

Addis Ababa University

College of Business and Economics

Department of Management, Master of Science in International Business (Strategic Investment Management)

Determinants of Foreign Direct Investment in Ethiopia from 1992 - 2024

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Determinants of Foreign Direct Investment in Ethiopia from 1992 - 2024

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Advisor: Yared Asrat (PhD)

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STATEMENT OF DECLARATION

I, the undersigned, hereby state that this thesis titled “Determinants of FDI in Ethiopia from 1992-2024” is my original work and all sources of materials used for the study have been properly acknowledged with complete reference. I further confirm that, the thesis is original in nature and has not been submitted either in part or in full to any other higher learning institution for the award of any degree in Masters of Science in International Business.

Declared By: Ruth Mulugeta Yigzaw

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Date: 23/02/2026

Statement of Certification

This is to certify that the thesis titled Determinants of Foreign Direct Investment in Ethiopia from 1992-2024 by Ruth Mulugeta submitted in partial fulfillment of the requirements for the degree of Master of Science in International Business (Strategic Investment Management) satisfies the requirements and complies with the regulation of the university and meets the accepted standards with respect to originality and quality.

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Abbreviations and Acronyms

ADF - Augmented Dickey–Fuller test

ADLI - Agricultural Development Led Industrialization

AfCFTA- African Continental Free Trade Area

AfDB - Africa Development Bank

ARDL - Autoregressive Distributed Lag

COMESA - Common Market for Eastern and Southern Africa

COVID-19 - Corona Virus Disease 2019

CPI - Consumer Price Index

CUSUM - Cumulative Sum

EIA - Ethiopian Investment Agency

EIC - Ethiopia Investment Commission

EPRDF - Ethiopian People's Revolutionary Democratic Front

FDI - Foreign Direct Investment

FPI - Foreign Portfolio Investment

GDP - Gross Domestic Product

GFCF - Gross fixed capital formation

GPI - Global Peace Index

GTP - Growth and Transformation Plan

HGER - Homegrown Economic Reform Agenda

INF - Inflation rate

JB - Jarque-Bera

LABOR - Labor Growth Rate

LM - Breusch-Godfrey Lagrange Multiplier

MNC - Multinational Corporations

MoPD - Ministry of Planning and Development

NBE - National Bank of Ethiopia

NEG - New Economic Geography

OECD - Organization for Economic Co-operation and Development

OLI - Ownership, Location, Internalization

OPEN - Trade Openness

REER - Real Effective Exchange Rate

RESET - Ramsey Regression Equation Specification Error Test

RGDP - Real Gross Domestic Product

SEZ - Specialized Economic Zones

SNNP - Southern Nations, Nationalities, and Peoples

SSA - Sub-Saharan Africa

UNCTAD - United Nations Conference on Trade and Development

UNIDO - United Nations Industrial Development Organization.

USD - US Dollar

WB - World Bank

Abstract

This paper studied the determinants of FDI in Ethiopia from 1992-2024 using annual time series data. Six independent variables were identified based on reference from theoretical backgrounds and relevant studies that were deemed to be determinants of FDI in the context of Ethiopia. The Dunning's OLI framework, focusing on the Location (L) advantages of countries, explains how countries may attract foreign investors as destinations. The research used the ARDL bounds testing method to determine the long run and short run relationship between FDI (dependent variable) and the independent variables which are real GDP, inflation rate, real effective exchange rate, gross fixed capital formation, trade openness, and labor growth rate. The bounds test results confirm the existence of a stable long-run relationship among the variables. The long run estimation results showed that real GDP, trade openness, and labor growth had a positive and significant impact on FDI inflow, while real effective exchange rate and inflation rate were shown to have a significant but negative impact on FDI. This shows the sensitivity of foreign investors to macroeconomic stability conditions in the host country. While gross fixed capital formation shows a positive association with FDI, its effect is not statistically significant in the long run according to the results. Overall, the findings show that inflation and real effective exchange rate needs to be lowered and stabilized trade openness needs to be increased, the labor market should be strengthened to attract sustainable FDI inflows into Ethiopia.

Key Words: FDI in Ethiopia, macroeconomic stability, market size, labor force, trade openness

Chapter One

Introduction

1.1. Background of the Study

Foreign Direct Investment (FDI) has been serving as one of the pillars of economic growth worldwide. Many nations have benefited from it, both developed and developing. The UNCTAD (2024) calls FDI the lifeline of economic growth and industrial development, especially for developing economies. FDI is also recognized as one of the strategies that Multinational Corporations (MNCs) use to expand their business abroad and enter foreign markets (Dunning, 1993). This is done to move their presence beyond their home country and exploit advantages that these countries may offer. This enables them to have direct control over the operations as they would have in the home country. Through this technique, they can use their capital and knowledge accumulated through experience and take them to markets that have the right resources and opportunities for a scaled-up operation. For the receiving country, it provides the financial capital and also the introduction of new technology, managerial know-how, operations, and access to trade in global markets which generate foreign exchange (Kurtishi-Kastrati, 2013.) Low-income countries have used these opportunities to strengthen local markets through knowledge transfer, value chain linkages, employment opportunities, and access to international markets. Where innovations in foreign markets have outpaced domestic developments, FDI serves as a bridge to fill in the gaps for domestic investment.

In the context of Africa and more specifically East Africa, Ethiopia has historically stood out as one of the top destinations for FDI due to a combination of various positive factors. Despite the internal unrest that has been seen in the past 8 years, Ethiopia has still sustained high FDI levels. According to UNCTAD's World Investment Report 2024, the government's push for public-private partnerships (PPP) and its direct negotiations with foreign firms are factors for the growing FDI levels. We can see strategic stances that the government took like the development of industrial parks which serve as suitable infrastructure setup, which have helped manufacturing firms thrive despite other instability indicators (Ethiopian Industrial Parks Development Corporation, 2024). Further to this, the government's Homegrown Economic Reform Agenda (HGER) transitioned the country toward radical market liberalization. Parts of the greater impact

of HGER is the 2024 decision to float the Birr and open the banking and telecom sectors to foreign competition. The floating of the currency was made to boost export standings and improve Ethiopia's attractiveness to foreign investors (NBE, 2024) among other reasons. The effects of this reform on FDI attraction will be more pronounced in coming years. Ethiopia also has a very large population, second largest in Africa (according to the UN and World Bank data), which attracts major global actors.

Ethiopia transitioned to a market-oriented economy in the early 1990s, after the downfall of the Derg Regime. The first step came through the Investment Proclamation No. 15/1992 which promoted the private sector involvement (domestic and foreign) in various sectors. But it did reserve some priority sectors to either sole government ownership or a possible partnership. The government has also devised different strategies like the state-led industrialization and the Agricultural Development Led Industrialization (ADLI). The investment climate has since been improving and becoming more open, recovering from the socialist policy that had set the FDI track of the country back for over almost 2 decades. Currently, there is much more progress on opening up the economy to private and foreign investment. Furthermore, the Ethiopian Investment Board's Directive No. 1001/2024, now allows more foreign participation in export, import, and retail trade of commodities (EIC, 2024). The most liberalized move so far are the landmark reforms that happened in the 2020s like the opening up of the telecom sector, which was solely managed by the state, and the ratification of the Banking Business Proclamation No. 1360/2025, which now allows foreign banks and foreign investors to participate in the banking.

These change in stance from the government is reflective of the different stages that Ethiopia has gone through in overall economic policies. In 1991, right after the Derg regime's fall (a socialist government), the state focused on privatization efforts and infrastructure expansion, like in the energy sector. Slowly, the government adopted a more open market-based economic policy and from the 2000s onwards, it started attracting more and more FDI. More recently, the Homegrown Economic Reform Agenda (HGER) has scaled up the attention toward private sector participation. These efforts have shown good results. Despite FDI flows showing a slowing trend world wide, Ethiopia still achieved a significant amount of inflow. It attracted approximately $3.26 billion in FDI in 2023, with the manufacturing and service sectors being the major beneficiaries (UNCTAD, 2024). However, Ethiopia's FDI trajectory has been characterized by

volatility. Following the peak in 2016, inflows slowed down. Several internal and external factors may have contributed to that like the 2019 COVID pandemic, the internal conflicts, shortage in foreign exchange reserves, and headline inflation rates which exceeded 25% (NBE, 2024).

World Bank data shows that FDI inflows into Ethiopia rose from approximately USD 255 million in 2002 to a peak of USD 4.1 billion in 2016. FDI has financed major projects in Ethiopia in the manufacturing, agriculture, infrastructure, and service sectors. The sector that was most promoted by the government was the agricultural sector, which contributes to the majority of export, employs over half of the population, and also significant amount of the GDP over the years. But this sector didn't receive a comparable amount of investment compared to others. The establishment of industrial parks has created an enabling environment for foreign investor operations and local investment activities in export diversification and value addition (UNIDO, 2018; EIC, 2023). Industrial parks have attracted many businesses by specializing its incentives and locations according to the sectors.

This study examines the determinants of FDI inflows in Ethiopia over the time period 1992-2024. By analyzing the interplay between commonly known drivers like macroeconomic indicators, infrastructure, and resource availability, this research highlights how in the years leading to 2024, Ethiopia's investment landscape is defined. The coming sections define the matter of the study in detail.

1.2. Statement of the Problem

The global investment climate has evolved into a complex decision web. Investors have moved on from making decisions solely on market potential to now considering the overall macroeconomic stability and operational efficiencies (OECD, 2002). Therefore, countries with unstable markets and unpredictable regulatory environments face a perceived risk and capital will hence be redirected to more stable countries despite the higher potential being in the emerging markets.

FDI is recognized as a driver of economic growth, technology transfer, and economics development. MNCs traditionally motivated by market, resource, and efficiency-seeking objectives (Dunning, 1993). However, the determinants of FDI have become increasingly

complex, with investors having to weigh macroeconomic stability, regulatory predictability, and institutional quality alongside market potential among other factors (OECD, 2002; Busse & Hefeker, 2007). Studies indicate that countries with high inflation, political instability, or weak institutions face perceived risks that deter foreign investment, even when economic potential is high.

While these determinants are relatively well-understood in developed economies, their applicability to developing countries remains not as certain as needed. Evidence shows that standard positive indicators, such as improved infrastructure or high returns on capital, often have weaker or statistically insignificant effects in SSA due to perceived baseline risks (Asiedu, 2002; Bende-Nabende, 2002). Another research by Bende-Nabende (2002) studied 19 SSA countries and identified the most dominant long-run determinants of FDI to be market growth, export-orientated policy, and liberalization. Export orientation or trade openness though repeatedly comes up as an important determinant in African country studies, to varying degrees.

Ethiopia has experienced FDI volatility but has been one of the top FDI recipient in Africa. Past studies have had mixed results on variables like GDP growth, trade openness, liberalization, inflation, poor infrastructure, interest rate volatility. (Workneh, 2014; Ashine, 2024). It shows that these relationship between these variables can change with the times. For example, Workneh (2014) found that trade openness and inflation rate were significant determinants of FDI in Ethiopia and yet market size and literacy were a negative and/or insignificant to FDI.

Although there is a growing body of research on the determinants of FDI, most of them do not produce consistent outcomes. Different variables are found to be significant in different countries and even within the same country tend to differ across periods. This suggests that the field is not figured out, but are dynamic and change over time depending on economic conditions, policy reforms, and transformations.

Moreover, earlier studies focused on earlier reform periods and may not reflect the current macroeconomic reality. Ethiopia has experienced inflation hikes, foreign exchange shortages, political instability, and structural adjustments in recent decade. These developments may have altered how macroeconomic variables interact and influence FDI inflows. Therefore, relying

solely on earlier empirical findings may not provide an accurate picture of the present investment climate.

Given these gaps, there is a need to re-examine the determinants of FDI in Ethiopia to reflect recent times using updated data capturing both long-run relationships and short-run. This study therefore focused on identifying the key determinants of FDI inflows in Ethiopia during the post-liberalization period from 1992-2024 and examining how these variables influence FDI both in the short run and in the long run. Understanding these relationships is important for designing policies that promote for stable sustainable FDI.

1.3. Research Questions

- How does Real GDP affect FDI inflow into Ethiopia?
- How does Inflation impact FDI inflows?
- How does the Real Effective Exchange Rate (REER) influence FDI inflows?
- How does Trade Openness affect FDI inflows?
- How does Labor Force Growth Rate affect FDI inflows?
- How does Gross Fixed Capital Formation (GFCF) impact FDI inflows?
- How quickly does FDI adjust to equilibrium after a short-term shocks?

1.4. Objectives

1.4.1 General Objective

To investigate the determinants of Foreign Direct Investment in Ethiopia between 1992 and 2024 by analyzing the long-run and short-run effects of key variables, and provide insights for decision making aimed at promoting sustainable FDI inflows.

1.4.2 Specific Objectives

To achieve the general objective, this study pursues the following specific objectives:

1. To examine the long-run effects of RGDP, Inflation rate, Real Effective Exchange rate, Gross Fixed Capital Formation, Trade Openness, and Labor Growth Rate on FDI inflows in Ethiopia.
2. To investigate the short-run effect of these variables on FDI inflows

3. To estimate the speed of adjustment of the Ethiopian economy toward the long-run equilibrium following a short-term disturbances

1.5 Significance of the Study

This study aims to provide up-to-date information of what key variables affect FDI inflows in Ethiopia. By studying the relative impact of these variables in the long run and short run, the research aims to provide empirical results that show what determinants are significant to FDI inflow throughout the years considered and which areas could be strengthened to stabilize the flow of FDI. It can inform decisions and other studies for focusing on improving factors that significantly affect FDI and managing the risks to ensure the market is stable. Overall, the research offers a look at how much the determinants affect FDI. It can support to have a more focused discussions on relevant policy directions and strategies for attracting investment.

1.6. Scope of the Study

The research studied determinant variables of FDI for Ethiopia that are commonly used in literature. It used real GDP, inflation rate, real effective exchange rate, trade openness, gross fixed capital formation, and labor force growth. The selection of these variables is based on frequent application in comparable studies, and the availability and consistency of long-run time-series data for Ethiopia. While other factors also influence FDI inflows, the decision to be restricted to these variables was made in consideration of their relevance and availability of data.

The study used annual time-series data for the period from 1992 to 2024, representing 33 years of economic reform landscape. The time period starts from the downfall of the socialist Derg regime and the coming to power of the transitional government in 1992 with its more liberal market policies. It extends through subsequent reform phases up to the final 2023/24 fiscal year where getting complete compiled data was possible.

1.7. Limitations of the Study

Despite the proven methodology followed, this study faced some limitations that are beyond the researcher's control. The main limitation is related to the reliability of data and its consistency. As is common in developing economies, historical time-series data, particularly from the early 1990s, may suffer from inconsistencies from different statistical agencies. Good and quality

record keeping for most developing countries started in late 90s and 2000s and so, most data sets aren't available in complete form. To mitigate this as much as possible, the study has tried to cross-reference data between different sources that keep record of these variables. However, some limitations may still persist.

Some data points like political stability were identified to be significant based on literature review but were not available consistently for the entire time frame selected (1992-2024). This unfortunately led to the exclusion of this and similar potentially significant variables, meaning the final result does not necessarily capture the full spectrum of determinants at play.

1.8 Organization of the Study

This following sections of this research are organized as follows: Chapter Two is concerned with review of related literature; Chapter Three covers the methodology this research used; Chapter Four covers the results and discussion of the research; and Chapter 5 includes summary of findings, conclusion, and recommendations from the research.

Chapter 2

Review of Related Literature

This chapter provides a review of the theoretical and empirical literature on the determinants of foreign direct investment, bringing global theories that have laid the foundation to the topic and realities of the market in Africa and Ethiopia. Researches have approached FDI from different perspectives. These findings have accumulated and strengthened the current understanding of drivers of foreign investment decisions. Studies have suggested different theories for points like selection criteria, what factors encourage or discourage these investments, and how this FDI affects the economies of both host and parent countries. This literature review has tried to cover some some of these studies.

2.1 Introduction

Foreign Direct Investment is an important tool in international business studies. It has played a huge role in business expansion and firm competition for dominance.

For the host country, FDI provides the resources to support growth, learning, and access to global markets. For the home country, it provides the means to exert their influence and claim global dominance. For the parent country, FDI represents ways for global dominance and scarce resource utilization. Global firms like Toyota, Nike, and others have gone beyond their home country and established their influence worldwide through direct investment, supporting a significant amount of the economy of their destinations. International bodies like the Organization for Economic Co-operation and Development (OECD) emphasize that FDI creates "direct, stable and long-lasting links' between economies. One term that might be confused with FDI is Foreign Portfolio Investment (FPI). Foreign Portfolio Investment (FPI) involves passive, cross-border transactions of securities like public stocks or bonds without having direct control or exercising significant influence over the enterprises they invest in. FDI on the other hand involves direct involvement of the firms in the operations within the country. The controlling ownership level, often agreed as at least 10 percent voting shares, is what distinguishes FDI from FPI per the OECD (2008).

Foreign Direct Investment (FDI) is a central part of international business expansion strategies. Its benefit goes two ways: a strategic expansion tool for international investors and a means for attracting capital for the host countries. Factors that determine FDI occur at both firm-level and country-level attributes. Several theoretical models have emerged to explain why firms invest abroad and what factors attract them to specific destinations. The following sections will review some of the theoretical and empirical evidence on FDI to provide the background on historical work that lay the groundwork to this research.

2.2 Theoretical Literature Review

2.2.1 Classical Theories on FDI

One of the earliest discussions on FDI started with market imperfections and monopolistic advantage perspectives. Stephen Hymer (1960) made an important point in the understanding of FDI in one of his well-known work called 'The International Operations of National Firms.' He challenged the notion that capital movements were only driven by financial gain. He argued that firms engage in FDI when they possess firm-specific advantages like proprietary technology, managerial know-how, or brand reputation that allow them to compete in foreign markets despite having the disadvantages of being foreign. He discussed the idea of monopolistic advantage theory and ownership advantages, which allows firms to overcome the challenges of being a foreigner in the markets they decide to expand to. This perspective also influenced future studies in establishing FDI as one strategic business decision rather than just a financial transaction.

Kindleberger (1969) developed the monopolistic advantage theory further. The theory emphasizes that MNCs invest in countries where they can best leverage their monopolistic advantages. It explains that market imperfections in fact encourage firms to invest directly instead of indirectly in foreign countries. Firms that have the assets will be able to compete with local firms. The local firms in the developing nations often lack the capacity to compete with these firms, even on their home ground because of these monopolistic advantages they possess. The theory is a good explanation of the visible phenomena where FDI flows from industrialized and highly developed countries to developing nations even though the market conditions differ.

The neoclassical approach, rooted in the Heckscher-Ohlin framework, attempts to explain FDI through international trade theory. In this approach, capital movement was treated as part of trade in goods. It means, capital moves from countries where it is abundant to countries where it is scarce until equalization occurs. The MacDougall-Kemp model (MacDougall, 1960; Kemp, 1964) refined this logic by including taxes and welfare implications, showing that host and home countries could both benefit from capital movement under specific conditions.

We can also see an adjacent viewpoint in the Product Life Cycle theory by Vernon (1966. Vernon proposed that firms initially produce new products in their home countries (highly-developed countries), where innovation and income levels are high. When products go about to mature and standardize, cost pressures encourage firms to shift their production to lower-cost locations through FDI. He argues that this process leads to the internationalization of production.

Building on microeconomic and industrial organization theory, new trade theory models in the 1980s introduced two distinct forms of FDI. They are horizontal and vertical FDI. Vertical FDI split production process across countries, locating labor-intensive stages in low-wage economies and skill-intensive stages in countries with abundant skilled labor (Helpman, 1984; Helpman & Krugman, 1985). Horizontal MNCs on the other hand replicate similar production activities in multiple countries to serve local markets more effectively, especially when trade costs like tariffs or transportation are significant (Markusen, 1984; Brainard, 1997).

There has been mixed support for these theories. Brainard (1997) found stronger evidence for horizontal FDI than vertical FDI. Markusen and Maskus (2001) on the other hand studied a hybrid framework of both vertical and horizontal FDI called the knowledge-capital model. Their study found that the knowledge-capital model and the horizontal FDI model capture real world activity much more accurately than the purely vertical FDI model. The proximity-concentration hypothesis (Helpman, 1984; Markusen, 1984) explains the trade-off between trade costs and economies of scale. It explains that horizontal FDI dominates when trade barriers are high and markets are large, while vertical FDI dominates when trade costs are low but factor endowments differ significantly. Brainard (1997) and Eaton & Tamura (1994) confirmed that market size and trade costs are strong determinants of horizontal FDI, whereas factor endowment matters more for vertical FDI. For developing economies like Ethiopia, low labor costs may attract vertical

FDI, while regional market access through trade blocs like the Common Market for Eastern and Southern Africa (COMESA) and African Continental Free Trade Area (AfCFTA) could attract horizontal FDI.

2.2.2 The Eclectic Paradigm (OLI Framework)

Perhaps the most comprehensive theoretical model so far explaining FDI decision is John H. Dunning's (1993) Eclectic Paradigm, also known as the OLI Framework. Dunning had three factors in his model to explain why and where firms invest abroad. They are ownership (O), location (L), and internalization (I).

1. Ownership advantages (O): they are firm-specific assets like technology, innovation capacity, or managerial expertise that provide a competitive edge in foreign markets
2. Location advantages (L)**:** means factors within the host country like market size, infrastructure, resource availability, policy suitabilty, service provision, and institutional quality. These refer to the attractiveness of the host country as an investment destination.

   In the Ethiopian context, location advantages have immproved since the 1990s through liberalization measures ad intentional institutional developments like the industrial parks and electricity generation capacity (EIC, 2023). Asiedu (2006) found that countries with larger markets and better infrastructure attract more FDI. Narula and Marin (2005) research in Argentina argue that location advantages are not absolute, but that they depend on the strategies of MNCs and the host country's market environment. In Ethiopia, establishment of the various Industrial Parks and other SEZs has improved location appeal by reducing logistical costs and offering export oriented investors incentives (EIC, 2023).

3. Internalization advantages (I): this advantage comes from firms preference to manage operations internally rather than indirectly so that they can safeguard their proprietary assets and reduce transaction costs. The internalization decision is driven by the desire to minimize transaction costs, protect proprietary technology, and ensure quality control across borders (Buckley & Casson, 1976; Rugman, 1981). This guides their decisions on whether they should conduct their operations within their control or use other means like

licensing or franchising, where their control will be limited. This is a very critical point in countries where there is weak institutions or weak legal enforcement against contracts and intangible properties. By internalizing the production processes, firms will have control over their technology and know-how. This also gives the firm flexibility to adapt implement changes in its approach in response to signals from the market

While FDI is a key part of the globalization scheme, it do not naturally ensure economic development for all host countries. Some researchers argue that the impact of FDI relies on the nation's capacity to absorb it and governments must create linkages between the foreign firms and the local economy to absorb it and achieve its intended impact. The host country's profile should be at the center of decision for both the firm and the government. It is important to note that there is no one-size-fits-all approach when it comes to investment decisions. Narula and Dunning (2010) have argued that MNCs should adapt their strategies to their location targets and see how they interact with local actors. They have emphasized that success in a certain location does not just depend on the amount of capital invested or the ability of the firm. It also depends on other factors like the host country's quality of institutions, ability of the local market to absorb, and the linkages created with local businesses. They have suggested that there needs to be a systematic link between MNCs policies and local industrial policies to attract opportunities that align with each country's unique developmental needs and goals while helping MNCs achieve their goals too.

Different applications of the OLI model across developing economies consistently find that countries with large and growing markets, low inflation, stable exchange rates, and adequate infrastructure attract more FDI (Narula & Dunning, 2010; Blonigen, 2005). For this research, the Location (L) Advantages aspect of OLI model has been used as benchmark theory.

2.2.3 Other Theories of International Business and FDI

The Internalization theory which was first proposed by Buckley and Carsson (1976) and then refined by Rugman (1981), is a complement to the OLI framework. It focus on why firms prefer to invest directly compared to other strategies of international expansion. According to this theory, firms internalize activities when external markets are deemed to be inefficient or costly due to the existence of information asymmetry, proprietary risks, and weak institutions.

This is particularly very relevant to developing economies like Ethiopia where transaction costs may be high due to regulatory uncertainty and underdevelopment with weak enforcement of property rights law. These uncertainties create loss of confidence for firms, and the infrastructure constraints further limit it. But by internalizing special operations, MNCs maintain control over their proprietary assets and minimize the risks perceived related to that.

Sectors like manufacturing and energy, where there are large value long-term infrastructure investments and unique technology used, are particularly influenced by these conditions. Investors may prefer wholly owned subsidiaries or joint ventures to mitigate risks associated with this unpredictability of the business landscape. Therefore, the internalization concept can explain not only the amount of investment that inflows but also the mode of investment that these firms/individuals choose.

One research on the role of institutions towards foreign direct investment found that the quality of a country's institutions plays a significant and consistent role in attracting foreign direct investment (F Ali et al, 2008). This research used sample data from a large number of countries and a variety of econometric methods. The results showed that institutional factors such as protection of property rights, practice of the rule of law, and lower risk of expropriation are particularly influential in determining FDI inflows. These aspects of governance can be improved in the short to medium term, suggesting that policymakers have the potential to increase FDI by strengthening the legal and judicial systems. When looking at specific economic sectors, strong institutions do not seem to affect investment in the primary sector, but they do matter for manufacturing and especially for the services sector. Because service-sector FDI is becoming an increasing share of total FDI globally, and also in Ethiopia, improving institutional quality may become even more important for attracting investment. The study concludes that institutional reform is as important as macroeconomic stability in attracting foreign investment, and may matter more than improvements in infrastructure or reductions in taxes for encouraging FDI.

Another relevant theory is the New Economic Geography (NEG), which gives an understanding of patterns of economic activities. The theory studies the effects of market size, transport costs, and backward and forward linkages between foreign and local firms on economic activity

concentration in specific locations. It provided a locational view for why economic activities tend to concentrate in particular countries or regions rather than being evenly distributed. This theory explains agglomeration economies, which is the benefits that firms gain when their activities are clustered in some areas together. This theory goes well with the OLI framework, as it can help explain the location advantages firms may want to tap. Like how the Location advantage (L) of the OLI framework explains firms look for advantageous locations, this theory also says foreign investment decisions can be concentrated in areas where there is already activity and enabling factors in place. Foreign firms are attracted to active regions because of existing economic activity concentration and developed infrastructure. Their entry also further reinforces the development of the markets and infrastructure. (Krugman, 1998).

2.2.4. Discourse in Studies on FDI

There is still debate when it comes to the kind of impact foreign direct investment has on the host country. This discourse is divided between those who are Pro-FDI, have a nuanced view of its impact, and those against FDI.

The Pro-FDI group sees FDI as a catalyst for economic transformation in developing economies. It can address some of the constraints that these countries may be facing towards growing their markets. According to the study by Chenery & Strout (1966), developing countries face two gaps. The first is a savings-investment gap where savings are not enough to support the required level of investment within the country. The second is the foreign exchange gap where income from export is not enough to pay for import requirements. The study explains that FDI bridges these two gaps by bringing in capital and foreign currency, addressing both gaps. Other scholars have also emphasized a vetical and horizontal spillover effect for local firms, where MNCs somehow transfer technology and best practices to local firms and domestic suppliers (Javorcik, 2004). From this view, FDI creates a "crowding-in" effect that stimulates domestic private sector growth.

On the contrary, other scholars who are critical of FDI warn that uncontrolled FDI can lead to dependency and isolated pockets of wealth with few linkages to the broader local economy. In the context of African industrialization, some argue that MNCs may displace infant domestic

industries by monopolizing credit and skilled labor, calling it a crowding-out of domestic investment (Agosin & Machado, 2005).

There are researchs from earlier times that have studied the effects of FDI and generally took an optimistic view of its benefits. Caves (1974) examined how multinational corporations work in the host countries and found that they could stimulate local firms to increase their productivity. The research showed that when foreign firms enter a market, domestic firms can be inspired to improve their operations and technologies to be competitive. This means creating positive spillover effects and also decreasing monopolies in the market.

There have also been regional studies that have supported this positive perspective**.** Pegkas (2015) used data from Eurozone countries and showed that FDI had a significant positive long-term impact on economic growth. His findings showed that in developed economies, higher FDI inflows tended to be associated with increases in GDP. It proves FDI's role as a driver of growth rather than a hindrance to it

But not all early researchers had a completely positive view about FDI. There have been early researchers like MacDougall (1960) didn't believe that FDI on host countries was purely beneficial or inherently harmful. He argues that FDI is neither totally beneficial nor harmful. Its impact on its host country depends on some economic factors like tax policies. The paper concluded that for a host country to benefit, the advantages gained from increased tax revenues and positive external effects must be more than the costs associated with the repatriation of profits and effect on local firms of displacement.

Studies in developing countries more support this nuanced view. Aitken and Harrison (1999) observed that in Venezuela, domestic firms in the same industry where foreign companies operate experienced negative effects. The study highlighted a market-stealing situation where foreign players captured market share and didnt contribute proportionally to the growth of local businesses, potentially increasing costs for local producers and limiting positive spillover effects from foreign owned firm

Researchers that believe FDI flows shouldn't be unregulated also emphasized the importance of strong domestic policy. Lall and Streeten (1977) said in their findings that foreign direct

investment is not automatically beneficial for developing nations. Foreign investments can sometimes negatively affect local economies and hinder their companies growth. They suggested that the actual outcome depends on a country's specific policies and its ability to negotiate effectively. It indicated the need for host governments to actively regulate these foreign investors to align with national development goals

Another is Javorcik (2004) whose study in Lithuania found that FDI did not provide significant productivity benefits to local firms operating in the same industry. Instead, the positive effects were observed primarily among only the local suppliers to the foreign companies. It showed that benefits from the FDI flow backward through the supply chain rather than laterally to local competitors.

Similarly, Alfaro et al. (2004) showed that the benefits of FDI strongly depend on the host country's financial markets and institutional environment. Their research indicated that without well-developed financial systems, FDI's potential contributions to growth and technology transfer were limited, showing that structural conditions in the host economy affect the impact of FDI.

These mixed findings show that how the FDI impacts a country will depend on the mix of policies and approaches that the country takes when absorbing that investment. Although FDI has proven benefits, it is important to adapt it to the local context and guide it towards mutual benefit with local firms, preventing dominance and monopoly of the market.

2.3. Evolution of FDI in Ethiopia throughout the years

FDI and its inflow has been closely tied to the country's shifting political economy, moving from a command economy to a state-led developmental model, and then recently toward a more liberalized market system.

*2.3.*1 The Early Post-Derg Reform Period (1991 - 2000)

After the fall of the Derg regime in 1991, the transitional government led by the EPRDF began structural reforms to transition from a central command economy to a market-oriented one. One of the first moves by the government was the Investment Proclamation No. 15/1992 which a

great start towards recovery from the effects of the Derg regime's socialist economic policies. The Derg regime had seen the nationalization of private property as well as investment for economic development. Although this had created a major setback towards private sector economic activities, this transitional period saw the opening of the economy to local investors and also foreign participation for the first time in nearly two decades. The proclamation allowed local and foreign private investors to own enterprises in selected sectors while reserving some strategic industries like finance, telecommunications, energy, and postal services exclusively for the government and options for joint investment in some.

Proclamation No. 37/1996[1] introduced a targeted liberalization of the Ethiopian economy by allowing foreign investment in sectors like engineering, pharmaceuticals, and chemicals, provided it was done through joint ventures.

However, the government put a threshold where for joint ventures where domestic firms must hold at least 27% of the equity. This applied to any joint investment in sectors where foreign ownership was permitted. But local investors were free to invest in these sectors independently.

Proclamation No. 116/1998[2] was another clear effort to bring private sector involvement forward. It widened the scope of areas for private investment and the available incentives. It also allowed for foreign nationals of Ethiopian origin to be treated as domestic investors and work under that framework. This helped them avoid the heavy capital requirements that are put on foreign investors. The proclamation helped bring home the skills and capital of those of Ethiopian origin who have moved abroad.

Despite these improvements, FDI inflows were limited in the 1990s with an average value less than US$100 million annually. It remained limited in scale and highly concentrated since the country was still recovering from the previous socialist regime and dealing with other political and economic challenges. Even though it was slow, the new market-oriented economic policies

[1] https://ethiodata.et/investment-proclamation-no-37-1996/

[2] https://www.lawethiopia.com/images/federal_proclamation/proclamations_by_number/116.pdf

opened the space for private and foreign investors. It contributed to a small share of overall capital formation and the distribution was dominated by a few large projects.

Table 1 - Economic Indicators Summary for 1980/81-2001/02

Indicators	80/81-91/92 Average	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02
RGDP Growth Rate (%)	1.7	11.9	1.5	6.2	10.6	5.2	-1.4	6.0	5.4	7.7	5.0
Real GDP per capita (Birr)	243.3	228.7	226	231.6	248	253.2	242.8	250.6	260	275	286
% Change in GDP over previous year (%)	-1.0	9	-1.2	2.5	7.1	2.1	-4.1	3.2	3.8	5.8	4.0
Inflation (%)		10	1.2	13.4	0.9	-6.4	2.3	4.8	4.2	-7.2	
Mid-Year Population Growth Rate (%)	2.83	2.8	2.9	2.9	3	3.2	3	3.1	3	2.93	2.89
Total Education Expenditure as % of GDP	2.3	3.6	3.9	3.4	3.4	3.4	3.5	3.5	3.2	4.2	4.8
Total Health Expenditure as % of GDP	0.7	10	1.2	1.3	1.3	1.3	1.5	1.4	1	1.8	1.9
Total Road Expenditure as % of GDP		0.7	1.5	2.2	1.8	2.3	2.2	2.5	1.7		
Defense Expenditure as % of GDP	7.9	2.6	2.3	2.2	2	2	4.9	8.7	13.1	6.4	5.9

Source: Ministry of Finance and Economic Development, Various Sources[3]

Foreign investment activities were much larger on average than domestic ones and were dominantly in Addis Ababa and Amhara region. This left the other areas with little exposure to foreign capital. Sector wise, investment was also unevenly distributed with sectors such as construction and hospitality getting the majority share. This was mainly due to the incoming of a large scale hotel project that accounted for a high value of FDI inflows. Manufacturing and other secondary sectors attracted relatively little foreign investment, reflecting the early and underdeveloped nature of Ethiopia's engagement with FDI during this period (UNCTAD, 2002).

Table 2 - Investment by Region and Sector (1992 - 1998)

Investment Sector	Domestic (#)	Domestic Capital	Foreign (#)	Foreign Capital	Total (#)	Total Capital	FDI % of Total (#)	FDI % of Total (Capital)
Regions								
Amhara	109	401	2	1,349	111	1,750	1.6	77.1
Oromia	329	1,164	3	30	332	1,194	0.9	2.5
Addis Ababa	193	1,063	15	1,674	208	2,757	7.2	60.7
Tigray	256	1,870	-	-	256	1,870	-	-
SNNP	226	340	-	-	226	340	-	-
Others	50	247	1	44	51	291	2.0	15.1

[3] Federal Democratic Republic of Ethiopia Ministry of Finance and Economic Development. (2002, July 31). *Ethiopia: Sustainable Development and Poverty Reduction Program (SDPRP)*. International Monetary Fund. https://www.imf.org/external/np/prsp/2002/eth/01/073102.pdf

Sector								
Primary	514	1,385	3	1,210	517	2,596	0.6	46.6
Secondary	497	1,266	11	452	508	1,718	2.2	26.0
Tertiary	152	2,434	7	1,435	159	3,889	4.4	37.1
Total 1992-1998	1,163	5,105	21	3,097	1,184	8,202	1.6	37.8

Source: UNCTAD, 2002

There was a mixed environment in where there were both positive and negative developments. Policy was loosening up in favor of private and foreign investment. But there were episodes of droughts and conflict that affected the country while it was still trying to pick up. Due to this, Ethiopia struggled to attract FDI at its potential or at levels comparable to peers in sub-Saharan Africa at the time. One of the disruptions to the market was the Ethio Eritrean border conflict towards the end of the decade. There was also no intentional investment promotion strategy. The 1990s decade overall signaled the need for a more coordinated and intentional approach to investment promotion and the need to maintain internal stability for easy business environment.

2.3.2 The Growth Phase (2001 - 2010)

In the 2000s, there was a significant rise in FDI levels. Average annual FDI inflows improved a lot compared to the 90s as shown in Figure 1. This period was marked by a shift in focus to large-scale industrial projects. The government implemented an Industrial Strategy in 2003, which made industrialization the main focus. It focused on leveraging Ethiopia's comparative advantages in raw materials to attract foreign firms, especially for sectors such as textiles, garment, and leather.

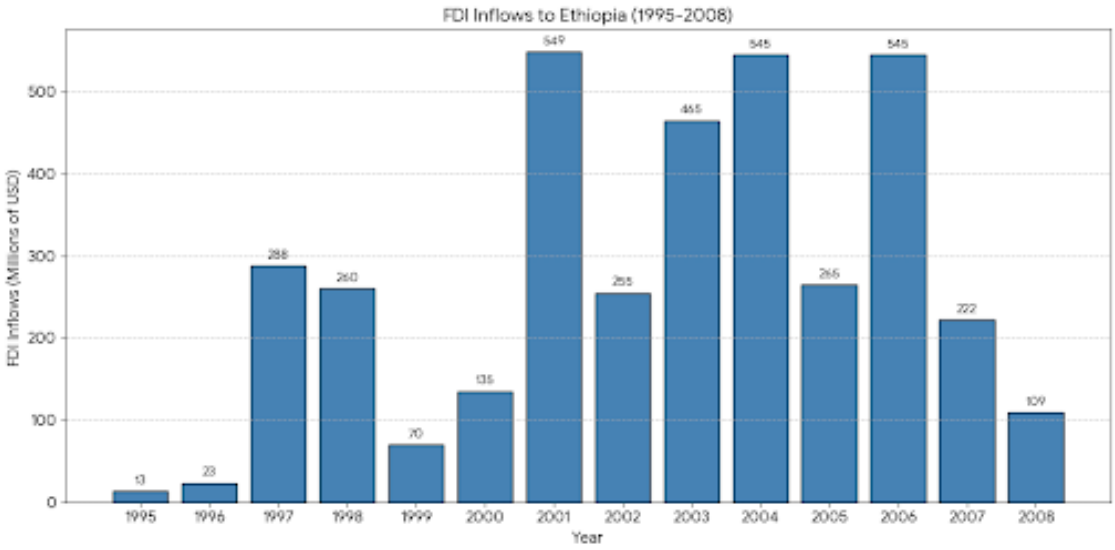


Figure 1 - Figure 1: FDI inflow to Ethiopia 1995-2008

Source: UNCTAD, 2011

The industrial development strategy was closely tied to the broader Agricultural Development-Led Industrialization (ADLI) policy which was established in the early 1990s to support the agricultural sector. Under ADLI, the government had recognized that the predominantly agrarian economy would best benefit from agriculture providing raw materials for industry and a market for the manufactured goods, thus linking industrialization directly to agricultural progress. Until the early 2000s, however, there was no detailed industrial policy to guide industrial growth, whereas it was largely guided by the general economic reforms aimed at liberalizing the economy and encouraging private sector activity. The 2003 policy formally supported promotion of export-oriented and labor-intensive industries, strengthening of agro-industrial linkages, and positioning of the private sector as the engine of industrial growth (Oqubay, 2018).

More recently, industrial strategy has increasingly focused on industrial park development and specialized economic zones (SEZ) with integrated value chain support to attract investment and boost competition. The government has operationalized numerous industrial parks designed to support priority industries, improve infrastructure support, and link the domestic suppliers with international firms.

These parks were supported by partnership with agencies and development partners to promote inclusive industrialization efforts, particularly in agro food processing, textiles, and leather sector. This was part of the vision for ADLI strategy whereas the 2003 Industrial strategy had more industry coordination.

Another big improvement was the simplification of the business registration process. In 2005, the time required to fulfill the registration and paperwork to start a business in Ethiopia was greatly reduced to just 35 days (AfDB, 2015). This was a huge drop from the time recorded in previous years. It was also significantly faster compared to many neighboring countries. This improved business starting process attracted many major investments to the country within the region. The Ethiopian Investment Agency (EIA) also improved its capabilities and started functioning like a one-stop-shop, where it provided a variety of services like issuing trade registrations and work permits directly from its office.

*2.3.*3 Industrialization and Expansion Phase (2011 - 2018)

The 2010s was a rather golden era for FDI in Ethiopia. This was the time when the first Growth and Transformation Plan was put in place as the country's first comprehensive national development strategy in the beginning of the decade. The plan stated that it sought to expand industrial capacity and attract large-scale investment by improving the business environment, doubling agricultural production, supporting export-oriented manufacturing, and expanding infrastructures for road and electricity.

Following GTP I came the GTP II. GTP II built on the objectives and progress of GTP I worked towards strengthening diversification and economic transformation. The plan was to help Ethiopia reach lower-middle income status by 2025. Priority was given to the manufacturing sector and export oriented activities. The government saw FDI as a means to attract more foreign currency. Therefore, support was directed to investments that could increase export earnings and support import substitution

These policy efforts managed to attract investors into the industrial parks and manufacturing activities, which were key to the industrialization agenda set. One important proclamation from

this time is the Industrial Parks Proclamation No. 886/2015[4], which established the framework for extensive investment incentives, including tax relaxations for enterprises within the industrial parks.

The highest peak for this decade in FDI inflows was recorded in 2016. UNCTAD data (2017) indicates that FDI inflows reached US$ 4.17 billion in 2016, making Ethiopia the second-largest FDI recipient in Africa, only behind Egypt.

*2.3.*4 Political Transition and Instability Phase (2018 - 2020)

The year 2018 was a big change in Ethiopia's political and economic landscape. There was a transition in leadership of the government and the revision of many policies. This political transition introduced a period of uncertainty as well as opportunity. This administration (currently in place) launched the Homegrown Economic Reform Agenda (HGER) aiming to correct macroeconomic imbalances and promote private sector led developments in the country. Although the HGER was a big opportunity for Ethiopia, the investment climate was adversely affected by the COVID-19 pandemic which hit only a year after. The growth of domestic conflict impacted the business environment and movement, foreign exchange shortages had built over years due to improper policies, and inflation was rising during this time.

FDI inflow saw a visible decline from 2018-2020:

- 2018: US$ 3.3 billion
- 2019: US$ 2.5 billion
- 2020: US$ 2.1 billion

2020 was the start of the COVID-19 pandemic appearance in Ethiopia, which exacerbated the economic and investment environment even more. A series of economic reforms were introduced in 2019 aimed at improving the investment, and FDI was anticipated to increase in 2020. Unfortunately, this coincided with the start of the COVID-19 pandemic and didn't have the intended level of impact

[4] https://ethiodata.et/wp-content/uploads/2023/02/Ethiopia-Industrial-Parks-Proclamation-No.-886_2015.pdf

FDI inflows fell by about 6 percent in 2020, reaching roughly USD 2.4 billion, although the country still accounted for more than one-third of total foreign investment in east Africa. The overall stock of FDI continued to grow due to the reforms the government was taking. In 2020, foreign investment was mainly concentrated in manufacturing, agriculture, and hospitality. Another phenomena at this time was the significant deterioration in stability. The country recorded the third-largest decline in peace in Sub-Saharan Africa in 2020 (GPI 2021). Nevertheless, Ethiopia continued efforts to attract investment even as overall FDI inflows declined. The pharmaceutical and agricultural investments kept strengthening the FDI level within the country.

Despite these contractions, Ethiopia remained a top-five investment destination in Africa, supported by the resilience of existing industrial projects.

2.3.5 Recovery and Liberalization Phase (2021 - Present)

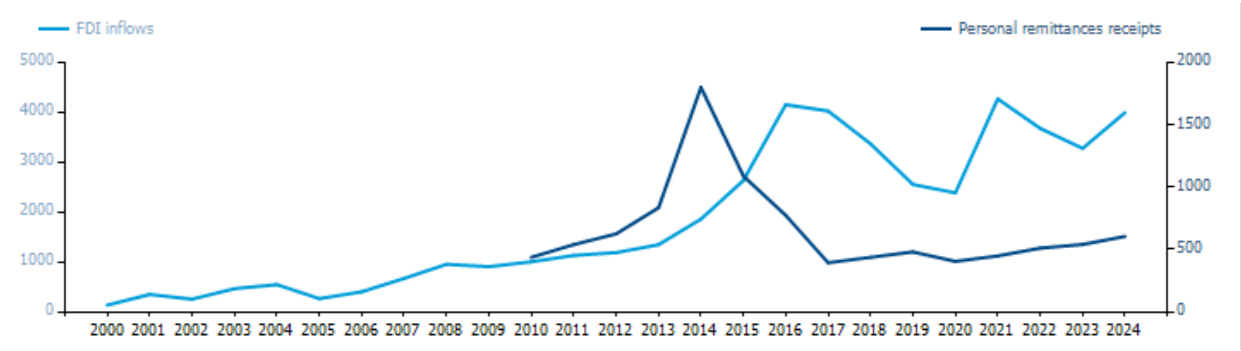


Figure 2 - FDI inflow trend from 2000-2024

Source: UNCTAD Data Hub

Since 2021, there have been many aggressive liberalization efforts to regain investment momentum back. Some of the significant reforms of this time are:

- Investment Proclamation No. 1180/2020.

- The historic decision to open the telecommunications sector (partial privatization of ethio telecom[5] and licensing of Safaricom[6]) and the 2024 banking sector liberalization[7] (NBE, 2025)

According to the World Investment Report (UNCTAD, 2024), FDI inflows rebounded to approximately US$ 3.3 billion in 2022 and stabilized near US$ 3 billion in 2023.

The govement of Ethiopia, under the Home Grown Economic Reform Agenda has prioritized the following sectors for FDI:

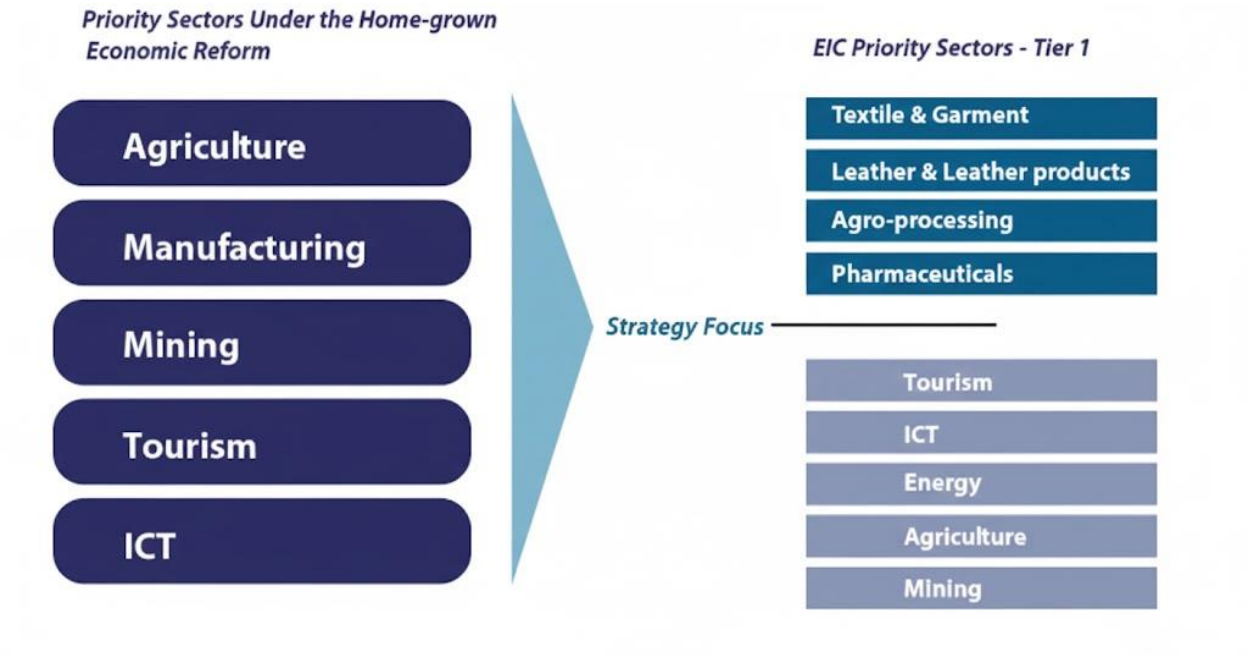


Figure 3 - FDI priority Sectors, Ethiopia

Source: EIC, 2023

Geographically, FDI is clustered around the Addis Ababa-Adama corridor and major Industrial Park hubs (Hawassa, Kombolcha, Dire Dawa). This reflectsthe critical role of infrastructure in location decisions (EIC, 2023).

[5] https://www.mofed.gov.et/blog/invitation-for-expression-of-interest-eoi-for-the-partial-privatization-of-ethio-telecom-and-public-consultative-for-the-third-telecommunication-operating-license-launched/

[6] https://www.mofed.gov.et/blog/press-release-new-tele-communication-award

[7] Proclamation No 1360/2025

2.4 Empirical Literature on Determinants of FDI

Empirical literature on the determinants of FDI encompass simple cross-country regressions to complex panel data analyses that capture macroeconomic, institutional, and infrastructural determinants. This section reviews key studies at the global, regional, and country level on the major determinants of FDI.

2.4.1 Market Size and Economic Growth (Real GDP)

Market size, commonly proxied by real GDP or GDP growth, is among the most used and consistently significant determinants of FDI across countries and studies. Larger and faster-growing economies offer greater potential for demand and the ability to exploit economies of scale, aligning closely with market-seeking investment motives.

A study Chakrabarti (2001) did on 135 countries found market size to be the most stable and significant predictor of FDI inflows across alternative model specifications. Similar conclusions were reached by Campos and Kinoshita (2008) for transition economies, where sustained economic growth was shown to attract long-term strategic investment.

In the African context, Asiedu (2006) confirmed that market size plays a central role in attracting FDI, particularly in countries that are not 'resource-rich' and where domestic demand substitutes for natural-resource advantages. Anyanwu (2012) further found that higher GDP levels and growth rates significantly increase FDI inflows across African economies.

2.4.2 Inflation

Inflation is widely used as a proxy for macroeconomic stability (Fischer, 1993). High and volatile inflation increases uncertainty for businesses and affects their expected returns. This can weaken a country’s locational advantage for foreign investors.

Schneider and Frey (1985) provided one of the early evidence of a negative relationship between inflation and FDI in their work on 54 LDCs, a result later reinforced by more researchs suych as Chakrabarti (2001). Bengoa and Sánchez-Robles (2003) too showed that macroeconomic stability, captured by low inflation, was essential for attracting FDI to Latin America.

2.4.3 Real Effective Exchange Rate (REER)

The relationship between exchange rates and FDI is theoretically ambiguous and depends on the motive of investment. Exchange rate depreciation can lower production costs and asset prices, attracting efficiency-seeking and export-oriented FDI (Froot & Stein, 1991), while excessive volatility or misalignment increases uncertainty and discourages investment (Cushman, 1985).

Empirical studies such as Goldberg and Kolstad (1995) found that currency depreciation in host countries can stimulate inward FDI through wealth and cost-competitiveness effects. However, Asiedu (2002) has also showed that in African economies, exchange rate instability often outweighs competitiveness gains, particularly where financial markets are shallow.

2.4.4 Gross Fixed Capital Formation (GFCF)

According to OECD, Gross fixed capital formation (GFCF) is the acquisition of produced assets, including purchases of second-hand assets and the production of such assets for own use, minus disposals. It captures domestic investment in physical assets such as machinery, infrastructure, and productive facilities. It is often interpreted as a signal of domestic absorptive capacity and complementary investment, which can crowd in FDI rather than crowd it out.

Globally, Borensztein, De Gregorio, and Lee (1998) showed that FDI contributes more effectively to growth in countries with sufficient domestic capital accumulation and absorptive capacity. Alfaro et al. (2004) similarly argued that domestic investment and financial development amplify the benefits of FDI.

Adelakun & Ogujiuba (2023) studied across the top ten African FDI recipient countries, and found that gross fixed capital formation (GFCF) was found to be a determinant of FDI in both the short and long run for several countries, indicating that higher domestic capital investment stocks are associated with increased foreign investment inflows in those contexts.

Results from studies in Africa suggests a positive relationship between GFCF and FDI. Ndikumana and Verick (2008) found that higher domestic investment rates are associated with greater FDI inflows, as they signal increased to capital formation and ease in the business environment.

2.4.5 Labor Growth and Labor Availability

Labor availability is important to FDI, especially in labor-intensive sectors. Countries with large and growing young labor force offer advantages for firms with respect to cost and scaling.

Noorbakhsh, Paloni, and Youssef (2001) found that labor availability and capability significantly influences FDI location decisions in developing countries, especially when wage is affordable and they possess the basic skills. The study by Borensztein, De Gregorio, and Lee (1998) shared this same conclusion in the importance of labor availability to attract FDI.

The Heckscher-Ohlin model also identifies labor availability as a key factor of production. It draws the picture where the availability of labor force creates a comparative advantage for that location and attracts firms that especially engage in labor intensive productions. This means an increase in export for these goods while importing capital-heavy production products. This can be a key driver of FDI, as firms plant production in locations where they can find relatively cheaper and enough labor.

In Ethiopia, the fast growing labor force has been repeatedly cited as an advantage for attracting labor-intensive FDI, particularly in textiles and agro-processing (EIC, 2023). The government promotes affordable and available labor as one of the attractive factors to investing in Ethiopia. But labor growth alone is insufficient without increase in productivity of the labor base. Evidence from studies suggest that it strengthens Ethiopia's attractiveness for investors when supplemented by supportive policies, government support, and market access.

2.4.6 Trade Openness

Trade openness reflects the degree of integration of the host country with global markets and is one of the key determinant of FDI. Open economies have less barriers to international flow of goods and capital. When researching on 36 developing economies, Liargovas and Skandalis (2011) found that trade openness has a positive long-run effect on FDI in those developing countries. Their results suggest that greater openness to international trade is associated with higher FDI. This means that countries with less barriers to trade and with open economic policies present to be more attractive to foreign investors. Asiedu (2002) also found that open trade policies significantly affect FDI inflows, both in the case of SSA and globally.

This is also true for Ethiopia. The study by Haile and Assefa (2006) in Ethiopia found that trade liberalization and export orientation have a positive and significant effect on FDI inflows. Their findings concluded that reducing trade barriers can lead to increased FDI inflows, making Ethiopia more attractive for foreign investment.

2.5 Conceptual Framework

The conceptual framework is driven from the theoretical and empirical studies that have been done so far. FDI inflows are shaped by a combination of factors that help decide a country's attractiveness to foreign investors. This research studies Ethiopia's FDI inflows based on its locational attributes. The study used the following diagram to represent the conceptual framework to show the direction of the relationship between foreign direct investment (dependent variable) and the determinants (independent variables): Real GDP, Inflation rate, Real Effective Exchange Rate, Trade openness, Gross Fixed Capital Formation, and Labor growth rate.

The relationship is conceptualized as:

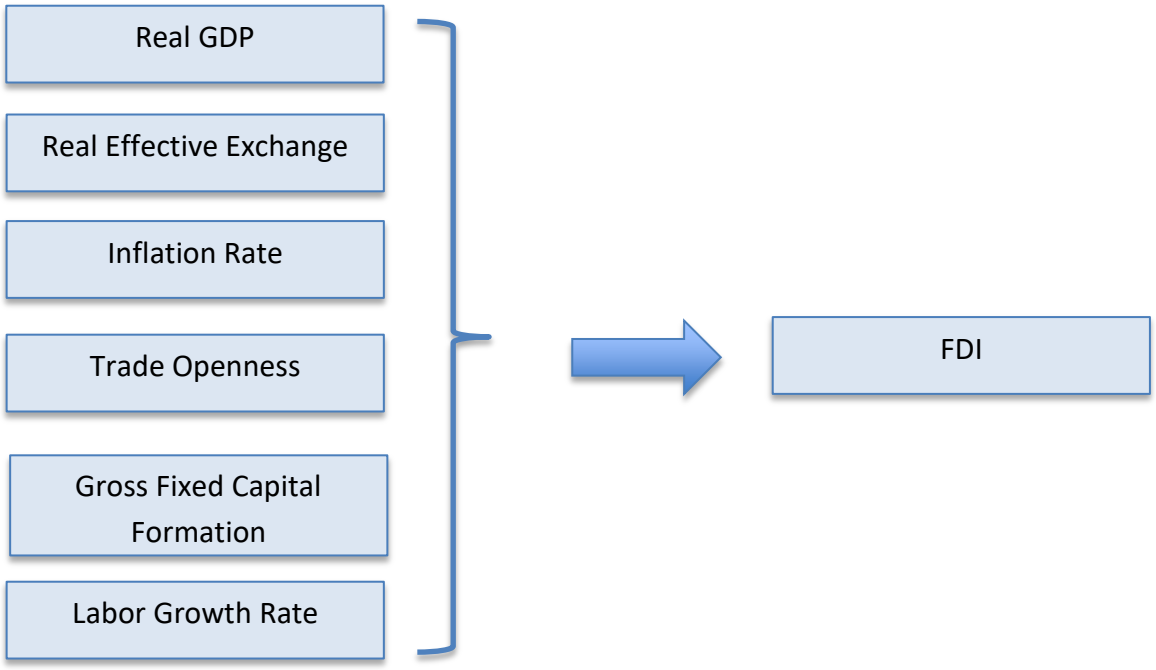


Figure 4 - Conceptual Framework of Determinants of Foreign Direct Investment

Source: my own adaptation based on Mekuria (2023)

Table 3 - Description of Variables

Symbol	**Variable**	**Description**
FDI	Foreign Direct Investment, Net Inflows	The amount of foreign capital invested in Ethiopia; used in its logarithm form
RGDP	Real Gross Domestic Product	Proxy for market size. Used in its logarithm form
REER	Real Effective Exchange Rate	Proxy for macroeconomic stability and cost competitiveness;
INF	Inflation Rate	Proxy for macroeconomic stability.
TOP	Trade Openness [(Exports + Imports)/GDP]	Proxy for global integration and policy;
GFCF	Gross Fixed Capital Formation	Proxy for infrastructure; reflects domestic physical capital stock and industrial potential
LAB	Labor Growth Rate	labor growth and availability

Chapter 3

Research Methodology

3.1. Introduction

According to Kothari (2004), Research Methodology is the systematic and theoretical analysis of the methods applied to a field of study. It comprises the concepts, procedures, and rules for conducting research, and it explains how data are collected, analyzed, and interpreted. This chapter explains the research methodology to study the relationship between FDI determinants and FDI inflow in Ethiopia for the year 1992 - 2024.

3.2 Research Approach

According to Cresswell (2014), quantitative research is a means for investigating the relationship between measurable variables that have numerical values and can be analyzed using statistical techniques. On the other hand, qualitative research focuses on understanding things from the perspective of participants and relies on observations and subjective interpretation rather than numerical measurement. This research used a quantitative research approach. It used secondary time-series data for all the variables, which are recorded numerically.

This study used quantitative research because it examined the relationships between the dependent and independent variables using numerical time-series data. All variables were recorded in a numerical format, which enables precise measurement and statistical analysis. This study focused on quantitative analysis due to the availability of secondary numerical data and to measure the magnitude and direction of the relationships.

3.3. Research Design

Cresswell (2014) defines Research design is the overall plan and strategy that guides a study, from broad assumptions to specific methods of data collection and analysis. It provides the framework to make sure that the findings are valid and reliable.

This study used an explanatory research design, which is suitable for investigating relationships between variables in a potential causal relationships (Saunders et al., 2012). The explanatory

design allows for the analysis of how the selected variables, which are real GDP, real effective exchange rate, inflation rate, trade openness, gross fixed capital formation, and labor growth rate, affect FDI inflows in Ethiopia. The study aims to explain the behavior of FDI as a dependent variable and determine the influence of each independent variable.

To achieve objectives, the study used secondary time-series data from reputable sources, like the National Bank of Ethiopia, the Ministry of Planning and Development, and the World Bank.

An econometric approach was used to estimate both the long-run and short-run relationships between the dependent variable, foreign direct investment, and the selected independent variables. This provides evidence-based insights into the determinants of FDI in Ethiopia. It used the Autoregressive Distributed Lag (ARDL) model. The Auto-Regressive Distributed Lag (ARDL) model is a widely used model in similar research that is applicable to studies where long-run and short-run relationships are studied together. The ARDL model, originally developed by Pesaran and Shin (1999), is suitable when variables are integrated at different levels (l(0) or l(1)). It allows simultaneous estimation of short-run and long-run relationships. For this research, it tested the presence of long run and short run relationship between dependent and independent variables including the lags of the variables. The research recorded varying level of integration for the variables which makes this model suitable.

The ARDL involves testing for stationarity first to see their lag before continuing. There is also co-integration using an F-statistic, which determines whether a long-run relationship exists among the dependent and independent variables. Through the short-run analysis, the Error Correction Model (ECM) estimated the short-run relationship and the speed of adjustment toward long-run equilibrium (Pesaran et al., 2001).

The software application used was EViews 12, which allowed for statistical analysis of the time-series data. It was used for running the regression model, , and generating the outputs for the interpretation of the relationships between the independent variables and FDI inflows in Ethiopia.

Therefore, it was possible to study the selected determinants and distinguish between short-term fluctuations and long-term equilibrium relationships among the dependent and independent variables considering of the post-liberalization environment of Ethiopia.

3.4. Sources of Data

This research studied the determinants of FDI in Ethiopia from 1992 to 2024 using six independent variables. These variables were selected among many other based on their relevance to the dependent variable and the context of Ethiopia. These variables are identified by many empirical and theoretical studies, although they yield different results depending on the country. The selection also considered the availability of complete data for the period identified, which led to the elimination of some considered variables. It used secondary data gathered from the relevant institutions that produce and record it. The sources used for this study are National Bank of Ethiopia, Ministry of Planning and Development, World Bank Database, and Ethiopian Investment Commission. These data were sourced from publications on websites and through direct request of the data from the relevant institutions.

Table 4 - Data Source

Variable	**Data Source**
FDI	EIC/WB
Real GDP (RGDP)	NBE / MoPD
Inflation rate (INF)	NBE
Exchange Rate (REER)	NBE
Trade Openness (TOP)	NBE
Gross Fixed Capital Formation (GFCF)	WB/NBE
Labor Growth Rate (LABOR)	WB

3.5. Target Population

The target population for this study consists of annual observations of foreign direct investment inflows and selected economic determinants in Ethiopia which consists of real GDP, real effective exchange rate, inflation rate, trade openness, gross fixed capital formation, and labor growth rate from 1992 to 2024.

3.6 Variables

The variables used are as follows:

Foreign Direct Investment (FDI)

The dependent variable for this research is the net inflow of foreign direct investment into the country from 1992-2024. It represents cross-border flow of investment by an entity in one country to a market in another country. Foreign direct investment, as it is apparent in its name, involves significant direct engagement in the management and operations. FDI is a key source of foreign currency, technology transfer, and employment creation, especially in developing countries. For sub saharan Africa, FDI has been a key pillar for industrialization and employment opportunities since the 1990s (Ezeoha & Cattaneo, 2017). This time was also when Ethiopia's liberalization reforms started and started attracting more investment. In researchs, the natural logarithm of FDI inflows is often used to normalize data and reduce heteroskedasticity (Haile & Assefa, 2006).

Real Gross Domestic Product (RGDP)

According to the definition by OECD, Real GDP is the standard measure of the value added increment through the production of goods and services in a country during a certain period. Real GDP is widely used as a proxy for market size and overall economic performance since it shows the purchasing power of the economy. A large and growing market means stronger domestic demand and that encourages the firms to invest more.

Real Effective Exchange Rate (REER)

REER is a country's currency value against a weighted average of several foreign currencies divided by a price deflator or index of costs (World Bank). For an investor, the real effective exchange rate shows how expensive it is to do business in that country and the relative price level through its trading partners. A depreciation of the REER makes domestic production cheaper for foreigners, since their currency can now purchase more than before. For export oriented activities, this is a good result. An appreciation of a currency on the other hand can affect it by making local costs of production higher. But for a firm that wants to sell to the local

market, this is a good result since the price may be attractive to locals. From a theoretical perspective, exchange rate movements influence FDI through relative wealth and cost effects (Froot & Stein, 1991; Klein & Rosengren, 1994). A depreciation of the REER can lower production costs and asset prices for foreign investors, encouraging export-oriented and efficiency-seeking FDI. However, excessive volatility may make investment uncertain. Cushman (1985) and Froot and Stein (1991) show that exchange rate depreciation can positively affect FDI decisions although other factors are also in play, while African evidence from Anyanwu (2012) suggests that volatile exchange rates discourage inflows and stability is more preferred.

Inflation Rate

Inflation is commonly used as an indicator of macroeconomic stability. High and volatile inflation increases uncertainty and erodes investor confidence, discouraging long-term investments. High and volatile inflation is more than just a number; it is a source of uncertainty that erodes the real value of profits and makes long-term planning difficult.

Trade Openness

Trade openness, commonly measured as the ratio of total trade (exports + imports) to GDP, captures the degree of an economy's integration with global markets and access to international value chains. Openness enhances market access, efficiency, and competition, which in turn attract efficiency-seeking FDI (Balasubramanyam, Salisu, & Sapsford, 1996). According to the theory of multinational production, open trade regimes facilitate efficiency-seeking and export-oriented FDI by lowering tariff and non-tariff barriers (Dunning, 1993) The importance of trade openness in South Asia, Africa, and the Middle East.is more pronounced in the manufacturing sector more than the total FDI (Sekkat & Veganzones-Varoudakis, 2007).

Labor Force Growth Rate

Labor force is the sum of all individuals who are economically active in a given country (World Bank). Labor force growth represents the increase in human capital, a vital component of production. A growing and relatively low-cost labor force is often a major pull factor for FDI in developing countries (Noorbakhsh, Paloni, & Youssef, 2001). In Ethiopia, the rapid growth of labor supply has not always translated into higher FDI inflows due to skill mismatches and

productivity gaps (World Bank, 2015). A growing labor force can lower production costs and attract multinational firms seeking competitive labor inputs.

Gross Fixed Capital Formation (GFCF)

Gross fixed capital formation is commonly used as a proxy for domestic infrastructure development and productive capacity. Higher domestic investment signals improved absorptive capacity and complementary capital, enhancing the productivity of foreign investment . Empirical studies indicate that GFCF often complements rather than crowds out FDI, especially in developing economies. Ndikumana and Verick (2008) show that domestic investment and FDI are mutually reinforcing in Sub-Saharan Africa. Ethiopian studies such as Haile and Assefa (2006) and Workneh (2014) find that higher fixed capital formation supports FDI inflows by improving infrastructure and investment climate conditions.

Table 5 - Variables and their expected signs

Variable	**Proxy Used**	**Expected Sign**
Market Size	Real GDP	+
Macroeconomic stability	REER	−
Macroeconomic stability	CPI Inflation Rate (%)	−
Openness	Trade openness	+
Infrastructure	GFCF (% of GDP)	+
Labor Force availability	Labor force growth rate	+

3.7 Model Specification

Dunning's Eclectic Paradigm explains that foreign investment is motivated by market-seeking, resource-seeking, and efficiency-seeking factors (Dunning, 1993).

Market-seeking foreign investment is driven by the desire to serve the host country's domestic market. In this case, the size, growth, and stability of the host country would be important. To capture this, real GDP is included as a proxy for market size, while inflation is used to reflects macroeconomic stability. Trade openness is also used, as a more open economy proves easier market access and fewer restrictions on trade and investment.

Resource-seeking FDI invest to gain access to resources that are scarce or costly in their home countries. In Ethiopia, the availability of abundant labor is the major attracting point of the country according to Ethiopia Investment Commission. Labor growth is therefore included as a proxy for labor availability.

Efficiency-seeking FDI aims to enhance firms' competitiveness by reducing production costs and improving operational efficiency, often targeting export-oriented activities. In this context, the real effective exchange rate is included to capture cost while gross fixed capital formation is used as a proxy for investment in infrastructure, which supports efficient production and long-term investment decisions.

Based on the theoretical considerations, this study adopts the empirical framework developed by Demirhan and Masca (2008), which links FDI inflows to key macroeconomic and structural determinants. Accordingly, the general functional form of the model is specified as:

FDI = f(RGDP, REER, INF, TOP, GFCF, LABOR)

Where:

FDI –Foreign Direct Investment

RGDP – Real Gross Domestic Product

REER – Real Effective Exchange Rate

INF – Inflation Rate

TOP – Trade Openness

GFCF – Gross Fixed Capital Formation

LABOR – Labor Growth Rate

3.8. Techniques of Estimation

To examine both the long-run relationship and the short-run between FDI and the determinants, this study used the Autoregressive Distributed Lag (ARDL) bounds testing approach developed by Pesaran, Shin, and Smith (1999, 2001). The ARDL model is well suited to this study because it allows the long-run and short-run effects to be estimated within a single framework, while also accounting for the dynamic nature of economic relationships through the use of lagged variables.

One of the main reasons for choosing the ARDL approach is its flexibility. Unlike some other cointegration techniques such as Johansen, it does not require all variables to be integrated of the same order. The model can be applied when the variables are a mix of I(0) and I(1), as long as none are integrated of order two. This makes it great for time-series data in developing countries, where macroeconomic variables often display different integration properties.

Another advantage of the ARDL framework is that it allows the estimation of an error correction model alongside the long-run relationship. This makes it possible to measure how fast short-run deviations adjust back to long-run equilibrium over time. It is also growingly used in studies on the Ethiopian economy (Abule, 2012; Tesfaye 2019), the ARDL approach is considered an appropriate and reliable method for analyzing the determinants of foreign direct investment in Ethiopia.

Long Run Model Specification

Using annually time series data the foreign direct investment as function of an ARDL representation of equation (1) is formulated as follows:-

Equation (1) can be rewritten for estimation purpose as follows:-

$$lFDI_t = \alpha_0 + \sum_{i=1}^{n} \alpha_{i\, lFDI_{t-1}} + \sum_{t-1}^{n} \beta_{i\, lINF_{t-1}} + \sum_{i=1}^{n} \theta_{i\, lREER_{t-1}} + \sum_{i=1}^{n} \delta_{i\, lTOP_{t-1}} + \sum_{i=1}^{n} \gamma_{i\, lRGDP_{t-1}} + \sum_{i=1}^{n} \varphi_{i\, lGCFC_{t-1}} + \sum_{i=1}^{n} \omega_{i\, lLAB_{t-1}} + \varepsilon_t$$

Where: -

ε_t is the usual white noise residuals. α_0 Is the intercept and $\alpha, \beta, \theta, \delta, \gamma, \varphi, \omega$ are the coefficients of the variables.

All variables are in natural logarithm form, log transformation can reduce the problem of heteroskedasticity because it compresses the scale in which the variables are measured, thereby reducing a tenfold difference between two values to a twofold difference (Gujarati, 1995). It is important to note that the model is a multiplicative one where all parameter coefficients represent constant elasticities.

Short Run Model Specification

Economic theory is mostly interested in equilibrium conditions and has little to say about the nature of economic configurations in disequilibrium. While economic theory proposes that certain macro variables have equilibrium relationships with each other, the data does not confirm that these hold at all times. To overcome this difficulty, economists make a distinction between the short-run and the long-run.

The above ARDL long run equation (2) can be written for the error correction version of ARDL model is as follows:

$$\Delta lFDI_t = \alpha_0 + \sum_{I=1}^{n} \alpha_{i\,\Delta lFDI_{t-1}} + \sum_{I=1}^{n} \beta_{i\,\Delta lINF_{t-1}} + \sum_{I=1}^{n} \theta_{i\,\Delta lREER_{t-1}} + \sum_{I=1}^{n} \delta_{i\,\Delta lTOP_{t-1}} + \sum_{I=1}^{n} \gamma_{i\,\Delta lRGDP_{t-1}} + \sum_{I=1}^{n} \varphi_{i\,\Delta lGCFC_{t-1}} + \sum_{I=1}^{n} \omega_{i\,\Delta lLAB_{t-1}} + \sum_{I=1}^{n} \lambda\, ECT(-1) + \mu_t$$

Where:

Δ denotes the first difference operator,

μ_t is the residuals. α_0 Is the intercept and $\alpha, \beta, \theta, \delta, \gamma, \varphi, \omega$ are the coefficients of the variables.

3.9 Diagnostic Tests

An econometric model may be affected by weaknesses in the model which can affect the results. Before we perform an econometric analysis and draw conclusions from the model, it is important to ensure that the model is statistically sound and that it satisfies the assumptions of the classical regression framework. In ARDL, diagnostic and stability checks play a key role in verifying that the results are not affected by phenomena such as autocorrelation, heteroskedasticity, functional misspecifications, or unstable relationships. These probabilities all can affect the long run and short run estimations. We need to make sure that the model functions accurately. For this purpose, tests exist to serve as a quality control of the analysis. They ensure that the resultant calculated relationships are genuine and can be interpreted as such with confidence.

To ensure an accurate interpretation and the validity of the model, the following diagnostic tests were conducted.

3.9.1. Unit Root Tests (Stationarity Test)

This test checks that no variable is integrated of order two, as ARDL doesn't work in the presence of I(2) variables. Time series data sometimes shows a tendency to drift over time rather than fluctuate around a fixed mean. This property is known as non-stationarity, and it can cause problems in making sound estimation. When non-stationary variables are used in the analysis, the resulting relationships can appear statistically significant even when they are not. This is

known as spurious regression (Gujarati, 2003). To ensure that this is not the case,, it is necessary to test whether each variable is stationary, and if not, to determine how many times it must be differenced to achieve stationarity.

This study used the Augmented Dickey–Fuller (ADF) test to examine the stationarity of the variables in the model. The test equation can be written as:

$$\Delta Y_t = \alpha + \beta t + \Phi Y_{t-1} + \sum_{i=1}^{P} \gamma_i \Delta Y_{t-i} + \varepsilon_t$$

Where:

- Y_t is the variable being tested,
- t is a time trend,
- Δ denotes the first-difference operator,
- p represents the number of lagged terms included to eliminate serial correlation, and
- ε_t is a white noise error term.

The null hypothesis states that the series has a unit root meaning it is non stationary while the alternative hypothesis states stationarity. If the calculated t-statistic for Φ is more negative than the critical value, the null hypothesis is rejected, implying that the variable is stationary.

In this study, all variables were tested at both zero level and first differences. The results confirmed that each series was integrated of order zero (I(0)) or order one (I(1)), but none were integrated at order two (I(2)). This finding is important because the ARDL bounds testing procedure accepts integration at different levels but does not work for differences of order 2 (l(2)). If any of the variables were I(2), the computed F-statistic for cointegration would become invalid, making the ARDL approach unsuitable.

Thus, ADF test confirmed the order of integration and provided the green light for applying the ARDL method further.

3.9.2. Serial Correlation Test (Breusch-Godfrey LM)

This test is used to detect autocorrelation in regression models. Autocorrelation means that present values of variables are influenced by lagged versions of themselves over a time period. In time series models, residuals should ideally be independent from one period to another. If residuals are correlated across time, errors in one period depend on errors in previous periods. This would mean that there is no independence. Serial correlation does not bias the estimated coefficients, but it leads to inefficient estimates and unreliable statistical inference because the standard errors are underestimated. Therefore, the model must be cleared for autocorrelation.

For this research, the Breusch-Godfrey Lagrange Multiplier (LM) test was used to check autocorrelation. It involves estimating an auxiliary regression in which the residuals from the original model are regressed on the variables and on their own lagged values. The test statistic is then used to evaluate whether the lagged residuals are jointly significant.

The null hypothesis of this test is that there is no serial correlation among the residuals, while the alternative hypothesis is that there is serial correlation. This means that if the model's lag structure is inadequate or if relevant dynamics have been omitted, the null hypothesis is rejected. If the residuals behave randomly and the lag structure chosen for the ARDL model is sufficient to capture the underlying dynamics of the variables, we will not reject the null hypothesis.

Ensuring the absence of serial correlation is important because the estimated relationships between foreign direct investment and its determinants need to be credible and wrong results due to autocorrelation need to be prevented.

3.9.3. Heteroskedasticity Test

Another assumption that is fundamental to the regression model is the constancy of the variance of the error terms across all levels of our determinant variables. This property is known as homoskedasticity. But if the variance of the residuals changes with the level of the determinant variable, the resulting phenomena is called heteroskedasticity. This issue does not bias

coefficient estimates but it makes the usual standard errors invalid, leading to unreliable hypothesis tests and confidence intervals.

To check for this problem, White's (1980) general test was applied. Unlike earlier tests such as the Breusch-Pagan test, the White test does not require any specific functional form for the variance and is valid to non-normality of residuals. The test is conducted by regressing the squared residuals from the main model on the original determinant variables, their squares, and their cross-products.

The null hypothesis states that the residuals are homoskedastic (meaning they have constant variance), while the alternative hypothesis states that the variance of the error terms is not constant and changes as the values of the independent variables change.

For this research, homoskedasticity ensures that the estimated standard errors in the ARDL model are valid. It also indicates that variations in the macroeconomic variables like RGDP, inflation, or exchange rate movements do not systematically distort the model's residual variance. The White test, therefore, supports the reliability and efficiency of the estimates of the determinants of FDI in Ethiopia for the selected time period.

3.9.4. Normality Test

In regression analysis, it is important that the distribution of the variables is normal. Checking for normal distribution of the residuals ensures that the intervals calculated are actually reliable. The Jarque-Bera (JB) test is a widely used test for this purpose.

The test checks whether the sample data's skewness and kurtosis are that of a normal distribution. The null hypothesis is that the residuals are normally distributed, while the alternative hypothesis is that it is not a normal distribution. A normal distribution means that errors are balanced, positive and negative errors happen at a balanced rate, and that extreme values are rare. This ensures that the model's predictions are not biased in some direction and that standard t-statistics and F-statistics are valid. Testing for normality is a health check for the data that provides the assurance that the ARDL estimates are statistically sound.

For this study, the JB test verified that the residuals from the model were symmetric and not excessively peaked.

3.9.5. Functional Form Misspecification Test

Functional form misspecification means that the model doesn't capture the proper relationship between the variables. To check for this, the Ramsey Regression Equation Specification Error Test (RESET) was used

The Ramsey RESET test uses additional powers of the predicted values of the dependent variables (squares, cubes,...) to the regression equation to see if it improves it. If the added powers of these fitted values make it statistically significant, it means that the original functional form has not adequately captured the true relationship. But if it doesn't make a difference, then it means the model selected is correctly specifying.

If the null hypothesis which that the model is correctly specified passes, the model is well constructed and correctly captures the relationship between FDI and the determinant variables in the ARDL framework. The alternative hypothesis is that it has been misspecified.

The Ramsey RESET test provided an additional confirmation that the model specification matches the theoretical relationships.

3.9.6. Structural Stability Tests

Structural Stability Test is used to determine whether the rules of the model remain constant over the specified time and wasn't interrupted suddenly by some developments. To test for the structural stability, this study used the Cumulative Sum (CUSUM) test developed by Brown, Durbin, and Evans (1975).

This test is based on recursive residuals obtained from the ARDL model. The CUSUM test tracks and detects systematic changes in the coefficients over time. The result is then presented as a graph. The cumulative sums are plotted on the same graph with the 5 percent significance bounds. If the cumulative sums plots stay within the bounds, it means the relationships are stable and reliable for the whole period.

The null hypothesis is that all parameters are stable over the entire period while the alternative hypothesis is that at least one coefficient has changed during the time period. The result is displayed graphically and if the plots remain within the critical limits, the null hypothesis of

parameter stability is accepted. If they cross the bounds, it shows that one or more parameters have shifted in that time period, suggesting instability in the model.

The stability was confirmed through the CUSUM test and it showed that the coefficients were consistent across the time period and that no major structural breaks affected the long-run and short-run relationships estimates.

3.10. Ethical Considerations

Even though this study uses only existing data, it's still important to be ethical. All the information comes from official sources like the National Bank of Ethiopia and World Bank, so there's no personal data involved.

The data was only used for this research and will be handled responsibly and legally. The sources are acknowledged where necessary and stored safely. Overall, the study has respected the data sources, was fair in how it used the information, and followed basic ethical standards.

Chapter Four

Result and Discussion

This section presents the results of the analysis and discusses what the results mean for this study. It shows the presence and kind of influence that the specified variables have on FDI inflow to Ethiopia from 1992 to 2024. It has utilized the various tests discussed in the previous chapter to ensure integrity of the model.

4.1. Descriptive Statistics

The study has used seven variables for the analysis purpose including six independent variables and one dependent variable. The descriptive statistics for the determinants of FDI (inflation rate, real effective exchange rate, trade openness, Real GDP, Gross Fixed Capital Formation, and the labor force growth rate) are shown below.

Table 6 - Descriptive statistics results

Variables	**No of Observation**	**Mean**	**Standard Dev.**	**Median**
FDI (Bn)	32	1.202	1.469	3.189
CPI	32	13.950	12.600	10.600
REER	32	139.57	46.300	130.400
Trade Openness	32	34.860	9.520	35.580
RGDP (Bn)	32	4.204	3.081	2.967
GCFC	32	0.290	0.007	0.290
Labor	32	2.670	1.010	3.010

FDI has a mean value of 1.202 billion, with a standard deviation of 1.469. This indicates FDI inflows have been volatile over the study period. The median is 3.189 billion and it has experienced periods of high-intensity inflows that pull the typical value upward.

Inflation rate shows a mean of 13.95. The standard deviation is 12.600 reflects considerable fluctuations in price levels across the 32 years. NBE annual reports show that inflation has risen over 40% at times and show high variation throughout the decades.

The real effective exchange rate (REER) has a mean of 139.57 and a standard deviation of 46.3, and the median of 130.4. It shows that there have been periods of significant currency valuation shifts and fluctuations. This is expected to have grown due to the floating of the currency in 2024 by the National Bank of Ethiopia, which has depreciated it.

Trade openness has a mean of 34.86 and a median of 35.580. It shows that Ethiopia's integration into the global market has been relatively slow and steady. The standard deviation is 9.520. It shows that when the country opened its doors at different levels to trade, the volume of imports and exports to GDP followed a consistent trend.

The real gross domestic product has a mean 4.204 with a standard deviation of 3.081. This reflects the massive economic transition Ethiopia has undergone. Starting from a low base, the economy has grown significantly toward the end of the 32-year period. The median is 2.967 and shows a growth trajectory.

Gross fixed capital formation (GCFC) is the most stable variable from the selection. It has a mean and median both at 0.29 and a standard deviation of 0.007, it shows that domestic investment as a percentage of the economy has barely moved. This suggests where domestic capital investment stays fixed at a certain level of GDP.

Lastly, the labor force growth has a mean of 2.67 and a median of 3.01. The standard deviation of 1.010 shows that while the workforce is growing, it is doing so at a predictable pace. The median is higher than the mean and the labor supply has been above the average, providing the manpower needed to attract the investors.

4.2. Results for Unit Root Testing

As explained in the previous chapter, if the variables are stationary at I (0) and I (1), ARDL model is a legitimate tool for estimate; but, if any of the variables are integrated at I (2), the estimation process will be unsuitable. To remove spurious regression from the result, a stationarity test is performed in the table below as displayed the unit root test results. The ADF test results are displayed at both level and first difference. The null hypothesis that the variable is

non-stationary at level or at first difference is rejected since the results demonstrate that all the variables are integrated of order zero or one and log transformation was done where necessary.

Table 7 - Unit Root Test Results

	At Level		At First Difference		
Variables	t-statistic	Critical value	t-statistic	Critical value	Stationary at
LnFDI	-0.892	-2.930	-4.154	-2.930	I (1)
INF	-3.243	-2.930	-7.804	-2.930	I (0)
LnREER	-1.709	-2.930	-4.549	-2.930	I (1)
LnTrade Oppness	-1.168	-2.930	-3.303	-2.930	I (1)
LnRGDP	1.744	-2.930	-0.757	-2.930	I (1)
LnGCFC	-1.368	-2.930	-2.506	-2.930	I (1)
Labor	-1.886	-2.930	-4.325	-2.930	I (1)

4.3. Correlations

The table below illustrates how the independent variables correlate to the dependent variable, showing the strength and direction of relationship between them. Table 7: Correlation matrix for dependent and independent variables

Table 8 - Correlation matrix

Variables	**FDI**	**Inflation**	**REER**	**Trade openness**	**RGDPg**	**GCFC**	**Labor**
FDI	**1.000**	**-0.304**	**0.217**	**0.436**	**0.908**	**0.437**	**0.838**
Inflation	**-0.304**	**1.000**	**-0.022**	**-0.033**	**0.428**	**0.171**	**0.428**

REER	**0.217**	**-0.022**	**1.000**	**-0.519**	**0.191**	**-0.124**	**0.080**
Trade Openness	**0.436**	**-0.033**	**-0.519**	**1.000**	**-0.421**	**0.396**	**-0.123**
RGDP	**0.908**	**0.428**	**0.191**	**-0.421**	**1.000**	**0.422**	**0.743**
GCFC	**0.437**	**0.171**	**-0.124**	**0.396**	**0.421**	**1.000**	**0.644**
Labor	**0.838**	**0.428**	**0.080**	**-0.128**	**0.743**	**0.644**	**1.000**

The correlation results show that foreign direct investment is strongly associated with real GDP growth and labor force growth. The positive correlation between FDI and RGDP suggests that stronger economic performance in Ethiopia have happened where it was also seen higher FDI inflows. This supports the market-seeking motive of foreign investors, because expanding domestic market and income levels attract investment. This finding is consistent with Chakrabarti's (2001) finding who has said that market size is often the most important factor for investors. Similarly, the Labor Force growth rate shows a strong positive correlation, supporting the idea that Ethiopia's large pool of workers is a pull factor

On the other hand, Inflation has a negative correlation of -0.304. It shows that as inflation goes up, FDI tends to go down. According to the IMF and Africa Development Bank, high inflation beyond certain threshold (6-7% inflation rate for Africa) can leads to a failure in maintaining appropriate exchange rates, which creates price mismanagement. It also tends to slow down economic growth and investment. Furthermore, it also brings loss of confidence and drains domestic savings and increased capital flight. This would ultimately discouraging both domestic and foreign direct investment (Senhadji & Khan, 2000.)

Trade Openness, REER, and GCFC also show positive correlations. The positive link with trade openness aligns with the "vertical FDI" theory mentioned by Haile and Assefa (2006), where a more open economy attracts export-oriented firms.

4.4. Results for Bounds Tests for Co-integration

The Johanson co-integration test is wrong when the series are of different order; instead, the Bound Test for co-integration is more suitable (Pesaran and Shin, 2001). To determine whether there is a long-term link between variables, the Bound test uses F-statistics. The maximum lag time is advised since the Akaike information criterion (AIC) is a better criteria for data with a small sample size.

After examining a level (long-run) relationship, the F-test is compared to the lower and upper bounds of the crucial value. It can be determined that there is a long-term link between the variables if the F-statistic is higher than the upper bound. On the other hand, one can determine that there is no long-term link between the variables in question if the F-statistic is less than the lower bound test. However, it cannot draw a conclusion if the F-statistic is between the upper and lower bound critical values; instead, it must consider the significance and sign of the error correction model.

Table 9 - F-Statistics Result and Critical Values for the ARDL Modeling Approach

F-statistic**: 8.256**		
Significance	Bound I (0)	Bound I (1)
1%	3.242	5.324
5%	1.992	3.436
10%	1.724	3.143

The computed F statistic is 8.256, above the upper bound critical value for the 10, 5, and 1 percent significance levels, respectively. Consequently, we reject the null hypothesis that there is no co-integration, which suggests that there is a long-term relationship between the variables.

This long-run linkage aligns with earlier time-series studies on Ethiopia, such as Teshome (2014), Workneh (2014), and Haregewoyn (2016), which also report stable long-term relationships between FDI and macroeconomic fundamentals.

4.5. Long-run Diagnostics and Stability test

Before forming inferences from the findings and applying them to guide policy decisions, it is crucial that the estimated model undergoes a series of diagnostic tests. The purposes of the tests have been explained in previous chapter. We perform a number of diagnostic tests, such as the serial correlation test (Brush and Godfrey LM test), functional misspecification test (Ramsey's RESET test), normality test (Jaque-Bera test), and heteroskedasticity test, as described in methodology.

4.5.1. Test for serial correlation

We investigated whether the residuals are serially associated using the Brush and Godfray LM test. The null hypothesis that there is no serial correlation among the residuals cannot be rejected, as indicated by the p-value of 0.138, which is greater than 0.05.

4.5.2. Test for heteroskedasticity

This study used White's test to determine whether homoskedastic residuals exist. The result indicates that the null hypothesis for homoskedastic residual cannot be rejected because the P-value is big at 0.876. This result confirms that the models errors are stable over time. This ensures that the estimated impacts of the variables are statistically reliable and not distorted by inconsistencies.

4.5.3. Ramsey RESET examination

The Ramsey RESET test for functional form investigates if the models are well-constructed or whether the relationships haven’t been captured properly or it may have missing variables. The test resulted in a p-value of 0.430, which is significantly higher than the standard 5% (0.05)

threshold. This means that the chosen functional form is appropriate and that the model has not missed or overlooked any key relationships or variables which could lead to misspecification.

4.5.4. The Jarque-Bera normality test

The Jarque-Bera Normality Test detects whether the residuals have a normal distribution. It looks at their skewness and kurtosis. The test produced a p-value of 0.638, which is significantly higher than the 0.05 threshold. Therefore, we don't to reject the null hypothesis and confirm that the residuals are normally distributed.

In summary, the diagnostic results show that the residual is homoskedastic, regularly distributed, and the model is well-specified. Additionally, there is no serial correlation among the residuals. As a result, the estimation model passes all of the diagnostic tests required to confirm the common assumptions used in the model's estimation.

4.5.5. Structural Stability

The Recursive CUSUM test shows that the cumulative sum stays within the 5% critical boundaries throughout the sample period. This indicates no structural break and confirms that the model's parameters are stable over time.

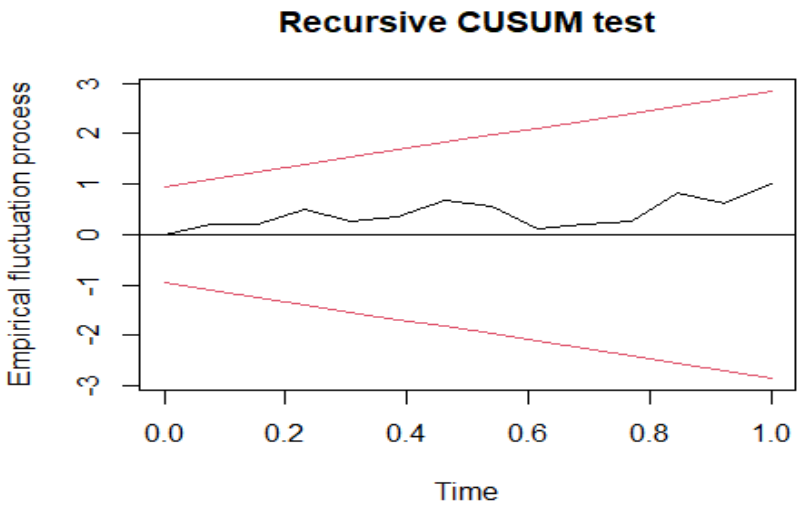


Figure 5 - Recursive CUSUM Test

4.6. Long-run ARDL Model Estimation Results

Table 10 - ARDL Long-run Estimation Results

ARDL Long Run Form and Bounds Test		
Selected Model: ARDL (1,0,0,0,0,0,0)		
Variable	Coefficient	Prob.
LFDI (-1)	-0.156	0.267
L(Inflation)	-0.473	0.006 **
L(REER)	-0.583	0.014 *
L (Trade Openness)	0.828	0.003 **
L(RGDP)	1.832	0.054 *****
L(GCFC)	0.256	0.115
L(Labor)	2.793	0.010 *****
Intercept	0.992	0.030 *

The long run model indicates that Real GDP is a positive and significant predictor of FDI. A 1% increase in real GDP increases FDI inflows by approximately 1.83%. This tells us that market size and growth potential play a big role in attracting FDI to Ethiopia.

There is a positive and statistically significant long run relationship between the Labor Force growth rate and FDI. For every 1% growth in the labor force growth rate, FDI inflows rise by approximately 2.79%. This is consistent with the broad theoretical consensus that an adequate supply of labor is an attractive factor, as also specified in the Ethiopian Investment Commissions plans.

The model shows trade openness has a positive and significant relationship with FDI. The result shows that for every 1% change in trade openness, there will be a 0.828% increase in FDI inflows. This finding reinforces the argument that FDI in Ethiopia is largely "vertical" or export-oriented.

Inflation is shown to have a negative and highly significant effect on FDI. A 1 percent increase in inflation leads to a 0.47 percent decline in FDI in the long run. This shows that sustained levels of high inflation affect FDI inflows and discourage.

For the Real Effective Exchange Rate, the result shows a negative and significant long run relationship. Foreign direct investment decreases by 0.583 percent for every 1% appreciation in the real effective exchange rate. This means that a depreciation of the currency against other currencies will actually promote FDI because it makes local assets and labor cheaper for the foreign firms.

GFCF shows a positive relationship with FDI but it is insignificant. Therefore, we cannot conclude that this variable has an independent long-run effect on the FDI inflow.

4.7. ARDL Short Run results and Error Correction Model (ECM) Estimation Results

Table 11 - ECM Results

ARDL Short Run Error Correction Model		
Dependent Variable: **LFDI**		
Variable	Coefficient	Prob.
Intercept	0.951	0.000 ***
L (Inflation)	-0.145	0.024 *
L (Inflation (-1))	-0.453	0.004 **
L (REER)	-0.670	0.021 *
L (REER (-1))	-0.558	0.020 *

L (Trade Openness)	0.296	0.172
L (Trade Openness (-1))	0.794	0.004 **
L (GCFC)	0.245	0.138
L (GCFC (-1))	-0.474	0.000 ***
L(Labor)	2.677	0.006 **
L (Labor (-1))	6.552	0.000 ***
CointEq (-1) *	-0.655	0.000 ** *

Since the ARDL Bounds test confirmed the presence of a long-term relationship between the variables, the Error Correction Model (ECM) was estimated to determine the speed of adjustment and short-term correlations. The results show that the error correction coefficient is negative and significant at -0.655.

When looking at the variables, it shows that inflation rate, REER, and the labor force are the primary and immediate drivers of FDI in Ethiopia. Foreign investors react to rise in market size and labor availability. These findings align with the view that current economic expansion and the supply of human resources act as powerful signals to foreign firms. Foreign firms are moving in to tap into the growing workforce, and they respond very strongly to increases in labor availability.

Furthermore, macroeconomic stability plays a crucial role in the short term; immediate and lagged price instability, alongside exchange rate fluctuations, significantly influence investor behavior. The results indicate that currency depreciation provides an immediate boost to cost-competitiveness, while inflation rises create immediate uncertainty that affects capital.

The model shows when inflation rises, FDI drops almost immediately. The lag is more significant than the current period which suggests that investors are highly sensitive to past

inflation results and they react to both today's prices and last year's prices. These results also show that a weaker Birr helps attract FDI in the short run by making Ethiopian assets and labor cheaper for foreigners.

In contrast, trade openness and domestic capital formation (GFCF) exhibit a delayed effect on FDI. While changes in trade policy do not trigger an immediate spike in investment within the same year, their impact becomes highly significant after one period. While current capital formation shows no immediate impact, its lagged effect is significant but negative. This reveals a crowding out effect between FDI and GFCF as also shown by Agosin and Mayer (2000).

4.8. Discussion of Results

The long-run results indicate that Ethiopia's strengths lie in growing labor force and expanding market size. The positive and significant relationship between the labor force and FDI inflows confirms that the country is a primary destination for efficiency-seeking investment and foreign firms capitalize on the large pool of available workers to drive labor intensive manufacturing as indicated by the Ethiopia Investment Commission. The findings from Sahoo (2006) also support this as a growing labor force is a good indicator for investors. While Workneh (2014) noted that human capital (measured by adult illiteracy) was not statistically significant, the strong significance of the labor force in this study highlights that the amount of available workers is currently an important determinant since Ethiopia mostly attracts labor intensive investments such as in the textile industry where labor force is easily trained. Traditionally, multinational corporations are attracted to countries with abundant, low-cost labor to maximize cost efficiencies in production. This is seen as one comparative advantage that countries possess.

This is reinforced by the growth of Real GDP, which serves as a signal to market-seeking investors that the economy possesses the necessary scale to support big investment. This aligns with the findings of Chakrabarti (2001) and Ang (2008) who have also identified RGDP as an important driver of FDI inflow. Haile and Assefa (2006) have also found that the growth rate of real GDP has a positive and significant effect on attracting FDI, and yet they found that a low level of per-capita income can sometimes discourage market-seeking FDI. This result also contrasts with Workneh (2014), who found market size to be statistically insignificant. But the positive significance result in this research resonates with most research findings such as Azam

and Lukman (2010), and shows Ethiopia's ever growing market size is being a pull factor for market-seeking investors.

The result also shows the restrictive effect of macroeconomic instability and domestic resource constraints. Inflation rate is a significant discouragement over time, as persistent inflation erodes the real value of investments and increases the cost of production. The lack of price stability creates a risk premium that is usually assigned to African countries. This is consistent with Workneh (2014) and Haile and Assefa (2006), both of whom found that inflation (a proxy for macroeconomic instability) significantly deters FDI. Haile and Assefa (2006) argue that macroeconomic stability is a fundamental determinant. Balasubramanyam (2001) also notes high inflation shows macroeconomic instability and the government's inability to manage the economic stability. It mentions that it can discourages long term commitment for investors due to uncertainty. The relationship of 1% increase in inflation leading to a 0.47% decline in FDI shows the necessity of stability to maintain investor confidence. The Mundell-Tobin Effect theory states that inflation can encourage investment by decreasing real interest rates and promoting a reallocation from cash to capital. But then recent research by Mensah et al (2024) indicates that this effect is conditional, with an optimal inflation threshold of 7.26% and a second threshold of 16.49% for Africa, above which it results in diminishing returns.

Similarly, the long-term impact of the real effective exchange rate (REER) proves the importance of cost-competitiveness. A currency that remains overvalued over the long term makes Ethiopia's exports less competitive global. This finding is supported by Shamebo et al. (2020) and Wafure and Nurudeen (2010), who found that exchange rate depreciation was important for attracting investment. Abbott et al. (2012) on the other hand found that countries with fixed or intermediate de facto exchange rate regimes tend to attract more FDI than those with flexible systems. For Ethiopia it could be that the cost-competitiveness gained through depreciation outweighs the risks associated with currency fluctuations. This confirms that for export-seeking investors, the cost-competitiveness from the real effective exchange rate is a significant driver of investment. While maintaining appropriate levels is important, maintaining its stability is also necessary.

The relationship with trade openness indicates that the degree of integration into the global economy is important. This result is consistent and strongly supported with Haile and Assefa (2006) and Workneh (2014). The positive impact of openness shows that the post-1991

privatization and liberalization efforts have created a good environment for export-seeking investors in sectors like textiles and agro-processing. In efficiency-seeking FDI, firms invest in open economies to take advantage of lower production costs and then export those goods back to international markets.

Gross fixed capital formation has shown to be insignificant to FDI in the long run according to the result. This matches the findings of Aseidu (2002) and Workneh (2014), both of whom reported that infrastructure development has an insignificant effect on FDI. Haile and Assefa (2006) found telephone lines to be negative and significant, citing UNCTAD (2002) reports that poor telecommunications, transport, and power supply remain major constraints. The insignificance in this study suggests that while general capital formation is positive, it has not reached the level to significantly attract FDI.

In the short run, the results reveals that the investment climate is highly sensitive to inflation rate, REER, and labor force. Inflation and real effective exchange rate are immediate affecters, both with negative effect. High inflation creates an atmosphere of uncertainty, which, in the short term, serves as a red light as it threatens the real value of returns. The result also shows a one-year lag in the impact of trade openness, indicating that investors do not immediately react to the openness reforms, but waiting for the policies to be stable. GFCF has a negative impact in the short term lagged variable, suggesting a temporary crowding-out effect, where large-scale government projects or domestic expansions may create competition for resources. This makes it difficult for foreign firms to get.

The high speed of adjustment from the error correction term indicates that the Ethiopian economy has a strong internal recovery mechanism. The system corrects more than 65.5% of its short-term imbalances within a single period and the investment climate shows resilience. This means that even when fluctuations in the long-term variables create pressure, the economy moves back toward its equilibrium.

Chapter 5

Summary, Conclusion and Recommendation

5.1 Summary of Major Findings

The study confirms that FDI in Ethiopia is determined by a mix of variables in long-run dynamics and short-run shifts. The Error Correction Term is -0.655 shows that the model is stable and that the economy corrects about 65.5% of its short-term deviations within one period to long term equilibrium.

In terms of the specific variables, Real GDP and the Labor Force are the most significant positive drivers. The result show that as the economy size grows and the workforce expands, FDI inflows increase. This confirms that investors are primarily drawn to Ethiopia's market size and its abundant human capital. The results highlight Ethiopia’s massive comparative advantage in labor-intensive industries.

On the other hand, Inflation acts as a major "red light" for investors. High price volatility signals a lack of macroeconomic stability, which creates uncertainty and discourages long-term business commitments. In the short run, the model shows that rising inflation rates acts as a deterrent. Macroeconomic instability is a risk factor for FDI attraction. Similarly, the Real Effective Exchange Rate (REER) is also showed a negative relationship, meaning that currency depreciation can actually help attract FDI by making local costs, labor, and assets cheaper for foreign investors. It shows that currency value matters a lot for cost-competitiveness.

Trade Openness is another vital factor. It shows that most FDI in the country is focused on exporting goods. Liberalization remains a key positive driver.

However, Gross Fixed Capital Formation (GFCF) result shows that it isn't significantly pulling in FDI.

5.2. Conclusion

This research studied the determinants of FDI inflows in Ethiopia using annual time-series data and the ARDL approach over the study period. As discussed in the previous chapter, the analysis confirms the existence of a stable long-run relationship between FDI and the key determinants

selected, which are inflation, real effective exchange rate (REER), trade openness, real GDP, gross fixed capital formation, and labor force growth rate. The bounds test results indicated that FDI inflows in Ethiopia are determined by these variables jointly in the long run.

Overall, the findings suggest that while Ethiopia's growth and labor pool plus open trade provide a strong base for attracting investment, keeping inflation under control and maintaining a competitive exchange rate is important for keeping investment long term in the country.

The study concludes that Ethiopia has major advantages toward becoming a top destination for foreign investment. The most important takeaway is that Ethiopia's greatest assets are its growing economy, its labor force, and its increasing open market policy. The fact that the labor force and market growth consistently attract investment shows that the country's shift toward industrialization and manufacturing is working. They ensure that investment keeps coming to Ethiopia despite some other challenges.

The research also shows cautionary areas for investors such as macroeconomic instability (mainly inflation). The findings regarding inflation and exchange rates serve as a reminder that the cost of doing business can easily affect the other positive factors. Ethiopia needs to have stability and predictability in these areas.

The conclusion of this research is that while Ethiopia has the right pull factors like labor growth, economic growth, and ever improving trade openness, the long-term success of its investment policy will also depend on the government's ability to maintain a stable inflation and properly valued currency.

5.3 Recommendation

Based on these findings, the following can be recommended.

- Since inflation was found to be a very significant challenge to investment, the National Bank of Ethiopia should keep prioritizing price stability as a core component of its strategy. Too high inflation creates a risk premium that decreases confidence of long-term investments. Monetary policy should be tightened to keep inflation in single digits as it is suggested for developing countries

- The negative relationship between the exchange rate and FDI shows that cost-competitiveness is meaningful for export-oriented firms. The government should avoid an overvalued currency that makes local production expensive. Instead, the managed but competitive exchange rate policy should be maintained to ensure that Ethiopia's assets and labor remain attractive to international investors compared to other regional competitors.
- Trade openness has shown to be a positive and significant driver of FDI. Therefore, it should be increased through continued policy efforts and building relationships. The market should be opened up to more trade integrations. The recent joining of Ethiopia to the AfCFTA is a positive step and is expected to increase foreign trade (PSI, 2025). This will encourage more foreign firms to invest in Ethiopia and use these agreements to their advantage. On a similar note, strengthening infrastructures such as road, rail, air cargo, and sea port access would enhance Ethiopia's position in implementing open market policies.
- Labor force is Ethiopia's strongest pull factor. To maximize this advantage, the government should shift focus from just the *quantity* of workers to the *quality* of the workforce. Investing in Technical and Vocational Education and Training (TVET) centers that align specifically with the needs of foreign as well as domestic industries will help Ethiopia keep attracting significant FDI.

- Ethiopia should also continue to streamline processes for doing business. Although it currently ranks low on ease of doing business indexes (World Bank, 2020), it can improve this through reducing administrative complications and streamlining processes, providing more financial incentives like tax breaks. It can improve the overall legal framework to conduct business in Ethiopia. The expansion of the Mesob one-stop-shops and digitization of processes at the Ethiopia investment commission are a big positive development towards this end and there needs to be more build-up in efficiency of delivering services. What can further boost investor confidence is more strict enforcement protection of properties (physical and intellectual), patents, and dispute resolution mechanisms

5.4. Future Research Areas

There is room for future research in this area to explore sector-specific determinants of FDI and incorporate relevant variables for a more customized look. There is also room for studying the new developments that happened in the 2024/25 fiscal year like the macroeconomic reforms, Birr currency floating, and opening of the banking business to foreign investment. Their impact will be seen in the coming years as more foreign investors join the country.

References

Adelakun, J., & Ogujiuba, K. (2023). A comparative analysis of the determinants of foreign direct investment: The case of top ten recipients of foreign direct investment in Africa. Economies, 11(10), 244.https://doi.org/10.3390/economies11100244

African Development Bank Group. (2015). Development Effectiveness Review: Ethiopia Country
Review.https://www.afdb.org/fileadmin/uploads/afdb/Documents/Development_Effectiveness_Review_In_Ethiopia/DER_ethiopia_WEB_EN_Level1.pdf

Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. American Economic Review, 89(3), 605-618.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: The role of local financial markets. Journal of International Economics, 64(1), 89-112.

Ali, F., Fiess, N., & MacDonald, R. (2008). Do institutions matter for foreign direct investment? University of Glasgow Working Paper. https://www.gla.ac.uk/media/Media_92803_smxx.pdf

Anthony Bende-Nabende, 2002. "Foreign direct investment determinants in Sub-Sahara Africa: A co-integration analysis," Economics Bulletin, AccessEcon, vol. 6(4), pages 1-19.

Anyanwu, J. C. (2012). Why does foreign direct investment go where it goes? New evidence from African countries. Annals of Economics and Finance, 13(2), 433-470. https://ideas.repec.org/a/taf/annfin/v13y2012i2p433-470.html

Ashine, S. G. (2024). Assessment of foreign direct investment inflows into Ethiopia in light of peace and security challenges from 2018 to 2022. Cogent Social Sciences, 10(1), Article 2308670. https://doi.org/10.1080/23322039.2024.2308670

Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. African Development Review, 18(2), 226-246. https://doi.org/10.1111/j.1467-9701.2006.00758.

Azam, M., & Lukman, L. (2010). Determinants of foreign direct investment in India, Indonesia and Pakistan: A quantitative approach. Journal of Managerial Sciences, 4(1), 31–44.

Balasubramanyam, V. N., & Salisu, M. A. (2001). Foreign direct investment and globalization. In Regionalism and Globalization (pp. 199–220). Routledge.

Bengoa, M., & Sánchez-Robles, B. (2003). Foreign direct investment, economic freedom and growth: New evidence from Latin America. European Journal of Political Economy, 19(3), 529-545.https://doi.org/10.1016/S0176-2680(03)00011-9

Borensztein, E., De Gregorio, J., & Lee, J.-W. (1998). How does foreign direct investment affect economic growth? Journal of International Economics, 45(1), 115-135. https://doi.org/10.1016/S0022-1996(97)00033-0

Brainard, S. L. (1993). A simple theory of multinational corporations and trade with a trade-off between proximity and concentration. NBER Working Paper No. 4269. National Bureau of Economic Research

Brown, R. L., Durbin, J., & Evans, J. M. (1975). Techniques for testing the constancy of regression relationships over time. *Journal of the Royal Statistical Society: Series B (Methodological)*, *37*(2), 149–192. https://doi.org/10.1111/j.2517-6161.1975.tb01532.x

Buckley, P. J., & Casson, M. (1976). The future of the multinational enterprise. Macmillan.

Busse, M., & Hefeker, C. (2007). Political risk, institutions and foreign direct investment. European Journal of Political Economy, 23(2), 397-415.

Chakrabarti, A. (2001). The Determinants of Foreign Direct Investments: Sensitivity Analyses of Cross-Country Regressions. Kyklos, 54, 89-114.
Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publications.

Chenery, H. B., & Strout, A. M. (1966). Foreign Assistance and Economic Development. *The American Economic Review*, *56*(4), 679–733. http://www.jstor.org/stable/1813524

Cushman, D. O. (1985). Real exchange rate risk, expectations, and the level of direct investment. The Review of Economics and Statistics, 67(2), 297-308.https://doi.org/10.2307/1924729

Dunning, J.H. (1993) Multinational Enterprises and the Global Economy. Addison Wesley, New York

Dunning, J. H., & Lundan, S. M. (2008). Multinational enterprises and the global economy (2nd ed.). Cheltenham, UK: Edward Elgar Publishing.

Ethiopian Investment Commission. (2023). Ethiopian Investment Guide 2023. Ethiopian Investment Commission. Retrieved from https://investethiopia.gov.et/wp-content/uploads/2023/06/Ethiopian-Investment-Guide-2023.pdf

Ethiopian Investment Commission. (2024). An investment guide to Ethiopia (4th ed.). https://investethiopia.gov.et

Ezeoha, A. E., & Cattaneo, N. (2012). FDI flows to sub-Saharan Africa: The impact of finance, institutions, and natural resource endowment. Comparative Economic Studies, 54(3), 597-632. https://doi.org/10.1057/ces.2012.18

Faeth, I. (2009). Determinants of foreign direct investment – a tale of nine theoretical models. *Journal of Economic Surveys*, 23(1), 165–196. https://doi.org/10.1111/j.1467-6419.2008.00560.x

Fischer, S. (1993). The role of macroeconomic factors in growth. Journal of Monetary Economics, 32(3), 485-512.

Froot, K. A., & Stein, J. C. (1991). Exchange rates and foreign direct investment: An imperfect capital markets approach. The Quarterly Journal of Economics, 106(4), 1191-1217. https://doi.org/10.2307/2937961

Goldberg, L. S., & Kolstad, C. D. (1995). Foreign direct investment, exchange rate variability and demand uncertainty. International Economic Review, 36(4), 855-873.https://doi.org/10.2307/2527262

Gujarati, D. N. (2003). *Basic econometrics* (4th ed.). McGraw-Hill.

Haile, G.A. and Assefa, H. 2006. Determinants of Foreign Direct Investment in Ethiopia: a time-series analysis. 4th International Conference on the Ethiopian Economy. Addis Ababa, Ethiopia 10-12 Jun 2006

Helpman, E. (1984). A simple theory of international trade with multinational corporations. Journal of Political Economy, 92(3), 451-471. https://doi.org/10.1086/261236

Hymer, S. H. (1960). The international operations of national firms: A study of direct foreign investment (PhD dissertation). MIT, Cambridge, MA.

Institute for Economics & Peace. Global Peace Index 2021: Measuring Peace in a Complex World, Sydney, June 2021. Available from: http://visionofhumanity.org/reports

Javorcik, B. S. (2004). Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages. American Economic Review, 94(3), 605-627.

Kemp, M. C. (1964). The pure theory of international trade. Prentice-Hall.

Kindleberger, C. P. (1969). American business abroad: Six lectures on direct investment. New Haven, CT: Yale University Press.

Klein, M. W., & Rosengren, E. S. (1994). The real exchange rate and foreign direct investment in the United States: Relative wealth vs. relative wage effects. Journal of International Economics, 36(3-4), 373-389. https://doi.org/10.1016/0022-1996(94)90006-X

Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.

Krugman, P. (1998). What's new about the new economic geography? Oxford Review of Economic Policy, 14(2), 7-17.

Kurtishi-Kastrati, S. (2013). Impact of FDI on Economic Growth: An Over-View of the Main Theories of FDI and Empirical Research. *European Scientific Journal, 9*, 56-78.

Lall, S., & Streeten, P. (1977). Foreign investment, transnationals and developing countries. Palgrave Macmillan.

Liargovas, P. G., & Skandalis, K. S. (2012). Foreign direct investment and trade openness: The case of developing economies. Social Indicators Research, 106(2), 323-331.

MacDougall, G. D. A. (1960). The benefits and costs of private investment from abroad: A theoretical approach. Economic Record, 36(73), 13-35.https://doi.org/10.1111/j.1475-4932.1960.tb00491.x

Markusen, J. R. (1984). Multinationals, multi-plant economies, and the gains from trade. Journal of International Economics, 16(3–4), 205–226. https://doi.org/10.1016/S0022-1996(84)80001-X

Markusen, J. R., & Maskus, K. E. (2001). Discriminating among alternative theories of the multinational enterprise (Revised draft, January 31, 2001). Department of Economics, University of Colorado, Boulder; NBER; CEPR.

Mensah, E., Mensah, R. O., & Danquah, D. A. (2024). Threshold effects of inflation on the FDI–growth nexus: Evidence from inflation-targeting countries in sub-Saharan Africa. Economic Research-Ekonomska Istraživanja, 37(1), 2299991. Taylor & Francis

Narula, R., & Dunning, J. H. (2010). Multinational enterprises, development and globalization: Some clarifications and a research agenda. Oxford Development Studies, 38(3), 263287. https://doi.org/10.1080/13600818.2010.505684

Narula, R., & Marin, A. (2005). Exploring the relationship between direct and indirect spillovers from FDI in Argentina (MERIT Research Memorandum No. 2005-024). Maastricht Economic Research Institute on Innovation and Technology (MERIT), Maastricht University. Retrieved from https://www.researchgate.net/publication/4787890_Exploring_the_relationship_between_direct_and_indirect_spillovers_from_FDI_in_Argentina

National Bank of Ethiopia. (2024). *Foreign exchange directive no. FXD/01/2024* [Policy document]. National Bank of Ethiopia. https://nbe.gov.et/wp-content/uploads/2024/07/FXD012024-FOREIGN-EXCHANGE-1-1.pdf

National Bank of Ethiopia. (2025). Annual report 2023/24. https://nbe.gov.et/wp-content/uploads/2025/06/Annual-Report-2023-2024.pdf

Ndikumana, L., & Verick, S. (2008). The linkages between FDI and domestic investment: Unravelling the developmental impact of foreign investment in Sub-Saharan Africa. Development Policy Review, 26(6), 713-726.https://doi.org/10.1111/j.1467-7679.2008.00430.x

Noorbakhsh, F., Paloni, A., & Youssef, A. (2001). *Human capital and FDI inflows to developing countries: New empirical evidence*. World Development, 29(9), 1593–1610. https://doi.org/10.1016/S0305-750X(01)00054-7

Obida Gobna Wafure, & Nurudeen, A. (2010). Determinants of foreign direct investment in Nigeria: An empirical analysis. Global Journal of Human Social Science, 10(1), 26–34

Oqubay, A. (2018). Industrial policy and late industrialization in Ethiopia (Working Paper Series No. 303). African Development Bank. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/WPS_No_303__Industrial_Policy_and_Late_Industrialization_in_Ethiopia_B.pdf

Organization for Economic Co-operation and Development. (2002). Foreign direct investment for development: Maximising benefits, minimising costs. OECD Publishing. https://doi.org/10.1787/9789264199286-en

Organization for Economic Co-operation and Development. (2008). Benchmark Definition of Foreign Direct Investment, Fourth Edition. OECD Publishing.

Pegkas, P. (2015). The impact of FDI on economic growth in Eurozone countries. Journal of Economic Asymmetries, 12(2), 124-132. https://doi.org/10.1016/j.jeca.2015.03.002

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships.Journal of Applied Econometrics, 16, 289-326.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels.Journal of the American Statistical Association, 94, 621-634.

Policy Studies Institute. "National Strategy For the Implementation of the AfCFTA Agreement: 2025-2029."https://psi.org.et/index.php/blog/520-national-strategy-for-the-implementation-of-the-afcfta-agreement-2025-2029.

Rugman, A. M. (1981). Inside the multinationals: The economics of internal markets. Croom Helm.

Sayek, S. (2009). Foreign Direct Investment and Inflation. Southern Economic Journal, 76(2), 419-443.

Schneider, F., & Frey, B. S. (1985). Economic and political determinants of foreign direct investment. World Development, 13(2), 161-175. https://doi.org/10.1016/0305-750X(85)90002-6

Sekkat, K., & Veganzones-Varoudakis, M.-A. (2007). Openness, investment climate, and FDI in developing countries. Review of Development Economics, 11(4), 607-620.

Senhadji, A. S., & Khan, M. S. (2000). Threshold effects in the relationship between inflation and growth (IMF Working Paper No. 00/110). International Monetary Fund. https://www.imf.org/external/pubs/ft/wp/2000/wp00110.pdf

Shamebo, D., Zewde, M., Gidey, K., Markos, K., Adamu, H., & Debebe, A. (2020). Determinants of foreign direct investment in Ethiopia. Journal of African Development Studies (JADS), 7(1). https://doi.org/10.56302/jads.v7i1.3112

Teshome, S. (2014). Determinants of foreign direct investment in Ethiopia [Master's thesis, St. Mary's University]. St. Mary's University Institutional Repository

UNCTAD. (2023). World Investment Report 2023: Investing in Sustainable Energy for All. United Nations Conference on Trade and Development.

United Nations Conference on Trade and Development. (2002). Investment and Innovation Policy Review: Ethiopia. United Nations

United Nations Conference on Trade and Development. (2023). World Investment Report 2023: Investing in sustainable energy for all. United Nations Publications

United Nations Conference on Trade and Development. (2024). World investment report 2024: Investment facilitation and digital government.https://unctad.org/publication/world-investment-report-2024

United Nations Industrial Development Organization. (2018). Industrial park development in Ethiopia: Case study report. https://www.unido.org/publications/ot/9659575

Vernon, R. (1966). International investment and international trade in the product cycle. Quarterly Journal of Economics, 80(2), 190-207. https://doi.org/10.2307/1880689

White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica, 48*(4), 817-838. https://www.jstor.org/stable/1912934

Workneh, A. M. (2014). Factors affecting FDI flow in Ethiopia: An empirical investigation. European Journal of Business and Management, 6(19), 118-125.

World Bank. (2020). *Economy Profile: Ethiopia - Doing Business 2020*. World Bank Group

World Bank. (2015). World Bank annual report 2015. World Bank Group.

Yeserah Mekuriya, B. (2023). *Determinants of foreign direct investment in Ethiopia* (Master's thesis, Addis Ababa University, School of Graduate Studies). Addis Ababa University Repository.

Appendix

Descriptive Statistics

Variables	N	Mean	Standard Dev.	Median	Skewness	Kurtosis
FDI (Bn)	32	1.202	1.469	3.189	0.95	-0.76
CPI	32	13.950	12.600	10.600	1.51	2.37
REER	32	139.57	46.300	130.400	2.67	9.26
Trade Oppness	32	34.860	9.520	35.580	-0.13	-1.20
RGDP (Bn)	32	4.204	3.081	2.967	0.77	-0.87
GCFC	32	0.290	0.007	0.290	-0.29	-0.84
Labor	32	2.670	1.010	3.010	-1.06	0.09

Results of Unit Root Test

Variables	t-statistic	Critical value	t-statistic	Critical value	Stationary at
LnFDI	-0.892	-2.930	-4.154	-2.930	I (1)
CPI	-3.243	-2.930	-7.804	-2.930	I (0)
LnREER	-1.709	-2.930	-4.549	-2.930	I (1)
LnTrade Oppness	-1.168	-2.930	-3.303	-2.930	I (1)
LnRGDP	1.744	-2.930	-0.757	-2.930	I (1)
LnGCFC	-1.368	-2.930	-2.506	-2.930	I (1)
Labor	-1.886	-2.930	-4.325	-2.930	I (1)

Results of Long-run estimation

ARDL Long Run Form and Bounds Test				
Dependent Variable: **LFDI**				
Selected Model: ARDL (1,0,0,0,0,0,0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LFDI (-1)	-0.156	0.036	-0.177	0.267

L(Inflation)	-0.473	0.145	-3.269	0.006 **
L(REER)	-0.583	0.206	-2.831	0.014 *
L (Trade Openness)	0.828	0.237	3.496	0.003 **
L(RGDP)	1.832	0.867	2.111	0.054 *****
L(GCFC)	0.256	0.152	1.685	0.115
L(Labor)	2.793	0.927	1.685	0.010 *****
Intercept	0.992	0.409	2.425	0.030 *
R-squared	0.85	Mean dependent var		19.21
Adjusted R-squared	0.76	S.D. dependent var		2.61
S.E. of regression	0.56	Akaike info criterion		2.41
Sum squared resid	5.64	Schwarz criterion		3.11
Log likelihood	-11.24	Hannan-Quinn criteria.		2.74
F-statistic	7.25	Durbin-Watson stat		2.22
Prob(F-statistic)	0.000			

Results of Short-run estimation

ARDL Short Run Error Correction Model
Dependent Variable: **LFDI**

Case 3: Unrestricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Intercept	0.951	0.153	6.208	0.000 ***
L (Inflation)	-0.145	0.057	-2.536	0.024 *
L (Inflation (-1))	-0.453	0.134	-3.377	0.004 **
L (REER)	-0.670	0.254	-2.632	0.021 *
L (REER (-1))	-0.558	0.212	-2.626	0.020 *
L (Trade Openness)	0.296	0.205	1.443	0.172
L (Trade Openness (-1))	0.794	0.233	3.399	0.004 **
L (GCFC)	0.245	0.155	1.577	0.138
L (GCFC (-1))	-0.474	0.099	-4.752	0.000 ***
L(Labor)	2.677	0.833	3.211	0.006 **
L (Labor (-1))	6.552	2.893	2.264	0.000 ***
CointEq (-1) *	-0.655	0.105	-6.161	0.000 ** *
R-squared	0.83	Mean dependent var		20.21
Adjusted R-squared	0.75	S.D. dependent var		1.91
S.E. of regression	0.19	Akaike info criterion		1.78
Sum squared resid	7.01	Schwarz criterion		2.55
Log likelihood	-10.33	Hannan-Quinn criteria.		1.71

F-statistic	9.53	Durbin-Watson stat	2.01
Prob(F-statistic)	0.000		