrastructure, education, and healthcare. These investments can lead to increased productivity, higher incomes, and improved living standards. Debt can also be used to finance government programs that support economic growth, such as subsidies for businesses or tax breaks for investors. Additionally, debt can be used to smooth out economic downturns by allowing the government to maintain spending levels even when tax revenues are low on the one hand, inflation, exchange rate and political instability have a significant and negative impact on economic growth in Ethiopia, while, FDI and trade openness was both insignificant and negative impact on economic growth of Ethiopia. Meanwhile, the estimated coefficient on the error correction term is what we call the speed of adjustment or the adjustment coefficient shows that the long-term economic growth shock is adjusted (back to) equilibrium by 79.27% within a year. Foreign direct investment (FDI) has a significant impact on Ethiopia's economy. It can lead to job creation, technology transfer, and economic growth. However, it can also have negative consequences, such as environmental damage and exploitation of workers.

Overall, FDI can be a positive force for economic development in Ethiopia, but it is important to ensure that it is managed in a way that benefits the country and its people.

Keywords: Economic growth, ECM, co-integration, FDI, Granger causality, Ethiopia

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Abbreviations and Acronyms

ADF	Augmented Dickey-Fuller
ARDL	Autoregressive Distributed Lag
CSA	Central Statistics Authority
ECM	Error correction model
FDI	Foreign direct investment
GDP	Gross Domestic Product
GFCF	Gross fixed capital formation
IMF	International monetary fund
INF	Inflation Rate
MNE	Multinational enterprises
MoFED	Ministry of Finance and Economic Development
NBE	National bank of Ethiopia
OLI	Ownership location industrialization
REER	Real effective exchange rate
UNCTAD	United Nations Conference on Trade and Development
WB	World Bank

CHAPTER ONE
INTRODUCTION

1.1. Background of the study

The world has increasingly recognized that private capital has a vital role to play in development. The UN„s Millennium Declaration explicitly calls for greater foreign direct investment (FDI) to Africa. As stated by (WIR, 2018), Over the course of the 1990s, African countries significantly liberalized the environment for foreign investment. Nearly all countries revised their national laws governing FDI and the vast majority lifted controls on capital.

Foreign Direct investment (FDI) is an increasingly important channel for resource flows between the industrial and developing countries. Several real and potential benefits apparent from these flows that include technological spillovers, job creation, improved managerial skills and productivity (Blomstrm and Kokko, 1997). Given the capital deficient nature of least developed countries and the benefits accruable from these activities, FDI is essential for growth and development.

One of the economic problems of developing countries is that they do not have enough national savings to finance their investments. They are in constant need of foreign capital in forms of both direct and indirect investments. Initially, they took loans from international commercial banks. But the gradual drying-up of commercial bank lending, because of debt crises, forced many countries to reform their investment policies so as to attract more stable forms of foreign capital, and FDI appeared to be one of the easiest way to get foreign capital without undertaking any risks linked to the debt. Thus, it became an attractive alternative to bank loans as a source of capital inflows.

Foreign Direct Investment (FDI) affects economic growth of developing countries positively through transfer of capital, know-how, and technology (Li and Liu (2005)). It increases activity not only in FDI beneficiary firms. The effect can spread to other firms in the country and sectors through technology spillover, human and capital formation and increasing competition, thus raising productivity for the whole economy. FDI can also accelerate growth in the ways of generating employment in the host countries, fulfilling saving gap and huge investment demand

and sharing knowledge and management skills through backward and forward linkage in the host countries (Frenkel, Funke et al. (2004)). Some points which supports the concept that FDI promotes growth are explained by, Agrawal and Khan (2011).

According to OECD, the policy frameworks for FDI of Africa countries on average are not restrictive than other developing countries (OECD, 2005). However, although the African continent has made notable efforts to attract FDI, the inflows of FDI are very small compared to other developing nations. For instance, among the FDI inflows to developing countries between the periods 2005 to 2010, African share was only around ten percent and also characterized by uneven distribution among countries in the region (UNCTAD, 2011).

For almost all developing countries the size of domestic saving is not sufficient to finance domestic investment and the gap is bridged by sourcing capital from the rest of the world by any means. One of the most common ways to access such external capital is by promoting foreign investment and Ethiopia is no exception.

The Federal Democratic Republic of Ethiopia investments are designed to improve the living standards of the peoples of Ethiopia through the realization of sustainable economic and social development, create wide employment opportunities for Ethiopians and to foster the transfer of technical know-how, of managerial skills, and of technology required for the progress of the country as stated on proclamation No 280/2002. Although Ethiopia is one of the countries with the fast growing economy, still there is a persisting poverty and unemployment both in rural and urban areas (MOFED, 2012). Currently the country is undertaking the second growth and transformation plan which is an extension of the first robust plan GTP that requires significant capital investment and technology transfer. However, due to the low saving of the country there is financial inadequacy constraining in achieving development goals. The government recognizes the role of private investment in particular foreign direct investment to fill the gap of the capital constraint and revised the investment proclamations several times.

The role of foreign direct investment (FDI) in stimulating economic growth is one of the controversial issues in the development literature. In the standard Solow type growth model, FDI enables host countries to achieve investment that exceeds their own domestic saving and

enhances capital formation. According to this theory, the potential beneficial impact of FDI on output growth is confined to the short run.

In the long run, given the diminishing marginal returns to physical capital, the recipient economy could converge to the steady state growth rate as if FDI had never taken place leaving no permanent impact on the growth of the economy (De Mello,(2014)). On the other hand, endogenous growth models e.g. Romer, page 28; and Lucas, page 24; that highlight the importance of improvement in technology, efficiency, and productivity suggest that FDI can positively influence the growth rate in so far as it generates increasing returns in production via externalities and production spillovers.

Foreign direct investment is one of the most noticeable features of the global economy today. Sustainable economic growth is highly determined by the rate of investment which in turn is mainly determined by the national savings level. The national savings level of countries in Africa is quite low. Foreign direct investment (FDI) is an alternative source of capital to bridge the gap between savings and the required investment level. Nevertheless, the developmental role of FDI is highly debated. The proponents of foreign direct investment point out that FDI fills savings, foreign exchange and local revenue gaps of developing economies. FDI can also provide managerial, entrepreneurial and technological skills and increases export and integrate the country‟s economy into global economic network. Conversely, the other group argues that the benefits that can be derived from FDI inflows are quite small compared to the adverse effect (Li and Liu (2005)).

The major “costs” of FDI include stifling of infant domestic industries, loss of political sovereignty and deterioration of balance of payment due to the foreign investors‟ excessive capital good importation and repatriation of profit. Consequently, most developing countries were uncertain about the benefits of FDI. Most African countries have undertaken numerous policy measures to create hospitable investment climate for FDI. The major policy measures are: Liberalizing controls on foreign exchange & price, liberalizing investment regulations & privatization of public enterprises and creating a stable macroeconomic environment. OECD (2005), indicated that the policy frameworks for FDI of African countries are on average not more restrictive than other

developing nations. Despite their notable efforts, FDI flows to Africa are extremely small compared to the other developing nations.

The rapid growth in FDI over the last few decades has encouraged a large body of empirical literature to examine the Impact of FDI on 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.

Considering the benefits of FDI for growth and development, most African countries have undertaken varies policy reforms to create conducive investment environment in order to attract a considerable amount of FDI.

Economic growth and development require foreign direct investment. The volume and capability of foreign investment are essential to maintaining global economic growth. Because industrialized and developing nations have distinct trade and economic arrangements, global outward and inbound FDI continues to be significant. A foreign investor who invests in a firm directly and has ownership stakes in the company is said to be making a foreign direct investment (UNCTAD, 2013).

Foreign direct investment (FDI) plays a significant role in the fast evolving process of globalization and global economic integration. Direct, dependable, and long-term relationships between economies can be built through FDI. It may also serve to improve the competitiveness of both the recipient ("host") and investing ("home") economies by serving as a primary channel for local enterprise development. Foreign direct investment, in particular, encourages the exchange of information and technology across countries. Furthermore, it allows the host country's economy to expand the distribution of its products in overseas markets. FDI is a key source of money for a range of host and home countries, and it also has a favorable influence on the growth of international trade. (OECD, 2008).

The substantial significance that FDI plays in developing nation’s development plans has recently come to their attention. It is viewed as a crucial component in Africa in particular for

bridging the gap between domestic savings supplies and investment demands, for technology transfers, for enhancing job creation, for adding value to human skills, and for raising host country aggregate productivity (Todaro and Smith, 2012).

After plummeting in 2020 and then rising in 2021, global foreign direct investment (FDI) flows decreased by 12% to $1.3 trillion in 2022. Global FDI was badly impacted by the plethora of crises and challenges in the world arena, including the conflict in Ukraine, rising food and energy costs, the possibility of a recession, and debt pressures in many nations (UNCTAD, 2023).

FDI flows to developed economies decreased by 37% to $378 billion. There were indications of strong investment in new projects, and a large portion of the fall was caused by one-time transactions and financial movements. The number and value of announced Greenfield projects increased by 4% and 37%, respectively. The amount of FDI going that is to developing countries increased by 4% to $916 billion, which is a record high. The number of Greenfield project announcements in emerging nations increased by 37%, and their value more than doubled. Five of the ten highest-valued projects, as well as other megaprojects in the renewable energy industry, were the main cause of this surge (UNCTAD, 2023).

FDI flows to Africa decreased by 44% to $45 billion. Without this agreement, FDI flows to Africa would have changed by 7% more in 2022. FDI increased by 3% to $8.7 billion in East Africa. Ethiopia received $3.7 billion, a 14% decrease from 2021 (UNCTAD, 2023).

Eastern and Southern Africa's growth is expected to slow from 4.1 percent in 2021 to 3.1 percent in 2022. The projected deceleration in 2022 includes short-term headwinds, the global economic slowdown, lasting consequences of the epidemic, greater inflation, rising financial concerns connected to unsustainably large public debt, persistent supply disruptions, and impacts of the war in Ukraine (World Bank, 2022).

1.2. Statement of the problem

Growing nations, particularly those in East Africa, face two primary challenges: improving living standards and long-term, sustainable output development. For the economies of Africa and Eastern Africa, achieving sustainable economic development continues to be substantial problem. Many factors, such as low savings rates, low infrastructure development, institutional and structural rigidities, political instability, high crime rates, ongoing civil conflicts, droughts and famines, and ambiguous and arbitrary land ownership decisions, make the region unable to meet its investment demands (Anyanwu, 2012).

Foreign Direct Investment (FDI) has been recognized as an important driver of economic growth in developing countries. Many countries, particularly developing countries, view FDI as a crucial component of economic development. Technology transfer, capital management, and marketing were combined to form the concept of foreign direct investment. This is the reason why many nations, especially those in Africa, are enhancing their business environments to attract FDI. (Ayanwale, 2007).

Foreign direct investment (FDI) plays a vital economic role in developing countries, yet there are individuals who strongly oppose it and others who support it. The (FDI) proponents say that foreign direct investment is an option funding source that stimulates socioeconomic development, expands trade and production networks, transferring technology and skill gains, creates jobs, helps integrate with global production networks, makes high-quality goods more accessible, and reduces income and cost differences (OECD, 2008).

(Biratu and Mekonnen, 2018), conduct research on the foreign direct investment (FDI) had a marginally significant but positive impact on economic growth in Eastern Africa, according to research on the subject in the long run and causality running from GDPGR to FDI inflows in the region. Similarly, a study (Zekarias., 2016) confirmed a positive impact of foreign direct investment on economic growth in 14 East African countries. The study showed that FDI had spillover effects regarding the expansion of the economy in the region. However, the host country must have the right laws in place as well as rudimentary infrastructure, technology, and educational institutions in order to reap the benefits of this (Borensztein, 1998).

Opponent of FDI argue that, the host economy is said to be negatively or insignificantly affected by foreign direct investment (FDI), and at worst, it can also impede economic growth by crowding out domestic startups, worsening the balance of payments, abusing local resources, sending profits home, increasing the risk of political upheaval, and providing an opportunity for some public officials to engage in corruption (Abadi, 2011) (Agarwal, 2017) (Alege, 2013). Many empirical investigations have confirmed that foreign direct investment (FDI) negatively affects the economies of host nations. Modern-day economic colonialism is the result of FDI taken too far.

Significant research findings indicate that foreign direct investment (FDI) has positively impacted the economic progress of sub-Saharan African nations. (Demelew, 2014), for example, looked at how FDI affected the economic growth of 47 nations in sub-Saharan Africa (SSA). According to the study, foreign direct investment (FDI) significantly and favorably impacted regional economic growth. Similarly, FDI has a favorable impact on economic growth in 14 East African countries, according to a study by (Zekarias., 2016) also, (Biratu and Mekonnen, 2018) looked at how FDI affected the economic development of 14 nations in Eastern Africa. The study's findings demonstrated that foreign direct investment (FDI) significantly and favorably impacted the region's economic expansion. The study demonstrated that foreign direct investment had knock-on effect on regional economic growth.

Significant research indicates that FDI has benefited Ethiopia's economic growth over both the short and long terms. For example, (Mohd, 2021) looked at how FDI affected Ethiopia's economic development. The analysis demonstrated that foreign direct investment (FDI) significantly and favorably impacted the nation's economic growth. In a similar vein, (Muse and Saidatulakmal, 2021) verified that foreign direct investment had a favorable impact on Ethiopia's economic expansion.

In Ethiopia, conclusive data about the relationship between foreign direct investment (FDI) and economic growth is still lacking. As a result, this study examines the causes and effects of these variables on the nation. In order to offer the most recent data in Ethiopia, give further details

about how foreign direct investment affects economic growth in the country. In addition, the study examines other factors that affect FDI into the country, such as political instability, and problems with institutional quality.

1.3. Objective of the study

1.3.1. General Objective of the Study

The general objective the research is to examine how foreign direct investment affects economic expansion in Ethiopia.

1.3.2. Specific Objective of the Study

The study's particular goals are comprise;

- To analyze the trends and patterns of FDI influxes into Ethiopia.
- To analyze how FDI and economic growth are related in Ethiopia.
- To identify the factors that mediates the connection between economic growth and foreign direct investment.

1.4. Research Questions

- What is the impact of foreign direct investment on economic growth of Ethiopia?
- Do linkages exist between foreign direct investments and economic growth?
- To what extent domestic investment determine economic growth?
- What is the relationship between FDI and Domestic Investment?

1.5. Hypothesis of the Study

The hypothesizes to test regarding the long run association with growth have been established and are outlined below in accordance with the research purpose and research questions:

- Foreign Direct Investment boosts Ethiopia's rate of economic growth.
- Trade openness benefits Ethiopia's pace of economic growth.
- The availability of sufficient infrastructure, trade openness, human capital, and macroeconomic stability all influence foreign direct investment (FDI) inflow into our nation.

1.6. Significance of the study

The impact of FDI on the economic growth has been the concern of development economists, international business scholars, scientists, governments, international organizations and the civil society with the desire to understand what drives increases in FDI inflow and their impact on their host economies (Mencingar, 2003; Makki & Somwaru, 2004; Kottaridi, 2005; Li & Lu, 2005; Lin, 2010). These authors often assume that once FDI enters into an economy, it would either stir economic growth, increase employment and reducing poverty or it stimulates unfavorable competitions, resulting in crowding-out local companies and other businesses, high unemployment and increasing poverty.

The consequence is that such analysis often focus on the impact of foreign capital on a few local firms and their employees, but misses its effect on the greatest number of people who works in the informal employment, whether in agriculture or trade services. It means that, we need to consider the impact of foreign capital on a larger group that might benefit or lose as a result of foreign capital inflow into their economies. FDI has been highly recognized by the government of Ethiopia for its contributions to employment opportunity and in the achievement of capital formation. There is an increasing trend in population and unemployment and hence investments that absorbed labor intensively which required reducing the growth of unemployment rate are the highest priority in Ethiopia.

As a result this study will help policy makers to take appropriate measures while putting the necessary incentives measures that promote FDI and helps to monitor the contribution of FDI for short term and long term development objectives of the country. Without proper governance an increase in investment may aggravate or reinforce existing pattern of greedy consumption by the rich, marginalization of the poor and environmental devastation all which today characterize the global economy. This research also tries to investigate the challenges and negative externalities associated with foreign direct investment. Hence this research can help the government to take some corrective measures in managing foreign direct investment for better implementation especially after operation. This paper contributes to the existing literature by enhancing the understanding about the impact of FDI on their recipient economies. Lastly it provides policy makers in the low income countries with additional insight required to carefully weigh the

impact of the FDI in order to achieve economic growth and also the study can serve as a reference to subsequent research works.

1.7. Scope and Limitation of the study

The study aims to explore Ethiopia's foreign direct investment impact on economic growth. Ethiopia implemented significant attempts at liberalization and macroeconomic reforms to support foreign direct investment and local investment during the study's 42-year data period, which runs from 1980 to 2022. This means that the analysis's data set is limited to the years 1980–2022. Free market and economic reforms were put into place during this period, and 2022 is the most recent year for which statistics are available.

Furthermore, the study has flaws that can be viewed from multiple perspectives; because there isn't a comprehensive data set for FDI and domestic investment, the study doesn't cover the earlier time. Due to both a lack of understanding of the subject matter and the inherent difficulties developing nations like Ethiopia have storing and retrieving data; there is a limited amount of acceptable and trustworthy data available on the studied variable.

1.8. Limitation of the study

As researches conducted so far on FDI in Ethiopia is limited, the study was constrained by the availability of empirical literature. Relating to the nature of the business there were fear and reservations in revealing all necessary information regarding revenue generation and import export impacts of FDI. In addition to these some of the respondents were reluctant to give information due to lack of sufficient time and other reasons. Even though these limitations are inevitable the researcher tried to handle the difficulties by different mechanisms. Such as face to face interview, briefly explaining to the respondents the purpose of the study to be for academic, applying efficient use of time and other resources and attempting to triangulate data to avoid data inconsistency and exploring different data sources for empirical literatures. The difficulties involved in managing raw data collected from the multiple sources to make them usable was to pose some limitations given the short period of time available for this study.

1.9. The Organization of the Study

The paper is organized in six chapters. The first chapter deals with the introduction part under which the background, the objectives, significance, scope and limitations of the study are comprised. Chapter two briefly discusses about the theoretical and empirical literatures. Chapter three discuss with an Overview of the Ethiopian Economy. The methodology, Model specification, data source and method of collection, sample size and sampling techniques and data analysis are included in chapter four. Chapter five provides data presentations as well as the summary of the findings. The last chapter dealt with, conclusion and possible recommendations.

CHAPTER TWO
LITERATURE REVIEW

2.1. Theoretical Literature

2.1.1. Conceptual Definition

FDI is defined differently by various organizations. For instance, direct foreign investment is among the three elements of global financial movements, along with bank loans from industrialized nations to developing ones and portfolio investments (Todaro and Smith, 2012). And the according to the OECD, foreign direct investment is defined as a long-term stake held by a resident firm in one economy (the direct investor) in a firm (the direct investment enterprise) located in a different economy than the direct investor. The lasting interest implies long-term interactions between the direct investor and the direct investment enterprise, as well as a significant level of control over the administration of the firm. This form of relationship can be demonstrated by investors from another economy owning at least 10% of the voting power a company headquartered in that economy (OECD, 2008).

Various criteria have been used to identify various FDI kinds. FDI is divided into four categories based on the strategic goal of the investment: seeking market, resources, efficiency, and strategic assets. Investments in resource extraction seek to get components of production that are more efficient than those available in the farm's domestic economy. Market-seeking ventures attempt to preserve or build on existing markets. Efficiency-seeking investments strive to improve organizations' efficiencies by leveraging scale, breadth, and shared ownership advantages (Kinyondo, 2012; UNCTAD, 1998).

FDI can also be divided into horizontal and vertical categories. Horizontal FDI is the term used to describe the overseas manufacture of goods and services that are comparable to those produced domestically. Multinational corporations that spatially disperse manufacturing processes are referred to as vertical FDI. Because a multinational organization (MNE) creates a product through numerous stages and a variety of manufacturing processes, it is known as vertical (Beugelsdijk, 2008).

Additionally, FDI may be divided into acquisitions and mergers across borders, greenfield projects, and brownfield investments. Invest directly in new facilities or the development of existing facilities are referred to as Greenfield projects. A host nation's promotional activities are mostly focused on Greenfield investments since they generate new employment opportunities and production capacity, transfer technology and expertise, and have the potential to establish connections with the global market. In a brownfield investment, a business or governmental organization buys or rents already-existing manufacturing facilities to start a new production activity. It is one method of attracting FDI. This form of FDI frequently involves mergers and acquisitions, which transfer existing assets from local enterprises to foreign corporations (UNCTAD, 2013).

A different type of literature defined FDI theories from a development perspective, combining both micro and macro-level FDI theories, and explored the policies and conditions that attract FDI, as well as why corporations prefer to invest abroad and how they enter other nations. This chapter clarifies the key steps in the creation of FDI theories and provides an overview of the pertinent theories, theories, and schools of thought that support our comprehension of the FDI phenomena. It also provides insight into the basic rationale for FDI flows. In addition to helping determine the projected signs of explanatory variables and arguments to be used in empirical estimation and discussion, a review of these theories will also help pick appropriate variables and proxies.

2.1.2. Dunning's Eclectic Paradigm Theory

According to the first empirical research (Dunning, J. H., 1979), national businesses would make investments overseas to diversify their resources and product lines in a foreign nation. He said that MNCs should relocate its products and services outside of the host nation to diversify their business and find new growth opportunities. MNCs were therefore able to create new product lines, learn about the global market, and establish themselves as powerful global businesses (Dunning, J. H., 1979). The biggest contribution of Dunning was that businesses would make investments outside of the host nation to the transfer of the companies' knowledge, expertise, and other advantages of ownership specifically to profit from those international markets where there were chances unsatisfactory (Dunning, J. H., 1979).

To examine why and where these multinational corporations (MNEs) would invest abroad, Dunning developed the ownership, location and internalization (OLI) advantages-based framework (Dunning, 1980). FDI might be categorized as marketing-, resource-, efficiency-, or strategic asset-focused depending on the type of benefits that corporations were looking for (Dunning, 1993). The OLI paradigm also sought ownership benefits by inventing certain financial, social, and geographic characteristics of target nations that allowed the driving corporations to invest and diversify themselves outside of the nation of residence (Dunning, 1980).

According to (Dunning, J. H., 1992), technology helped create distinct competitive advantages, but technology transfer to other countries also carried the risk of knowledge dissipation and competition stimulation. Although technology also brought about innovation, it was vital in boosting the competitiveness of businesses thanks to research and development (R&D). R&D operations have been more widely dispersed inside multinational systems throughout time due to several causes (Dunning, J. H., 1992). Technology and research and development were examples of how host nation variables influenced technology transfer (Dunning, J. H., 1992). The government also had major impact, according to (Dunning, J. H., 1992), not only in ensuring sound macroeconomic management but also in putting into practice the so-called micro-organizational strategy, also known as the firm's level strategy, which aims to ensconce MNCs in a web of regional technological contexts.

The micro-organizational strategy, which was disseminated by MNCs, was seen to be advantageous for doing business internationally (Dunning, J. H., 1992). Additionally, MNCs using FDI discovered it to be simpler to extend their business in a foreign nation or other foreign nations (Letto-Gilles, 2002). Competitive advantages developed in one country would frequently be successfully exported to another (such as proprietary technology information) (Dunning, J. H., 1998). By allowing MNEs to select between establishing subsidiaries and/or negotiating license agreements with overseas markets, Dunning's thesis (1998) has significantly improved internalization when entering global markets and making use of technology advantages. According to (Dunning, 2003), unplanned internalization permitted a moral ecology' of capitalism to move beyond the host nation to markets where FDI was required. Most nations that

had implemented FDI through land, labor, entrepreneurship, and capital had established moral ecologies where typical MNE firms would thrive and present opportunities for future capitalist economic expansion in other nations (Dunning, 2003). The examination of multinational enterprises (MNEs) was central to the domain of global commerce, and Dunning's "eclectic paradigm" claimed that MNEs may expand their operations into emerging economies (Dunning, J. H., 1988).

2.1.3. Theory of Product Life Cycles

(Vernon, 1966) introduced the theory of product life cycles, which gave a reasonable structure to clarify the rationale for establishing activities in a distant country. This theory applies comparative advantage theory to examine the link between product lifetime and potential FDI flows. Vernon's thesis explains certain sorts of FDI for US corporations in Western Europe after WWII in the manufacturing industry. He argues that there are four stages of the production cycle (Dunning & Lundan, 2008). (Vernon, 1966), asserts that variations in demand, manufacturing costs, and profits cause the lengths of the phases to fluctuate.

Stage One: Innovation (New Product): At this stage, local businesses develop new innovative items primarily for domestic use, with the surplus exported to service overseas markets. The product is not standardized in terms of prices and final specifications at this level (Peltoniemi, 2011).

Stage Two: Growth goods: At this stage, the amount of demand has risen, products have become more standardized, and the local market has reached saturation. As a result, local enterprises begin to extend their operations overseas in various regions where manufacturing costs are low and competitiveness is strengthened.

Stage Three: Maturity products: At this stage of the product lifecycle, product attributes become fully standardized, and price concerns play an important part in competition.

Consequently, the number of international enterprises expanding overseas has surged, particularly in countries that add value to their products. Consequently, the business's export

position is jeopardized, and the business is motivated to produce items in the host nation via its overseas subsidiaries (Chen, 2017). As a result, currently, the new product is initially manufactured and marketed in the home nations.

(Vernon, 1966), asserts that a product gets standardized as demand increases and it is exported to new markets once the original markets are filled. As a result intense competition from competitor enterprises and the need for lower production costs, multinational corporations establish subsidiaries in other nations. According to him, the corporation participated in FDI to seek low-cost production in foreign nations.

Stage four: Decline stage: At this point, the company's continued manufacture of the same items is not profitable. Vernon Companies claims that at this point, demand, sales, and profit are declining. As a result, at this point, the new product is manufactured and marketed only in the home nations. The merchandise lacks standardization. (Vernon, 1966), asserts that a product is considered standardized when domestic demand for it reaches a saturation point and it is exported to other nations. Because of the intense competition from competitor companies and their pursuit of cheap production costs, multinational corporations (MNCs) establish subsidiaries abroad. He claims that the reason his company invested overseas direct investment was to find lower production costs abroad.

As a result, "foreign direct investment" refers to the industrial life cycle that occurs after maturity (Dunning, 1993). According to him, the company creates new items in its local market and uses FDI to manufacture a product aimed for the global market. The significance of Vernon's product life cycle for this research lies in its ability to illustrate the progression in foreign direct investment along the product life cycle.

2.1.4. Neoclassical Growth Theory

Examining how foreign direct investment and economic growth are related is crucial because, for FDI to occur, economic growth must be supported and the means of achieving this growth must be identified. Among them, neoclassical growth theory is among the approaches.

In an effort to explain the growth model, (Solow R. M., 1956) investigated the crucial elements that make up the steady growth model. He expresses the variables influencing FDI as it relates to growth rates in his model. He asserts that in addition to endogenous growth theory, FDI flows may directly or indirectly support the growth of the national economy.

Similarly, (Wang, 1990) distinguishes between the direct and indirect benefits of foreign direct investment (FDI) in the home nation. The direct effects include increased output and knowledge transfer to local suppliers, while the indirect effects include improved worker quality. Furthermore, additional efforts are undertaken to demonstrate the fundamental group of factors governing the incentives for international investment. Early research, as presented by (Mundell, 1957), attempted to give an explanation of foreign direct investment using relative factor endowments and relative factor costs and he concludes that an strong incentive for capital flows when trade obstacles, migration, and a significant gap between capital-rich and capital-poor nations exist. The new investment's location implies that low-income and GDP-producing countries are not the target of foreign direct investment. According to data, he asserted, the IMF estimated that intra-European FDI flow accounted for 4.5% of European GDP in 1995, suggesting that the general equilibrium model would benefit from including additional explanatory factors impacting FDI.

Numerous scholars have included other elements that influence international investment, including market size, linguistic and cultural differences, exchange rate stability, governmental policies, and geographic considerations. It is possible to integrate factors such as financial incentives and political instability in the scenario, according to recent empirical investigations.

2.1.5. Industrial Organization Theory

(Hymer, 1976) Industrial organization theory is regarded as a foundation for explaining the motives of a functioning international company. One of the most well-known economists, Hymer created a methodical approach to researching the reasons why local businesses choose to grow globally. Hymer's theory is predicated on the notion that businesses grow overseas in order to compete with domestic businesses and to take advantage of unique advantages and favorable positions with respect to consumer preferences, the legal system, and culture that other foreign

competitors do not share a notion known as "monopolistic advantage." However, due to flaws in the market, foreign businesses expanding internationally run the danger of encountering a number of hazards (Rugman, 2011).

It follows that there are many different types of market imperfection, which can impact access to financial markets, result in a lack of certain managerial abilities, and lead to pricing collusion. Government policies like rates of interest, tariffs, taxes, and currency rates can also cause market failure. Therefore, for foreign investment to be beneficial, some kind of market power needs to be used to overcome these weaknesses. International businesses, for instance, need to have access to less expensive funding sources and some form of proprietary technology. Dunning and Rugman (1985) questioned Hymer's view, pointing out that he neglected to distinguish between transactional and structural market failure. The former results from the company's ownership advantage, which serves as a barrier to entry for other competitors (monopolistic strength) within the sector (Dunning & Pitelis, 2008). However, the incapacity of foreign companies to join the market with complete knowledge or absolute confidence (cognitive inadequacies) regarding the outcomes of the deals and undertakings they are performing is what leads to the generation of "Transactional Type" (Dunning & Lundan, 2008). Furthermore, (Robock, 1983) contended that possessing unique attributes does not always indicate that a company has successfully utilized its ownership advantage in terms of foreign investment. This is because several factors, such as market size, institutional quality, political stability, and government policies, can influence the selection between foreign direct investment (FDI) and licensing/exports. Additionally, FDI may enable enterprises to benefit from specific benefits provided by the host nation.

Hymer's theory often concludes that FDI is positively impacted by the unique advantage of a firm's competitive environment. Hymer's thesis, however, has been disputed by certain academics. Among them is (Yamin, 2000), who said that while Hymer discusses how and why businesses expand internationally, he ignores how businesses might succeed in foreign markets by utilizing their unique advantages. According to Hymer, the company's primary goals are growth and profit. Nonetheless, (Yamin, 2000) asserts that a company might utilize and grow its subsidiaries to improve internal efficiency. Hymer further claims that only oligopolies can make foreign investments, but this is no longer the case.

The theory of industrial organization is significant to this research because it clarifies the factors that influence individual and industry decisions made by foreign investors when they choose to invest overseas. Consequently, companies seeking to expand internationally need to possess a unique edge over domestic companies, such as enhanced technological skills, enhanced R&D capacities, greater managerial aptitude, and enhanced market acumen.

However, Dunning's eclectic paradigm offers a more compelling explanation regarding foreign direct investment in African governments. Dunning's OLI framework is relevant for explaining Due to the region's wealth of natural resources and inexpensive production factors—factors that are dependent on one another due to colonial history—and their path-dependent character, FDI has been directed into the continent. (Geda, 2002), considering the range of policy-related incentives offered to international investors by African nations. Consequently, we use the OLI theoretical technique to specify the FDI model that will be calculated in the following section. This theoretical knowledge aids in determining the variables that affect foreign direct investment (FDI) in order to construct the model that will be subjected to an empirical analysis in the next section.

In conclusion, the geographical factors of FDI are explained by a variety of theoretical frameworks. But not all of them apply to Africa similar to that. For example, the premise of a perfect market makes the neoclassical theory of FDI irrelevant in Africa. Since Krugman's hypothesis works better in nations with superior beginning conditions for industrial growth, it is also inapplicable here.

2.2. Empirical Literature Review

It is preferable to find an appropriate model and examine how estimated findings reflect theoretical reasons about relevance and influence that can capture this requirement to see a major empirical impact of FDI in Ethiopia's economy. As a result, research on the effects of FDI would either analyze affluent countries generally or concentrate on developing countries in particular. As a result, it was examined in Ethiopia especially as well as both established and emerging economies separately.

2.2.1.Studies on Developed Countries

Four distinct phases can be found in the development of international private investments, according to (Buckley, 1991). The first phase (1870–1914) concentrated in relation to the transfer of intangible assets and the role of multinational businesses (MNEs) as entrepreneurs during these 40 years. During this time, foreign direct investment (FDI) was utilized to transfer resources between nations and to regulate how those resources were used in conjunction with complementing local contributions.

Following World War I, there were several obstacles to the levels, forms, and structures of global production throughout the second phase (1918–1938). Many European nations quickly sold some of their pre-war investments as a result of the war itself. Additionally, there were several difficulties with its geographical dispersion. Over two-thirds of US direct investment holdings were drawn to West European investments in central Europe and the USA. In the interwar period, several new multinational enterprises (MNEs) engaged in the developing world. These included new oil investments in the Mexican Gulf, the Middle East in addition to the Dutch East Indies; copper and iron ore in Africa; bauxite in Dutch and British Guyana; nitrate in Chile; precious metals in South Africa, and South American metals that are not iron.

Throughout the third phase (1939–1960), European, Japanese, and certain third-world nations played an increasingly significant role as international direct investors. The global capital stock expanded to US$18 billion between 1960 and 1970, with the United States accounting for 48% of this amount and West Germany and Japan for the remaining 18%.

Ultimately, the fourth phase (1960–1978) was characterized by a decline in the shares of the UK and the USA, a rise in those of Switzerland, Japan, and West Germany, as well as a peak in the global capital stock growth rate in the late 1960s and early to mid-1970s. Eastern Europe and China started to open up in the late 1970s. The growth of MNE operations in a number of service industries, including banking, insurance, advertising, and tourism, as well as the increased usage of multilateral agreements for cross-border agreements, were some of the development indicators during this time. International investment flows are on the rise for several reasons. Institutions

were first identified as FDI determinants a long time ago. Regarding luring FDI, institutional quality can matter.

(Wei, 2000), looked at the corruption of government officers as a reflection of poor institutional quality, which led to mistrust and was detrimental to the business community as well as to both domestic and foreign investors.

Research on the impact of FDI on the Korean company industry (Rave, 2005). The research looked at what attracted investments made by foreigners directly into the Korean auto industry and how it affected the sector overall, particularly suppliers and automakers. According to this survey, investment in the automotive sector has been rising after trailing for a year. Trade unions and labor market flexibility are two examples of variables that have had a major detrimental effect on job growth and the economy.

International investment flows are on the rise for several reasons. Institutions were first identified as FDI determinants a long time ago. In relation to luring FDI, institutional quality can matter. (Wei, 2000), looked at the institutional quality deficiencies that were reflected in public servant corruption, which led to mistrust and was detrimental to the business community as well as both domestic and international investment.

(Morrissey, 2008), analyzed the exchange rate's effect on US foreign direct investment using panel data covering the years 1990–2002. Three factors are taken into account in their research to determine how the currency rate affects American foreign direct investment. The local currency value comes first; a higher local currency value denotes those currencies that are less expensive and foreign direct investment. The second real effective exchange rate, which serves as a stand-in for the expected exchange rate and explained by devaluation and a declining exchange rate, suggests an increase exchange rate. Local currency volatility is the third reason discouraging foreign direct investment. The study's findings indicate a negative correlation between forecasts of a fall in local currency values and FDI inflows. Though exchange rates deter volatile FDI, FDI is attracted to cheaper local currency.

2.2.2. Studies on Developing Countries

According to most research on the continent, foreign direct investment was heavily attracted to Africa because of its wealth of natural resources (Asiedu E. , 2006), (Krishna, 2002). Even while the majority of FDI is explained by the presence of natural resources, a few prosperous African nations have also been able to draw FDI by fostering a positive political, social, and economic climate. For example, by customizing its FDI policies through deregulation, export orientation, tax breaks, FDI has been attracted to Mauritius and Seychelles through these and other investment incentives. Additionally, due to their close proximity to South Africa, a number of countries such as Lesotho and Swaziland have drawn foreign direct investment (FDI), with firms setting up subsidiaries there to cater to the vast South African market (Basu, 2002).

(Obowana, 2001), looked at the factors influencing foreign direct investment and how they affect Uganda's economic expansion. He mentions that factors like lower inflation, exchange rate freedom, and faster economic growth were once used to draw money invested abroad directly (FDI) to Uganda. However, he claims that the significance of these factors depends on the amount of investment made by foreign companies. Utilizing a survey approach, information regarding foreign investors and domestic companies' investment decisions in Uganda was gathered. The findings demonstrate that macroeconomic stability and governmental institutions are prerequisites for considering international enterprises. He therefore claims that improved macroeconomic factors and government policy changes are to blame for the rise in the amount of foreign direct investment in Uganda. Over time, FDI has shown a rising trend. Specifically, between 1970 and 2015, the growth rate regards to foreign direct investment into Africa and Eastern Africa grew in absolute terms.

Africa's proportion in terms of foreign direct investment in developing nations decreased from 33 percent in 1970 to 7.3 percent in 2013, but East Africa's proportion of FDI in Africa increased from 6.3 percent in 1970 to 25.5 percent in 2013, and the total quantity of FDI coming into Africa was roughly 12.6 percent in 2014 (AEO, 2016). (Asiedu E. , 2006), examined thirty-four sub-Saharan African nations between 1980 and 2000, using panel data analysis, she discovered that additional investments were "rewarded" with increased trade openness, income levels, and development possibilities, as well as improved institutional frameworks and infrastructure.

Research by (Asiedu, 2006) demonstrates how important a nation's endowments in natural resources and market size are in drawing foreign direct investment. Less corruption, better infrastructure, educated citizens, openness, political stability, low inflation, and a strong legal system, in her opinion, all have a comparable favorable impact about the inflow of foreign direct investment into the continent. According to (Asiedu E. a.-B., 2008), observe that tiny or resource-poor nations may nevertheless draw overseas direct investment by strengthening their institutions and policies, mostly validating their findings.

(Bende-Nabende, 2002), discovered that the most important long-term drivers of foreign direct investment (FDI) in Africa include deregulation, export-focused policies, and market growth. Based on data from 19 sub-Saharan African countries, a co-integration study was carried out for the nations between 1970 and 2000. (Onyeiwu & Shrestha, 2004). The study found that economic development, inflation, openness, international reserves, and natural resource availability significantly predict FDI to Africa from 1975 to 1999 using fixed and random effects models They concluded that infrastructure and political rights were not crucial, contrary to popular belief.

(Krugell, 2005), conducted empirical tests to determine the significance of many postulated factors of foreign direct investment in Africa's sub-Saharan regions. As the time-series and pooled cross-country estimate encompassed 17 nations from 1980 to 1999, Krugell's findings are consistent with the previously cited findings, especially in terms of openness and economic growth.

(Dupasquier and Osakwe, 2006), identified several reasons that contributed to the region's poor record of foreign direct investment (FDI), including low growth rates, limited infrastructure, bad governance, an unfriendly regulatory environment, and poorly thought-out investment promotion initiatives.

(Abdoul, 2012), One of five years of panel data set and the system-GMM approach are used in the most recent FDI studies on Africa to create an FDI determination model for 53 African nations during the years 1970–2009. He discovered that FDI was drawn to larger nations.

Nonetheless, more transparent and politically stable nations that provided better investment returns drew foreign direct investment (FDI) regardless of their size. It was also shown that FDI information is persistent, meaning that nations who are prosperous in luring FDI now are likely to do so again in the future. (Anyanwu, 2012), discovered that factors including natural resources, rule of law, openness to trade, market size (measured by the proportion of the host country's urban population to its total population and GDP per capita), prior FDI inflows (increased agglomeration), foreign aid, and openness to trade all had a favorable impact on FDI inflows. This conclusion was drawn from cross-national data pertaining to 53 African nations from 1996 to 2008. He also discovered that FDI was negatively impacted by domestic financial trends. Additionally, he discovered that sub-regions in a greater amount of inward foreign direct investment were anticipated for eastern and southern Africa.

Thus, several factors, including market size, economic openness, and foreign direct investment is influenced by natural resource availability as well as political and macroeconomic stability in Africa. We think that they must be included in any model that examines the variables driving flows of foreign direct investment in the African continent. When examined in the context of the theoretical literature, however, none of these African studies seem to have adhered to a single thread of it on foreign direct investment. However, the variables in their models imply the use of Dunning's eclectic paradigm without specifying which variable serves as a stand-in for which theoretical idea. This is partially because practically all of this research lacks theoretical formulations and debates.

2.3.The Impact of Foreign Direct Investment on Poverty Rates

Theoretically, no literature exists to explain how FDI directly affects poverty. The endogenous, neoclassical, modernization and dependence theories are the ones that are closest to explaining the connection between FDI and poverty. The hypothesis states that FDI influences poverty indirectly by creating a path for economic progress. It is anticipated an increased rate of economic expansion will boost investment and employment, both of which have an effect on reducing poverty (Tsaurai, 2018). (Fauzel, 2016), contends that foreign direct investment has the potential to combat poverty through several different means, in opposition to (Tsaurai, 2018). First, foreign direct investment (FDI) positively impacts economic expansion, the creation of

jobs, technological advancement, knowledge transfer from host nations, and the development of human resources via knowledge and skill acquisition. Second, by paying business taxes, FDI boosts government revenue.

A country's economic capacity will rise when FDI increases through a multiplier mechanism. But poverty does not always disappear when economic capacity rises. This is because both continue to be the primary issues in developing nations. For several reasons, even (Agarwal, 2017), said that FDI flows are essentially unable to contribute to the reduction of poverty. First, foreign direct investment (FDI) flows in some industries may lower the demand for low-skilled workers, which raises unemployment, exacerbates income inequality, and deepens poverty. Additionally, growth in foreign direct investment leads to a rise in transnational corporations (TNCs), which may force the closure of several small and medium-sized businesses as they cannot compete with these foreign firms.

The amount and caliber of investment are two of the numerous variables that affect how FDI affects the fight against poverty. Decreasing FDI has different effects on capital- and labor-intensive investments in terms of reducing poverty. Very little capital-intensive investment is made in low-skilled employment in order to prevent lowering unemployment. It does not, therefore, lessen poverty. However, because labor-intensive FDI can lower unemployment, it is more successful in alleviating poverty.

Though it depends on income levels, employment growth does contribute positively to the decrease of poverty. According to (Ucal Meltem Şengün, 2014), if investors pay wages above the poverty threshold, it will help to alleviate poverty; but, if they pay wages below the poverty line, FDI will not be able to do so.

FDI inflows are often made from developed to underdeveloped nations. The abundance of inexpensive labor which is frequently a major factor the host economy's growth rate, the nation's solvency, trade openness, how big the host market is, corruption, inflation, the rate of industrial development, the fiscal deficit, exchange rates, investment barriers, and bureaucracy all influence inflows of foreign direct investment. FDI inflows may affect the reducing poverty by

promoting more economic growth via capital accumulation or by creating jobs to help lift people out of poverty, (Agarwal, 2017).

Using data analysis of panel data from 2002 to 2012 (fixed effect, random effect, combined dynamic OLS, and GMM) was used to examine whether FDI and the availability of natural resources could cooperate to lessen the rate of poverty in the countries of southern and western Africa (Tsaurai, 2018). He considered how countries that received FDI usually had an abundance of natural resources. The results of the analysis constantly show that there is a relationship between foreign direct investment and natural resources, which reduces the level of poverty in the African countries that are the subject of the study. Therefore, it is recommended that southern African nations adopt FDI-boosting measures that entice foreign investors to the natural resource extraction industry.

Empirical research results point to contradictory conclusions. Empirical studies on how FDI affects reducing poverty make it abundantly evident that these questions remain unresolved. Even Tambunan (2016) stated in his article that although foreign direct investment (FDI) does not provide a magic bullet for reducing poverty, it does have a favorable effect on developing nations. According to Mogambeyi (2017), there is no clear correlation relationship between poverty in the host countries and foreign direct investment (FDI) is contingent upon several factors, such as the country's policies and institutions, the kind of the investment, the regulatory framework, and the adaptability of the workforce.

2.4. The Relationship between Poverty, Economic Growth and Inequality

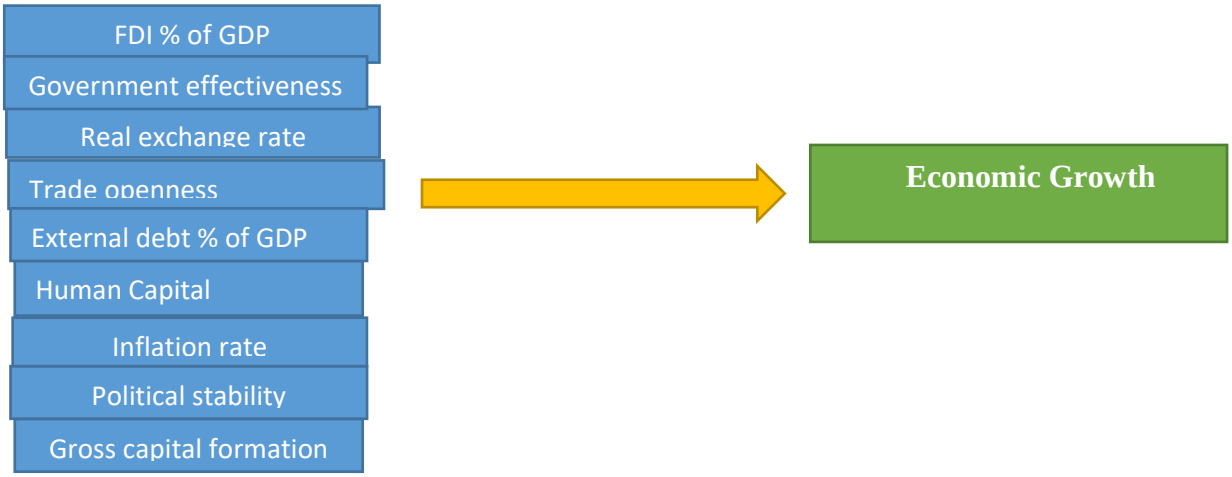
Globalization of the economy promotes national economic expansion and lowers poverty rates (Salvatore, 2004). As stated by (Škare & Romina, 2016), poverty and economic growth are not distinct entities. While poverty reduction has benefited from economic expansion, this is not a given. The decrease in poverty will be affected differently by the same growth of the economy in diverse countries. A nation with higher levels of inequality will see a slower drop in poverty with the same rate of economic growth as a nation with lower levels of inequality, Ravalion (2007). This implies that faster average income growth can accelerate the reduction of poverty in a nation.

(Guiga & Jaleleddine, 2012), asserts that there is a strong correlation between economic growth and poverty. Theoretical and empirical research on the relationship between growth and inequality suggests that one element reducing economic expansion's ability to combat poverty is inequality. According to (Chiara & Silvia, 2016), research; which is consistent with Guiga's findings, economic progress reduces poverty whereas excessive inequality raises the percentage of the impoverished. Second, in the early stages of development, poverty responds more strongly to economic progress.

2.5. Conceptual Frame Work

Upon examining the literature on theory and empirical research, I developed the conceptual framework for the research. The conceptual framework serves as a comprehensive overview of the study topic by providing an abstract representation of the subject. This section's goal is to provide a succinct overview of the literature mentioned above. Based on the previously mentioned theoretical literature and empirical research, foreign direct investment (FDI) has an impact on economic growth. This impact is contingent upon various factors, including trade openness, inflation, real effective exchange rate, GDP percentage of gross fixed capital formation, GDP percentage of external debt, effectiveness of government, and human capital. Furthermore, it is anticipated that these traits would either directly or indirectly affect economic growth.

Figure 2. 1 Conceptual framework of the study



CHAPTER THREE
OVERVIEW OF ETHIOPIA'S RECENT ECONOMIC GROWTH AND FDI PERFORMANCE

3.1. Overview of the Ethiopian Economy

In Ethiopia's 37.64% of GDP is generated by agricultural products, which dominate the country's economy. Approximately 80 percent of Ethiopians work in agriculture. The majorities of Ethiopians are dependent on rain-fed agriculture and lead subsistence lifestyles. The agricultural products are the goods that are exported the most. One agricultural product that generates foreign exchange is coffee (CSA, 2019). Two regimes were examined to assess the performance of FDI inflows into Ethiopia and economic growth. First, there are the years before 1991, which discouraged investment and used a command economic structure. The second stage began after 1991 when a market economic system completely replaced the command economic system.

3.2. Pre -1991 Period

During this time, the command system for economic management was implemented in 1974. Centralized policies, which inhibited the market economy and private property replaced the mostly liberal policies of the pre-1974 Imperial/feudal era. Significant policies that were implemented right away was the land reform initiative, which was started in 1975. The land became nationalized, and private land ownership ended. Large and medium-sized businesses were also nationalized. Additionally, the government nationalized insurance and banking firms before reorganizing them.

The pre-1991 era's economic performance was often divided into three stages. Because of the new policies that were forming and the nationalization measures implemented during the first phase of the government (1974–1978), the economy performed poorly. GDP grew by 0.3% on average annually, but per capita growth was negative. Furthermore, additional failures such as poor operation of state enterprises, inadequate use of agricultural technology, prejudice in government agencies and the proximity of the economy result in the program's detrimental contribution (Alemayehu & Degefe, 2005). During the second part of the administration, which lasted from 1978 to 1980, the economy began to revive and the growth rate increased to 4.6

percent. During this period, there was stability and favorable weather. The average yearly rate of increase in agricultural production was 3.6%. But the economy struggled once more during the third period, which ran from 1980 to 1985. The terrible drought that impacted practically the entire nation was the main cause of this. The economy remained in a state of stagnation after this time. In the end, the government developed a long-term plan called the Ten-Year Perspective Plan to address the core problems facing the country. The plan's goals were to increase the industry's GDP share, reduce the part of the country's GDP that comes from agriculture, increase foreign exchange profits, diversify the export sector, and attain 6.9 percent real GDP growth annually during the target period. Still, most of the objectives remained unfulfilled. GDP per capita growth was negative and remained at about 2% prior to 1991 (Geda, 2002).

FDI in particular, as well as the overall investment climate, were not encouraging during this time. Foreign private investment was strongly hindered by issues of political instability, insecurity, and nationalization of important enterprises. After realizing the value of foreign direct investment, the government made an effort to encourage it again with the Joint Venture Proclamation of 1983. Incentives included in the proclamation were tariff protection, repatriation of profits and capital, import and export duty relief, and five years of income tax relief. Nevertheless, the declaration was unable to draw in outside capital. The government amended the proclamation from 1983 to 1989, permitting foreign ownership of the majority in certain industries. It also made an effort to give investors additional security. Still, the protracted civil conflict and political unrest at the time deterred FDI even more. As a result of the increasing political unrest, the regime was overthrown in 1991.

3.3. The Post-1991 Period

The post-1991 period began with the rise to power of the TPLF/EPRDF in 1991 and the subsequent implementation of the WB/IMF-sponsored Structural Adjustment Program. Reducing macroeconomic imbalances, getting rid of structural distortions, building the nation's infrastructure and human capital, and reducing poverty are some of the new government's declared goals. Accelerate the nation's economic integration with the global economy in order to transform the previous command economic system into a free market economy, and promote

greater private sector involvement in the country's economic development, the government enacted several reform measures (MoFED, 2002).

The following are some of the particular actions done to encourage the export industry and private sector involvement:

- Devaluation of the national money
- The deregulation of foreign currency rates
- Eliminating all tariffs on exported commodities, except for coffee products.
- Tariff reductions for imports
- Providing enough incentives for the export industry
- Provision of adequate incentives, strengthening and enhancing institutional support for the export sector.

Growing the private sector's economic contribution is one of the government's main objectives, and the privatization program was started in 1994. The Ethiopian Privatization Agency (EPA) was founded gave it authority and responsibility to move state-owned businesses into private hands. Two hundred businesses have been sold by the government to both domestic and foreign investors thus far (OECD, 2008). The government's reform brought about several beneficial changes, including higher GDP per capita, faster economic growth, a drop in the inflation rate, and higher investment (MoFED, 2002).

Over the period of 1992–2001, the average rate of economic growth has increased to 5%. Additionally, from 21% in 1992 to less than 5% in 2001, GDP per individual has climbed by 2.4% yearly, and the rate of inflation has dropped. By 2000–01, investments accounted for sixteen percent of GDP (Geda A.& Degefe B., 2002). A little better than the 2.8% growth rate before to 1991, the overall GDP growth rate from 1991 to 2003 was 4.0%, according to Andrews et al. (2005).

The government's introduction of investment guarantee programs and incentives, along with the reforms, resulted in an increase in the percentage of inward foreign direct investment (FDI) in total investment from 0.04 percent in 1992 to 27 percent in 1997. The majority of the region's foreign direct investment investments after 1992 were made in the Middle East (UNCTAD,

2002). Between 1992 and 1998, Ethiopia received the second-highest amount of foreign direct investment (FDI) from the European Union.

The real GDP growth in 2022 was 5.3%, down from 5.6% in 2021, but still higher than the average for East Africa (4.7% in 2021 and 4.4% in 2022), according to UNCTAD's World Investment Report 2022 and African Economic Outlook 2023 Mobilizing Private Sector Financing for Climate and Green Growth in Africa. Growth was driven by the supply side—industry and services—and the demand side—private consumption and investment. Inflation rose from 26.6% in 2021 to 34% in 2022. Growth and inflation were badly damaged by the drought, domestic upheaval, and the effect of Russia's invasion of Ukraine on commodities prices. Due to weak tax performance and higher defense spending, the budget deficit grew to 4.2% of GDP in 2022 from 2.8% in 2021. State-owned banks dominate the banking sector, which remains stable despite conflict-related project delays that led to a 5.4% nonperforming loan ratio in 2021 beyond the allowed 5.0%. The reduction in the GDP deficit from 3.2% in 2021 to 4.0% in 2022 was ascribed to higher import expenses for commodities. International reserves decreased to about one month in 2022 from 2.2 months of import cover in 2021. Debt held by the public and publicly insured dropped from 51.0% of GDP in 2021 to 50.1% of GDP in 2022 (with external debt accounting for 23.6% of GDP). Ethiopia benefited in 2020–21 from the G20 Debt Service Suspension Initiative. Ethiopia applied for the G20 Common Framework for debt restructuring in 2021, and as a result, Fitch and S&P reduced Ethiopia's sovereign rating from B to CCC. The amount of people in need of humanitarian aid increased from 15.8 million in 2021 to 20 million in 2022 as a result of internal conflict and the drought, even if the GDP per person increased by 2.7% in 2022.

3.4. Regulatory, Trend, and institutional framework of FDI in Ethiopia

When market-oriented development efforts are implemented, the private sector's participation in the development process is encouraged. To encourage, promote, and boost private investment in the country, the Ethiopian government has laid out a number of initiatives for the development of the private sector. These initiatives seek to encourage the growth of private businesses and the more efficient use of the country's resources by establishing a stable and encouraging environment (MoFED, 2002). The curriculum highlights the critical role that competition plays

in enabling the country to achieve sustained economic growth. Among the important components mentioned as the cornerstone of competitiveness are a favorable investment climate emphasizing macroeconomic stability, reasonable laws and regulatory frameworks for the private investment sector, and strong institutions that supervise and maintain the system.

3.4.1. The FDI Regulatory Framework

Currently, the Ethiopian government is encouraging foreign direct investment to enter Ethiopia's approved sectors of the economy. With the exception of the investment area, which is only available to domestic and government investments, Proclamation No. 1180/2020 permits any investor to participate in any kind of investment activity. Foreign participation in investment may be made through locally formed businesses or the creation of branches within the current regulatory framework.

Sections designated for government, foreign, and domestic investors include the following businesses:

Areas that are allowed for government use include:

- Electricity supply and transmission, postal service, and aviation.

Areas that are open to domestic investors include:

- Export and import zones, hotel areas, construction companies (not grade 1 contractors), trade areas like wholesalers, retailers, and brokers, and road transportation

Foreign investment is allowed in the following sectors:

- Among these are the following: agriculture, industry (which includes the production of chemicals, beverages, metals and nonmetallic materials, and leather), tourism, health care, hotels, and mining (UNCTAD, 2004).

To promote investment, Proclamation No. 1180/2020 states Ethiopia's investment-declared legislation offers distinct benefits to both indigenous and foreign investors. This incentive's primary goal is to draw in both domestic and overseas investors. These incentives include a reduction in imported capital goods, tax holidays, and the elimination of import duties on all items except coffee that is exported.

3.4.2. The FDI Institutional Framework

The Ethiopian government established the Ethiopian Investment Authority (EIA) to promote, organize, and facilitate foreign investment in Ethiopia. Some of the responsibilities listed in the Investment Guide to Ethiopia (UNCTAD/ICC, 2000) for the EIA are as follows:

- Supplying foreign investors with all the information they need;
- Approving applications for foreign investments and granting investment permits;
- Offering services for the registration of recently established businesses;
- Authorizing expatriate positions in approved investments and granting work permits to foreign workers;
- Authorizing and registering technology transfer agreements between domestic companies and foreign technology providers; managing the execution of investment projects under license;
- issuing trade and operational licenses for foreign investments; and
- Enabling overseas investors to purchase land in accordance with relevant national and local government statutes and guidelines.

Financial institutions, in addition to government agencies such as the ministries of trade, finance, mining, tourism, foreign affairs, revenue, and customs authority, contributed to the attraction of foreign direct investment. Financial institutions like banks and insurance are expanding, hence this institution's expansion may aid in luring foreign direct investment. Nonetheless, there are still issues facing the financial sector, including inadequate service delivery and a lack of familiarity with emerging technologies (UNCTAD, 2002).

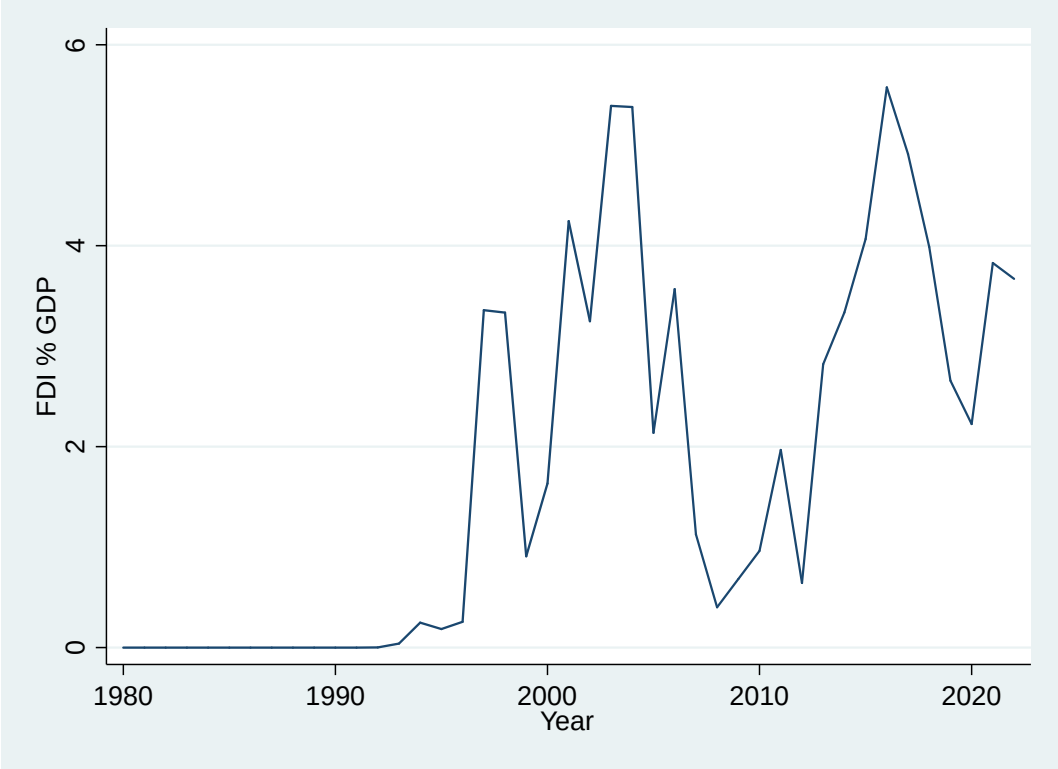
3.5. Tends of Foreign Direct Investment in Ethiopia

As previously stated, the Derg dictatorship replaces the liberal economic system, which encourages certain investments, with a command economy that restricts investment overall and foreign direct investment (FDI) inflows specifically. After the 1991 EPRDF, replace the command economy with a free market economy that prioritizes the private sector. In addition, the government offers incentives to foreign investors and employs a range of tactics to attract such capital.

According (UNCTAD, 2023), analysis shows that foreign direct investment (FDI) in the 32 landlocked developing countries (LLDCs) as a group rose by 6% to $20 billion in 2022. In that order, Kazakhstan, Ethiopia, Uzbekistan, Mongolia, and Uganda were the top five receivers. While flows to LLDCs in Latin America and the Caribbean decreased, they grew to LLDCs in Africa, Asia, and Europe.

Ethiopia's economy rose from its position of 14th in 2013 to the 8th largest beneficiary from foreign direct investment projects in Africa (EYA, 2015). Despite a drop in inflows, Ethiopia continued to be the second-largest beneficiary of LLDCs in Africa. Ethiopia received $3.7 billion from foreign direct investment (FDI) in 2022 a 14 per cent decline from 2021 according to (UNCTAD, 2023). The overall stock of FDI was USD 31.6 billion, or around 31.8% from GDP of nation.

Figure 3.1. Trends of foreign direct investment as a percentage of GDP



Source: Author based on data from the 2022 World Development Indicators.

According to (UNCTAD, 2022), the industries that receive the most foreign investment are manufacturing, mining, oil refining, real estate, and renewable energy. Additionally, the nation has capitalized on Bangladesh's textile industry's challenges to draw in multinational textile enterprises. China is biggest investors, contributing significantly to both manufacturing and services, and is responsible for 60% of all newly approved FDI projects. Turkey, Saudi Arabia, , and India are the other major investors. Investors may become discouraged in the short run due to political uncertainty, the ongoing war in the Tigray region (despite the deal ending hostilities signed in November 2022), and the slowness in debt restructuring negotiations. According to an FDI Intelligence report, Addis Ababa, came in second place globally after Beijing in terms of drawing foreign direct investment in the development of data centers. Furthermore, according to official government statistics, Ethiopia received USD 2.43 billion in foreign direct investment (FDI) in the first nine months of the fiscal year 2021–22 (July 21–June 22), an increase of 18.3% year over year.

CHAPTER FOUR

RESEARCH METHODS AND DATA COLLECTION

4.1. Data Type and Sources

All secondary data were used in the study. An attempt to collect data over a 43- year period on a crucial variables. The research covers the years 1992, when the new investment regulations were developed, through 2022, providing full yearly data for every variable. Several sources, including the World Development Indicators (WDI), the data for this study came from the African Development Bank Group (ADBG), the Ethiopian Investment Commission (EIC), and the National Bank of Ethiopia (NBE). These are secondary data that have links to past studies on economic growth, domestic and foreign direct investment.

4.2. Study Design and the data

Bound tests for co-integration and the error correction model were used to evaluate the statistical significance of the explanatory factors on FDI and estimate the model using time-series data. The study's time frame is 1980–2022. It is selected based on how easily accessible the data is. The real GDP growth rate, trade openness, real effective exchange rate, inflation, the ratio of gross fixed capital formation to GDP, external debt as a percentage of GDP, government efficacy, and human capital are among the variables that will be incorporated into the model used to conduct this study.

4.3. Model Specification

The Autoregressive Distributed Lag model is a popular econometric tool used to analyze the long-run relationship between variables. When it comes to modeling Foreign Direct Investment (FDI), the ARDL approach is often chosen for several reasons:

1. Co-integration: FDI and it conceivable that the determinants co-integrate, meaning they move together in the long term. The ARDL model allows for the inclusion of co-integrated variables, making it suitable for analyzing what the connection is between FDI and its determinants over time Pesaran and Shin's (2001, PSS (2001)).

2. Dynamic Relationship: FDI inflows are influenced by various factors that change over time. The ARDL model captures the dynamic nature of these relationships by including lagging values for the variables, allowing for a more accurate representation of how changes in the determinants affect FDI over time (Greene, 2008).

3. Error Correction Mechanism: The ARDL model includes an error correction term that captures the short-term adjustments towards the long-run equilibrium relationship between FDI and its determinants. This feature allows for the analysis of both short-term dynamics and long-term equilibrium relationships in the FDI model.

Additionally, the ARDL model can accommodate both I (0) and I (1) variables, making it a versatile tool for empirical research. Overall, the ARDL model provides a robust framework for analyzing how FDI and its determinants by accounting for co-integration, dynamics, endogeneity, and error correction mechanisms.

The model known as generalized ARDL (p, q) is defined as:

$$Y_t = \gamma_{0i} + \sum^{p}_{i=1}\delta_i Y_{t-i} + \sum^{q}_{i=0} \beta'_i X_{t-i} + \varepsilon_{it}$$

Where Y'_t is a vector and the variables in $(X't)'$ are allowed to be purely I (0) or I (1) or co-integrated; β and δ are coefficients; γ is the constant; i = 1, … , k; p, q are optimal lag orders; ε_{it} is vector of the error terms unobservable zero mean white noise vector process (serially uncorrelated or independent).

If no co-integration occurs, the ARDL (*p, q_1, q_2, q_3… q_9)* model is specified as:

$$\Delta lnY_t = \beta_0 + \sum^{p-1}_{i=11}\beta_{1i}\Delta lnY_{t-i} + \sum^{q-1}_{i=0}\beta_{2i}\Delta lnFDI_{t-i} + \sum^{q-1}_{i=0}\beta_{3i}\Delta lnINF_{t-i} + \sum^{q-1}_{i=0}\beta_{4i}\Delta lnPOLSTAB_{t-1} + \sum^{q-1}_{i=0}\beta_{5i}\Delta lnGOVEFFE_{t-i} + \sum^{q-1}_{i=0}\beta_{6i}\Delta lnRER_{t-i} + \sum^{q-1}_{i=0}\beta_{7i}\Delta lnOPNESS_{t-i} + \sum^{q-1}_{i=0}\beta_{8i}\Delta lnEXTDBTGDP_{t-I} + \sum^{q-1}_{i=0}\beta_{9i}\Delta lnHC_{t-i} + \sum^{q-1}_{i=0}\beta_{10i}\,\Delta GFCF_{t-i} + \varepsilon_t$$

If co-integration exists, the error correction model (ECM) representation is stated as:

$$\Delta lnY_t = \beta_0 + \sum^{p-1}_{i=11}\beta_{1i}\Delta lnY_{t-i} + \sum^{q-1}_{i=0}\beta_{2i}\Delta lnFDI_{t-i} + \sum^{q-1}_{i=0}\beta_{3i}\Delta lnINF_{t-i} + \sum^{q-1}_{i=0}\beta_{4i}\Delta lnPOLSTAB_{t-1} + \sum^{q-1}_{i=0}\beta_{5i}\Delta lnGOVEFFE_{t-i} + \sum^{q-1}_{i=0}\beta_{6i}\Delta lnRER_{t-i} + \sum^{q-1}_{i=0}\beta_{7i}\Delta lnOPNESS_{t-i} + \sum^{q-1}_{i=8}\beta_{8i}\Delta lnEXTDBTGDP_{t-I} + \sum^{q-1}_{i=0}\beta_{9i}\Delta lnHC_{t-i} + \sum^{q-1}_{i=0}\beta_{10i}\,\Delta lnGFCF_{t-i} + \gamma(ECM_{t-1}) + \varepsilon_t$$

Where:

- ECM_{t-1} represents error correction term, which captures the adjustment back to long-term equilibrium after a short-term deviation.
- $\gamma = 1 - \sum_{i=1}^{p} \delta_i$ speed of adjustment parameter with negative sign
- $\beta_{1i}, \beta_{2i}\ldots, \beta_{10i}$ are the short- run dynamic coefficients of the model's adjustment long-run equilibrium.
- ε_t is the error term.

4.4. Description of the Variables

The growth in national income, represented by RGDPG, is the dependent variable in the first model. In actuality, foreign investors are drawn to economies with stronger rates of economic growth when they are accompanied by dependable macroeconomic policies (Onyeiwu & Shrestha, 2004). For the first model, we also determined a number of variables to be independent variables. They define and anticipate the following signs:

Foreign direct investment (FDI): the net amount of foreign direct investment (FDI) divided by the recipient nation's GDP. It is the total of equity capital, earnings reinvestments, and additional long-term and short-term capital, such as the payments balance demonstrates. This series shows the net inflows of foreign capital into the reporting economy, calculated as new investment inflows less disinvestment. According to this report, foreign direct investment will contribute positively to Ethiopia's economic expansion.

Inflation rate (INF): is sometimes employed as a measure of macroeconomic volatility that may have a detrimental impact regarding foreign direct investment (Asiedu E, 2002). More FDI is drawn to economies that are more stable and exhibit lower levels of uncertainty (Elbadawi and Mwega, 1998). Consequently, this variable's predicted indication is negative.

Political stability (POLSTAB): Regular upheaval and political unrest, it is argued, "create an unfavorable business climate which seriously erodes the confidence of risk-averse foreign investors in the local investment climate and thereby repels FDI away." (1985, Schneider and Frey). I'll combine political stability with the World Bank's 2014b political risk assessment. The

nation with the lowest risk is given the highest rating in the ranking, which assesses each country's political and institutional standing.

Government Effectiveness (GOVEFFE): We incorporated an institutional quality index based on data on "government effectiveness" gathered by the (World Bank, 2014a) (World Bank, 2014b) to account for the influence of a host country's institutional quality on FDI information. This variable measures the legitimacy and capacity of the government to create and carry out sensible laws and rules that support the growth of the private sector. We contend that overbearing and ineffective bureaucracy discourages foreign direct investment (FDI) by driving up operating expenses and providing chances for corruption.

Real exchange rate (RER): The impact of exchange rate variations on foreign direct investment flows is not well understood. For instance, it was suggested by (Elbadawi and Mwega, 1998) that a real depreciation would boost FDI (foreign direct investment), which is a measure of a nation's international competitiveness. However, one could argue that a real depreciation lowers the foreign-currency value of profit repatriation and raises the cost of imported inputs, both of which are adverse to the viability of foreign direct investment (FDI) enterprises (Asiedu E, 2002). This effect will be more noticeable if FDI is invested solely to service the domestic market. However, the expected sign of the variable depends on the type and intention of FDI entering the region.

Trade Openness (OPNESS): a gauge of the significance of commerce for an economy, openness to international trade is one of the most important characteristics that promote foreign direct investment (FDI). For those foreign direct investors who are drawn to the host nation because of its potential export market, this stand-in is equally crucial. There is empirical evidence that FDI inflows are positively correlated with export levels. For instance, export-driven economies in Africa, such Egypt, Mauritius, Morocco, and Tunisia, have drawn significant FDI into their textile and clothing sectors (Ancharaz, 2003).

Ratio of External Debt to GDP (EXTDEBTGDP): indicates the extent of debt, which is viewed as a factor that adversely affects foreign direct investment (Nonnenberg and Mendonca, 2004). Furthermore, nations with high levels of debt carry greater transfer risks or the possibility

of future limitations on the capacity to transfer money across national borders. Increased transfer risks can lead to the outflow of foreign investment from a nation and the redirection of new investments to safer havens. The ratio of debt to GDP, which has a negative anticipated sign, is the measure of indebtedness.

Human Capital (HC): is the result of combining health, education, social welfare, and on-the-job training. Human capital is one factor that influences economic growth. Developed economies are also found in countries with top-notch medical and educational systems. What is the positive correlation human capital? The study will examine the GDP percentage allotted to health and education as a proxy for human capital. Human capital is expected to stimulate economic growth and attract more foreign direct investment.

Gross fixed capital formation (GFCF): used to be known as gross domestic investment. A "private investment" is the total amount of money that the private sector spends on enhancing its fixed domestic assets. Examples of these include new roads, railroads, buildings for schools, offices, hospitals, and commercial and industrial spaces, as well as land improvements like ditches, fences, and drains. It is stated as the portion of GDP allotted to investments made by the private sector. It is also expected that this component will have a favorable effect on the expansion of the local economy.

4.5. Data Processing and Analysis

4.5.1. Unit Root Test

Scholars generally agree that time series data for the majority of economic indicators are non-stationary. Regression of non-stationary variables, according to (Gujarati, 2004), produces false or inconsistent regression, which results in very high R^2 because of temporal trend and tiny Durbin Watson value, which may lead to erroneous statistical conclusions. An indication of spurious regression, which is often referred to as nonsensical regression, is when the Durbin-Watson statistics are exceeded by the R squared.

The first step in examining FDI drivers is to analyze the statistical properties of time series data. Specifically, integration order d, I (d), needs to be determined if differencing d times is needed to

become stationary. The Augmented Dickey-Fuller (ADF) test is employed in order to confirm the sequence of integration or to ascertain whether the variable is stationary at level or first difference.

4.5.2. Co-integration Test

Many different types of economic models may be made to work with the idea of co-integration. When non-stationary variables have an equilibrium connection, the variables do not move in tandem over the long term. The variables must be co-integrated due to the relationships between the stochastic trends. According to the traditional regression model, the independent and dependent variables should remain stable across time. However, the majority of economic indicators show long-term trend movement before becoming stagnant following a difference. When the variables show consistent upward or downward trends over time, using the standard regression procedures to the variable levels results in a misleading regression.

Nearly all macro variables show non-stationarity at the level but stationarity at the first difference, as the unit root empirical literature reveals. In order to address the non-stationary nature among the variables and ascertain whether a long-run equilibrium connection exists, the co-integration concept was utilized. This concept basically says that even while individual series (i.e., I (1) series) are non-stationary, a regression is not misleading assuming a linear combination of these I (1) series in the regression equation and it is stationary. In economic theory, a set of variables may be associated by the same theory. To find this connection in empirical research, co-integration analysis is a helpful method.

One of the main characteristics of co-integrating variables is that their temporal trajectories are influenced by the extent of any deviation from the long-run equilibrium. Additionally, if the variables are stationary at differences, the model can be estimated using the initial difference. However, as this only shows the short-term dynamics, crucial information regarding the long-term equilibrium may be overlooked. To find the relationship over the short and long times, one can apply a concept known as co-integration. Co-integration between the variables illustrates long-term relationships inside the system. Co-integration testing is typically required since

isolating the variables to obtain stationary leads to a model that is inaccurate in describing the long-term behavior of the variables.

As a result, tests for co-integration and long-term partnerships are equivalent (Gujarati D. N., 1995). The connection between the long- and short-term variables may be examined using a variety of techniques, including those developed by (Johansen, 1991). I (1) variables must be the variables being studied to use this strategy. Within this research, the bound test, which was developed by Pesaran and Shin (1999), is applied for a co-integration strategy. Consequently, the bound test for co-integration is recommended above the others due to its advantages, which are as follows:

The pre-test of the variables for the stationary test or the unit root test is not necessary because the bound test for co-integration applies to the variables I (0) and I (1). A system may not be suitable for the standard Engle-Granger two-step co-integration test if any of its variables are integrated of order I (2). When evaluating integrated variables of order I (1), the Engle-Granger test is commonly employed. Other techniques appropriate for higher degrees of integration can still be employed to check for co-integration when working with I (2) variables. The Johansen co-integration test, which is intended to handle situations when the variables are integrated of order 1 or higher, is one popular method. You can use the Johansen test to determine whether a set of variables, including those that are I (2), have numerous co-integrating relationships. Compared to the Engle-Granger test, this one is more adaptable, reliable, and capable of handling various integration orders.

Under the framework of error correction Model (ECM), if you have variables that are I (2), you may need to modify the model accordingly to account for the higher order of integration. This could involve adjusting the differencing terms or incorporating additional lagged differences to ensure that the model is properly specified. Overall, when working with variables of different orders of integration, it is important to choose appropriate co-integration tests and modeling techniques that are suitable for the specific characteristics of the data, such as the Johansen test for I(2) variables.

The bound test for co-integration allows both variables that are independent and dependent to enter the model with their delays, as opposed to the Co-integration test Johansen, which assumes the same order of integration and identical lags for all variables. Another advantage of the bound test for co-integration is that it performs better with lower sample sizes.

4.5.2.1. Short Run Error Correction Mechanism

How the growth of the repair of errors model comes next, following the evolution of the bound test for co-integration. The study will discuss how the co-integration test determines the long-term link between the variables of interest. However, dynamic modeling can represent the short-run behavior of economic factors. The Error Correction Model (ECM) is a family of models that have been designed to express the idea of correction. A model for error correction depicts both dynamic and long-term interaction of the variables may be created in the event that there long-term link between the variables. In the preceding section, attempt is made to demonstrate that two non-stationary variables with stationary linear combinations are co-integrated and that their connection characterized as ECM using the Granger representation theorem (Gujarati, 2004). The presence of an error-correcting representation is known as co-integration. In other words, the event that is divergence from the equilibrium point, the long-run route will be resumed.

The representation of ECM follows:

$$\Delta \ln Y_t = \beta_0 + \sum^{p-1}_{i=1}\beta_{1i}\Delta \ln Y_{t-i} + \sum^{q-1}_{i=0}\beta_{2i}\Delta \ln FDI_{t-i} + \sum^{q-1}_{i=0}\beta_{3i}\Delta \ln INF_{t-i} + \sum^{q-1}_{i=0}\beta_{4i}\Delta \ln POLSTAB_{t-1} + \sum^{q-1}_{i=0}\beta_{5i}\Delta \ln GOVEFFE_{t-i} + \sum^{q-1}_{i=0}\beta_{6i}\Delta \ln RER_{t-i} + \sum^{q-1}_{i=0}\beta_{7i}\Delta \ln OPNESS_{t-i} + \sum^{q-1}_{i=0}\beta_{8i}\Delta \ln EXTDBTGDP_{t-I} + \sum^{q-1}_{i=0}\beta_{9i}\Delta \ln HC_{t-i} + \sum^{q-1}_{i=0}\beta_{10i}\Delta \ln GFCF_{t-i} + \gamma(ECM_{t-1}) + \varepsilon_t$$

Where:

- ECM_{t-1} represents the phrase for error correction, which captures the adjustment back to long-term equilibrium after a short-term deviation.
- $\beta_{1i,}$ β_{2i}…, β_{10i} are the short- run dynamic coefficients of the model's adjustment long-run equilibrium.
- ε_t is the error term.

4.5.2.2. Diagnostic Test

Diagnostic tests are typically run after estimating the model. Once the model has been estimated, diagnostic tests are used to assess the standard of the model and to check if the assumptions of

the model are met. This helps to ensure the model is valid and reliable for making predictions or inferences. These tests include the Jarque-Bera test to determine residual normality, the Breusch-Pagan-Godfrey test for residual heteroscedasticity, serial correlation, multicollinearity, and functional form tests for the stability of the model.

4.5.2.3. Autocorrelation

A correlation between series in time series data is referred to as autocorrelation. A time series problem is a serial correlation. When mistake words correlate with one another at various times, it occurs. According to Gandhi (2004), traditional linear regression models presuppose that there is no autocorrelation of any kind among the disturbance terms. One can state that the absence of autocorrelation of the error term of the assumption of the traditional linear regression model is not satisfied and if the error term at one time is associated with the error term at another.

4.5.2.4. Heteroscedasticity

The error term is referred to as heteroscedasticity if the variance of the error term is not constant over time or over individuals in the case of cross section observation. One can state that an error term has a heteroscedasticity problem if its distribution is not the same for every observations or if the homoscedasticity notion that the traditional linear regression model is broken.

4.5.2.5. Multicollinearity

This phenomenon, known as multicollinearity, occurs when the explanatory variables have a considerable degree of correlation with one another. Due to this, it is challenging to identify the distinct impacts that every explanatory variable has on the dependent variable (Maddala, 1984). To determine whether or not the explanatory variables are collinear, the research will make advantage of the variance-inflation factor or VIF.

4.5.2.6. Normality

The disturbance terms in a conventional linear regression model are assumed to be normaly distributed. The Jarque Bera test will use in the study to determine if the data series are normally distributed or not.

4.5.2.7. Stability Test

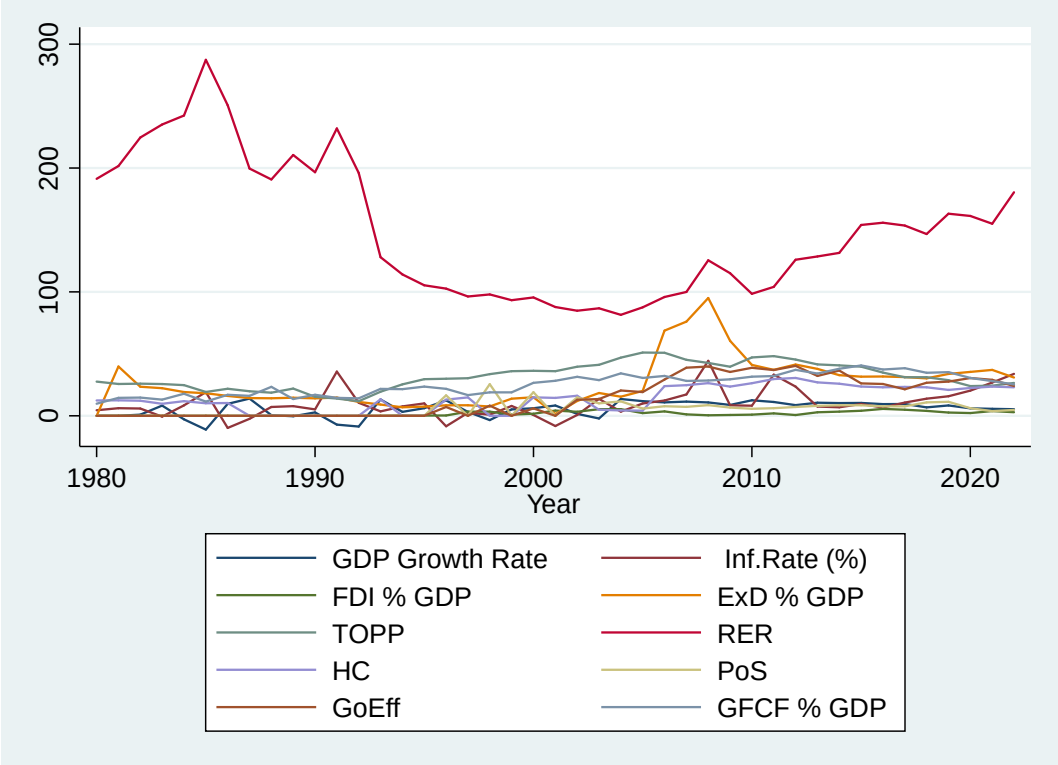
Before doing additional analysis, it is crucial to assess the model's stability since it affects the reliability of the results. The model's stability can be confirmed using the cumulative sum of recursive residuals and the cumulative sum of squares of recursive residuals. It will reject the theory that the model is correctly specified and come to the conclusion that the model does not meet the stability criterion if neither the cumulative total of recursive residuals nor the cumulative sum of squared recursive residuals fall inside the confidence intervals, and vice versa.

CHAPTER FIVE
RESULTS AND DISCUSSION

5.1. Unit root test/stationary test of the variables

This study conducted several diagnostic checks on every variable before executing the actual model. In particular, the stationarity of each variable was checked in this section, and the unit root test was carried out using the graphical test and the Augmented Dickey Fuller test. The bulk of time series data have unit root issues, which makes regression findings from them inaccurate. Checking if the series follows the stationary series method is very important. Since the non-stationary series estimation results provide us what is known as phony or spurious regression.

Figure 5.1. Graphical figure: graph for level series



Source: Own computation using STATA 15.0

Figure 5.2: Graph first differenced series

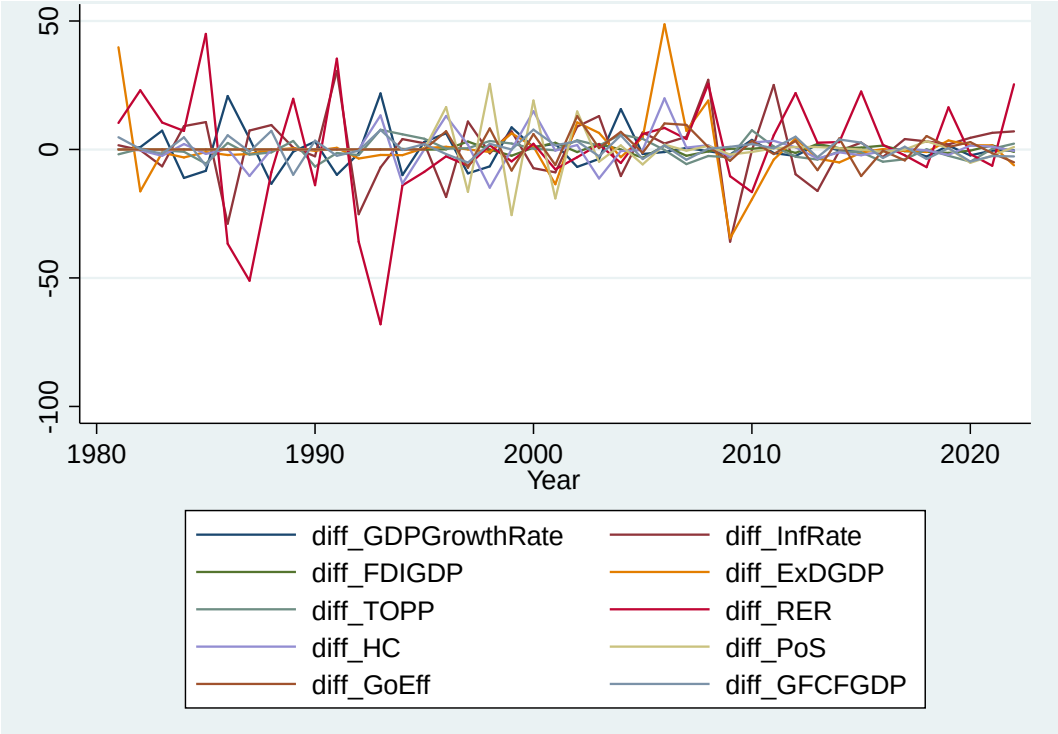


Table 5. 1: Augmented Dickey-Fuller test

At level		
Variables	**With Constant**	**With Constant and trend**
	t-statistic and prob.	Statistic and Prob.
GDPGrowthRate	-4.545 (0.0002)	-5.380 (0.0000)
InfRate	-4.143 (0.0008)	-4.895 (0.0003)
FDIGDP	-2.334 (0.1612)	-3.186 (0.0872)
ExDGDP	-2.363 (0.1524)	-2.428 (0.3648)
TOPP	-1.036 (0.7398)	-0.738 (0.9705)
RER	-1.285 (0.6362)	-0.901 (0.9560)
HC	-1.965 (0.3023)	-3.219 (0.0808)
PoS	-6.069 (0.0000)	-7.901 (0.0000)
GoEff	-1.169 (0.6867)	-1.777 (0.7156)
GFCFGDP	-2.065 (0.2590)	-2.540 (0.3081)
At first difference		
Variables	**With Constant**	**With Constant and trend**
	t-statistic	t-statistic
diff_FDIGDP	-5.683 (0.0000)	-5.613 (0.0000)
diff_ExDGDP	-4.048 (0.0012)	-3.990 (0.0091)
diff_TOPP	-3.804 (0.0000)	-3.829 (0.0151)
diff_ RER	-4.933 (0.0000)	-5.206 (0.0001)
diff_HC	-6.457 (0.0000)	-6.409 (0.0000)
diff_GoEff	-2.910 (0.0000)	-9.318 (0.0000)
diff_GFCFGDP	-3.873 (0.0022)	-3.973 (0.0096)

The value in bracket is *MacKinnon (1996) one-sided p-values.

Source: own computation using STATA 15

With the exception of real GDP growth rate, inflation rate, and political stability, all variables are stationary at first difference but not at level, according to the previously cited results of the Augmented Dickey Fuller test.

Because of this, when series of various orders are integrated, the ARDL bound test should be utilized for co-integration rather than the Johansen Co-integration approach (Pesaran, M. H., Shin, Y., & Smith, R. J, 2001). Variables have different orders of integration, as seen by the fact that some are I(0) and others are I(1).

5.2. Co-integration test

5.2.1. Optimal Lag Length Selection Criteria

The first step in the model selection and co-integration analysis procedure is to determine the model's appropriate lag length because the lag length affects all of the model's conclusions. The best lag order for the model is ascertained by the study using the Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), and Hannan Quinn Information Criterion (HQ). According to these parameters, four seems to be the ideal lag for this investigation, with a minimum value that is frequently used in investigations of this kind. AIC is preferable at the 5% level of significance. As table 5.2 below illustrates, I also used AIC as the optimal lag point for selection criterion.

Table 5.2: optimal lag length selection order criteria

Lag	LL	LR	FPE	AIC	SC	HQ
0	-836.448	NA	2.3e+11	43.2025	43.4584	43.2943
1	-706.45	260	1.9e+09	38.382	40.1736*	39.0248
2	-660.848	91.203	1.3e+09	38.8897	41.2168	39.0834
3	-609.141	103.41	8.8e+08	37.0842	41.9469	38.8289
4	-540.402	137.48*	4.0e+08*	35.4052*	41.8035	37.7009*

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

5.2.2. Bound test for Co-integration

To create a long-term relationship, a co-integration test must be conducted after the stationary test and the series are integrated of various orders, which is a mixture of both level I(0) and first difference I(1). However, the bound test put out by Pesaran, Shin, and Smith (2001) is the proper co-integration test in this situation Johansen co-integration test is no valid. Finding a long-term link between the variables is the first stage in the ARDL approach. The F-statistic is taken into consideration while performing a bound test for co-integration.

The following is the hypothesis:

H_o: No co-integration

H_1: There is co-integration

Bound test decision criteria: co-integration, or the presence of a long-term relationship, is determined if the computed F-statistic is larger than the critical value for the upper bound I (1). i.e., identify both the short-run (ARDL) and error correction models and reject the null hypothesis. We conclude that there is no co-integration and, therefore, no long-run relationship if the calculated F-statistic is less than the critical value for the lower bound I (0). In other words, we should not reject the null hypothesis and instead estimate the short-run model, which in this case is the autoregressive distributed lag (ARDL) model in first differences. In conclusion, if the F-statistic is situated between I(0), the lower bound, and I(1), the upper bound. The test yields inconclusive results.

Table 5.3: Bound test for co-integration

ARDL Bounds Test		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	K
F-statistic	6.355	6
Critical Value Bounds		
Significance	I_0 Bound	I_1 Bound
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

Source: Own computation using STATA 15.0

Given the upper bound F-test statistic, the computed F-statistic is 6.355. At the 1% significance level, 4.43 is the upper bound test's crucial value. The short-run (ARDL)/error correction can

then be estimated when it is determined that co-integration, or a long-run relationship, exists, and the null hypothesis is rejected. It suggests co-integration of FDI with additional variables that explain the data. It follows that the variables have a long-run relationship.

5.3. Diagnostic Tests

5.3.1 Serial Correlation

The correlation between a regression model's error terms is referred to as serial correlation, or autocorrelation. One of the tenets of classical linear regression analysis—that the errors are independent of one another—is broken when serial correlation is present.

Because it can result in skewed and ineffective estimations of the regression coefficients, testing for serial correlation is crucial. When there is a correlation between error terms at various times, it occurs. For any i, j, one of the assumptions of the classical linear regression models is cov (ui, uj) = zero. The presence of correlation between error terms violate this assumption. The Breusch-Godfrey test was employed in this study to determine whether or not the errors term was correlated (Gujarati, 2003).

The hypothesis developed is as follows:

H_0: No serial correlation among error terms

H_1: Serial correlation among error terms

We are unable to reject the null hypothesis that there is no serial correlation among the error terms if the p-value is higher than the 5% significance level.

Table 5.4: Breusch-Godfrey Serial Correlation Test

Tests	Values	Probability	Decisions
Test of Autocorrelation lags 1 and 2	2.766 15.04259	0.0963 0.9404	Do not reject H0

Source: Own computation using STATA 15.0

There isn't a residual autocorrelation issue, according to the residual autocorrelation test findings in the above table. Based on calculated residuals autocorrelation p-values, which are more than 5% level of significance, we are unable to reject the null hypothesis that there is no residual autocorrelation.

5.3.2 Heteroscedasticity test

Term errors are considered to have equal/constant variance over all time periods in the classical linear regression model. An error term presents a heteroscedasticity problem if its variance is not equal. In order to ascertain if error terms exhibit continuous variance, the Breusch-Pagan test was utilized in the investigation. The following is the theory that was developed:

H0: There exist homoscedastic residuals

H1: Heteroscedastic residuals

The null hypothesis, which states that the residuals are homoscedastic, is accepted and the alternative hypothesis, which states that the residuals are heteroscedastic, is rejected when the p-value is greater than 5%.

Table 5. 5: Heteroscedasticity Test using Breusch-Pagan-Godfrey

Tests	Values	Probability	Decisions
Heteroscedasticity	1.13	0.2874	Do not reject H0

Source: Own computation using STATA 15.0

The preceding table's result attests to the absence of any residual heteroscedasticity issues. The computed p-values, which equal 28.74% at the 5% level of significance, show that the null hypothesis—that the residuals are homoscedastic—cannot be rejected. Heteroscedasticity is therefore not an issue.

5.3.3 Test for Multicollinearity

Imperfect multicollinearity of independent variables is a key tenet of multiple regression models. For regressors, a linear function of one another is inappropriate. There is a chance that multicollinearity will raise standard errors. To avoid a division by zero in the time series technique, the variable with the highest VIF will be removed (Stock, J. H., & W Watson, M, 2003). The Variance Inflation Factor (VIF) was utilized in the study to detect multicollinearity. The greater the mean value of VIF, the greater the degree of multicollinearity. If the mean VIF is greater than 10, the variable is very collinear.

Table 5. 6: Multicollinearity Test

Variable	VIF	1/VIF
TOPP	3.68	0.272059
InfRate	1.56	0.641440
ExDGDP	2.94	0.339763

RER	2.80	0.356758
HC	2.32	0.431120
FDIGDP	1.74	0.574694
PoS	1.63	0.613689
Mean VIF	2.38	

Source: own computation using STATA 15.0

The mean value of the VIF 2.38 indicates that there is no multicollinearity among the variables, as can be observed in the above table. We would consider there to be a multicollinearity problem if the Mean of the VIF value was more than 10. But the difference is much smaller than 10, suggesting that multicollinearity is not an issue for this estimate.

5.3.4 Normality test

A statistical test called a "normality test" is used to ascertain whether a given data set has a bell-shaped distribution, or normal distribution. When doing a normality test, the null hypothesis states that the sample data originates from a population with a normal distribution. Put another way, if the normality test's p-value is higher than a predetermined significance level (such as 0.05), we are unable to reject the null hypothesis and come to the conclusion that the data is normally distributed. On the other hand, we reject the null hypothesis and come to the conclusion that the data are not normally distributed if the p-value is smaller than the significance level.

The breach of the normalcy assumption is not a significant issue, in contrast to the examples of serial correlation and heteroscedasticity. The Jarque-Bera test was utilized in the study to confirm the normality of the error term.

The following is how a hypothesis is developed:

H_o: Error terms are normally distributed

H_1: Error terms are not normally distributed

Decision rule: We are unable to reject the null hypothesis that the error terms are normally distributed if the calculated P-value is higher than the 5% level of significance.

Table: 5.7 Normality test using Jarque-Bera Test

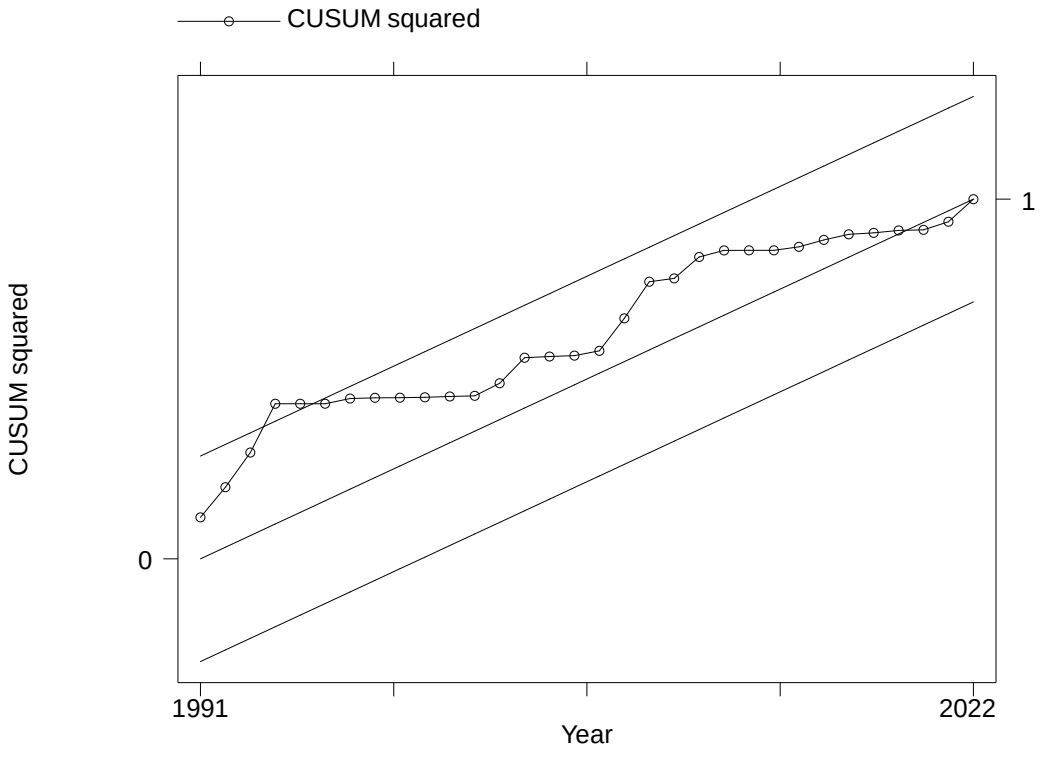
Skewness/Kurtosis tests for Normality						
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj	chi2(2)	Prob>chi2
Residuals	43	0.6095	0.8702		0.29	0.8660
Jarque-Bera normality test: 0.2588 Chi (2) 0.8786						
Jarque-Bera test for Ho: normality:						

Because the computed p-value is higher than the at the 5% significance level, the outcome in the above table demonstrates the residuals are regularly distributed and satisfy the normality assumption. Therefore, the null hypothesis that the error terms have a normal distribution is not refuted by the results.

5.3.5 Stability test

As this affects the validity of the result, it is imperative to confirm the stability of the model's estimated parameters before performing further analysis. A graph plot of Cumulative Sum (CUSUM) and Cumulative Sum Square (CUSUMSQ) within 5% confidence intervals was used in the study to test the stability of the model. If the Cumulative Sum (CUSUM) and Cumulative Sum Square (CUSUMSQ) remain inside the confidence bound, we cannot rule out the null hypothesis that the model was appropriately defined. In contrast, we reject the null hypothesis that the model was incorrectly stated and conclude that the model does not satisfy the stability condition if the CUSUM and CUSUM deviate from the bounds.

Figure 5.3. Cumulative sum (CUSUM) graph at 5% significance level



In the aforementioned graph, the cumulative sum squares, almost all dot is inside the limit of the 5% confidence bound. Given that the cumulative sum of squares plots stayed inside the 5% confidence bound, indicating the model's stability.

5.3.5 Ramsey RESSET Test

Regression specification error test is represented by the Ramsey RESSET test. The functional form of the model is tested using the Ramsey RESSET test. If the calculated p-value is more than 5%, the model is free of specification mistakes. A diagnostic technique for identifying functional form misspecification in regression models is the Ramsey RESET test, often called the Ramsey Regression Equation Specification Error technique. Using powers of the fitted GDP Growth Rate values, perform the Ramsey RESET test as repressors in the auxiliary regression, where Ho: the model is correctly specified, resulted in

F(3, 33) = 2.38

Prob > F = 0.0875

The aforementioned result showed that the estimated p-value of 8.75% is higher than the significance level of 5%, which means that the model's null hypothesis is correctly defined is not rejected. As such, there are no model specification flaws within the model.

5.4. Long Run of Model Estimation using ARDL Approach (2 0 2 2 1 1 0 3 1)

Table 5.7 Long Run of Model Estimation

Long Run Coefficients Target variable GDP Growth Rate					
	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]
FDIGDP	-0.127	0.473	-0.27	0.792	-1.148 0.894
InfRate	-0.246	0.111	-2.23	0.044	-0.485 -0.008
ExDGDP	0.157	0.054	2.91	0.012	0.040 0.273
TOPP	-0.086	0.105	-0.82	0.429	-0.312 0.141
RER	-0.076	0.024	-3.14	0.008	-0.127 -0.024
HC	0.415	0.116	3.57	0.003	0.164 0.667
PoS	-0.524	0.256	-2.05	0.061	-1.077 0.029
GFCFGDP	0.348	0.144	2.242	0.026	0.047 0.649
Constant	-4.266	10.917	-0.39	0.700	-27.11606 18.58463

Source: author computation using STATA 15.0

The long-term result above showed that every variable has a substantial impact affects Ethiopia's economic growth, with the exception of trade liberalization and foreign direct investment, which

have negligible effects. Over time, Ethiopia's economic growth is positively impacted by external debt and human capital, while negative effects are caused through foreign direct investment, inflation, trade openness, real effective exchange rate, and political instability. Ethiopia's economic growth rate is greatly influenced by factors such as inflation, political unpredictability, real effective exchange rate, human capital, and external debt; trade openness and foreign direct investment, on the other hand, have little bearing on Ethiopia's economic growth. The following is the long-term model written:

$GDPGrowth\ Rate_t = -4.266 - 0.127FDIGDP_t - 0.246InfRate_t + 0.157ExDGDP_t - 0.0855442TOPP_t - 0.076RER_t + 0.415HC_t - 0.524PoS_t + 0.348\ GFCFGDP_t$

It is discovered that FDI has negative insignificant effect in the long-term on economic growth. This could be due to crowding out effect of local investment, repatriation of profit which can limit the net benefits to the host economy. This outflow of profits can diminish the positive impacts of FDI on local increase of the economy. This discovery aligns with the outcome of (Abadi, 2011), (Agarwal, 2017) and (Alege, 2013) who discovered foreign direct investment had a negative or negligible impact. At worst, FDI can also obstruct economic growth by driving away local startups, worsening the balance payment, misusing local resources, sending profits home, raising the possibility of political unrest, and giving some public officials a platform for corruption. Muchiri (2019) also found that foreign direct investment (FDI) has little effect on economic growth in Africa. She argued that when it comes to economic sectors like mining, information and communications technology, and certain manufacturing that don't require a lot of labor or capital, foreign direct investment easily becomes foreign direct exploitation. Zhang (2001), for a country to benefit from FDI, there might need to be a minimum requirement level of human capital. Additionally, he made the case that Foreign Direct Investment and Human Resources have a noteworthy effect on economic expansion. An ability to absorb information and managerial skill may reveal how FDI affects economic growth differently in different nations.

Inflation is one indicator of macroeconomic stability. It is expected to be significant and have a negative sign at the 1% level of significance. Ethiopia's economic growth rate decreases by 0.25 percent for every one percent increase in inflation. This finding implies that macroeconomic

stability is the main factor influencing foreign direct investment inflows into Ethiopia. According to Abraham (2014), Hirut and Getinet (2006), Nadu (2009), and Balasublamanyam (2001), the study's findings are consistent.

A technique for gauging the availability of a sufficiently skilled labor force is human capital. The coefficient that shows the rate of labor force growth is significant and has the expected positive sign at the 1% level of significance. When all other factors stay the same, a one percent rise in the labor force growth rate results in a 0.42 percent growth of foreign direct investment in the Ethiopia. A greater labor force results in a lower labor cost, which implies that a greater labor force lowers operating expenses, which boosts economic growth. The outcome also agrees with the conclusions of Lewis (1999) and Nunnenkamp (2000). The management expertise and ability to absorb information may reveal how the benefits impact of foreign direct investment on GDP expansion differ throughout nations.

Real effective exchange rate: a measurement of macroeconomic stability that represents the nominal effective exchange rate of a nation while accounting for the rate of inflation in the country of origin. The real effective exchange rate coefficient is important and exhibits a negative sign at the 1% significance level. An actual effective exchange rate decrease of one percent would lead to a 0.0755 percent decline in GDP growth. The depreciation of the local currency is indicated by an increase in the real effective exchange rate, which encourages foreign direct investment into the country. The findings of Djulius (2007), Buch, C. M., & Kleinert, J. (2008), and Friedin (2018) are also supported by the study.

Additionally, there have been consistent negative relationships between the GDP and the exchange rate throughout time. Olofsson (2019) asserts that the currency rate as well as economic growth are causally related in both directions. On the other hand, it is contended that fluctuations in exchange rates have a statistically adverse effect on economic expansion through a number of channels, such as the erection of trade restrictions and the generation of investment uncertainty. This result is also consistent with the unstable macroeconomic environment that Agidew (2014) describes, where high levels of foreign debt and exchange rate swings negatively affect domestic private investment performance and impede economic growth in that sector.

This finding is also in line with a study conducted in Turkey (Karahan, 2020) on the relationship between local currency devaluation and economic growth, which concluded that neither currency depreciation nor exchange rate increases are valued or result in increased economic growth. Considering that the nation's production system depends on imported products or inputs.

The political stability of Ethiopia is evident when we look for additional factors that might clarify how FDI and economic growth are related. In summary, political instability can create an environment of uncertainty and risk that hampers economic growth by reducing investment, disrupting economic activities, and impeding policy implementation and infrastructure development. Addressing political instability is crucial for creating conducive environment for sustained economic growth in Ethiopia. Among them, which is behind? According to Old (2015), nations with stable political systems stand to gain more from foreign direct investment (FDI) in terms of economic growth. In order for FDI to contribute positively to economic growth in Mauritania, the researcher highlights the importance of political stability, strong public institutions, and limited government involvement in business. Foreign direct investment (FDI) boosts economic growth in most Asian, Latin American, and African countries (Elboiashi, 2015). However, the extent of this impact varies depending on the conditions of the host nation and is thought to be influenced by institutional quality, domestic investment performance, the financial market, and infrastructure development.

External debt provides necessary capital for investment in infrastructure, education, and technology. When countries borrow from foreign lenders, they can fund projects that stimulate economic activity and create jobs, leading to higher growth rates (Cohen, D. 1993). (World Bank. 2016) discusses financing for development and the role of external debt in achieving growth and development goals.

5.5. Error correction result model ARDL Approach (2 0 2 2 1 1 0 3 1)

Table 5.8: Error correction result model

Dependent variable: GDP Growth Rate

Error correction model					
Variable	Coef.	Std. Err.	t	P>|t|	[95% Conf. Interval]
GDP Growth Rate					

LD.	0.365	0.193	1.90	0.073	-0.038 0.768
Inf. Rate					
D1.	0.006	0.170	0.03	0.973	-0.035 0.362
LD.	-0.042	0.124	-0.34	0.739	-0.303 0.218
ExD. GDP					
D1.	0.006	0.094	0.06	0.952	-0.190 0.202
LD.	-0.017	0.102	-0.16	0.872	-0.229 0.196
TOPP					
D1.	0.251	0.349	0.72	0.481	-0.479 0.981
RER					
D1.	-0.020	0.734	-0.28	0.786	-0.174 0.133
PoS					
D1.	0.210	0.351	0.60	0.557	-0.525 0.946
LD.	0.244	0.315	0.78	0.447	-0.414 0.903
L2D.	0.793	0.201	0.39	0.698	-0.342 0.501
GFCFGDP					
D1.	-0.201	0.267	-0.75	0.160	-0.760 0.357
Error Correction Term	-0.793	0.385	-2.06	0.051	-1.591 0.006

Source: Own computation using STATA 15.0

The result in table 5.8 above indicates the short-run and the error correction terms for the integration. This describes and aids in quantifying the short-term adjustment of the independent variables' long-term deviation from their values. Thus, the Error Correction model's result indicates how quickly the equilibrium is being adjusted. The estimated coefficient on the Error Correction term, or the rate of adjustment, should ideally have a negative sign and lie between zero and one. According to Benejee et al. (2003), the error correction term is highly significant and suggests the existence of a stable long-term relationship.

Therefore, we can interpret the speed of adjustment coefficient as follows: The negative sign of the coefficient suggests that when there is a deviation from the long-term equilibrium level of economic growth, the economy tends to adjust back towards that equilibrium in the opposite direction. In other words, if economic growth is above its long-term trend, it will tend to decrease, and if it is below trend, it will tend to increase. The magnitude of the coefficient (-0.793) indicates the rate of modification. This speed of adjustment i.e. 0.793 suggests a relatively quick adjustment process, meaning that approximately 79.30% of the deviation from equilibrium is corrected in 1 years and the remaining 20.73% will be adjusted in the upcoming two years.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

This research looks at the short- and long-term consequences of foreign direct investment on Ethiopian economic growth time series data utilization spanning from 1980 to 2022. I examined the theoretical and empirical justifications for FDI's impact in Ethiopia as well as industrialized and developing nations. The variables are I(0) and I(1), indicating a different order of integration across variables, requiring the use of the ARDL bound test for co-integration. Stationary testing was performed using the ADF test prior to estimation. The study's conclusions demonstrate a long-term relationship between factors including trade openness, inflation, political stability, human capital, foreign debt, and the real effective exchange rate and FDI's effect on Ethiopia's economic development.

The study's empirical research indicates that, in the long run, Ethiopia's economic growth is positively impacted by trade openness, external debt, and human capital; in contrast, inflation, political unrest, and the real effective exchange rate have negative effects that are statistically significant at the five percent significance level. Furthermore, external debt and human capital have a positive and statistically significant influence on economic growth at 5%, whereas foreign direct investment (FDI) has a long-term negative impact on growth that is not statistically significant.

The real effective exchange rate, inflation, external debt, and foreign direct investment all have short-term negative effects on Ethiopia's economic growth, however these effects are not statistically significant. Furthermore, trade openness increases economic growth, however this relationship is not statistically significant at the 5 or 10% significance levels. In addition, 79.27% of the equilibrium deviation is corrected in a year, and the remaining 20.73% is corrected in the next two years.

6.2. Policy implication

The researcher suggests the following implications for policy:

- The impact of foreign direct investment is negligible and negative effect on Ethiopia's economic growth indicate that limited absorptive capacity, sectoral limitation and political instability that is Ethiopia may have limited capacity to effectively absorb and utilize foreign direct investment due to factors such as inadequate infrastructure, a lack of skilled labor, and weak institutional frameworks. Even, Sectoral limitations is heavily reliant on agriculture, with limited diversification into other sectors. This can limit the potential for FDI to drive economic growth, as there may be fewer opportunities for foreign investors to contribute to the development of non-agricultural industries. In addition, Political instability and security concern may face political instability and security concerns that can deter foreign investors from committing significant capital for long-term investments. This can limit the potential FDI's effects on economic growth.

- The inflation rate's negative coefficient and significance draw attention to the need for macroeconomic stability as well as a supportive policy environment that boosts the nation's economy and inspires investor confidence. Therefore, in order to avoid inflation, the government must adopt a strong monetary and fiscal policy stance. This is because high inflation diminishes business benefits, which in turn lowers the nation's total economic development.

6.3. Future research recommendations

Recommendations for future research on the impact of Foreign Direct Investment (FDI) on Economic Growth, specifically keeping in mind the context of Addis Ababa, Ethiopia. Here are some potential avenues for future research, categorized for clarity:

Sectoral Analysis: Investigate the differential impact of FDI on economic growth across various sectors in Ethiopia (e.g., manufacturing, agriculture, services, and technology). This could identify which types of FDI are most beneficial for specific industries and the overall economy.

Regional Disparities: Analyze whether the impact of FDI on economic growth varies across different regions within Ethiopia. Consider factors like infrastructure development, local institutional quality, and human capital in these regions.

Spillover Effects: Examine the extent and mechanisms of technology transfer, knowledge spillovers, and skill development from FDI to domestic firms and the local workforce in Ethiopia. Research could explore the role of backward and forward linkages.

Impact on SMEs: Investigate how FDI affects the growth and productivity of Small and Medium-sized Enterprises (SMEs) in Ethiopia. Does FDI create opportunities or competition that hinders their development?

Sustainability and Environmental Impact: Analyze the environmental consequences of FDI in Ethiopia. Does it lead to the adoption of greener technologies or exacerbate environmental degradation? Research could explore the role of regulations and enforcement.

Social Impact: Explore the social consequences of FDI in Ethiopia, including its impact on employment (quality and quantity), income inequality, and poverty reduction at a localized level.

The Role of Institutions and Governance: Investigate how the quality of institutions, governance structures, and the rule of law in Ethiopia moderate the impact of FDI on economic growth.

Absorption Capacity: Research the absorptive capacity of the Ethiopian economy to benefit from FDI. This includes factors like human capital development, technological infrastructure, and the level of financial development.

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Appendixes

Appendix: 1 Augmented Dickey-Fuller test

At level		
Variables	**With Constant**	**With Constant and trend**
	t-statistic and prob.	Statistic and Prob.
GDPGrowthRate	-4.545 (0.0002)	-5.380 (0.0000)
InfRate	-4.143 (0.0008)	-4.895 (0.0003)
FDIGDP	-2.334 (0.1612)	-3.186 (0.0872)
ExDGDP	-2.363 (0.1524)	-2.428 (0.3648)
TOPP	-1.036 (0.7398)	-0.738 (0.9705)
RER	-1.285 (0.6362)	-0.901 (0.9560)
HC	-1.965 (0.3023)	-3.219 (0.0808)
PoS	-6.069 (0.0000)	-7.901 (0.0000)
GoEff	-1.169 (0.6867)	-1.777 (0.7156)
GFCFGDP	-2.065 (0.2590)	-2.540 (0.3081)
At first difference		
Variables	**With Constant**	**With Constant and trend**
	t-statistic	t-statistic
diff_FDIGDP	-5.683 (0.0000)	-5.613 (0.0000)
diff_ExDGDP	-4.048 (0.0012)	-3.990 (0.0091)
diff_TOPP	-3.804 (0.0000)	-3.829 (0.0151)
diff_ RER	-4.933 (0.0000)	-5.206 (0.0001)
diff_HC	-6.457 (0.0000)	-6.409 (0.0000)
diff_GoEff	-2.910 (0.0000)	-9.318 (0.0000)
diff_GFCFGDP	-3.873 (0.0022)	-3.973 (0.0096)

Appendix 2: Multicollinearity Test

Variable	VIF	1/VIF
TOPP	3.68	0.272059
InfRate	1.56	0.641440
ExDGDP	2.94	0.339763
RER	2.80	0.356758
HC	2.32	0.431120
FDIGDP	1.74	0.574694
PoS	1.63	0.613689
Mean VIF	2.38	

Appendix 3: lag length selection

Selection-order criteria

Sample: 1984 - 2022 Number of obs = 39

lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	-1297.44				6.2e+16	67.0482	67.2013	67.4748
1	-1072.98	448.93	100	0.000	1.2e+14	60.6655	62.349	65.3576
2	-934.961	276.03*	100	0.000	5.3e+13	58.716	61.9299	67.6736
3	.	.	100	.	-8.2e-18*	.	.	.
4	10795.1	.	100	.	.	-533.593*	-527.625*	-516.958*

Endogenous: GDPGrowthRate InfRate FDIGDP ExDGDP TOPP RER HC PoS GoEff GFCFGDP

Exogenous: _cons

Appendix: 4 Bound test for co-integration

Pesaran/Shin/Smith (2001) ARDL Bounds Test

H0: no levels relationship F = 6.355
t = -0.825

Critical Values (0.1-0.01), **F-statistic**, Case 3

	[I_0] L_1	[I_1] L_1	[I_0] L_05	[I_1] L_05	[I_0] L_025	[I_1] L_025	[I_0] L_01	[I_1] L_01
k_6	2.12	3.23	2.45	3.61	2.75	3.99	3.15	4.43

accept if F < critical value for I(0) regressors
reject if F > critical value for I(1) regressors

Critical Values (0.1-0.01), **t-statistic**, Case 3

	[I_0] L_1	[I_1] L_1	[I_0] L_05	[I_1] L_05	[I_0] L_025	[I_1] L_025	[I_0] L_01	[I_1] L_01
k_6	-2.57	-4.04	-2.86	-4.38	-3.13	-4.66	-3.43	-4.99

accept if t > critical value for I(0) regressors
reject if t < critical value for I(1) regressors

k: # of non-deterministic regressors in long-run relationship
Critical values from Pesaran/Shin/Smith (2001)

Appendix:5 Breusch-Godfrey Serial Correlation Test

Tests	Values	Probability	Decisions
Test of Autocorrelation lags 1 and 2	2.766 15.04259	0.0963 0.9404	Do not reject H0

Normality test using Jarque-Bera Test

Skewness/Kurtosis tests for Normality						
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj	chi2(2)	Prob>chi2
Residuals	43	0.6095	0.8702		0.29	0.8660
Jarque-Bera normality test: 0.2588 Chi (2) 0.8786						
Jarque-Bera test for Ho: normality:						