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Determinants of Foreign Direct Investment in Ethiopia: The ARDL Bounds Testing Approach

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A Thesis Submitted in Partial Fulfillment of the Requirement of Masters
Degree in Accounting and Finance

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Declaration

I, **Gezachew Assefa**, hereby declare that the thesis “Determinants of Foreign Direct Investment in Ethiopia: the ARDL Bounds Testing Approach” for a Master’s Degree in Addis Ababa University, is my piece of original research work. This thesis contains no material which has been accepted for the award of any other degree or diploma in any institutions.

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This is to certify that the thesis presented by Gezachew Assefa, entitled: “Determinants of Foreign Direct Investment in Ethiopia: the ARDL Bounds Testing Approach” submitted in partial fulfillment of the requirements for the Degree of Master of Finance and Accounting complies with the regulations of the University and meets the accepted standards with respect to the originality and quality.

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Acknowledgment

Working on this MSc thesis has reminded me of the fact that no man is an island. Indeed, the majority of the work that goes into the writing of a thesis is fairly solitary. However, the task of completing this MSc thesis was made much easier with the help and encouragement of those who are around me.

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List of Acronyms

ADF	Augmented Dicky-Fuller
ARDL	Auto Regressive Distributive Lags
ASEA	Associations of Southeast Asia
BRICS	Brazil, Russia, India, China, and South Africa
EIA	Ethiopian Investment Authority
EIC	Ethiopian Investment Commission
EPA	Ethiopian Privatization Agency
EPRDF	Ethiopian People Revolutionary Democratic Front
FDI	Foreign Direct Investment
GCF	Gross Capital Formation
GNIPC	Gross National Income per Capita
GTP I	Growth and Transformation Plan I
GTP II	Growth and Transformation Plan II
MINT	Mexico, Indonesia, Nigeria and Turkey
MNC	Multi-National Corporations
OLS	Ordinary Least Square
SAARC	South Asian Association for Regional Cooperation
SSA	Sub Saharan Africa
UNACTD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USD	United States Dollar
VoIP	Voice over Internet Protocol
WDI	World Development Indicators
WGI	Worldwide Governance Indicators
WIR	World Investment Report

Abstract

Many capital-starved countries compete with each other to attract Foreign Direct Investment (FDI) by liberalizing their policy regimes and offering various incentive packages, such as tax holidays, trade liberalizations, an establishment of industrial parks, and other incentives. Despite these, only a few succeed in attracting the much-needed capital through inward FDI. Hence, one could ask what factors determine the inflow of FDI into a host country. In line with this question, this paper aimed at analyzing the key determinants of FDI inflow into Ethiopia by using- an ARDL Bounds Testing method for the period 1996-2018. The variables considered were FDI inflow as dependent variables and the independent variables considered in the study include; GDP growth, Trade openness, Inflation, voice, and accountability, government effectiveness, political stability and the rule of the law. The data for the later governance variables were collected from the World Governance Index of the world bank. These variables were given an index value of +2.5 to -2.5 indicating strong and weak governance structures respectively. To evaluate the long-run cointegration of the dependent and the independent variables, the ARDL bounds test was conducted. The result revealed a long-run relationship between the regressors and FDI inflow. Accordingly, from the long-run estimation output, inflation, voice, and accountability, and government effectiveness were found affecting FDI inflow negatively and significantly at a 5% critical value. The rule of law, however, shows a positive long-run impact on the dependent variable. GDP growth, Political stability, and trade openness were found not to affect FDI inflow in the long-run. The short-run equation, on the other hand, revealed that trade openness, political stability, and rule of law having a positive and significant impact on FDI inflow into Ethiopia. The relationship of the voice and accountability and government effectiveness with the dependent variables remained the same as the long-run relations. Eventually, the researcher recommended the enhancement of institutional capacity to improve the competitiveness of the nation's economy to attract FDI inflows. More on, prudent and strategic management of inflation rate in light of dynamics in the macroeconomic environment and overall social and environmental changes is critical to have sustained competitive economic landscape and improve foreign direct investment inflow.

Keywords; Governance, Foreign Direct Investment, Ethiopia, ARDL Model

CHAPTER ONE

INTRODUCTION

1.1. Background of The Study

Foreign Direct Investment (FDI) is generally considered as a desirable long-term financing tool for the host economy. Due to this, policymakers have long considered FDI as a more advantageous financing tool for long-run growth and development than other forms of capital inflows (Yu and Walsh, 2010). Despite a lack of general consensus on the economic growth impact of FDI, several studies indicated a positive relationship between the two through employment, technological spill-over and managerial skill transfers (Alfro et al., 2010; Mehic et al., 2013; Chang, 2017; Alhawarin et al., 2018).

Foreign direct investment (FDI) produces economic benefits to the recipient countries by providing capital, foreign exchange, technology and by enhancing competition and access to foreign markets (World Bank, 1999). As a result, countries with development ambitions but facing challenges to finance it, may bridge the gap and invest in their development priority areas by attracting capital from abroad in the form of FDI. Multinational companies, however, may not invest in a given economy unless it aligns with their strategic objectives and there are specific locational advantages. The main concerns for domestic policymakers, therefore, are identifying the right factors that attract FDI into their particular countries.

Many countries, especially those with domestic capital shortage, strive to attract FDI by liberalizing their policy regimes and offering various incentive packages such as tax holidays, trade liberalizations, an establishment of industrial parks, and other incentives to multinational corporations (MNC). For instance, according to the World Investment Report (2019), during 2018 a total of 55 countries and economies have made 112 changes in the FDI related policies of which, 67% of changes were made to create FDI friendly environment. Despite this, except for a few countries, most developing ones have not been very successful in attracting the much needed FDI. Hence, one may ask what factors attract MNC to invest in a given economy?

To answer this question, a large number of studies have been conducted by using both time-series and cross-sectional methodologies to identify the determinants of FDI (Asiedu, 2002;

Nadu,2009; Morisset, 1999; Jadhav, 2012; Jadhav and Katti,2012; Rogmans and Ebbbers,2013; Yorsa, Anis and Houria, 2013; Asongu, Akpan and Isihak,2018; Michael, Daniel and Jacob,2019). Though these researchers agree on certain economic factors, for example, GDP per capita and GDP growth, as a determinant of FDI inflow, concerning other variables they have not found a widely accepted set of explanatory factors. Chakrabarti (2001), on one hand, associates this lack of conclusiveness to the difference in perspective, methodologies, sample selections and analytical tools used by these various studies.

Ethiopia, in an attempt to accelerate growth and development, has always encouraged foreign direct investment through the introduction of incentive packages. This policy is based on the assumption that the country will benefit from the advantages that come with the capital. For instance, FDI can help the government fill the domestic resource gap in part, through foreign private investments as domestic resources are supplemented by foreign investment. FDI also makes available foreign exchange which should, all things being equal; increase the country's capacity to import. Moreover, FDI can be the source of employment, technological and managerial skills transfer. The establishment of the Ethiopian Investment Commission (EIC) with a series of packages and incentives was directed at wooing foreign investors to the country.

Despite Ethiopia's efforts undertaken to attract MNC to invest in the country, the level of FDI inflow into the country is fluctuating in the past years. Through its investment progress report, the United Nations Conference on Trade and Development (UNACTD-2020), indicated that FDI inflow into the country has declined to from \$3.31 billion in 2018 to US\$2.5 billion in the year 2019 accounting to quarter decline. Furthermore, for example, FDI inflow into the country has declined by 18 percent in 2018 -while the FDI inflow in Kenya increased by 27 percent (WIR, 2019) for the same year. In the year 2017, according to WIR (2018) report, the level of decline in the inflow was 10 percent for Ethiopia while neighboring Kenya has gained an increase of 71 percent compared to the previous year. This decline coupled with; the saving-investment gap the economy is facing could challenge the country's aspiration to be a middle-income country by 2025.

To the extent this research is aware, only a few empirical researches have been conducted to identify the determinants of FDI in Ethiopia (Getinet and Hirut,2006; Teka,2012; and Workneh, 2014). These researchers applied an OLS regression method after differencing the variables of

interest to avoid unit-roots. However, applying this technique for time-series data, although differenced, ignores the long-run relationship between the regressors and the dependent variable (Nkoro and Uko,2016). Therefore, this research takes the topic area one step ahead by applying an autoregressive distributive lags (ARDL) cointegration technique that helps analyze the long-run and short-run relationships between the variables.

Furthermore, the aforementioned Ethiopian researchers considered only the economic variables in their studies as if such inflows occur in the absence of effective governance and institutions. Investment decisions by multinational companies may consider both economic and institutional factors in their move into new territory. Calamita and Jowell (2015), in the survey conducted to asses factors that MNC consider in making FDI decisions in the host country, indicated that political stability and the rule of law make second and third in rank following easy of doing the business factor. Hence, the research proposed here will contribute to the empirical studies by considering both economic variables and governance factors to assess the determinants of FDI in Ethiopia for the period 1996-2018.

1.2. Foreign Direct Investment in Ethiopia

The general investment climate in Ethiopia, particularly investment-related to foreign investors, was not encouraging during the pre-1991 period. Political instability coupled with insecurity, and nationalization of major industries during the military regime, discouraged private investment in the country (Haileand Hirut, 2006). However, realizing the importance of private investment, the then government introduced a joint venture proclamation 1983. This proclamation, to encourage investment, however, introduced different incentive schemes such as five-years period tax reliefs, duty-free import and export, tariff protection, and repatriation of profits and capital (Tsegaye, n.d). Nevertheless, the introduction of the proclamation has not attracted the intended FDI into the country due to various reasons. Following the first proclamation, according to Tsegaye (n.d), the government introduced a new proclamation in 1989 that revised the existing one. This proclamation, unlike the previous one, allowed majority foreign ownership in different sectors of the economy. However, the internal civil war and political instability, that followed it has further discouraged private foreign investment flow into the country (Haileand Hirut, 2006).

Following the fall of the military regime and coming into power of EPRDF, the government has open certain sectors of the economy for foreign investors. Ethiopian Investment Commission, a government body that oversees the investment activities in the country, was established through proclamation 849/2014. Since its establishment, EIA has done a lot of promotional activities to attract foreign investors into the country by marketing the country's strategic importance for investors. Furthermore, the commission has listed out strategic sectors that are open to foreign investors. Some of the strategic sectors where the government seeks foreign direct investment include; Leather and leather products, textiles, horticultural, agriculture, construction, manufacturing, pharmaceuticals, tourism, power, and agro-processing. On top, different incentive schemes are introduced for investors who invest in these strategic sectors. These incentives are used as a strategy to attract investors, especially for investors investing in the strategic sectors. According to EIC's Investment Guide to Ethiopia (2017), the following are key incentives availed to investors targeting to invest in the strategic sectors;-Customs duty exemptions of up to 100% on imports of capital goods for eligible areas of investment, income tax exemptions for a period starting from 1-9 years, depending on the specific activity and the location of the investor, carry forward of losses for the business that suffer losses for the income tax exemption period for half of the tax exemption period, Except for a few products, no export tax is levied on Ethiopian export products, various non-fiscal incentives for exporters, and guaranteed remittance of capital for foreign investors

1.2.1. Regulatory Framework

Under the current regulatory framework, foreign participation in investment may be carried out either through the establishment of branches or through locally incorporated enterprises. Foreign investors are encouraged to invest in all economic sectors, except those currently reserved for domestic private and state investment. There is also a continuous review of the investment code regarding the sectors excluded from FDI. For example, the revised investment proclamation No.116/1998 has opened up the hydropower generation to local and foreign investment. The 1998 investment code also allowed private-government joint investment in defense and telecommunication. The main business sectors which are open and in which the country is currently seeking foreign investment include manufacturing industries (including food, beverages, chemicals, and pharmaceuticals, plastics, metallic and non-metallic products, paper

products, leather and leather products, textiles and garments), agriculture, including agribusiness and processing for exports, real-estate development, education, and health services, grade 1 construction contract, mining and quarrying of gold, marble, and granite, and engineering and management consultancy.

Since 1996, to promote private investment and the inflow of foreign investment, a series of investment proclamations have been issued. These proclamations impose some requirements and ownership limitations. There is a minimum entry capital for FDI for both wholly-owned operations and joint ventures with Ethiopian companies or individuals. In the case of the joint-venture, the investment proclamation requires that domestic partners must hold a minimum of 27 percent equity ownership interest. Moreover, both FDI and domestic investors are required to submit progress reports every six months. Apart from these requirements, investors are not required to meet specific goals like local content requirements or operational guidelines (UNCTAD-ICC, 2004). The investment legislation has also attempted to provide a favorable investment climate by offering fiscal incentives and investment guarantees to foreign and domestic investors engaged in new enterprise development and expansion. The major investment incentives for FDI include: 100 percent exemption from payment of import duties and import taxes levied on all capital equipment; exemption from payment of export taxes (except for coffee); income tax holidays varying from one to five years; tax-deductible research and development expenditure; no taxes on the remittance of capital; the carrying forward of initial operating losses and investor choice of depreciation model of capital assets.

1.2.2. Institutional Framework

The government of Ethiopia has established the Ethiopian Investment Authority (EIA) to promote, coordinate and facilitate foreign investment in the country. According to the Investment Guide to Ethiopia (UNCTAD-ICC, 2000) the functions of the EIA, among others, include: providing all the necessary information required by foreign investors, approving foreign investment applications and issuing investment permits, providing registration services to newly incorporated business organizations, approving expatriate posts in approved investments and issuing work permits to foreign employees, issuing trade and operating licenses for foreign investments, monitoring the implantation of licensed investment projects; approving and registering technology transfer agreements between local companies and foreign technology

suppliers; and facilitating the acquisition of land by foreign investors by following the relevant federal and regional Government laws and regulations.

The establishment of the Ethiopian Privatization Agency (EPA) is also another significant step in the promotion of FDI. The government is keen to encourage the participation of foreign investors in the privatization program, particularly in large state-owned companies. Other government departments that are involved in the attraction of FDI to Ethiopia include the Ministry of Trade and Industry; the ministries and agencies associated with specific sectors such as mining and tourism; the ministry of Foreign Affairs and ministries dealing with taxation remits including customs. Moreover, there are regional investment promotion agencies that encourage FDI into their region (UNCTAD, 2012). The establishment of the EIA and other investment promotion and support institutions is also a step forward in the right direction. This, however, necessitates high coordination among the various institutions to raising the effectiveness of the present national effort to attract FDI. That the Ethiopian Investment Authority has recently restructured itself to improve the efficiency and effectiveness of the service delivery processes for investors is a measure that recognizes the need for effective coordination

1.3. Statement of the Problem

The government of Ethiopia has the objective of pushing the country to become a middle-income country by 2025. To achieve this, however, the economy has to grow by more than ten percent over two decades. This growth, in turn, requires a significant domestic investment which will need to be financed by local financing means. Nonetheless, the low level of income coupled with a low level of savings problems has led the country to face huge gaps in financing its investment needs through domestic finance sources. For instance, at the end of GTP I (2014/15), the share of investment on GDP was 38.3 percent while domestic saving accounted for 22.5 percent leaving a 15.8 percent gap to be financed by other sources (NPC,2016).

Moreover, this gap is projected to continue during GTP II. To achieve the goal of becoming a middle-income country, however, the investment-saving gaps need to be bridged by alternative financing means such as FDI and foreign debt. The amount of foreign debt that the country borrowed accumulated to the highest level over the years. According to the updated World Bank's report (2018), Ethiopia continues to be at high risk of external debt distress, thus it is at

high risk of debt distress overall. Therefore, to avoid further build-up of debt and economic crisis, the government is emphasizing the attraction of alternative financing means such as FDI inflows to support economic growth and close the resource gap. In the attempt to attract more FDI, various policy measures have been enacted and extensive promotional activity has been done through embassies and consulate offices. The effort is paying-off by increasing FDI flows into the country. For example, the country was able to secure FDI worth \$4.2 billion during the 2016/17 reporting period (EIC, 2017). Compared to other Sub-Saharan countries, the FDI flows to the country exhibit positive progress, however, the saving-investment gap remained at a high-level. According to UNDP (2018), investment -saving gap shares on Ethiopia's GDP during 2016/17 reporting period was 15.3 percent despite record inflows of \$4.2 billion FDI during the same period.

Therefore, to sustain the current economic growth momentum and achieve its objective of becoming a middle-income country by 2025; however, the country needs to bridge the resource gap by attracting more FDIs. Thus, policymakers need to identify the factors that attract multinational corporations (MNCs) to the country and aggressively work on these factors to sustain the inflow of FDI.

To identify the factors that attract FDI into a country, various studies were conducted at the global and country-level, however, these studies were unable to reach any definite consensus on the variables most likely to impact FDI inflows (Asiedu,2002; Nadu,2009; Morisset,2010; Jadhav, 2012; Jadhav and Katti,2012; Rogmans and Ebbers 2013; Yorsa, Anis and Houria,2013; Asongu, Akpan and Isihak,2018; Michael, Daniel and Jacob,2019, Gene and Hirut,2006; and Workineh,2014). Moreover, those studies that dealt with Ethiopia's case have considered only economic variables, while ignoring the role of governance and institutional variables in attracting FDI inflow although research finds that institutional and governance variables play a significant role in attracting FDI inflows to a host country (Jadhav, 2012; Jadhav and Katti,2012; Michael, Daniel, and Jacob,2019). Therefore, this study aimed at addressing this gap by analyzing both the role of market attractiveness, trade openness, inflation, voice and accountability, political stability and absence of violence, government effectiveness and the rule of law in attracting FDI inflows to Ethiopia by analyzing both the long-run and short-run relationships by using an ARDL approach.

1.4. Objectives of the Study

1.4.1. General Objective

The general objective of this study is to investigate the overall determinants of FDI inflows in Ethiopia for the period 1996- 2018.

1.4.2. Specific Objective

The specific objectives of the study are:

- 1) To explore the effect of market growth as proxied by GDP growth on FDI inflow to Ethiopia
- 2) To determine the role of trade openness on FDI inflow to Ethiopia
- 3) To examine the effect of macroeconomic instability as measured by inflation rate on FDI inflow to Ethiopia
- 4) To determine the effect of voice and accountability on inward inflow into Ethiopia
- 5) To identify the effect of government effectiveness on inward FDI inflow into Ethiopia
- 6) To identify the effect of political stability on FDI inflow to Ethiopia, and finally
- 7) To analyze the effect of the rule of law on FDI inflow into Ethiopia

The values attached to voice and accountability, government effectiveness, political stability and the rule of law are based on the index developed by the World Governance Index (WGI) of the World Bank. According to the bank, these variables are given values between +2.5 to -2.5 indicating strong and weak governance policies of different countries respectively.

1.5. Variables Definition and Hypothesis Development

Based on previous empirical studies and theoretical literature, this study considered the variables described below to explore their relationship with the inflow of FDI into the country. The variables were chosen based on the objective of this study and the availability of data. In line with the approach used in the FDI literature, the dependent variable in this study is the foreign direct investment inflows in constant USD.

According to the market size hypothesis, multinational firms are interested to invest in large host markets to utilize resources efficiently and exploit the scale of economies (Chakrabarti,2001). Previous studies generally have used GDP per capita, real GDP growth and total population as a proxy for market size(Yorsan, Anis, and Houria, 2016; Jones and Jacob, 2016’ Geda and Yimer, 2018). The results of these studies, mostly indicate the existence of a significant and positive

relationship between a host's market size and the inflow of FDI. On the contrary, some authors had found an insignificant and negative relationship between the market size proxies and FDI inflow. In this study; however, the GDP growth rate is used as a proxy for Ethiopia's potential market size. The inclusion of this variable helps to capture the attractiveness of the country's market for MNC who are seeking for the market. Thus, based on the empirical and theoretical background, it is expected that GDP growth has a positive relationship with FDI.

Hypothesis 1: Market Growth positively and significantly affects FDI inflows into Ethiopia.

It is, however difficult to envision that market seeking foreign investors will invest in foreign countries completely to serve the host economy. Rather, it might be the case that foreign investors might also export a portion of their product to other countries along selling it in the host economy. The ratio of trade to GDP has been used in the previous studies (Geda and Yimer,2018; Sabir, Rafique, and Abbas,2019; and Jaibal and Shenil,2019), and it is included in this study to capture the extent of Ethiopia's economic openness to the international market. Based on previous studies indicated above, a positive and significant effect is expected between trade openness and FDI inflow into the country.

Hypothesis 2: Trade Openness positively and significantly affects FDI inflows into Ethiopia

Generally, scholars agree that macroeconomic stability shows the strength of an economy and provides a degree of certainty of being able to operate profitably (Balasubramanyam, 2001). The inflation rate provides a signal of the health status of the host economy. Both controlled and moderate inflation indicates the good health of the overall economy and vice versa. The majority of the previous studies found a significant and negative relationship between inflation and FDI inflow (Getinet and Hirut, 2006; Workneh, 2014; Geda and Yimer, 2018; Sabir, Rafique and Abbas, 2019; and Jaibla and Shenil, 2019). While others found a positive and significant relationship between FDI inflow and inflation (Phung, 2016; Jones and Jacob,2016; and Ismail,2018).For this study, however, the annual inflation rate as measured by the consumer price index (CPI) is considered as a proxy for macroeconomic stability and it is expected to negatively impact the inward flow of FDI into Ethiopia.

Hypothesis 3. Macroeconomic Instability Negatively and significantly affects FDI Inflows

In addition to the above independent variables, the research also included four governance index variables as defined by the World Bank's Worldwide Governance Indicators (WGI) to measure the quality of governance in Ethiopia. These variables include voice and accountability, political stability and absence of violence, government effectiveness, and the rule of law. The performance of a country in each one of the six aspects is reflected by an index, ranging from -2.5 (weak) to 2.5 (strong) (Kaufmann, Kraay, and Mastruzzi(2009).

Voice and accountability, according to the World Bank Worldwide Governance Indicators (WGI) capture the indicators that are related to the political process, civil rights, and the ability of citizens to control government actions. This variable is expected to increase the inflow of FDI to a country as it encourages citizens' participation in the political systems, encourages political stability and promotes the formation of democratic institutions(Gangi and Abdulrazak,2013; Kurul and Yasemin, 2017; Rodriguez-Pose and Cols,2017; and Sabir, Rafique, and Abbas, 2019).

Hypothesis 4. Voice and Accountability positively and significantly affects positively FDI Inflows to Ethiopia

Political stability and absence of violence is an indicator of the ability of the government to stay in office and measures the risk of removal of government violently and illegally. Political stability and absence of violence ease doing business through stable political systems and induces more FDI (Sabir, Rafique, and Abbas,2019; Geda & Yimer, 2018; and Kurul & Yasemin,2017). Therefore, in this research, it is expected that the political stability index of Ethiopia is positively and significantly associated with inward inflow into the country.

Hypothesis 5. Political Stability and Absence of violence positively and significantly affect FDI inflows to Ethiopia

Government effectiveness deals with the government's ability and trustworthiness in formulating and implementing sound policies and regulations to promote private sector development in a country(Kaufmann, Kraay, and Mastruzzi,2009). Hence, government effectiveness is expected to affect foreign investors as an effective government reduces excessive and inefficient bureaucracy and facilitate ease of doing business (Sabir, Rafique, and Abbas,2019; Geda & Yimer, 2018; Rodríguez-Pose & Cols (2017).

Hypothesis 6. Government Effectiveness positively and significantly affects FDI inflows

Rule of law considers issues such as the effectiveness and predictability of the judicial system, the enforceability of contracts, and perceptions of incidents of crime (Kaufmann, Kraay, and Mastruzzi, 2009). By reducing the uncertainty and easing the business activities the rule of law encourages FDI inflows (Gangi and Abdulrazak, 2012; Rodríguez-Pose and Cols, 2017; Sabir, Rafique, & Abbas (2019)). As a result of this, it is expected that the rule of law affects FDI inflow into Ethiopia positively and significantly.

Hypothesis 7. Rule of law positively and significantly affects FDI inflows into Ethiopia

Table 1. Summary of Variables, their expected signs and data sources

<i>Explanatory Variables</i>	<i>Indicators</i>	<i>Expected Sign</i>	<i>Data Source</i>
Markt Size	GDP growth	+	World Development Indicators
Policy Variables	Macroeconomic stability- Inflation	-	World Development Indicators
	Trade Openness – Trade share of GDP	+	UNACTD
Istitutional Variables	Rule of Law	+	World Govrnance Indicators – World Bank
	Voice and accountability	+	World Govrnance Indicators – World Bank
	Government effectiveness	+	World Govrnance Indicators – World Bank
	Political Stability	+	World Govrnance Indicators – World Bank

Note: Institutional and political risk variables are measured by a value between -2.5 to +2.5

1.6. Scope of the Study

The scope of this study addresses the economic and governance factors influencing foreign direct investment inflow in Ethiopia. The study, in particular, focuses on the period of 1996-2018 and is limited to foreign direct investment and the factors that affect it. Especially, the paper considered governance factors and some economic factors that affect inward FDI inflows into Ethiopia. The choice of the study period is limited by the unavailability of data, especially for the governance variables, beyond the year 1996.

1.7. Significance of the Study

Foreign direct investment is critically important to economic growth, development and poverty alleviation. It supports governments' efforts to bridge gaps in domestic investment financing, transfer of technologies, managerial expertise and creation of employment opportunities for the youth. Thus, there is a need to understand the extent of currently fluctuating levels of FDI and whether the current policy environment is conducive to FDI in Ethiopia. In this regard, it is necessary to empirically analyze the relationship between FDI and its determining factors in the country. The study will help to formulate relevant policies for foreign direct investment inflows into the country.

This study will also provide critically needed information for organizations seeking information about the investment environment in Ethiopia and will serve as a resource for other researchers in this area of study. Lastly, this study will assist policymakers in understanding critical factors that help to attract more FDIs into the Ethiopian economy and enact the necessary policies that promote it.

1.8. Limitations of the study

The study is solely limited to secondary data which was collected in another context and in turn, may lead to information that might not be up to date and inaccurate in some way. Furthermore, data for governance variables are available only after 1996, thus limiting the study period to 1996-2018.

1.9. Organization of the Study

The study is organized under five chapters. Below is the description of each chapter and what is included under each of them.

Chapter one provides the background of the study, problem statements, basic research questions, objectives of the study, the significance and scope of the study. Furthermore, the general and specific objectives are listed below in this chapter.

Chapter two is the review of both the theory and empirical literature related to this study and develops a conceptual framework based on both theory and empirical literature. The traditional international trade theories, the neo-classical financial theories, Hymer's industrial organization

theory, Caves' product cycle, and Dunning's OLI paradigm will be discussed under the theoretical section of this chapter. Moreover, previous studies are presented under this chapter, categorized as studies that relate to developing countries, regional-based studies, sub-regional and country-specific studies. Finally, the research gap and Ethiopia's FDI policies are presented.

The third chapter covers research methodologies of the study including design of the research, source of data, data collection instruments, procedures of data collection, and methods of data analysis. Additionally, this chapter presents a definition of the study variables with the hypotheses and econometric models used in the research. These hypotheses relate to the variables formulated using past theory, literature, and gaps in the literature.

Chapter four presents the results of the main findings of the study. The discussion of whether or not the results support the formulated hypothesis and past studies are discussed under this chapter. The final chapter presents a summary of findings, conclusions, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter provides background information on FDI and the way it has been approached by various economies and people over the years. As they provide a solid foundation for an understanding of FDI, theories related to international trade are included in this chapter. Furthermore, this chapter reviews the literature relating to both developing and developed countries, regionally-based studies, sub-regional studies, and country-specific studies. Section 2.1 outlines theories of FDI, particularly focusing on traditional trade theories, theories that assumed market imperfection, and Dunning's eclectic theory. Section 2.2 presents the literature review of studies that relate to FDI by categorizing them into; studies related to developing nations, regional studies, sub-regional studies, and country-specific studies. Section 2.3 presents the gaps identified. The final section summarizes foreign direct investment in the Ethiopian context.

2.1. Foreign Direct Investment Theory

Inward FDI occurs when an overseas MNC firm obtains a controlling interest in a new or existing business in a host country that is different from its country. According to the International Monetary Fund (IMF) definition, "Foreign Direct investment is the category of international investment that reflects the objective of a resident entity in one economy obtaining a lasting interest in an enterprise resident in another economy". The key point from this definition "lasting interest" "which implies a long-lasting relationship between the investor and the firm it has established. This control, however, can happen in forms of direct investment that is either vertical or horizontal. The first one occurs when the multinational firm locates each stage of the production process, depending on the costs of production in those countries, in different countries. On the other hand, horizontal FDI occurs when the multinational replicates the same production activities in different countries (Aizenman and Marion, 2001).

To answer the question; why multinationals engage in direct investment instead of exporting or other alternative means of investment or why they prefer one country over the other, different theories have been evolved. One of the earlier hypotheses developed by scholars was the theory

of international trade, particularly the Heckscher-Ohlin model. According to this model, a trade occurs when there are comparative advantages and differences in factor endowment between countries (Klein, 1996). According to this theory, depending on the comparative advantage a country or a region offer, multi-national companies are attracted to that particular country or region to exploit that advantage. For instance, multinational companies may establish foreign subsidiaries in one country to take advantage of their lower labor costs or its large market size. Thus, while in their basic form, traditional theories of international trade do offer some explanation of FDI. However, traditional trade theories do not fully explain why multinational companies prefer to operate in a foreign country rather than engaging in exporting or licensing, which are alternatives to FDI.

In the same manner, the neoclassical financial theory of portfolio formulated the reason why firms go abroad. As claimed by the proponents of this theory, the interest rate differential between countries is the drive behind FDI. Multinational firms are viewed as arbitrageurs of capital, they move the capital from one country to another to take advantage of interest rate differences between countries or regions. In practice, however, capital which is complementary to direct investment moves in both directions between countries. Furthermore, factors other than interest rate differential influence portfolio inflow and contribute to the criticism of the neoclassical theory of portfolio investment (Harrison, Dalkiran, and Elsey, 2000).

The aforementioned theories are based on perfect market assumptions; however, these theories were criticized for their assumptions. However, Hymer (1960) was the first scholar to indicate FDI is determined by the structure of the market and specific features of the investing firm. As claimed by his industrial organization theory, multinational firms that invest in a host country are at a disadvantage compared with local firms who know local market contexts. The difference in language, knowledge, difference related to legal systems, and cultural difference are some of the sources of disadvantage that challenges the operation of the multinational compared with the local firms. Nevertheless, if the multinational decides to proceed with direct investment, despite these disadvantages, it must be having specific internal advantages that help it competes with local firms. These specific internal advantages, for example, can be in the form of brands, patent-protections or managerial skills. Thus, according to Hymer (1960), firms prefer FDI when it is

difficult to sell or lease these intangible assets to host the company due to cost or strategic reasons.

Supporting the idea of Hymer above, Kindleberger (1969) indicated that the intangible assets must be transferrable to the foreign subsidiary and should be large enough to counterbalance the disadvantages that the multinational firms face in the host country.

In contrary to Hymer and Kindleberger's view, Caves (1971) claimed that it is the oligopolistic nature of the firm that determines direct investment. According to him, FDI is made to a sector that is dominated by oligopolies. When there is no product differentiation, horizontal investments will take place in the same sector, whereas vertical investments will occur in sectors within the productivity chain when there is no product differentiation. Thus, the above three individuals have hypothesized that direct investment in a host country by MNCs is determined by specific assets that the foreign firm has to counterbalance the disadvantage faced compared to local firms. This hypothesis is named as HKC tradition named after the above authors

Another line of thinking was the theory of the product cycle as hypothesized by Vernon (1966) to explain the expansion of US multinationals following the second World War. According to him, products go through development, maturity and standardization stages. As they go through these different stages, however, products exhibit different characters. Thus, firms adopt different strategies at each stage to compete with both domestic and overseas firms. As claimed by Vernon, FDI as a competition strategy occurs at the stage where the cost of production becomes the prime concern for the firm, which however is the maturity and standardization stage. This is the stage where cost control and innovation are a strategic mechanism to stay in the market. Therefore, firms opt for FDI to defend their position in the market against competitors when they reach the maturity or standardization stage of the product cycle.

Also, along the production internationalization line of thinking, for reasons endogenous to the firm, there are studies developed by Graham (1978 and 1998). According to these studies, the emergence of MNCs is a risk reduction strategy, a result of oligopolistic interaction as firms grow. In his most recent study, the author employs game theory to develop a simplified two-country, one-sector model to analyze the entrance of a firm in a foreign country and to study the

local market reaction to entrance a firm from another country. The relevant point here is that the rivalry between firms is an important dimension which is not always considered in MNC studies

Dunning (1993) developed an OLI (Ownership, Location, and Internalization) paradigm to shed light on the factors driving the multinationals to indulge in FDI. OLI paradigm incorporates the works of Hymer and other scholars who have developed different hypotheses to explain why firms go overseas. Dunning (1993) explained that access to resources, markets, efficiency gain and acquisition of strategic assets are the four motives driving firms to indulge in FDI. In line with this thinking, for a firm to engage in FDI, nevertheless, three conditions need to be fulfilled. First, the firm must have some comparative advantages over others arising from ownership of intangible assets. According to Dunning, these are called ownership advantages. Second, it must be more favorable for the firm to use them internally than a lease or sale. This is called an internalization advantage. Third, it must be more profitable for the firm to use these advantages in combination with other factors located in a different country. The three combined formed the OLI paradigm. Therefore, if the above three conditions are fulfilled, multinationals engage in FDI instead of alternative investment/trading. However, this model recognizes that the advantages arising from location, ownership, and internalization are not prone to changes, they need to be revised based on the circumstance and country context.

The ownership and internalization aspects of Dunning's OLI represent firm-specific advantages while locational advantage relates to the host country's advantage. A host country with locational advantage can attract FDIs into its economy. Nevertheless, multinationals don not invest in a country only for the sake of locational advantage, rather it needs to match their internal advantages (Dunning,1993).

In general, these above-mentioned theories are the major theories hypothesized to identify the drivers for the multinationals to engage in FDI. However, there are other theories formulated by different scholars to answer the question" What drives the multinational to engage in FDI and why some countries attract more FDI than others. Some of these theories include; internal financing, the currency areas hypothesis and effects of the exchange rate, political and country risk, tax policies and trade barriers.

2.2. Determinants of Foreign Direct Investment: Literature Review

A substantial number of studies have explored the determinants of FDI in both developing and developed countries with the focus of these studies ranging from single country-specific to multi-nation studies. Moreover, the methods applied across these studies vary depending on the number of countries considered in the study. Those studies that focused on a single country used a time-series analysis method, while the multi-nation studies mostly used the panel data analysis method (Asiedu 2002; Kok and Ersoy 2009; Jadhav 2012; Michael, Daniel and Jacob 2019).

The choice of both the independent and dependent variables also varies among the studies, depending on the subject country. Concerning the dependent variables, researches used net FDI inflows (Jadhav,2012), log of FDI stock in the country (Michael, Daniel, and Jacob,2019), log of FDI inflows to a country as a percentage of GDP(Phung,2016) and ratio of net FDI flows to GDI (Asiedu, 2002). Likewise, the choice of the explanatory variables used to explain the dependent variables differs among these studies. Nevertheless, market share, trade openness, growth rate, inflation, availability of natural resources, and indicators of political, institutional and economic strengths are the most commonly used explanatory variables (Asiedu,2002; Jadhav, 2012; Rogmans and Ebbers, 2013; Phung,2016).

In the following section of the study, the researcher will look at studies that dealt with the determinants of FDI based on their geographical coverage by dividing them into; developing countries related studies, regional studies, sub-regional studies, and country-specific studies.

2.2.1. Studies based on developing countries

Sabir, Rafique, and Abbas (2019), intended to investigate the effect of institutional factors on FDI inflow into low, lower-middle, upper-middle and high-income countries, found that institutional qualities are more important for developed economies than developing countries in attracting FDI. Especially, however, their research indicated that control of corruption, government effectiveness, and political stability plays a significant role in attracting FDI into low- and middle-income countries. On the contrary, regulatory quality, rule of law and voice and accountability are not the significant governance factors in enticing MNC into those countries. Concerning the economic factors, nevertheless, these authors found that trade openness, market size, infrastructure, and agricultural value-added as a percentage of GDP plays a major role in

attracting FDI inflows in developing countries. Furthermore, inflation, as a measure of macroeconomic stability, was found negatively correlated with FDI, but insignificantly related to the FDI inflows. Their research also found that inflation is negatively related to FDI in middle-income countries and high economy countries. Similar to their findings for low and middle -law countries, trade openness and infrastructure quality play a significant role in attracting FDI into these countries. On the other hand, GDP per capita as an indicator of the market size has a negative estimated coefficient, but statistically significant for middle-income and high- income countries.

Geda and Yimer (2018) by employing an ARDL model, analyzed the determinants of FDI inflows into African countries. To help them analyze the determinants of FDI in a given host, they classified the countries in the continent into three different categories based on the level of income, growth acceleration and resilience, a robust macroeconomic framework and macroeconomic stability and an easing business environment and private sector-driven growth. According to their classification, African countries are grouped into Investment Driven, Factor Driven, and Fragile countries. The variables selected for the study were Real GDP per capita, natural resource abundance, domestic investment as a share of GDP, inflation, external debt as a share of GDP, trade openness, real exchange rate, political stability, and government effectiveness. The finding of the study revealed that real GDP per capita, natural resource abundance, domestic investment as a share of GDP and real exchange rate have a positive and significant impact in the short run for Investment driven countries, while inflation has a significant and negative impact. On the other hand, in the long-run real GDP per capita, trade openness had a positive significant impact on FDI inflows to the Investment driven countries while external debt as a share of GDP has a significant negative impact. Government effectiveness has a positive significant impact both in the short run and long run for all categories of countries. On the contrary, political stability has a positive significant impact only on development and factor-driven countries.

According to Kurul and Yasemin (2017) control of corruption, government effectiveness, and voice and accountability are the major institutional factors that affect FDI inflow into developing countries. Employing dynamic panel methodology, these researchers indicated that regulatory quality, rule of law and political stability and absence of violence are not statistically significant

factors in attracting FDI inflow into developing countries. Further, on the economic and other policy factors, they found that trade openness and global financial crises are significant factors in determining the inflow of FDI into developing countries. Exchange rate, financial development, capital account openness and global liquidity, however, were not significant factors to determine the inflow of FDI to the developing countries.

Phung (2016) studied the determinates of FDI inflows into developing countries by considering all developing countries for the period 1980-2014. The first objective was to identify the determinates of FDI into developing countries, and secondly the study aimed at identifying whether the determinates vary across time. For this purpose, the study classified the data into two different data sets, i.e., 1980-2014 and 1990-2014. Thus, by doing so, the researcher wanted to prove whether FDI flow to developing countries has shown a sectorial shift from primary resource and traditional manufacturing towards capital intensive manufacturing by analyzing the determinates into two datasets. The findings of the study show, trade openness and infrastructure are the two crucial factors that consistently affect the inflows of FDI into developing countries for the two datasets. According to the study, market size, macroeconomic stability, trade openness, labor skill, and infrastructure were determined to be the significant factor positively affecting the inflow of FDI in developing countries for the period 1990-2014. However, except for trade openness and infrastructure, the other determinates were not significant for the period 1980-2014. On the other hand, natural resource and labor forces along with trade openness and infrastructure were the major factors affecting the inflow of FDI into developing countries for the period 1980-2014. Nevertheless, market size, macroeconomic stability, labor skill, and financial development were found to be insignificant determinates for the period 1980-2014. The researcher concluded that there is a sectorial shift in the inflow of FDI into developing countries after the period 1990, therefore, accordingly, the determinates also changed from resource focus to more efficiency and market- seeking factors.

Yorsa, Anis, and Houria (2013) found political stability and the absence of violence, and regulatory quality as significant factors affecting the inflow of FDI to both developing and developed countries. Particularly, their finding indicated that out of the six governance factors only regulatory quality is the significant factor in attracting FDI to developing countries. Although, political stability, government effectiveness, regulatory quality, and balance of

payment current account are the significant factors in attracting FDI into developed countries. On the other hand, GDP growth as an indicator of market growth and trade openness were found as positive and significant factors in FDI attraction, whereas inflation was affecting FDI negatively but insignificantly.

Using both fixed and random effect estimation methods, Gangi and Abdulrazak (2012) examined the effect of governance factors on FDI inflow to 50 African countries. The result of their research indicates that out of the six governance factors outlined by the World Bank, the only major factors influencing FDI flow into the continent are voice and accountability, government effectiveness and rule of law. Voice and accountability, however, affect FDI inflows negatively whereas the other two significant variables are positively related to FDI. On the other side, control of corruption, regulatory quality and political instability, as measures of governance factors, do not have real impacts on the FDI inflow to the continent.

2.2.2. Regionally based studies

To identify the determinants of FDI into ten SSA countries, Jaiblai and Shenai (2019) using an ARDL model identified that trade openness is negatively correlated with FDI for Liberia, Nigeria, Ghana, and Senegal both in the short-run and long-run. But for the remaining six countries considered in the study, this variable shows positive but insignificant. Similarly, GDP as an indicator of market size shows a negative estimated coefficient and statistically insignificant indicating that FDI flows to countries with a small market. Income level, as measured by GNIPC, also shows a negative estimated coefficient, but statistically significant. This finding indicates that FDI inflow into these countries was not market-seeking rather resource-oriented as indicated in the research.

Using governance and institutional factors alongside the traditional economic factors, Rodríguez-Pose and Cols (2017) analyzed the role of governance and institutional factors in attracting FDI into 22 SSA countries. Their findings revealed that political stability, government effectiveness, lower corruption, voice and accountability and rule of law plays a pivotal role in influencing the capacity of African countries in attracting stable FDI into their economies. Furthermore, the research indicates that voice and accountability are negatively associated with FDI but significant at a 10 percent significant level while regulatory quality has a positive coefficient but

insignificantly related to FDI. On the economic factors, however, their research found an astonishing result. According to the result, natural resource plays a positive and significant impact in attracting FDI into the continent, while market size as measured by log GDP was not a significant determinant. This indicates that FDI into the continent is resource seeking type than market seeking. Similarly, trade openness has a negative coefficient but not significantly associated with FDI inflow to the continent. Inflation as a proxy for macroeconomic instability has a negative and significant impact on FDI inflows, while human capital affects FDI inflows positively.

Rjoub et al (2017) investigated the determinants of FDI inflow into landlocked SSA countries for the period 1995-2013 by using a pooled OLS and random effect method. The research findings indicate that domestic investment, human capital, trade openness and market size as measured by GDP are the major significant factors in attracting FDI into those countries. On the other hand, the host country tax is negatively related to the FDI inflow of the country. Besides the above results, natural resources were found as another FDI attracting factor for those landlocked countries.

By categorizing Asian countries into three categories, Ifran and Muhammad (2017) examined the impact of institutional quality on FDI inflow into these different groups of Asian countries. They classified the countries into the South Asian Association for Regional Cooperation (SAARC), Association of Southeast Asian (ASEAN) and Central Asian countries. The finding of the study indicates that GDP as a measure of market size is positively and significantly associated with FDI in SAARC and Central Asian countries, and yet negatively with ASEAN countries. On the other hand, domestic investment is positively and significantly associated with FDI inflow into the three categories. This thus implies that domestic investment attracts FDI. Labor cost as a determinant of FDI, however, has a positive estimated coefficient for ASEAN countries but it negatively impacts SAARC countries. In line with this finding, the estimated coefficient of governance factors shows a positive association for ASEAN and Central Asian countries, while it is negatively associated with FDI inflow into SAARC.

Alamedin et.al. (2013) using a generalized least-square estimator identified that FDI inflow into the Arab countries is significantly affected by political stability, voice and accountability, government effectiveness, regulatory quality, GDP size, and trade liberalization. Moreover, the

finding also revealed that control of corruption, rule of law and population size are not significant determinants of FDI flow into the Arab countries. While political stability, regulatory quality, GDP and trade liberalization affects FDI inflow positively, however, voice and accountability, government effectiveness and population size are negatively related to inward inflow into the Arab countries included in their study.

Cleeve (2012) examined the role of both institutional and political risk factors in attracting FDI into the Sub-Saharan African countries. His findings indicate that both institutional and political risk factors have positive impacts on attracting FDI into the region. Nevertheless, both corruption and political stability showed no significant impact on the attraction of FDIs into the SSA countries. Furthermore, the market size and market growth, GDP per capita and real GDP growth as proxies, show significant and positive implying that FDI into the region is market-seeking. On top of this, infrastructure quality and human capital measured by telephone lines and literacy and school enrollment respectively are significant determining factors of FDI into SSA countries

2.2.3. Sub-regional or economic blocks-based studies

Tri, Nga, Duong (2019), with a primary objective of exploring the effect of financial integration in FDI inflows to Asian countries, found that GDP, interest rate and financial integration are the main FDI determining factors for the region. Additionally, their findings indicated that trade openness is negatively related to FDI but statistically significant. On the other hand, interest rate and labor costs are inversely related to FDI inflow but the latter is statistically insignificant. Whereas infrastructure has a positive estimated coefficient but not a significant determining factor of FDI in Asian countries.

Nizam and Hassen (2018) found that government effectiveness and voice and accountability indicators have a positive impact on FDI inflow into the South Asian region. Their research used only the six governance factors to analyse their impact on FDI inflows. According to these authors, control of corruption, political stability, and the absence of violence, regulatory quality, and rule of law negatively impact FDI inflow into the region. Furthermore, except for the rule of law and regulatory quality, the remaining indicators are statistically significant in determining FDI inflow. Thus, the rule of law and regulatory quality are not the main factors in FDI inflow determination.

Examining the impact of both the traditional FDI determinants and governance and institutional quality variables, Asongu, Akpan and Isihak (2018) found that both the availability of natural resources and governance and institutional quality variables are insignificant in terms of attracting FDI into BRICS and MINT countries. The institutional quality variables include the six governance indicators outlined by the World Bank, that are; Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. On the contrary, market size, trade openness and infrastructural availability play a crucial role in attracting FDI into both BRICS and MINT countries.

Similarly, using a ten-year panel data (2000-2010), Jadhav and Katti (2012) analyzed the effect of both institutional and political factors in attracting FDI into BRICS countries. Their study indicates that government effectiveness and regulatory qualities are positively related to FDI inflows, whereas political stability, voice and accountability, and control of corruption have no influence in the FDI inflows to BRICS countries.

Jadhav (2012) explored the role of economic, institutional and political factors in attracting FDI in countries under the Brazil, Russia, India, China and South Africa (BRICS) block using a panel data for ten years (2001-2009). The research findings indicate that market size, trade openness and rule of law plays a pivotal role in attracting FDI in BRICS. On the other hand, institutional and political factors and the availability of natural resources are not important determinant factors of FDI in BRICS. An important outcome of this research is that the relationship between natural resource availability and FDI inflows into BRICS is negative, which implies that FDI into BRICS is primarily market-oriented rather than resource-oriented.

2.2.4. Country specific studies

In this section, country-specific studies that have examined the determinants of FDI in those economies will be presented.

Ismail (2018) examined the determinants of FDI into Tanzania using an OLS method. According to the findings of the research, the exchange rate is the main determinant of inward FDI inflow into the country. On the contrary, market size measured by GDP per capita shows an estimated negative coefficient but significant. Similarly, the coefficient of trade openness was negative and insignificant. Likewise, the inflation rate was not statistically significant, but had a positive

estimated coefficient, implying that FDI inflow into Tanzania is positively correlated with inflation.

According to Ongono, Obange and Odhiambo (2017), annual GDP growth, inflation rate, and external debt as the percentage of GDP are the main drivers of FDI to Kenya. Trade account balance, rate of growth of real export, and current account balance are not significant in influencing the flow of FDI to the Kenyan Economy.

In Namibia, according to Jones and Jacob (2016), both GDP growth and inflation were found to impact FDI inflow positively in the short-run and long-run. On the contrary, the growth rate of the population is insignificant but positively related to FDI inflow into the country in the short run. This reveals that population growth, especially where there is high unemployment and the level of poverty is still a challenge, is an obstacle in the government's effort to attract FDI. This variable, nevertheless, in the long-run has a negative influence on FDI attraction. On the other hand, the exchange rate has a negative impact both in the short-run and in the long-run.

Workineh (2014) by applying multiple regressions model, empirically investigated factors affecting FDI inflow to Ethiopia during 1990-2011. This study suggests that trade openness and inflation rate are significant factors affecting Ethiopian FDI during these periods, while market size, infrastructure, and human capital are found to be statistically insignificant factors for FDI inflow into Ethiopia during the study period. The relationship between market size measured by real GDP growth is negative besides being insignificant.

Using both qualitative and quantitative research methods, Teka (2014) analyzed factors that facilitate the inflow of FDI into Ethiopia and identified those factors that deter it. His study targets foreign firms that operate in Addis Ababa and the surrounding nearby towns. Covering the study period of 1992-2010, this study found that domestic and regional market seeking, political and social stability, and different investment incentives are the main factors driving FDI into the country. On the contrary, exchange rate volatility, corruption, and lack of clear policies and regulations are the factors that affect FDI inflow negatively.

In Ethiopia, Getinet and Hirut (2006), also investigated the determinants of FDI by using OLS regression model for the years between 1974 and 2001. The study employed real GDP growth rate as a measure of market size, export as a share of GDP to proxy trade openness, inflation as a

proxy for macroeconomic stability, gross capital formation and telephone lines per 1000 people as a measure of infrastructure, rate of adult illiteracy as a proxy for human capital and liberalization index. The study result shows that export orientation, the growth rate of real growth domestic product and trade liberalization have positive and significant impacts on FDI flow of Ethiopia whereas macroeconomic instability and poor infrastructure have negative impacts.

In summary, most of the studies indicate that market size, the openness of the host country's economy to international trade, macroeconomic stability, and the host country's governance system are important determinants of FDI flow to developing countries. I believe that any study that deals with the determinants of FDI flow to developing countries should consider these factors in any of the regression models. As can be observed from Table 1 below, GDP per capita is the dominant variable considered as a proxy for a host country's market size. Moreover, others considered the absolute value of GDP and the log of GDP as proxy variables for the hosts' market size. The use of GDP per capita as a proxy for market size, however, may suffer from bias in that it places countries with a high population in a less –attractive position. Besides, high GDP per capita may deter resource seeking MNC, especially if the firm is looking for a cheap labor force. Thus, in this study, the GDP growth rate that indicates the expansion of the country's economy is used as a proxy for market attractiveness.

As can be seen from Table 1 below, the empirical results concerning the relationship between FDI inflow and trade openness are mixed. Most researchers used the share of trade, export plus imports, in GDP as a proxy for the country's openness to international trade. But in the case of Ethiopia, both Workneh (2014) and Getinet and Hirut (2006) used the share of export in the GDP of the country as a proxy for trade openness. However, trade happens in both ways so it is necessary to include both export and imports to assess their relationship with FDI flow to the country. Similarly, results concerning the relationship between macroeconomic stability and FDI inflow are inconclusive. Some authors found that macroeconomic instability as measured by inflation affects FDI inflows positively while others argue against the result. For instance, both Workneh (2014) and Getinet and Hirut (2006) found a negative significant relationship between FDI flow and inflation, Geda and Yimer (2018) found a positive but insignificant relationship between the two for a factor-driven country (Ethiopia being categorized under this category in

their study). Therefore, this discrepancy necessitates further research on the impact of inflation on FDI inflow into Ethiopia.

Concerning the impact of governance variables on FDI inflow, though most studies indicate that they impact FDI inflow into developing countries, an empirical result is the case of Ethiopia are missing. Therefore, this research included the three political variables along with the other economic variables to analyze their impact on FDI inflow.

2.3. Gaps in Existing Empirical Literature

As can be seen from the above empirical result summary table and reviews, a large number of studies have been done both in developing and developed countries to analyze the determinants of FDI, however, the results of the empirical evidence are mixed.

In the case of Ethiopia, there is little empirical research that has assessed the determinants of FDI inflow. These researchers, however, considered the impact of economic variables such as GDP per capita, trade openness, quality and availability of infrastructure and human capital in attracting MNC into the country. But investment decisions by MNCs is not only guided by the economic performance of the host country. Institutional qualities and good governance along with economic factors play a vital role in the investment decisions of investors. For example, a high level of corruption, the unpredictability of government policies, the excessive regulatory burden increases the MNC's business cost and creates uncertainty. This uncertainty and additional unnecessary business costs may act as a deterrent in the investment decision of the MNCs. Therefore, it is necessary to evaluate the impact of these factors on the FDI flow into Ethiopia.

Furthermore, previous studies that dealt with Ethiopia's case, as long as I know, have adopted a methodology that is not compatible with time-series economic variables. Therefore, this study also fill-in this gap by applying an ARDL Bounds tests approach that helps to identify the short-run as well as the long-run relationships between FDI and its determinants.

Table 2. Summary result of empirical studies on the determinants of FDI inflow to developing countries

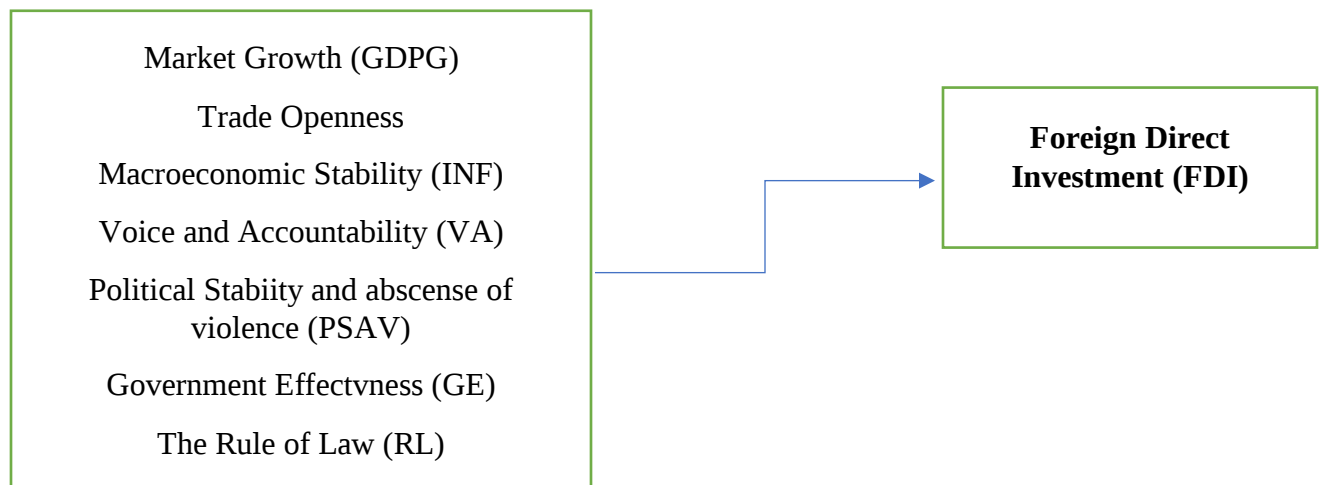
Determinant	FDI Destinations	Method	Proxy	Effect	Authors	Impact
Market Size	20 low-income, 39 lower-middle-income,	Panel Data	GDP per capita	+	Sabir, Rafique, and Abbas (2019),	Significant
	20 Developed and Developing Countries	Panel Data	GDP Growth	+	Yorsa S., Anis O., and Houria G. (2013).	Significant
	10 SSA Countries	ARDL	GDP	-	Jaibla and Shenai (2019)	Significant
	22 SSA Countries	Panel Data	Log GDP	+	Rodríguez-Pose and Cols (2017)	Insignificant
	Tanzania	OLS	GDP per Capita	-	Ismail (2018)	Significant
	Namibia	ARDL	GDP Growth	+	Jones and Jacob (2016)	Significant
	Ethiopia	OLS	Real GDP growth rate	-	Workneh, A. M. (2014)	Insignificant
	Ethiopia	OLS	Real GDP Per Capita	+	Getinet and Hirut (2006	Insignificant
	Ethiopia	OLS	Real GDP growth rate	+	Getinet and Hirut (2006	Significant
Factor Driven -African Countries		Panel Co-integration	Real GDP per Capita	+	Geda and Yimer (2018)	Insignificant
Trade openness	20 low-income, 39 lower-middle-income,	Panel Data	Trade/GDP	+	Sabir, Rafique, and Abbas (2019),	Significant
	113 developing countries	Dynamic Panel	Trade/GDP	+	Kurul and Yasemin (2017)	Significant
	30 countries (Africa, Asia, and Latin America	Panel Data	(X+I)/GDP	+	Phung, H. B. (2016).	Significant
	20 Developed and Developing Countries	Panel Data	(X+I)/GDP	+	Yorsa S., Anis O., and Houria G. (2013).	Significant
	10 SSA Countries	ARDL	(X+I)/GDP	-	Jaibla and Shenai (2019)	Significant
	22 SSA Countries	Panel Data	(X+I)/GDP	-	Rodríguez-Pose and Cols (2017)	Insignificant
	Tanzania	OLS	(X+I)/GDP	-	Ismail (2018)	Insignificant
	Ethiopia	OLS	(X/GDP	+	Workneh, A. M. (2014)	Significant
	Ethiopia	OLS	(X/GDP	+	Getinet and Hirut (2006	Significant
	Investment driven -African countries	Panel Co-integration	(X+I)/GDP	+	Geda and Yimer (2018)	Significant
	Factor Driven -African Countries	Panel Co-integration	(X+I)/GDP	-	Geda and Yimer (2018)	Insignificant
	Fragile -African Countries	Panel Co-integration	(X+I)/GDP	+	Geda and Yimer (2018)	Insignificant
Macroeconomic Stability	20 low-income, 39 lower-middle-income,	Panel Data	Inflation	-	Sabir, Rafique, and Abbas (2019),	Insignificant
	22 SSA Countries	Panel Data	Inflation rate	-	Rodríguez-Pose and Cols (2017)	Significant
	Tanzania	OLS	Inflation	+	Ismail (2018)	Insignificant

Governance Indicators	Namibia	ARDL	Inflation	+	Jones and Jacob (2016)	Significant
	Ethiopia	OLS	Inflation rate -CPI	-	Workneh, A. M. (2014)	Significant
	Ethiopia	OLS	Inflation rate -CPI	-	Getinet and Hirut (2006)	Significant
	Factor Driven -African Countries	Panel Co-integration	Inflation rate -CPI	+	Geda and Yimer (2018)	Insignificant
	20 low-income, 39 lower-middle-income, 113 developing countries	Panel Data	Voice and Accountability	+	Sabir, Rafique, and Abbas (2019),	Insignificant
		Dynamic Panel	Voice and Accountability	+	Kurul and Yasemin (2017)	Significant
	50 African countries	Fixed and Random	Voice and Accountability	-	Gangi, Y. A., and Abdulrazak, R. S. (2012)	Significant
	22 SSA Countries	Panel Data	Voice and Accountability	-	Rodríguez-Pose and Cols (2017)	Insignificant
	20 low-income, 39 lower-middle-income, 20 Developed and Developing Countries	Panel Data	Government Effectiveness	+	Sabir, Rafique, and Abbas (2019),	Significant
		Panel Data	Government Effectiveness	+	Yorsa S., Anis O., and Houria G. (2013).	Insignificant
	50 African countries	Fixed and Random	Government Effectiveness	+	Gangi, Y. A., and Abdulrazak, R. S. (2012)	Significant
	22 SSA Countries	Panel Data	Government Effectiveness	+	Rodríguez-Pose and Cols (2017)	Significant
	Factor Driven -African Countries	Panel Co-integration	Government Effectiveness	+	Geda and Yimer (2018)	Significant
	20 low-income, 39 lower-middle-income, 113 developing countries	Panel Data	Political Stability	+	Sabir, Rafique, and Abbas (2019),	Significant
		Dynamic Panel	Political Stability	+	Kurul and Yasemin (2017)	Insignificant
	50 African countries	Fixed and Random	Political Stability	-	Gangi, Y. A., and Abdulrazak, R. S. (2012)	Insignificant
	22 SSA Countries	Panel Data	Political Stability	+	Rodríguez-Pose and Cols (2017)	Significant
	Factor Driven -African Countries	Panel Co-integration	Political Stability	+	Geda and Yimer (2018)	Significant
	Fragile -African Countries	Panel Co-integration	Political Stability	+	Geda and Yimer (2018)	Insignificant
	20 low-income, 39 lower-middle-income, 113 developing countries	Panel Data	Rule of Law	+	Sabir, Rafique, and Abbas (2019),	Insignificant
		Dynamic Panel	Rule of Law	+	Kurul and Yasemin (2017)	Insignificant
	50 African countries	Fixed and Random	Rule of Law	+	Gangi, Y. A., and Abdulrazak, R. S. (2012)	Significant
	22 SSA Countries	Panel Data	Rule of Law	+	Rodríguez-Pose and Cols (2017)	Significant

2.4. Conceptual Framework

A conceptual framework is an analytical tool with several variations and contexts used to make conceptual distractions and organize ideas. The conceptual framework shows the relationships of the independent variables and dependent variables. The independent variables of this study include both economic and governance factors. The economic variables include; market size, market openness, infrastructure, macroeconomic stability. On the other hand, the governance variables are; voice and accountability, political stability and absence of violence, government effectiveness, rule of law, regulatory quality and control of corruption. The dependent variable is Foreign Direct Investment inflow.

Figure 1. Conceptual Framework



Source: Dunning (1993), Kaufmann, D., Kraay, A., and Mastruzzi, M. (2009)

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

3.1. Research Design

Research design, as described by Dekker et al. (2012), is a conceptual framework within which research is conducted. In line with the objective of this study, this study uses an explanatory research design method. This kind of research design is used to explicate the behavior of the dependent variable by thoroughly analyzing the influence of the independent variables on the dependent (Saunders et al., 2012). Therefore, in this study, the determinants of FDI inflow are explored and their association with FDI is explained through an explanatory research design method.

3.2. Data Source and Method of Data Collection

Due to limitations of data availability, particularly for the five governance variables, the study is limited to the period 1996-2018. Secondary data were used for both the dependent and independent variables used in this study. In terms of data sources, this research used the World Bank's World Development Indicators (WDI), UNACTD and the World Bank World Governance Indicators (WGI) database as its source in this study. Foreign Direct Investment and trade openness data were obtained from the UNACTD database, while data for GDP growth, inflation rate were gathered from the World Bank World Development Indicators database. On the other hand, data for the four governance variables were obtained from the World Governance Indicators of the World Bank. The database, however, has only data starting from the year 1996.

3.3. Data analysis method and model specification

In line with the variables discussed above, availability of data and previous empirical studies, the general model of the study is developed as follows;

$$FDI = f(GDPG, OPENNESS, INF, VA, PSAV, GE, RL) \dots (1)$$

Where;

FDI =Foreign Direct Investment in US\$,

GDPG = GDP Growth Rate- measures market potential

OPENNES= Trade as a share of GDP- measures the country's openness to the international market

INF= Macroeconomic Stability measured by an annual rate of inflation-based rate,

VA= Voice, and Accountability,

PSVA= Political Stability and Absence of Violence,

GE= Government Effectiveness,

RL= Rule of Law,

3.3.1. Statistical and stationarity analysis

In this study, EViews 10 statistical software was used to perform data analysis. Before running any regression, the initial step was carrying out a preliminary statistical analysis of the data obtained from the sources aforementioned above. In the preliminary data analysis, descriptive statistics were employed for the variables used in this study. Descriptive statistics summarize statistics such as the mean, median, minimum, standard deviations, skewness, kurtosis, and the normal distribution of the series using the Jarque- Bera statistics. The correlation matrix, on the other hand, provides information about the strength of the relationship between the dependent and independent variables as well as among the independent variables.

Since this study employs an annual time series data, ensuring the stationarity of the data used in the study is required. If the data are not stationary, any empirical result obtained from the regression output may lead to spurious regression results. Hence, this study employed both the Augmented Dicky Fuller and Phillips-Perron unit root tests to ensure the stationarity of the variables used in this study. Further to ensuring issues around the stationarity of variables, the unit root test is useful for selecting the appropriate research model. The unit root tests confirm the level of integration for the variables, order-level I (0) or order one I (1) level. The result of these tests, moreover, guides the selection of appropriate bounds testing estimation methods.

3.3.2. The Bound Testing Approach

To examine the relationship between the dependent variable and independent variables used in this study, an appropriate econometric model is vital. Previous studies have used Vector Error

Correlation Methods, and Eagle- Granger cointegration tests to find both the long run and short-run relationships between variables of concern. However, these co-integration techniques are used only if the variables are integrated of the same stationarity level. On the contrary, the ARDL model can be used regardless of the level of stationarity of the variables except that the variables are not in I (2) and above levels of stationarity. Therefore, to take advantage of the above conditions and assess the existence of relationship level between the dependent and independent variables, this research, adopted the autoregressive distributed lag (ARDL) as developed by Pesaran et al. (2001).

Besides the above advantage, the bounds testing method is also suitable for the estimation of small sample sizes. The bounds testing method requires the modeling of equation (1) under section 3.4 above into a Conditional Error Correction Model (ECM) (Pesaran et al.,2001). In this study, three steps were followed to apply the ARDL estimation model.

In step one, the long run associations between the dependent and independent variables were estimated by testing the significance of the lagged values of the variables in the conditional ECM below.

$$\begin{aligned} \Delta LFDIt = & \lambda 0 + \theta 1 FDI_{t-1} + \theta 2 GDPG_{t-1} + \theta 3 OPEN_{t-1} + \theta 4 INF_{t-1} + \theta 5 VA_{t-1} + \theta 6 PSAV_{t-1} + \theta 7 GE_{t-1} \\ & + \theta 8 RL_{t-1} + \sum_{i=0}^p \alpha 1 \Delta FDI \ t - i + \sum_{i=0}^q \alpha 2 \Delta GDPG \ t - i + \sum_{i=0}^r \alpha 3 \Delta OPEN \ t - i + \\ & \sum_{i=0}^s \alpha 4 \Delta INF \ t - i + \sum_{i=0}^t \alpha 5 \Delta VA \ t - i + \sum_{i=0}^u \alpha 6 \Delta PSAV \ t - i + \sum_{i=0}^v \alpha 7 \Delta GE \ t - i \\ & + \sum_{i=0}^w \alpha 8 \Delta RL \ t - i + \varepsilon_t \dots \dots \dots \end{aligned} \quad (2)$$

The maximum lagged order values of the above question (2) were determined based on the Akaike Information Criterion (AIC). F- bounds with an upper and lower bound critical value were used to determine the existence of the long-run relationship between FDI and the independent variables. The lower bound critical value assumes all variables are stationary at I (0) and the upper bound critical value assumes that all variables are stationary at I (1). Both the null and alternative hypotheses for the F-bound tests are given below and all tests are made either to accept or reject the null hypothesis that says there is a long-run relationship between the variables.

$$H_0: \theta 1 = \theta 2 = \theta 3 = \theta 4 = \theta 5 = \theta 6 = \theta 7 = 0 \text{ (There is no cointegration between variable)}$$

$H_1: \theta_1 \neq \theta_2 \neq \theta_3 \neq \theta_4 \neq \theta_5 \neq \theta_6 \neq \theta_7 \neq 0$ (There is cointegration between variables)

If the computed F statistical value is greater than the upper bound critical value then we fail to reject the alternate hypothesis or we fail to accept the null hypothesis. In this case, the result indicates the existence of co-integration (Pesaran *et al.*, 2001). On the contrary, according to Pesaran *et al.* (2001), if the F statistics value is less than the lower bounds critical value then we fail to reject the null hypothesis, meaning there is no co-integration. However, if the value of the F statistics falls between the upper and lower bound critical values, then the result is inconclusive and requires further investigation.

Following the bounds tests, if the result indicates the existence of long-run relationships between the dependent and independent variables used in this study, then the second step involves estimation of the long-run model indicated under equation 3 below. In EViews both the long-run model and bounds tests are jointly estimated.

$$LFDIt = \lambda_0 + \sum_{i=1}^p \alpha_1 FDI_{t-i} + \sum_{i=0}^q \alpha_2 GDPG_{t-i} + \sum_{i=0}^r \alpha_3 OPEN_{t-i} + \sum_{i=0}^s \alpha_4 INF_{t-i} + \sum_{i=0}^t \alpha_5 VA_{t-i} + \sum_{i=0}^u \alpha_6 PSAV_{t-i} + \sum_{i=0}^v \alpha_7 GE_{t-i} + \sum_{i=0}^w \alpha_8 RL_{t-i} + \varepsilon_i \quad (3)$$

In the final stage of the ARDL model, the Error Correction Model (ECM) is indicated below.

$$\Delta LFDIt = \mu_0 + \delta_1 ECM_{t-1} + \sum_{i=0}^p \mu_1 \Delta FDI_{t-i} + \sum_{i=0}^q \mu_2 \Delta GDPG_{t-i} + \sum_{i=0}^r \mu_3 \Delta OPEN_{t-i} + \sum_{i=0}^s \mu_4 \Delta INF_{t-i} + \sum_{i=0}^t \mu_5 \Delta VA_{t-i} + \sum_{i=0}^u \mu_6 \Delta PSAV_{t-i} + \sum_{i=0}^v \mu_7 \Delta GE_{t-i} + \sum_{i=0}^w \mu_8 \Delta RL_{t-i} + \varepsilon_i \quad (4)$$

Where;

- Δ denotes the first difference operator
- $\mu_1 \mu_2 \mu_3 \mu_4 \mu_5 \mu_6 \mu_7 \mu_8$ represents the short-run dynamic parameters
- $p \ q \ r \ s \ t \ u \ v \ w$ represents the optimal lags
- ECM_{t-1} represents the error correction term while
- δ_1 represent the speed of the adjustment

3.4.4. Stability and Diagnostic Tests

Brown et. al (1975)'s Cumulative Sum (CUSUM) and Cumulative Sum Squares (CUSUMSQ) stability tests are employed to ensure the stability of the ARDL model adopted for this study. According to these tests, if the plot of both CUSUM and CUSUMSQ falls within the five percent critical values it indicates that the model is stable. On the contrary, if the values of both tests fall outside the five percent critical values, then the ARDL model is not stable.

Concerning the diagnostical tests, this study used the Breusch-Godfrey Serial correlation LM test to confirm whether the residuals are serially correlated or not. The test null hypothesis is that the residuals are serially uncorrelated. If the outcome of the test supports the null hypothesis, we fail to reject the null or else we accept the alternate hypothesis. Similarly, for the Heteroskedasticity Test Breusch-Pagan- Godfrey will be employed to tests for the homoscedastic of the residuals. If the residuals are homoscedastic, we fail to reject the null hypothesis which assumes the homoscedasticity of the residuals. Furthermore, the functional form and normality of the residuals will be assessed based on Ramsey Regression Specification (RESET) and Jarque- Bera respectively. The null hypothesis for the RESET test is that the model is correctly specified while the null hypothesis for the Jarque-Bera test is that the residuals are normally distributed.

In summary, to ensure the goodness of fit and stability of the selected model, this research employed the serial correlation, heteroscedasticity, normality, CUMSUM and CUMSUMSQ tests respectively. However, before undertaking the post-estimation tests, stationarity of the variables was ensured by using both the ADF and Phillip Parron stationarity testing methods. The outcome of the stationarity tests also guides us about the level of integration of the variables and the model choice. In line with the stationarity test results, this research also employed the bound test to determine whether the variables are cointegrated or not so that we develop the long and short-run models indicated under equation 3 and 4 above.

CHAPTER FOUR

EMPIRICAL RESULTS PRESENTATION ANALYSIS AND DISCUSSION

Introduction

As indicated in the first chapter, this study aims at identifying the key determinants of inward FDI inflow into Ethiopia. This chapter, hereafter, discusses the main findings of this research by analyzing the data collected for both the dependent and independent variables. Before running the regression analysis, the variables are checked for their stationarity using Augmented Dicky-Fuller (ADF) and Phillip-Perron specification (section 4.4). Then, once data stationarity is confirmed, the bounds test is adopted to undertake tests for cointegration of the variables (section 4.6) and model selection. However, before running the regression model, some preliminary analysis is undertaken.

These preliminary analyses include descriptive statistics of the variables (Section 4.1) and examination of the correlation between the variables used in the study (Section 4.2). Following these analyses, the ARDL regression model results are discussed (section 4.6). Finally, model diagnostics tests were undertaken and the result is presented under section 4.7.

4.1. Descriptive Statistics

This section presents a preliminary analysis of the data used in this research. First, descriptive statistics are presented, followed by a correlation matrix. Initially, descriptive statistics are carried out and provided summary statistics of the mean, standard dev., minim and maximum for the variables used in the study. Then, correlation analysis shows whether a significant relationship exists between the independent variables or not. If there is a high level of correlation exists between the independent variables, this may indicate the existence of multicollinearity, which again affects the result of the regression model.

The summary result of the descriptive statistics is presented in Appendix 1 of the paper. According to the summary table, the average FDI inflow into Ethiopia during the study period was US\$960.36 million. Though the flow of FDI into the country showed fluctuation from time to time, it has increased from US\$21.93 million in the year 1996 to US\$4,017.10 million in the year 2017, which is the maximum inflow for the study period. The median inflow of FDI was US\$288.49 million for the study period. Compared to where it was in 1996, the FDI inflow into

the country has shown impressive growth. Moreover, the country has surpassed its GTPII target of 7.15 billion USD in the first three years of the planning period. Government commitment and a conducive investment environment, at least until the recent political disruption and attack on foreign firms in different parts of the country, have contributed to this growth. However, in recent years the country is witnessing a decline in the FDI inflow. Despite a flat inflow into the East Africa region compared to the previous year, inflow into Ethiopia has declined by 18% in 2018. Furthermore, in its investment progress report of 2020, UNACTD has reported that inflow into the country has declined by 24%. This decline in the inflow partly may have resulted from the political uncertainty in the country and the burning of foreign firms' property during the recent mass protest against the government. If the current sliding trend continues it might affect the aspiration of the government to make Ethiopia the investment Hub of Africa. If the country is to achieve its development aspiration FDI can help in closing both the financing gap and foreign exchange shortage, therefore the government needs to tackle any issues that might affect the perception of multinational corporations towards investing in the country.

Similarly, for the study period, the country's economy has expanded on average by 8.15% with the maximum and minimum of 13.57% and -3.45% respectively. The maximum GDP growth was recorded in the year 2004, during this year, however, according to the World Bank's report the global GDP growth 4.383%. Notwithstanding the fact that the country's economy is expanding, the recent trend shows a declining growth momentum. The growth has declined from 10.39 % in the year 2015 to 6.8% in 2018 averaging to 9.03% growth rate between the years 2015 to 2018. The target was to achieve an annual average growth rate of 11.1% for the GTPII planning period which runs from 2015/16 to 2019/20, however, in the past years, the target was not attained. Given that we are in the last year of GTPII, the average growth of target 11.1% seems unreachable unless a high growth rate that compensates for previous declines is recorded in the current fiscal year.

Moreover, the share of trade, both exports, and imports in the country's GDP averaged about 42.85% with the maximum and minimum values of 57.15% and 26.07% respectively for the study period. Ethiopia's trade as a share of GDP shows a fluctuation with a decreasing trend in recent years. For instance, the share of trade in GDP was 57.15% in the year 2011, the maximum for the study period, however, this has declined to 35.31% in the year 2018. The overall

performance of both export and import is below what the government has projected. For example, during the fiscal year 2016/17, the actual export accounts only 42.79% of the target for the same year.

Likewise, the inflation rate for the country varies from period to period with an average of 9.88% for the study period. The country, however, was hit by its highest inflation rate of 44.35% in 2008, the year regarded as the year of global financial crises. During this year, the total FDI inflow into the country has declined by 51% compared to the previous year. This might be due to the global financial crises that hit the Western countries, thus resulting in a decline in their business seeking opportunities overseas. With the aim of creating a favorable macroeconomic environment that supports rapid, sustainable and pro-poor economic growth, the government has targeted to keep inflation at 8% for the GTPII period. However, except for the year 2016/17, the annual inflation rate was at two-digits challenging the economic growth aspiration of the government. Prudent fiscal policy and monetary control were among the reasons that helped the government meet its target of single-digit in the 2016/17 fiscal year. Therefore, to achieve the target of single-digit inflation and create a conducive macroeconomic environment, the government has to follow prudent fiscal and monetary policies that help curb the soaring inflation rate.

The governance variables, on the other hand, exhibited negatives average values for the study period. The range within which these values fall indicates that Ethiopia's governance system is underdeveloped. According to Kaufmann et al (2010), the governance values fall within the range of -2.5 to 2.5 indicating the higher the score the better is the country's governance and institutional qualities. Looking at the table and the raw data under the Appendix 7 of this study, however, it is evident that there is a long way for the country to go to improve its governance and institutions index. For instance, voice and accountability (VA) that reflect the citizen's perception to participate in selecting their government, to freely form associations and express their views about their government actions, shows an average value of -1.21 implying that the citizens' perception of their participation in the government selection is weak. Whereas, other SSA countries such as Ghana, Kenya, and Uganda have exhibited an average of 0.33, -0.33 and -0.63 respectively. These figures indicate that the VA index is better in the aforementioned countries when compared to Ethiopia.

Furthermore, political stability and absence of violence (PSAV) variable shows an average value of -1.36 indicating the perception about the likelihood of political instability is moderately high. This index fluctuates so much, the index was improving following the Ethio-Eritrea border war but due to violence following the 2005 general election, the index sharply shows deterioration of the political stability in the country. During this period, FDI flow was also fluctuating with a decreasing trend. For instance, FDI inflow into Ethiopia declined by nearly 59 percent in the years following the 2005 election. This political instability, though not high in magnitude, creates a perception that the country is not stable and there is a possibility for the government to be removed in an unconstitutional way. This, in turn, deters investors from investing in the country for fear of losing their investment and its return. Therefore, it is necessary for the government of Ethiopia to create a political system that guarantees a smooth transition of power in a constitutional way.

Similarly, the average value of government effectiveness (GE), rule of law (RL) are negative implying weak governance indexes. Nevertheless, these variables show relatively strong performance compared to voice and accountability and political stability. In summary, the governance indexes of the country indicate weak performance compared to the benchmark values set by the World Banks -World Governance Index.

4.2. Correlation Analysis

Similarly, Appendix 2 presents the correlation matrix between the variables considered in this study. Among the independent variables; rule of law, voice, and accountability, political stability and trade openness are significantly correlated with FDI. Conversely, the correlation between the independent variables is moderate.

4.3. Stationarity and Cointegration test

This section describes the main unit root test used in this research and discussion on the result of the test. The unit root test is used to find out if a series of variables are stationary or non-stationary. According to Gujarati(2004), a time series data is considered stationary if and only if the means and variance of the data are constant over time. Thus, in time series data analysis, only stationary data are used for regression analysis or else the result will not provide the necessary information for decision making. There are different commonly used tests to analyses the

stationarity of time series data. For this study, however, Augmented Dickey-Fuller (ADF) and Phillips-Perron stationarity were employed to check the order of integration of the variables. The null hypothesis for this test is that there is the unit root or the data are not stationary, while the alternative is that the data are stationary or don't have a unit root.

In line with that above hypothesis, the unit root tests for all variables of the study are checked using the ADF and Phillip- Perron method and the results are presented under Tables 4 and 5 below. Each of the tests was conducted under the first difference and the result as indicated in the tables below shows the probability values of all the variables except variable VA are closer to zero indicating stationarity of the variables at 5% and 1% critical values. VA, as indicated under the Phillip- Perron result test, is also stationary at 10% critical value. Hence, as a result of the outcome of the tests, the null hypothesis of the unit root (individual unit root process) is rejected, and it can be concluded that there are no unit roots in the first difference of the variables. This, in turn, confirms that each of the variables is either integrated at level (I (0)) or order one (I (1)). This result further justifies the decision for adopting the bounds test procedure for an empirical analysis of this research.

Table 3. Augmented Dickey-Fuller Unit Root Test

Null Hypothesis: Unit root (individual unit root process)

Series: LFDD, GDPG, OPEN, INF, VA, PSAV, GE, RL

Date: 02/10/20 Time: 23:58

Sample: 1996 2018

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on AIC: 0 to 1

Total number of observations: 165

Cross-sections included: 8

Method	Statistic	Prob.**
ADF - Fisher Chi-square	125.774	0.0000
ADF - Choi Z-stat	-9.34839	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(UNTITLED)

Series	Prob.	Lag	Max Lag	Obs
D(LFDD)	0.0000	0	4	21
D(GDPG)	0.0000	1	4	20

D(OPEN)	0.0035	0	4	21
D(INF)	0.0000	1	4	20
D(VA)	0.0028	1	4	20
D(PSAV)	0.0138	0	4	21
D(GE)	0.0001	0	4	21
D(RL)	0.0009	0	4	21

Table 4. Phillips- Perron Unit Root Test

Null Hypothesis: Unit root (individual unit root process)

Series: LFDI, GDPG, OPEN, INF, VA, PSAV, GE, RL

Date: 02/10/20 Time: 23:59

Sample: 1996 2018

Exogenous variables: Individual effects

Newey-West automatic bandwidth selection and Bartlett kernel

Total (balanced) observations: 168

Cross-sections included: 8

Method	Statistic	Prob.**
PP - Fisher Chi-square	164.16	0.0000
PP - Choi Z-stat	-10.5399	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Intermediate Phillips-Perron test results D(UNTITLED)

Series	Prob.	Bandwidth	Obs
D(LFDI)	0.0000	3.0	21
D(GDPG)	0.0000	20.0	21
D(OPEN)	0.0036	5.0	21
D(INF)	0.0000	10.0	21
D(VA)	0.0705	10.0	21
D(PSAV)	0.0157	1.0	21
D(GE)	0.0001	1.0	21
D(RL)	0.0000	7.0	21

Source: Author's calculation using EViews 10

4.4. Maximum Lag and ARDL Model Selection

The unit root results suggest the application of an ARDL model to assess the long-run relationship of the variables as the variables are stationary at either order one or level. However, it is necessary to choose the appropriate lag levels before the application of the ARDL bound testing model. On the other hand, the estimation of equation 2 under section 3.3.2. above requires

information on the maximum order of lags for both the dependent and independent variables based on their first difference. Thus, to help determine the maximum lag level, this study employed VAR Lag Order Selection through the Akaike Information Criterion (AIC). The output of the VAR Lag Order Selection presented below in Table 5 suggests the maximum lags of 1 for each variable.

Table 5. VAR Lag Order Selection Criterion

VAR Lag Order Selection Criteria

Endogenous variables: LFDI GDPG OPEN INF VA PSAV GE RL

Exogenous variables: C

Date: 02/10/20 Time: 23:30

Sample: 1996 2018

Included observations: 22

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-162.8821	NA	0.000771	15.53473	15.93147	15.62819
1	-53.69865	129.0349*	1.90e-05*	11.42715*	14.99783*	12.26830*

* indicates lag order selected by the criterion

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

FPE: Final prediction error

AIC: Akaike information criterion

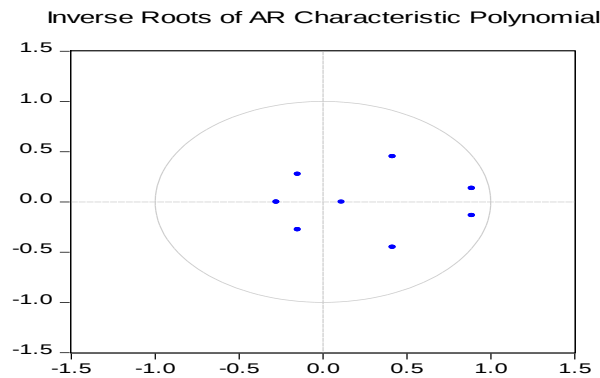
SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Source: Author's calculation using EViews 10

Moreover, the choice of the appropriate lag order was confirmed by the VAR polynomial graph as presented in Figure 2 below. In this graph, all the blue dots are inside the circle that confirms the choice of 1 lag estimation for the ARDL model.

Figure 2. Optimal Lag Selection criterion under the VAR Model in Polynomial Graph



Source: EViews 10

4.5. Bounds test for the presence of cointegration

Following the maximum lags selection and estimation of equation 2 (ref section 3.3.2 above), the ARDL model was selected. EViews 10 software jointly estimated the ARDL Long Run form (equation 3 above) and the Bound tests. The ARDL and bounds test results are presented below under Table 6. The table presents both the ARDL Long Run form and the Bounds test results. As per the result, the F- statistics for the bounds test shows a value of 5.053562. This value, however, falls beyond the upper bounds critical value I (1) of 3.13, 3.5 and 4.26 at 10%, 5% and 1% critical levels respectively. As a result of the above result, the research rejects the null hypothesis of no levels of relationships. On the other hand, we accept the alternate hypothesis that assumes the existence of long-run relationships between the dependent and independent variables considered for this study. FDI and the regressors have long-run relationships as implicated above. The result of the long-run relationships is discussed below under the analysis and discussion section.

Table 6. ARDL Long Run Form and Bound Test

ARDL Long Run Form and Bounds Test

Dependent Variable: D(LFDI)

Selected Model: ARDL (1, 0, 1, 1, 1, 1, 1, 1)

Case 3: Unrestricted Constant and No Trend

Date: 02/10/20 Time: 23:33

Sample: 1996 2018

Included observations: 22

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.046858	3.697614	0.553562	0.5971
LFDI (-1) *	-0.978639	0.371443	-2.634693	0.0337
INF**	-0.032942	0.016640	-1.979698	0.0882
GDPG (-1)	0.015247	0.060688	0.251241	0.8088
OPEN (-1)	0.021675	0.061287	0.353660	0.7340
VA (-1)	-4.292093	4.046602	-1.060666	0.3241
PSAV (-1)	-0.091446	1.195963	-0.076462	0.9412
GE (-1)	-3.023463	1.954659	-1.546798	0.1658
RL (-1)	5.631736	4.147591	1.357833	0.2167
D(GDPG)	0.011853	0.054189	0.218740	0.8331
D(OPEN)	0.036755	0.050224	0.731812	0.4881
D(VA)	-2.345175	2.610319	-0.898425	0.3988
D(PSAV)	0.977128	1.017241	0.960567	0.3688
D(GE)	-4.757504	1.613417	-2.948714	0.0214
D(RL)	7.208331	2.042469	3.529225	0.0096

* p-value incompatible with the t-Bounds distribution.

** Variable interpreted as $Z = Z(-1) + D(Z)$.

Levels Equation Case 3: Unrestricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF	-0.033661	0.008918	-3.774593	0.0069
GDPG	0.015580	0.037024	0.420815	0.6865
OPEN	0.022148	0.031647	0.699840	0.5066
VA	-4.385776	1.772210	-2.474750	0.0425
PSAV	-0.093442	0.701836	-0.133140	0.8978
GE	-3.089456	0.743284	-4.156493	0.0043
RL	5.754659	1.315275	4.375250	0.0033

EC = LFDI - (-0.0337*INF + 0.0156*GDPG + 0.0221*OPEN -4.3858*VA
-0.0934*PSAV -3.0895*GE + 5.7547*RL)

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I (0)	I (1)
Asymptotic: n=1000				
F-statistic	5.053562	10%	2.03	3.13
k	7	5%	2.32	3.5
		2.5%	2.6	3.84
		1%	2.96	4.26
t-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I (0)	I (1)
t-statistic	-2.634693	10%	-2.57	-4.23
		5%	-2.86	-4.57
		2.5%	-3.13	-4.85
		1%	-3.43	-5.19

Source: Author's calculation using EViews 10

4.6. Stability and Diagnostic tests

To ensure the reliability of the goodness of fit for the ARDL model, four diagnostic tests were conducted and the results presented below. More specifically, the tests were conducted to address issues of autocorrelation, heteroscedasticity, and normality of the residuals and other misspecifications tests. Moreover, the stability of the model is ascertained through both Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ). Below are the summaries of the different tests conducted and the decisions taken about the test hypothesis. All the test results are included in the appendix of this study.

4.6.1. Serial Correlation LM Test

Serial correlation occurs, especially when running a regression, the error terms are correlated with their lagged values Gujarati (2004). The existence of serial correlation implies that our ARDL model is not efficient in estimating a regression, the standard errors will be incorrect, and then the model's estimates are biased and inconsistent. To check the existence of serial correlation, this research used the Breusch-Godfrey Serial Correlation LM test using EViews 10. The null hypothesis is that there is no serial correlation in the residuals, while the alternative hypothesis is that there is serial correlation in the residuals.

The result under Table 8 indicates a p-value of 45.49%, thus we fail to reject the null hypothesis or accept the null hypothesis at the 5% significance level. Therefore, the result indicates the error terms are not serially correlated, as a result, the ARDL regression result can give a meaningful conclusion.

Table 7. Breusch- Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.156284	Prob. F (1,6)	0.7063
Obs*R-squared	0.558492	Prob. Chi-Square (1)	0.4549

4.6.2. Heteroskedasticity Test

As part of the preliminary analysis of the ARDL regression model, the errors of the specified equations were tested for heteroskedasticity. Heteroskedasticity occurs when the variance of the error terms from an estimated regression is not constant Gujarati (2004). In the presence of heteroscedasticity, if the ARDL regression is run, the output generated from the model may be misleading. In this study, however, EViews 10 is used to tests the heteroskedasticity of error terms, and the result of the tests is presented under Table 9. The null hypothesis proposes the absence of heteroskedasticity while the alternative hypothesis contends the presence of heteroskedasticity. As per the result under the table below, the p-value for the test is greater than 5%, thus we fail to reject the null hypothesis or the null hypothesis is accepted. The error terms are homoscedastic or constant. Therefore, our ARDL model has no issue of heteroskedasticity.

Table 8. Heteroskedasticity Test: Breusch-Pagan- Godfrey

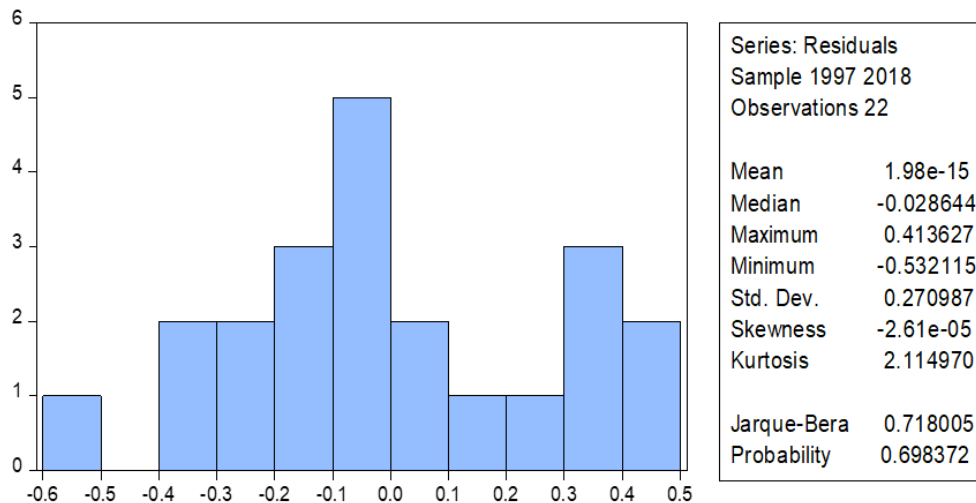
Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.923988	Prob. F (14,7)	0.5761
Obs*R-squared	14.27522	Prob. Chi-Square (14)	0.4294
Scaled explained SS	0.805687	Prob. Chi-Square (14)	1.0000

4.6.3. Normality Tests

The normality of the residuals is tested using the Jarque-Bera test, the result suggests the residuals of the model are normally distributed with the probability value of 69.8 %. The result is presented in Figure 3.

Figure 3. Jarque- Bera Normality Test

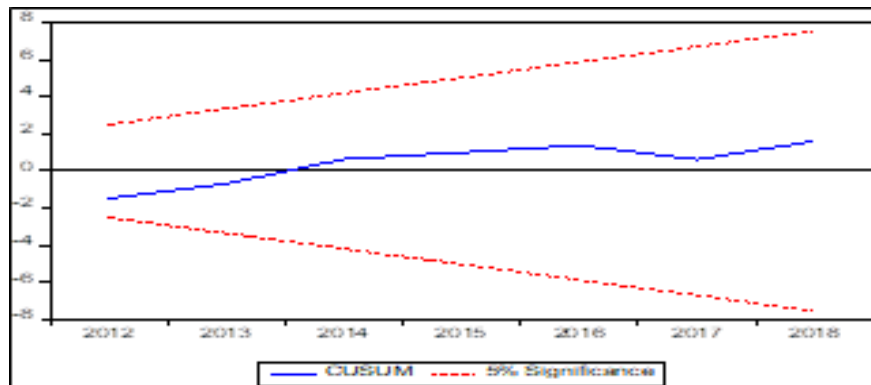


Source: Owner's computation using EViews 10

4.6.4. Model stability tests

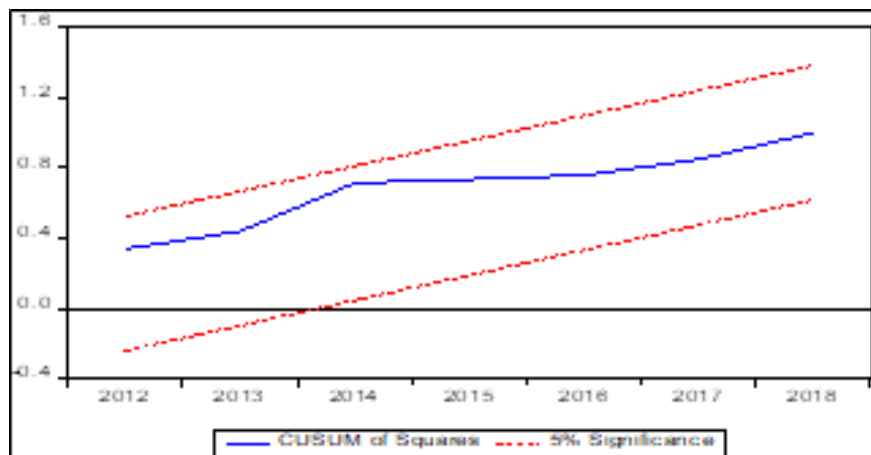
The research to ensure the stability of the ARDL, as suggested by Pesaran and Pesaran (1997), employed Cumulative Sum (CUSUM) and Cumulative Sum of Squares (CUSUMSQ), based on the Cumulative Sum of Recursive Residuals and Cumulative Sum of Squares of Recursive Residuals respectively. As can be seen from Figures 4 and 5 below, both plots lie within the 5% critical values. The result, thus suggests the estimated coefficient of the model is stable for the period 1996-2018 at a 5 percent critical value.

Figure 4. The plot of the CUSUM Test



Source: EViews 10

Figure 5. The plot of the CUSUMSQ Test



Source: EViews 10

The Ramsey RESET test for model misspecification also indicates no sign of misspecification as the p-value of the model is 58.69 percent which is greater than the critical value of 5 percent. Based on this result, we can conclude that the ARDL model is properly specified.

Table 9. Ramsey RESET Test

Ramsey RESET Test			
Equation: UNTITLED			
Specification: LFDI LFDI (-1) INF GDPG GDPG (-1) OPEN OPEN (-1) VA VA (-1) PSAV PSAV (-1) GE GE (-1) RL RL (-1) C			
Omitted Variables: Squares of fitted values			
	Value	df	Probability
t-statistic	0.573805	6	0.5869
F-statistic	0.329252	(1, 6)	0.5869

Source: *Extracted from EViews 10*

In summary, given the stability and diagnostic test results, presented in section 4.4.7. we can confirm that the estimated coefficients of the ARDL model are free from serial correlation, heteroskedasticity, non-normality of the residuals and functional form errors. Therefore, the aforementioned tests highlight the reliability of the goodness of fit of the model.

4.7. Analysis and Discussion

In line with the result of the ARDL Long Run and Bounds test, in this section of the paper, we will discuss the long-run and short-run relationship of FDI with the independent variables. Out of the seven independent variables considered in this study, only four of the variables show a significant relationship with the dependent variable in the long run. Likewise, in the short-run, four of the variables are significantly related to FDI inflow into Ethiopia. So, in the following section, both the long run and short-run results are discussed. The first section will present the discussion and analysis of the long-run relationship of FDI with the independent variables followed by the ARDL Error Correction model under section 4.6.2.

4.7.1. Long-run estimation results and discussion

The estimated result of the long-run relationship, as presented in Table 6 above, revealed that the estimated coefficients of inflation and the rule of law show the expected sign, and also statistically significant at 5 percent level. On the other hand, though significant at the 5 percent level, the variables government effectiveness and voice and accountability are negatively related to FDI inflows in the long run. This result, however, suggested a deviation from the expectation set in chapter two of the paper.

In contrary to expectations, GDP growth, trade openness, and political stability and absence of violence seemed not to affect the inflow of FDI in the long-run. All these variables demonstrate no significant relationships with the dependent variables. Details of the findings about these variables are discussed below. Below are the detailed discussion and analysis of the ARDL long run results obtained;

The impact of macroeconomic instability on the inward inflow of FDI is evidenced by a negative estimated coefficient and a statistically significant effect of inflation on inward FDI inflow into Ethiopia. Given those other things being constant, a unit increase in the country's inflation rate will result in a reduction of inward FDI by 0.03 units in the long-run. This result supports the findings of Geda and Yimer (2018), Rodríguez-Pose and Cols (2017), Workneh (2014), and Getinet and Hirut (2006). On the other hand, Sabir, Rafique and Abbas (2019) and Yorsa, Ans and Houria (2019) also found that inflation poses a negative effect on FDI but its impact is not significant. Contrary to this finding, however, the result of Jadhav's (2012) reveal a positive coefficient, but statistically insignificant relationship between inflation and FDI inflow into BRICS. Jones and Jacob (2016) and Phung (2016), on the other hand, found a positive and statistically significant relationship between inward FDI inflow and inflation rate. The result reveals that weak macroeconomic stability affects FDI inflow negatively. Unless managed properly, macroeconomic instability leads to an increase in transaction costs and a decline in the expected rate of return for investors. Therefore, it is necessary to put in place measures that minimize the effect of inflation on FDI inflow.

As expected, the rule of law exhibits a positive and statistically significant relationship with FDI inflow into Ethiopia. As indicated in Table 6, a unit improvement in the index of the rule of law results in a corresponding 5.57 units increases in the FDI inflow into the country. The result, however, supports the findings of Sabir, Rafique, and Abbas (2019)- in the case of 44 upper-middle-income countries and 45 high-income countries considered in their study-, Rodríguez-Pose and Cols (2017), and Gangi, Y. A., and Abdulrazak, R. S. (2012) in the case of 22 SSA countries and 50 Africa countries respectively. On the other hand, the results contradict the finding of Sabir, Rafique, and Abbas (2019- for 20 low-income, 39 lower-middle-incomes, and Kurul and Yasemin (2017). Both these authors found a positive but insignificant relationship between FDI inflow into developing countries and the rule of law.

The long-run relationship between voice and accountability and FDI inflow into Ethiopia shows a negative but statistically significant relationship with FDI inflow into the country at the 10 percent significance. Other things being constant, a unit decrease in the voice and accountability index results in 4.38 units decline in the inward inflow of FDI into Ethiopia. This result is supported by the findings of both Yorsa S., Anis O., and Houria G. (2013) and Gangi, Y. A., and Abdulrazak, R. S. (2012). Rodríguez-Pose and Cols (2017), though not significant, also found the negative impact of the voice and accountability on the 22 SSA countries they considered in their study. Sabir, Rafique, and Abbas (2019), Nizam and Hassan, (2018) and Kurul and Yasemin (2017), however, found a positive and statistically significant impact of VA on the inflow of FDI. Thus, the finding of this result contradicts with their result.

In contrast to the set expectation, the estimated coefficient of government effectiveness (GE) turned out to be negatively correlated with inward FDI inflow into Ethiopia, yet having a significant relationship at a 5% significance level. This result, in turn, implies that the weak quality of public services, the poor quality of civil services and its political dependence, poor quality of policy formulation and implementation and lack of credibility of the government's commitment to such policies negatively affect the inward inflow of FDI into the country. This result, however, supports that ineffective governments deter inward inflows into the country as MNC will not have the confidence to invest in the country that is run by ineffective government systems. This result supports the findings of Alamedin et.al(2013) who have found a negative and significant association between government effectiveness and FDI inflow into Arab countries. On the other hand, this result contradicts the findings of Sabir, Rafique, and Abbas (2019), Geda and Yimer (2015), Rodríguez-Pose and Cols (2017), Yagoub and Rafid (2012), Jadhav (2012), and Sabir, Rafique, and Abbas (2019). But it supports the theoretical concepts that ineffective governments deter FDI inflow into a host country. Assuming that all other factors are constant, a unit decrease in the government effectiveness results in 3.08 units decline.

GDP growth, Trade Openness, and Political stability, as per the ARDL long-run result, do not seem to have an impact on the inward inflow of FDI into the country in the long-run. Political stability has a negative relationship with the FDI inflow into Ethiopia, but statistically insignificant at all levels. This result supports the finding of Gangi, Y. A., and Abdulrazak, R. S. (2012) who has found the same result for fifty African countries considered in their studies.

Similarly, Geda and Yimer (2015) found political stability having an insignificant impact on the fragile countries considered in their study.

Concerning the impact of GDP growth on FDI, the result of this research supports the findings of Getinet and Hirut (2006) who have found a positive but insignificant relationship between the two variables. On the other hand, Workneh, A. M. (2014) contrary to this finding found a negative but insignificant relationship between GDP growth and FDI inflow into Ethiopia.

Concerning the estimation of Ethiopia's openness to international trade (OPENNESS), the long-run ARDL result shows no impact on the inward inflow of FDI in the long-run. This variable is positively related to FDI inflow but statistically insignificant at all levels. This result is in line with the findings of Jaibla and Shenai (2019), Ismail (2018) and Rodríguez-Pose and Cols (2017) who have found insignificant relationships between trade openness and FDI inflows. On the other hand, the result contradicts the findings of Sabir, Rafique, and Abbas (2019), Geda and Yimer (2018), Kurul and Yasemin (2017), Phung, H. B. (2016), and Yorsa S., Anis O., and Houria G. (2013). These authors found a positive and significant relationship between the two variables.

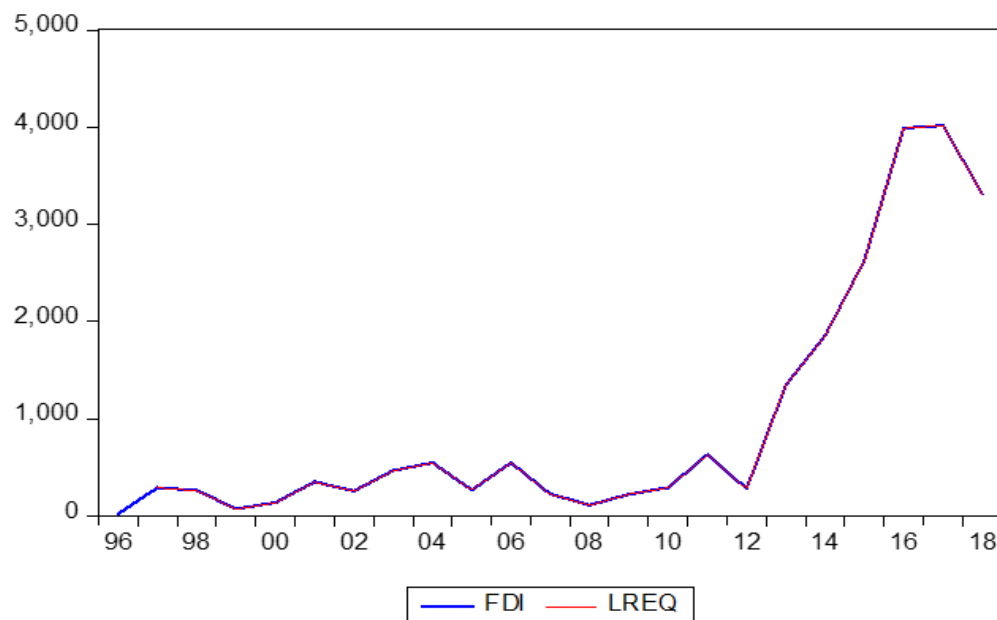
In summary, in the long-run, inflation, the rule of law, voice and accountability variables and government effectiveness impacts the inflow of FDI into the country. However, Macroeconomic instability, voice and accountability, and government effectiveness variables are the major deterrent of FDI inflow in the long run. The rule of law, however, enhances the flow of FDI in the long-run. The remaining variables were found not to have a significant impact on the FDI variables in the long run.

4.7.2. Short Run Estimation Results and discussion

The existence of co-integration between the dependent and independent variables requires the estimation of the error correction model to study the speed of error adjustment. As presented under Table 7 below, it can be concluded that, based on the adjusted R^2 value of 85.69%, the behavior of FDI inflow into Ethiopia is adequately captured in the ARDL model (1, 0, 1, 1, 1, 1, 1,1). Hence, based on the adjusted R^2 , the independent variables account for 85.69 % variations in the inward FDI inflow into Ethiopia. The remaining 14.31 percent variations in the FDI inflow is due to other factors that are not included in this ARDL model but captured by the error term.

In line with theoretical expectation, the error correction term, represented by CointEq (-1) in Table 7 below, is negative and statistically significant at one percent significance level. This result, in turn, further confirms the presence of a long-term relationship between the FDI inflow into the country and the regressors. Both the coefficient of the error correction variable and its corresponding p-value may necessitate studying the fit of the two variables and the speed of adjustment. By extracting the error correction term, and deducting it from the dependent variable, this paper attempted to present the relationship between the long-run equation and FDI inflow. The long-run equation is represented by LREQ, and figure 2 below depicts the relationship between it and the dependent variable. Looking at the fit of LREQ an FDI, one can note that it makes sense to study the speed of adjustment (the EViews Blog on ARDL – Part 3, accessed from <http://blog.eviews.com/2017/05/autoregressive-distributed-lag-ardl.html>)

Figure 6. The fit of the Long-run equation and dependent variable



By looking at the figure above and the coefficient of the error correction term and its significance at a 1 percent level, it can be concluded the speed of adjustment in the disequilibrium is fast, and about 97% of any move into disequilibrium is corrected for within the next period.

Concerning the relationship between FDI and the independent variables in the short-run, except GDP growth, all the variables significantly affect the inward inflow of FDI into Ethiopia. GDP growth has no significant impact on FDI inflow in the short-run, implying that most of the MNC

investing in the country are not market-seeking. The fact that the country's openness to the international market, as proxied in trade openness in this study, having a significant relationship with FDI inflow signifies that MNC is targeting to export their products from the country rather than selling them in the local market. This result supports the findings of Getinet and Hirut (2006). On the other hand, trade openness, the rule of law and political stability affect FDI inflow positively and significantly in the short-run at 1 percent and 10 percent significance level. Other things being constant, a unit increase in the openness of the country's economy to the international trade, results in 0.03 units increase in the FDI inflow. This result supports the findings of Sabir, Rafique, and Abbas (2019), Geda and Yimer (2018), Kurul and Yasemin (2017), Phung, H. B. (2016), and Yorsa S., Anis O., and Houria G. (2013). Furthermore, both Workneh, A. M. (2014) and Getinet and Hirut (2006), found a positive and statistically significant relationship between export as a share of GDP and FDI in Ethiopia signifying the importance of trade openness. On the contrary, Ismail (2018) and Rodríguez-Pose and Cols (2017) found trade openness as a deterrent of FDI inflow.

Moreover, in the short-run, the country's political stability shows positive and statistically significant relationships with FDI at a marginal 10% significance level. Other things being constant, a unit improvement in the political stability index of the country increases 0.97 units in the dependent variable. The result supports the finding of Sabir, Rafique, and Abbas (2019), Geda and Yilma (2018) and Rodríguez-Pose and Cols (2017). Likewise, the rule of law affects FDI inflow positively and significantly at a 1 percent significance level. This variable positively affects FDI inflow into the country both in the short-run and long-run.

In the short-run VA and GE are negatively related to FDI inflow in the country. Similar to the long-run result, a low-level of government effectiveness index affects FDI inflow into the country negatively and significantly at a 1 percent significance level. On contrary to the long-run result, voice, and accountability, however, affects the flow of FDI negatively and significantly in the short-run regression model. Given other things remain constant, deterioration in the voice and accountability index of the country results in a reduction of FDI inflow by 4.38 units. This finding is in line with the findings of Yorsa S., Anis O., and Houria G. (2013) and Gangi, Y. A., and Abdulrazak, R. S. (2012).

Table 10. ARDL Error Correction Regression

ARDL Error Correction Regression
 Dependent Variable: D(LFDI)
 Selected Model: ARDL (1, 0, 1, 1, 1, 1, 1, 1)
 Case 3: Unrestricted Constant and No Trend
 Date: 02/10/20 Time: 23:33
 Sample: 1996 2018
 Included observations: 22

ECM Regression					
Case 3: Unrestricted Constant and No Trend					
Variable	Coefficient	Std. Error	t-Statistic	Prob.	
C	2.046858	0.217388	9.415683	0.0000	
D(GDPG)	0.011853	0.016189	0.732191	0.4878	
D(OPEN)	0.036755	0.014708	2.499023	0.0411	
D(VA)	-2.345175	1.030053	-2.276752	0.0569	
D(PSAV)	0.977128	0.533936	1.830045	0.1099	
D(GE)	-4.757504	0.803239	-5.922900	0.0006	
D(RL)	7.208331	1.108283	6.504053	0.0003	
CointEq (-1) *	-0.978639	0.108834	-8.992052	0.0000	
R-squared	0.904622	Mean dependent var		0.228043	
Adjusted R-squared	0.856934	S.D. dependent var		0.877457	
S.E. of regression	0.331890	Akaike info criterion		0.907263	
Sum squared resid	1.542116	Schwarz criterion		1.304006	
Log-likelihood	-1.979894	Hannan-Quinn criter.		1.000724	
F-statistic	18.96929	Durbin-Watson stat		2.199215	
Prob(F-statistic)	0.000004				

* p-value incompatible with the t-Bounds distribution.

Null Hypothesis: No levels
relationship

F-Bounds Test

Test Statistic	Value	Signif.	I (0)	I (1)
F-statistic	5.053562	10%	2.03	3.13
k	7	5%	2.32	3.5
		2.5%	2.6	3.84
		1%	2.96	4.26

Null Hypothesis: No levels
relationship

t-Bounds Test

Test Statistic	Value	Signif.	I(0)	I(1)
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t-statistic	-8.992052	10%	-2.57	-4.23
		5%	-2.86	-4.57
		2.5%	-3.13	-4.85
		1%	-3.43	-5.19

Source: Author's calculation using EViews 10

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

The previous chapters presented the background of the research, provided detailed empirical literature reviews, research methodology employed for this paper, and analysis of the findings, while this chapter deals with the conclusions; recommendations and further research areas were provided based on the findings of the study. Accordingly, this chapter is organized into three subsections. The first section presents the conclusions whereas the second and third sections presented the recommendations and further research area respectively.

5.1. Summary of Findings

This study aimed at examining the determinants of FDI inflow into Ethiopia by considering a time series data for the period 1996-2018. The study, in particular, sets out to find the significance of market growth, trade openness, macroeconomic stability, voice and accountability, political stability, government effectiveness, and the rule of law in influencing FDI flows into Ethiopia. These variables were drawn for their previous research results and empirical gaps in the literature that dealt with the determinants of FDI in Ethiopia.

In line with econometric theories, before estimating the model, the stationarity of the variables was ensured by employing the Augmented Dicky Fuller and Philipps – Perron tests. The result of both tests confirmed that the variables are stationary at their first difference level. The variables are either integrated of order-level I (0) or order I (1). Following the unit root test, the research checked for the cointegration of the dependent and independent variables using the ARDL Bounds testing method.

The ARDL bound testing to reveal that FDI and the regressors are cointegrated, thus the ARDL Long-Run and ARDL Error Correction models were employed to estimate the relationship between FDI and the regressors. According to the ARDL long-run result, inflation proxy for macroeconomic stability, voice and accountability, government effectiveness and the rule of law affects significantly the flow of FDI into Ethiopia. While the rule of law affects FDI flow to the country positively and significantly, the other variables also affect FDI inflow significantly but negatively. Weak perception by the country's citizens in their involvement in selecting their government and holding the government accountable for its action affects FDI inflow into the

country negatively in the long-run. Similarly, weak perception of the country's citizens about the public service quality, and the independence of the civil service from political pressure from politicians have a negative impact on FDI. On the contrary, the rule of law index affects FDI inflow into Ethiopia positively and significantly. The perception of investors and the citizens of the country about contract enforcement, absence of violence and crime and the property right encourages FDI inflow. On the other hand, macroeconomic instability proxied by the inflation rate acts as a deterrent to FDI inflow.

In the short-run, as presented in the ARDL Error Correction model, the openness of the country's economy to international trade, political stability and the rule of law impacts FDI inflow favorably. On the other hand, similar to the long-run model, voice and accountability and government effectiveness variables have a negative and significant influence on FDI inflow. The rule of law, similarly to its long-run association with the flow of FDI, affects the flow of FDI into the country positively. The other observation from the ECM model is that the adjustment towards the equilibrium was fast. This result, further confirms the presence of a long-run relationship between FDI inflow and the independent variables..

5.2. Conclusion

Based on the findings of the study, it can be concluded that voice, and accountability, government effectiveness and rule of law are the variables that affect the flow of FDI into the country both in the short-run and long-run. While political stability and openness affect FDI flow into the country positively in the short run. On the contrary, GDP growth as a proxy for the attractiveness of the country's market seemed to be not a determining factor of FDI flow to the country both in the long-run and short-run. This, in turn, suggests MNC investment in the country is not market-seeking in their nature. Furthermore, macroeconomic stability is also the factor that determines FDI flow in the long-run. All the diagnostic, stability and functional tests confirm the fitness of the model

5.3. Recommendation

Notwithstanding the result of the study that indicates a strong correlation between the dependent and independent variables taken together, the researcher recommends the need for improvements as to the respective economic, policy and governance factors having a negative but significant

effect on FDI inflow into Ethiopian economy. These variables deter the inflow of FDI into the country as their estimated coefficient is negative and their probability is significant at a 5% level. Out of the governance factors considered for this study, only the rule of law is having a positive and significant effect on FDI inflows into Ethiopia both in the long-run and short-run. On the contrary, voice and accountability and government effectiveness affect FDI inflow negatively indicating weak perception of the country's citizens' involvement in selecting their government, lack of freedom of association and expression, and lack of government accountability. Furthermore, the macroeconomic stability proxy indicator deters the inflow of FDI into Ethiopia in the long-run.

Therefore, the researcher hereby recommends that more effort be exerted on enhancing institutional capacity and instilling good governance measures to reduce the difficulties associated with ease of doing business to attain a competitive advantage in creating a conducive operating environment for multinationals firms and overseas investors. Equally giving due attention to strategic management and control of inflation rate in light of optimizing the overall competitiveness of the nation through pulling FDI that is attuned to sustained competitiveness of the economy at the global stage with the minimal environmental and social footprint is the option that should be sought-after.

5.4. Suggestion for future research

Regardless of limited previous empirical studies in Ethiopia concerning FDI determinants, particularly studies that focused on governance and institutional factors, this study attempted to identify key factors that determine FDI flow to Ethiopia. As such, this study may serve as a starting ground for future studies that may target to explore determinants of FDI into the country. This study, however, has not included all key factors that affect the decision of MNC to invest in the country. Therefore, future studies may include variables such as the effect of industrial parks, exchange rate volatility, trade policies and financial developments as these are key in FDI decisions.

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Appendix 1. Summary of Descriptive Statistics

Date: 02/10/20

Time: 23:56

Sample: 1996 2018

	FDI	GDPG	OPEN	INF	VA	PSAV	GE	RL
Mean	960.3358	8.157465	42.85694	9.879423	-1.214732	-1.368384	-0.711675	-0.739300
Median	288.4900	9.503859	43.62079	8.149264	-1.230000	-1.410000	-0.660000	-0.797612
Maximum	4017.100	13.57260	57.14448	44.35669	-0.989251	-0.630291	-0.400000	-0.430000
Minimum	21.93000	-3.458139	26.07210	-8.484249	-1.440000	-1.800000	-1.207594	-0.965789
Std. Dev.	1276.486	4.570876	8.876318	11.80787	0.129332	0.336933	0.232183	0.175074
Skewness	1.535449	-1.271809	-0.079039	1.185205	0.200926	0.694687	-0.273072	0.453562
Kurtosis	3.846646	3.740400	2.112827	4.897232	2.008535	2.386829	2.062754	1.917815
Jarque-Bera	9.724417	6.725763	0.778228	8.834236	1.096800	2.210240	1.127674	1.910916
Probability	0.007733	0.034635	0.677657	0.012069	0.577874	0.331171	0.569021	0.384636
Sum	22087.72	187.6217	985.7097	227.2267	-27.93883	-31.47283	-16.36851	-17.00391
Sum Sq. Dev.	35847159	459.6439	1733.358	3067.368	0.367990	2.497518	1.185995	0.674320
Observations	23	23	23	23	23	23	23	23

Source:

Author's computations using EViews 10

Appendix 2. Covariance Analysis

Date: 02/10/20 Time: 23:57

Sample: 1996 2018

Included observations: 23

Correlation	FDI	GDPG	OPEN	INF	VA	PSAV	GE	RL
FDI	1.000000							
GDPG	0.137004	1.000000						
OPEN	-0.253852	0.418802	1.000000					
INF	0.011369	0.206891	0.564585	1.000000				
VA	-0.512940	-0.555508	-0.442344	-0.464615	1.000000			
PSAV	-0.276288	-0.597820	-0.625483	-0.566204	0.808173	1.000000		
GE	0.227825	0.424940	0.601065	0.690011	-0.700096	-0.698651	1.000000	
RL	0.828175	0.224157	0.017146	0.365221	-0.565903	-0.455450	0.617701	1.000000

Source: Author's computations using EViews 10

Appendix 3: Auxiliary regression results of Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.156284	Prob. F(1,6)	0.7063
Obs*R-squared	0.558492	Prob. Chi-Square (1)	0.4549

Test Equation:

Dependent Variable: RESID

Method: ARDL

Date: 02/10/20 Time: 23:49

Sample: 1997 2018

Included observations: 22

No d.f. adjustment for standard errors and covariance

Pre sample missing value lagged residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LFDI(-1)	0.050411	0.217301	0.231986	0.8243
INF	4.94E-05	0.009266	0.005332	0.9959
GDPG	0.000309	0.030179	0.010230	0.9922
GDPG (-1)	-0.000771	0.018776	-0.041064	0.9686
OPEN	-0.004013	0.028466	-0.140965	0.8925
OPEN (-1)	-0.000623	0.017537	-0.035545	0.9728
VA	-0.412196	1.552249	-0.265548	0.7995
VA (-1)	0.304667	1.556708	0.195713	0.8513
PSAV	0.022351	0.567240	0.039403	0.9698
PSAV (-1)	-0.134670	0.787919	-0.170919	0.8699
GE	-0.133325	0.915564	-0.145621	0.8890
GE (-1)	0.107108	1.445334	0.074106	0.9433
RL	-0.202669	1.168475	-0.173447	0.8680
RL (-1)	-0.315673	2.330015	-0.135481	0.8967
C	-0.784247	2.305028	-0.340233	0.7453
RESID (-1)	-0.238451	0.314998	-0.756994	0.4777
R-squared	0.025386	Mean dependent var	1.98E-15	
Adjusted R-squared	-2.411149	S.D. dependent var	0.270987	
S.E. of regression	0.500494	Akaike info criterion	1.608822	
Sum squared resid	1.502968	Schwarz criterion	2.402307	
Log-likelihood	-1.697042	Hannan-Quinn criter.	1.795743	
F-statistic	0.010419	Durbin-Watson stat	2.104296	
Prob(F-statistic)	1.000000			

Source: Author's calculation using EViews 10

Appendix 4: Auxiliary regression results of Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.923988	Prob. F (14,7)	0.5761
Obs*R-squared	14.27522	Prob. Chi-Square (14)	0.4294
Scaled explained SS	0.805687	Prob. Chi-Square (14)	1.0000

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 02/10/20 Time: 23:49

Sample: 1997 2018

Included observations: 22

No d.f. adjustment for standard errors and covariance

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.350436	0.345517	-1.014237	0.3442
LFDI (-1)	-0.035518	0.034709	-1.023309	0.3402
INF	0.003003	0.001555	1.931476	0.0947
GDPG	0.007782	0.005064	1.536835	0.1682
GDPG (-1)	-0.011769	0.003146	-3.740754	0.0073
OPEN	0.000199	0.004693	0.042406	0.9674
OPEN (-1)	-0.001817	0.002940	-0.618235	0.5560
VA	-0.356479	0.243917	-1.461476	0.1873
VA (-1)	-0.490594	0.252336	-1.944211	0.0930
PSAV	-0.157035	0.095054	-1.652055	0.1425
PSAV (-1)	0.393575	0.128799	3.055719	0.0184
GE	0.080430	0.150763	0.533488	0.6102
GE (-1)	-0.264502	0.241363	-1.095865	0.3094
RL	-0.010982	0.190855	-0.057542	0.9557
RL (-1)	0.195164	0.384666	0.507360	0.6275
R-squared	0.648873	Mean dependent var	0.070096	
Adjusted R-squared	-0.053380	S.D. dependent var	0.075758	
S.E. of regression	0.077754	Akaike info criterion	-2.052041	
Sum squared resid	0.042319	Schwarz criterion	-1.308149	
Log-likelihood	37.57245	Hannan-Quinn criter.	-1.876803	
F-statistic	0.923988	Durbin-Watson stat	2.038851	
Prob(F-statistic)	0.576121			

Source: Author's calculation using EViews 10

Appendix 6: Auxiliary regression results of the Ramsey RESET

Ramsey RESET Test

Equation: UNTITLED

Specification: LFDI LFDI(-1) INF GDPG GDPG(-1) OPEN

OPEN(-1) VA VA(-1)

PSAV PSAV(-1) GE GE(-1) RL RL(-1) C

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.573805	6	0.5869
F-statistic	0.329252	(1, 6)	0.5869

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.080222	1	0.080222
Restricted SSR	1.542116	7	0.220302
Unrestricted SSR	1.461894	6	0.243649

Unrestricted Test Equation:

Dependent Variable: LFDI

Method: ARDL

Date: 02/11/20 Time: 16:02

Sample: 1997 2018

Included observations: 22

Maximum dependent lags: 1 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

Dynamic regressors (0 lag, automatic):

Fixed regressors: C

Variable	Coefficient	t	Std. Error	t-Statistic	Prob.*
LFDI (-1)	0.125161	0.430483	0.290745	0.7810	
INF	-0.070945	0.068503	-1.035646	0.3403	
GDPG	0.050778	0.088597	0.573137	0.5874	
GDPG (-1)	-0.002958	0.037097	-0.079728	0.9390	
OPEN	0.063815	0.070808	0.901237	0.4022	
OPEN (-1)	-0.042909	0.058709	-0.730884	0.4924	
VA	-5.613529	6.322934	-0.887804	0.4088	
VA (-1)	-4.624805	5.463052	-0.846561	0.4297	
PSAV	2.044304	2.145550	0.952811	0.3775	
PSAV (-1)	-2.445520	2.803514	-0.872305	0.4166	
GE	-11.61095	12.06378	-0.962464	0.3730	
GE (-1)	4.489793	5.517590	0.813724	0.4469	

RL	17.32460	17.76052	0.975456	0.3670
RL (-1)	-4.218259	6.319548	-0.667494	0.5293
C	1.063979	4.249161	0.250397	0.8106
FITTED^2	-0.112749	0.196493	-0.573805	0.5869
R-squared	0.950185	Mean dependent var	6.210053	
Adjusted R-squared	0.825646	S.D. dependent var	1.182134	
S.E. of regression	0.493608	Akaike info criterion	1.581113	
Sum squared resid	1.461894	Schwarz criterion	2.374599	
Log-likelihood	-1.392245	Hannan-Quinn criter.	1.768034	
F-statistic	7.629646	Durbin-Watson stat	2.323666	
Prob(F-statistic)	0.009760			

*Note: p-values and any subsequent tests do not account for model selection.

Appendix 7: Research Data

YEAR	FDI	GDPG	OPEN	INF	VA	PSAV	GE	RL
1996	21.93	12.42617	26.0721	-8.48425	-1.084	-1.051	-1.2	-0.97
1997	288.49	3.133907	27.86869	2.39521	-1.036	-0.841	-1.1	-0.88
1998	260.67	-3.45814	35.81433	0.894802	-0.989	-0.63	-0.9	-0.8
1999	69.98	5.162146	38.13139	7.941449	-1.01	-0.79	-0.91	-0.86
2000	134.64	6.073217	32.54274	0.662458	-1.03	-0.94	-0.90	-0.93
2001	349.40	8.301306	39.29075	-8.23784	-1.13	-1.08	-0.90	-0.94
2002	255.00	1.514726	40.3196	0.675089	-1.23	-1.22	-0.90	-0.94
2003	465.00	-2.16136	45.67984	13.67405	-1.11	-1.41	-0.88	-0.83
2004	545.10	13.5726	54.45578	3.32737	-1.18	-1.31	-0.79	-0.86
2005	265.11	11.81877	56.10326	9.969971	-1.24	-1.69	-0.92	-0.94
2006	545.26	10.83473	49.68006	12.29948	-1.19	-1.74	-0.66	-0.66
2007	222.00	11.45617	49.95933	17.2404	-1.2	-1.80	-0.44	-0.65
2008	108.54	10.78852	50.48822	44.35669	-1.31	-1.73	-0.40	-0.7
2009	221.46	8.802553	43.68357	8.483644	-1.3	-1.64	-0.50	-0.83
2010	288.27	12.55054	55.01618	8.149264	-1.34	-1.64	-0.43	-0.8
2011	626.51	11.1783	57.14448	33.24996	-1.36	-1.51	-0.48	-0.74
2012	278.56	8.647812	47.58247	24.12435	-1.31	-1.56	-0.43	-0.68
2013	1343.88	10.58227	43.62079	8.079724	-1.31	-1.41	-0.61	-0.65
2014	1855.05	10.25749	45.21373	7.402193	-1.28	-1.34	-0.42	-0.47
2015	2626.52	10.39246	40.92205	10.11075	-1.3	-1.50	-0.65	-0.51
2016	3988.95	9.433483	36.71022	7.263732	-1.4	-1.62	-0.64	-0.49
2017	4017.10	9.503859	34.0951	9.84825	-1.44	-1.68	-0.70	-0.45
2018	3310.30	6.810169	35.315	13.8	-1.16	-1.34	-0.61	-0.43