THE LINK BETWEEN INSTITUTIONAL QUALITY AND FOREIGN DIRECT INVESTMENT IN AFRICA: THE CASE OF ETHIOPIA AND KENYA

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This is to certify that the thesis prepared by Elbetel Wosenyeleh, entitled: *The Link between Institutional Quality and Foreign Direct Investment in Africa: The Case of Ethiopia and Kenya* and submitted in partial fulfillment of the requirements for Degree of the Masters of Arts in African Studies (Human and Economic Development in Africa) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Abstract

Foreign direct investment (FDI) is one of the inputs to economic growth. The purpose of this study is to examine the effect of institutional quality on FDI inflows in Ethiopia and Kenya over the period of 1996-2018 by using descriptive and econometric methods. The study used descriptive and econometric methods to establish empirical establish empirical link between institutional quality and FDI on Ethiopia and Kenya. Overall, the trend of institutional quality indicators and FDI inflows (as a % of GDP) into Ethiopia and Kenya has been increasing from the period 1996-2018. The findings of the study show that, on average, a number of the institutional quality variables (voice and accountability, political stability and absence of violence/terrorism, government effectiveness, and regulatory quality) for Ethiopia is significantly less than that of Kenya. On the other hand, the estimated average control of corruption for Kenya is less than the average for Ethiopia and thus, Kenya should improve its performance on this indicator. There is no evidence of significant difference in the estimated average of rule of law in both countries. There is a higher variability of political stability and absence of violence/terrorism, government effectiveness, and control of corruption in Ethiopia. The stationary of the variables has been checked by using Augmented Dickey Fuller and Phillips-Perron unit root test and hence the variables are found to be stationary at first difference. Autoregressive distributed lag (ARDL) is is used to test the presence of long-run relationship between time series data and the ARDL Bounds cointegration test also shows that there is a long-run relationship between the dependent and independent variables for Ethiopia. In the long-run, political stability and absence of violence/terrorism, regulatory quality and rule of law are important in attracting foreign direct investment to Ethiopia.

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Acronyms

ADF	Augmented Dickey-Fuller
ARDL	Autoregressive distributed lag
CCR	Control of corruption
CV	Coefficient of variation
ECM	Error Correction Model
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GDPC	GDP per capita
GEF	Government effectiveness
INF	Inflation rate
OECD	Organization for Economic Cooperation and Development
OLS	Ordinary least squares
PP	Phillips-Perron
PSV	Political stability and absence of violence/terrorism
RLW	Rule of law
RQL	Regulatory quality
TOP	Trade openness
VAC	Voice and accountability
WGI	World Governance Indicators

Chapter 1: Introduction

1.1 Background of the study

Foreign direct investment (FDI) is one of the determinants of economic growth (Peres & Xu, 2018). FDI brings needed capital to improve manufacturing and trade sectors, increases local production and exports, creates jobs and develops local skills, and brings about new technologies and overall contributes to sustainable economic growth (Jaiblai & Shenai, 2019). Some of potential determinants of FDI inflows are gross domestic product, infrastructure availability, macroeconomic stability, trade openness, policies and strategies of the host countries, external debt, costs of doing business, availability of trained human resource, inflation and institutional quality/good governance (Ahmad & Ahmed, 2014).

One of the potential determinant factors to FDI that is institutional quality is a broad concept that captures law, individual rights and high-quality government regulation and services (Bruinshoofd, 2016). Although the concept of governance (proxied by institutional quality) is widely discussed among scholars, there is no consensus around a single definition of governance. Kaufmann and Mastruzzi (2010, p.3) defined governance as "*the traditions and institutions by which authority in a country is exercised. This includes (a) the process by which governments are selected, monitored and replaced which consists voice and accountability and political stability and absence of violence/terrorism;(b) the capacity of the government to effectively formulate and implement sound policies which is measured by government effectiveness and regulatory quality; and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them as indicated by of rule of law and control of corruption."* These six institutional quality indicators are indicators of perception from the Worldwide Governance Indicators.

However, these six dimensions of governance (institutional quality) should not be thought of as being somehow independent of one another. One might rationally think for instance that better accountability mechanisms lead to less corruption, or that a more effective government can provide a better regulatory environment, or that respect for the rule of law leads to fairer processes for selecting and replacing governments and less abuse of public office for private gain. In light of

such inter-relationships, it is not very surprising that the composite measures of governance are strongly positively correlated across countries.

1.2 Statement of the problem

The role of FDI on growth and development has been acknowledged. Certainly, economic growth of a country depends essentially on its ability to allocate and invest efficiently its available resources. In addition to domestic savings as a major source of investment, access to foreign sources of capital also plays an increasingly important role (Jaiblai & Shenai, 2019). Over the last three decades, foreign capital sources have been playing a vital role and accounting for a significant share of the total investment in many developing countries (Peres & Xu, 2018;). FDI is the source of private foreign capital reaching the developing countries, and it has a potential for creating employment, increasing productivity, attracting new technologies and expanding trade capacity. (Farole & Winkler, 2014).

Even though, Foreign capital has contributed to the economic growth of developing countries in Africa by stimulating domestic investment, capital formation expansion and enhancing technology transfer Sub-Saharan African countries are confronted with the low level of investment. Yet, the theory of capital tells us that it is impossible to imagine growth without a substantial accumulation of capital. An important channel through which those countries can solve this capital issue is to attract more FDI (Fiodendji, 2013). Although a number of African countries have been seeking to enhance FDI inflows to supplement their domestic investment and benefit from the economy-wide associated gains of such floating capital resources, things have not developed as expected in many of them. Indeed, for a variety of reasons related to economic structures, politics, technology, and policy issues, Sub-Saharan Africa in general, Ethiopia and Kenya in particular, are still less equipped than their developed counterparts to take advantage of the potential of liberalization and globalization to stimulate their economic growth and development. Consequently, although with a decreasing trend, the bulk of the world's FDI inflows still take place among the developed countries (Jaiblai & Shenai, 2019).

At the same time, various studies support institutional quality as an important determinant of FDI. According to North (1990) good institutions affect economic activities through different channels such as by reducing the transaction, manufacturing and production costs. By reducing the cost of doing business, good quality institutions help increase profitability. Fiodendji (2013) argued that institutional quality is the most vital factor in attracting FDI and in stimulating economic growth. Besides, Lucas (1993; cited in Sabir, et al, 2019) suggests that in emerging economies, institutional factors, as compared to purely economic factors, play an important role in attracting inward FDI. The link between institutional quality and economic growth was also recognized by (Ahmad & Ahmed, 2014; Peres & Xu, 2018). These studies established the significant association between institution quality and FDI. It is also observed that different measures of governance quality have different impact on encouraging FDI inflows.

Buchanan and Rishi (2012) indicate that quality of institutions have a positive and significant effect on FDI, Ahmad and Ahmed (2014) Sabir, et al (2019) indicate that institutional quality is an important determinant of FDI, Esew and Yaroson (2014) have found that political stability and corruption are major determinants of FDI inflows, Kurul and Yalta (2017) pointed out, control of corruption, government effectiveness, and the voice and accountability have significant positive impacts on FDI flows, and Peres and Xu (2018) have noticed the significance of governance indicators in attracting FDI inflows.

As per Daude and Stein (2007), unpredictability of policies, excessive regulatory burden, deficient enforcement of property rights, and lack of commitment on the part of the government play a major role in deterring FDI inflows. Corruption may deter investment by increasing the cost of doing business, as investors need to bribe officials in order to obtain licenses and permits. In addition, corruption may increase uncertainty, which may deter investment as well.

Furthermore, quite a number of studies have been conducted on the relationship between institutional quality and FDI. Studies conducted specific to Kenya related to institutional quality and FDI by Meah, et al (2016), which concluded that good governance affects FDI inflows. The study by Menamo (2014) on the impact of FDI on economic growth of Ethiopia also discusses

about the policies, regulatory and institutional framework of FDI in Ethiopia. Furthermore, previous studies have been conducted on the impact of institutional quality on FDI inflows in developing and transition economies But as to the knowledge of the researcher, there are no comparative researches conducted on link between institutional quality and FDI on the case of Ethiopia and Kenya. Therefore, the present study investigated the link between institutional quality and FDI in Ethiopia and Kenya and makes comparison. Ethiopia and Kenya are selected as case study as both countries are neighboring, among important economies in East Africa and are relatively active in formulating policies to attract FDI inflows to their respective countries. Besides, the two countries have different institutional make up as Ethiopia has indigenous type of institutions whereas Kenya has a legacy of colonization in its institutions and liberalized its economy earlier.

1.3 Objectives of the study

The main objective of the present study is to investigate the relationship between institutional quality and FDI inflows into Ethiopia and Kenya. The specific objectives of the study are to:

- analyze the changes in institutional quality and FDI overtime in Ethiopia and Kenya.
- compare institutional quality and FDI inflows between the two countries.
- investigate the effect of institutional quality on FDI inflows into Ethiopia and Kenya.

1.4 Scope of the study

Whereas the study examines the potential link between institutional quality and FDI in Ethiopia and Kenya by controlling for other important variables affecting FDI, it is not intended to establish a strict causation between institutional quality and FDI. The study is conducted based on data for the periods between 1996-2018. These periods are selected as the data for institutional quality is available since 1996.

1.5 Significance of the study

Cognizant of the fact that institutional quality is a necessary condition for FDI, the study is expected to present and compare the current state of institutional quality and FDI in Ethiopia and Kenya. The result of the present study will also serve as input for interventions related to policy

and institutional environments. Moreover, the present study can be a stepping stone for further related researches.

1.6 Organization of the study

The thesis has five chapters. The second chapter presents a review of the literature on the subject. The third chapter describes the methods used for the study and chapter four presents the result and discussion. The final chapter focuses on the conclusions drawn from the findings.

Chapter 2: Review of Related Literature

2.1 Conceptualizing FDI and institutional quality

2.1.1 Foreign direct investment

Foreign direct investment (FDI) is a key component in this rapidly changing global economic integration. FDI is an investment made by a company outside its country. It is the inflow of long-term capital based on long term profit consideration engaged in international production. FDI occurs when a firm invests directly in facilities to produce or market a product in foreign country. FDI is a direct investment into production or business in a country by an individual or company of another country, either by purchasing a company in the target country or by expanding of an existing business in that country (Hailu, 2017; Jaiblai & Shenai, 2019).

The arguments in favor of foreign investment with particular reference to developing countries identify broadly what are said to be four economic gaps that foreign investment is supposed to fill. The first is that foreign investment (in common with foreign aid) is a way of filling in gaps between domestically available supplies of savings and targeted or desired investment. In short, foreign investment adds to the host country's capital stock. A second gap, analogous to the first, is that foreign investment helps to fill the gap between targeted foreign-exchange requirements and those derived from net export earnings plus net public foreign aid the so, called foreign exchange or trade gap. The third gap is that between targeted government tax revenues and locally raised taxes. By taxing multinational corporations (MNC) profits and participating financially in their local operations, poor countries are thought better able to mobilize public financial resources for development projects. Fourth, there is a gap that is said to exist in management, entrepreneurship, and technology skills, which can be filled by local subsidiaries of MNCs by means of training programs and the process of learning by doing and the demonstration effect, enabling local companies to copy the methods of foreign subsidiaries. MNCs are supposed to bring with them the most advanced technology and use best practice production processes while transferring modern machinery and equipment to capital-poor countries (Akande, 2010).

Several theories attempted to explain why firms engage in transnational production, which is an effect of FDI. The theoretical explanations of FDI largely stem from traditional theories of international trade that are based on the theory of comparative advantage and differences in factors endowments between countries. Multinational companies are usually attracted to a country by the comparative advantage that exists in a country or region. For instance, multinational companies may establish foreign subsidiaries in one country to take advantage of its lower labor costs or its large market size. Thus, in their basic form, traditional international trade theories offer some explanation about FDI. Nonetheless, the traditional trade theories do not provide full answers as to why multinational companies prefer to operate in a foreign country rather than engaging in exporting or licensing, which are alternatives to FDI. This has led to the development of alternative explanations of FDI (Haile, 2006) as presented below.

The neo-classical microeconomic theory: The neo-classical microeconomic theory was dominant in explaining reasons for FDI inflows. According to this theory, the price of capital is determined by the interest rate and capital movements capital as a commodity has its price and allocation determined by demand and supply forces. It will flow freely from countries with low rates of return to those with relatively high rates of return under conditions of perfect competition. One of the limitations of this theory is its inability to explain the role of transnational corporations in capital mobility as it limits itself to explaining how and where firms decide to obtain the capital needed to finance their plans. Critics also hold the view that because this theory is silent about the purpose of its investment, i.e. either for managerial control or production capabilities, its role is suited only to the explanation of portfolio investments rather than FDI (Fiodendji,2013).

The theory of portfolio investment: The basis for this explanation lies in interest rate differentials between countries. Capital, according to this explanation, moves in response to changes in interest rate differentials between countries/regions and multinational companies are simply viewed as arbitrage of capital from countries where its return is low to where it is high. This explanation, however, fails to account for the cross movements of capital between/across countries. In practice, capital moves in both directions between countries. In addition, that capital is only a

complementary factor in direct investment and that this theory does not explain why firms go abroad contribute to the criticism of the neoclassical theory of portfolio investment (Haile, 2006).

The intangible capital approach: The approaches asserts that, the possession by a firm of specific 'monopolistic advantages 'or 'intangible assets' is essential for its overseas production. These advantages may include production techniques, managerial skills, industrial organization, and knowledge of the product as well as the factor markets. The theory outlines three useful purposes, which these advantages must serve. First, these advantages must provide a competitive edge to the firm concerned and they must outweigh those of foreign rivals as well as those in the prospective country in which it plans to invest. Second, the monopolistic advantage that the firm possesses must be transferable abroad and should be employed most economically at the foreign location. Thirdly, the firm itself must profit from the exploitation of these advantages rather than licensing or selling them out to an independent firm (Fiodendji,2013).

Vernon's product life cycle theory: Vernon's product life cycle theory focuses on the role of innovation and economies of scale in determining trade patterns. It states that FDI is a stage in the life cycle of a new product from its invention to maturity. A new product is first produced in the home country for the home market. When the home market is saturated, the product is exported to other countries. At later stages, when the new product reaches maturity and loses its uniqueness, competition from similar competitor products becomes more intense. At this stage firms would then look for lower cost foreign locations. This theory shows how market seeking and cost reduction motives of firms lead to FDI. It also explains the behaviors of multinational companies and how they take advantage of different countries that are at different levels of economic growth. While the product life cycle model is a very helpful tool for helping to understand current and potential market conditions, to develop appropriate marketing and competitive strategies, not all new products will follow the standard product life cycle curve (Haile, 2006).

Over all FDI is measured as one of the most secure elements of investment flows to countries and a major stimulant of economic growth through saving accumulation, transfer of modern technologies, foreign exchange enhancing competition, developing of local human resource and

access to foreign markets (Peres & Xu, 2018) has received increasing interest and there has been a significant increase in capital flows throughout the world, especially since the 1990s (Turedil, 2018).

2.1.2 Institutions and institutional quality

North (1990) defines institutions as humanly devised constraints that shape interaction between people. Institutions are the platforms where contract enforcements take place and property rights are exercised. Institutions include, but are not limited to, the country's judicial system, the capital markets, the financial institutions and the security systems (Meah, et al, 2016). These institutions are said to include formal rules such as the laws that protect private property rights, the enforcement of the rule of law, and the protection and respect of peoples' political and civil liberties and they are claimed to include informal rules that comprise habits, beliefs, social cleavages, traditions and norms. It is argued that these institutions provide the overall incentive structure that supports markets, that channel individual economic efforts (North, 1990).

Evidences are there which supports that institutions matter a great deal in determining the level of economic growth of a country. They determine the costs of economic transactions they spur development in the form of contracts and contract enforcement, common commercial codes, and increased availability of information, all of which reduce the costs of transactions, risk, and uncertainty. They also determine the degree of appropriability of return to investment: protection of property rights and the rule of law spur investment and thus increase incomes (Ferrini, 2012).

Institutions also oversee the scope for expropriation of assets by elites: unequal institutions which allow the dominance of powerful elites over economic exchange limits development. It also affects the degree to which the environment is conducive to cooperation and increased social capital; participatory institutions increase the flow of information and the degree to which resources can be diversified to minimize risk and ensure sustained levels of wealth. This fits nicely with the finding of historical studies that high quality institutions today are established in greater equality, political competition and cooperative norms in the distant past. Institutions strongly affect the economic development of countries and act in society at all levels by determining the frameworks

in which economic exchange occurs. They determine the volume of interactions, the benefits from economic exchange and the form which they can take.

Institutional quality is a broad concept that captures law, individual rights and high-quality government regulation and services. Kaufmann and Mastruzzi (2011, p.3) defined governance as "*the traditions and institutions by which authority in a country is exercised. This includes (a) the process by which governments are selected, monitored and replaced which consists voice and accountability and political stability and absence of violence/terrorism; (b) the capacity of the government to effectively formulate and implement sound policies which is measured by government effectiveness and regulatory quality; and (c) the respect of citizens and the state for the institutions that govern economic and social interactions among them as indicated by of rule of law and control of corruption."*

The six institutional quality indicators are briefly described as follows:

Voice and accountability reflects perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.

Government effectiveness reflects perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Regulatory quality reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.

Rule of law reflects perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

Control of corruption reflects perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.

In fact, the institutional quality of a host country has received growing attention in the recent literature as one of the key determinants in decisions made by foreign firms. Consequently, the debate on the choice of FDI establishment is now evolving around the quality of institutions as key determinant of cross-country differences in both growth rate and income per capita (Fiodendji, 2013).

2.1.3 Conceptual framework

This study analyzed the effect of institutional quality on FDI inflows based on the conceptual framework depicted in Figure 2.1. Based on previous related studies, FDI inflows is determined by factors such as institutional quality which consists of voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption and other economic factors such as GDP per capita, trade openness, and inflation rate.

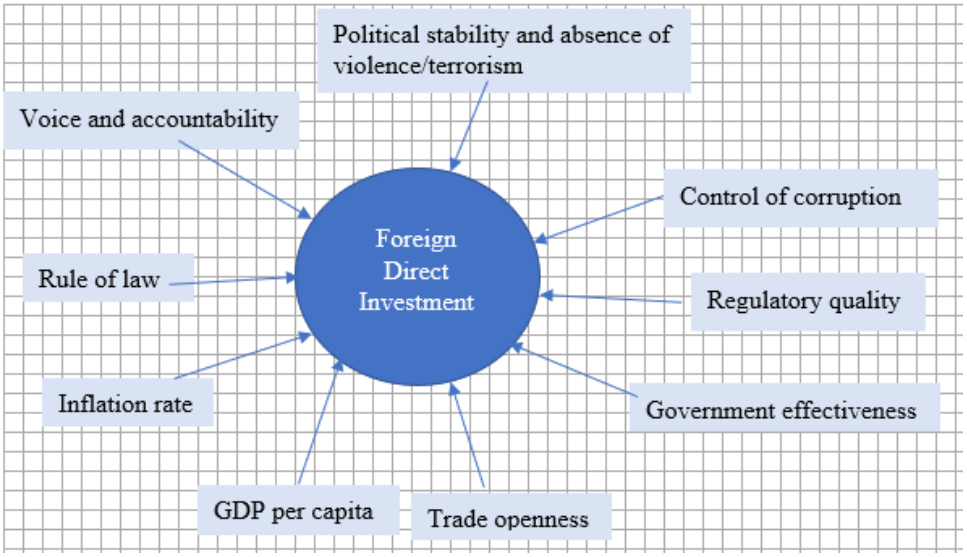

Figure 2.1: Conceptual framework on factors affecting FDI inflows
Source: Adapted from Bruinshoofd, 2016, p.5

2.2 The theoretical links between institutional quality and FDI inflows

North(1990) emphasized that economic factors such as capital accumulation, per capita income, and innovation are not the only factors that create differences in a country's economic growth and development; systematic differences in institutional quality are also responsible for those differences. Besides, North (1990) argues that inefficient institutions can raise production costs by disrupting the supply chain and excessive formalities in obtaining permits can significantly increase production costs. He added if property rights are not protected there are two kinds of risks that are associated with foreign investment. That is, political hazards which create hurdles in attracting FDI and local partners may be able to influence and convince their government to support them at the cost of foreign investors due to their active involvement in political process. Also, it is explained, institutions provide the incentive structure for exchange that determines the cost of transaction and the cost of transformation in an economy. Furthermore, it is described that institutions are formulated to reduce the uncertainty associated with human exchange and provide societies with a predictable framework for interaction. Essentially, in his framework, institutional quality improves with the limitations imposed on executive power. Such limitations may be either formal rules or informal constraints and their strength is shaped by the characteristics of enforcing them and highlights the importance of institutions in boosting investment and economic development. On the importance of the linkage between institutional quality and economic growth, he also emphasized the role of institutions in determining economic growth by asserting that the inability of societies to develop effective, low-cost enforcement contracts is the most important source of both historical stagnation and contemporary underdevelopment in the third world.

Likewise, Dunning (1988; cited in Sabir, et al, 2019) proposed the eclectic paradigm theory that decision of a foreign investor to invest in a host country depends on the size of the firm, management systems, transportation and labor costs, policies, as well as institutions and political stability as we should explain the influence of political variables on FDI, from the institutional standpoint. Institutional theory suggests that firms operate in a complex environment that is uncertain and sometimes confrontational, and so a company's decisions will depend on the institutional forces that have an influence on it, especially on regulations and incentives. In this context, the strategies adopted by companies and their performance on international markets are

largely determined by institutions (Peng, et al, 2009). Foreign investment can thus be regarded as a 'game' in which the players are the multinational firm and the government of the host country, or as a contest between governments to attract FDI. Government policies that include tax breaks, subsidies and easy repatriation of capital can thus influence the choice between exporting, FDI and licensing.

2.3. Empirical evidence on the links between institutional quality and FDI inflow

Considerable amount of empirical literature exists in some of the studies such as Stein and Daude (2007) which determined that inward FDI was significantly affected by political instability and violence, government effectiveness, regulatory burden, rule of law, and graft. Gani (2007) concluded that rule of law, control of corruption, regulatory quality, government effectiveness, and political stability had positive impacts on FDI, by using panel data estimates of the relationship between indicators of governance and FDI using a sample of countries from Asia and Latin America.

Moreover, Ahmad and Ahmed (2014) studied the link between institutional quality and FDI of Pakistan using Autoregressive distributed lag co-integration technique and found out that institutional quality is an important determinant of FDI. Buchanan and Rishi (2012) studied the relationship between FDI and institutional quality of 164 countries using OLS and panel regression and found out that institutional quality has a positive and significant effect on FDI. Esew and Yaroson (2014) applied Vector Error Correcting Model to study the impact of institutional quality in attracting FDI in Nigeria and found out that political stability and corruption are major determinants of FDI inflows. Fakher (2014) studied the effect of institutions to the integration of the Egypt's economy into the global economy using OLS techniques and confirmed that quality of institutions has a positive and significant effect on FDI. Kurul and Yalta (2017) studied the relationship between institutional factors and FDI inflows on 113 developing countries using dynamic panel models and realized that control of corruption, government effectiveness, and the voice and accountability have significant positive impacts on FDI flows. Peres and Xu (2018) studied the impact of institutional quality on FDI inflows for developing vs. developed countries using OLS and the study supports the significance of governance indicators in attracting FDI

inflows. The study by Sabir, et al (2019) on low, lower-middle, upper-middle and high-income countries using Generalized Method of Moments confirmed that institutional quality is a more important determinant of FDI in developed countries than in developing countries.

Studies which is done specific to Ethiopia or Kenya related to the link between institutional quality and FDI such us a study done by Meah, et al (2016) to determine the influence of institutional quality on the effect of FDI on economic growth concluded that the inflowing FDI would have higher growth-enhancing effect as opposed to if the institutions were not properly functioning. The study by Menamo, (2014) on the Impact of FDI on Economic growth of Ethiopia also discuss about the policies, regulatory and institutional framework of FDI in Ethiopia in brief. These previous studies were either done specific to one of the countries or they do not show the direct link between institutional quality and foreign direct investment with reference to the year covered in the present study. Besides, the present study is unique since it is a comparative one between the two countries.

Even though, the previous studies show that good institutions can encourage private investments, improve the overall efficiency of the economic system and significantly contribute to the economic growth, yet, the link between institutions and FDI has not been thoroughly investigated and can prove to be an interesting one to a certain extent why the FDI investors choose to invest in a country rather than in another and particularly in the perspective of African countries.

In this regard despite, the existence of many literature on the determinants of FDI, the empirical evidence on the impact of institutional quality in explaining behavior of FDI flows in African countries have been relatively limited, and that need be highlighted and further enhanced.

2.4. Overview of FDI and institutional quality in Sub-Saharan Africa

Foreign direct investment (FDI) inflow is important for economic growth of developing nations. The gap between domestic savings and investment is widening in almost all African nations especially in Sub-Saharan Africa as the loans and official developmental assistance by multilateral agencies are gradually declining. Thus, FDI as a catalyst to re-finance the developmental

requirement has been lately realized by these nations. Many African economies started the liberalization process in 1990s. However, still the result of are yet to be realized fully. Furthermore, FDI is governed by suitable macro-economic variables in the host country's investment climate. (Mohapatra,2014).

The competition for FDI inflows is intensifying and recipient governments try to attract investments by providing fiscal incentives essentially through lowering taxation levels and relaxed repatriation of property income laws to prospective foreign direct investors (Fiodendji, 2013). However, most of developing countries have still not successful in attracting tangible foreign investors capable of triggering economic expansion (Hailu, 2017). The question therefore arises as to what actually determines FDI inflows into developing economies? Furthermore, the traditional determinants of FDI which include natural resources, trade openness and human capital; among others have been largely distorted by the effect of economic globalization and financial crises. The challenges primarily address host countries, which need to establish a transparent, enabling policy environment for investment and its implementation (OECD, 2002).

2.5 Ethiopia and Kenya in context

2.5.1 Ethiopia

Ethiopia's has a strategic location in the Horn of Africa, close to the Middle East and its markets. Ethiopia is the second most populous country in Africa with about 109 million people (2018), and the fastest growing economy. The per capita income of Ethiopia is $772 (2018) and it aims to reach lower-middle-income status by 2025. Ethiopia's economy experienced strong, broad-based growth averaging 9.9% a year from 2007/08 to 2017/18, compared to a regional average of 5.4%. Ethiopia's real gross domestic product (GDP) growth decelerated to 7.7% in 2017/18. Higher economic growth brought with is positive trends in poverty reduction in both urban and rural areas. The proportion of the population living below the national poverty line was 30% in 2011 and decreased to 24% in 2016 (World Bank, 2019).

Ethiopia has been one of the countries that has attracted substantial amount of FDI. The government of Ethiopia has established the Ethiopian Investment Authority (EIA) in the year 1992

among other things to promote, coordinate and facilitate foreign direct investment in the country (EIC, 2019). The turning point for FDI inflow came when the country was preparing to implement its first growth and transformation plan (2010-2015), which coincided with an increased FDI inflow and the establishment and inauguration of the first industrial park in Ethiopia. The construction and operation of the industrial park was instrumental in influencing the government's decision to build publicly owned industrial parks as policy instruments to attract export oriented FDI and promote exports of value-added goods (World Bank, 2019). The readily availability of these essential provisions and administrative services within a confined area makes industrial parks the most preferred investment sites for FDI. The government also offer different incentives like tax holidays or exemptions, which ranges from 2-10 years depending on the nature of investment. On top of the above incentives, the Ethiopia government has a bilateral agreement on investment promotion and protection with a number of African, Asian and European countries (EIC 2019).

Furthermore, government is implementing the second phase of its growth and transformation plan (GTP II), covering 2016-2020 and sets a target of an average growth of 11% in the five years with the objective to join middle-income countries by 2025. This plan aims to continue expanding physical infrastructure through public investments and to transform the country into a manufacturing hub (World Bank, 2019).

2.5.2 Kenya

Kenya has made political, and economic reforms that have largely determined sustained economic growth, social development and political gains. However, its key development challenges still include poverty, inequality, climate change, and continued weak private sector investment. In 1986 there was the formation of Kenya Investment Center (KIC) tasked with promoting FDI inflows by marketing Kenya as the best investment destination through the provision of a necessary environment for doing business and legal requirement in terms of acquiring business licenses (MoITED, 2020).

There has been a legal framework which was part of the enactment of investment promotion act 2004 in line with vision 2030, described as Kenya's development program for the time period 2008-2030. It is aimed at making Kenya a newly industrialized, middle income state through

providing quality life to all in a clean and secure environment. Some features of this act include the appropriate tax and customs incentives, waive on the training costs depending on the type of and size of firm which shows government commitment towards attracting and maintaining the inflow of FDI into the country. The act also outlines the ways of removing the internal hindrances into the country which include a favorable business environment for investors Various institutions mandated to marketing and promoting FDI (Vision K, 2007).

Moreover, Kenya's recent political reform in 2010 is transformative and has promoted greater investments at the grassroots, strengthened accountability and public service delivery. While economic activity is weakened following the 2008 global financial crisis, growth resumed in the last five years reaching 5.7% in 2019 placing Kenya as one of the fastest growing economies in the region. The recent economic expansion has been increased by a stable macroeconomic environment, positive investor confidence and a resilient service sector. Growth will also be driven by ongoing key investment to support implementation of the development agenda and improved business climate (World Bank, 2019).

Kenya is one of the largest recipients of FDI inflows in Africa, since 2010 its FDI inflows significantly increasing. The government has been actively taking measures to attract FDI. The country has improved in making construction permits more transparent, improved the consistency of electricity supply by modernizing its existing infrastructure. Registering property, getting credit, protecting minority investors, tax payment and resolving insolvency are also the other aspects where the country has made prominent reforms. The development of public-private partnerships strategy also intended to have a positive influence on FDI inflows. Kenya benefits from a strategic geographic location with sea access, a growing entrepreneurial middle class, a diversified agriculture and expanding the service sector (World Bank, 2019).

Chapter 3: Methods

3.1. Data sources

The present study examined the effect of institutional quality on FDI inflows in Ethiopia and Kenya. The study used annual time series data from World Bank, which covers the period 1996-2018 as the data for the institutional quality variables are available since 1996. This study used institutional quality indicators from World Bank Worldwide Governance Indicators developed by Kaufmann and Mastruzzi (2010), which is the proxy for institutional quality variable and the primary source of empirical research on institutions. The Worldwide Governance Indicators (WGI) project constructs aggregate indicators of six broad dimensions of governance. These indicators are a research dataset summarizing the views on the quality of governance provided by a large number of enterprises, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. These six governance indicators have the following measures:

Esimate: Estimate of governance (ranges from approximately -2.5 (weak) to 2.5 (strong) governance performance). It is reported in such a way that it has a mean of zero and a standard deviation of unity. That is, the estimate is a standardized value where it could be negative, zero or positive. These estimates of governance performance for each of the six variables are used in this study.

StdErr: Standard error reflects variability around the point estimate of governance.

NumSrc: Number of data sources on which estimate is based.

Rank: Percentile rank among all countries which ranges from 0 (lowest) to 100 (highest) rank.

Lower: Lower bound of 90% confidence interval for governance, in percentile rank terms.

Upper: Upper bound of 90% confidence interval for governance, in percentile rank terms.

In the WGI, we draw together data on perceptions of governance from a wide variety of sources, and organize them into six clusters corresponding to the six broad dimensions of governance listed above. For each of these clusters we then use a statistical methodology known as an Unobserved Components Model to (i) standardize the data from these very diverse sources into comparable

*units, (ii) construct an aggregate indicator of governance as a weighted average of the underlying source variables, and (iii) construct margins of error that reflect the unavoidable imprecision in measuring governance (*Kaufmann and Mastruzzi , 2010, p.3)

3.2 The model

The present study has adopted the theory based on Dunning's (1998; cited in Sabir, et al, 2019) eclectic paradigm theory and North's (1990) institutional theory which states that inward FDI depends on market size (proxied by GDP per capita), macroeconomic stability (measured by inflation) and governance (proxied by the institutional quality indicators of WGI) of the host country. The indicators for institutional quality are voice and accountability, political stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law and control of corruption (Ahmad & Ahmed, 2014; Buchanan & Rishi, 2012; Esew & Yaroson, 2014; Fakher, 2014; Kurul & Yalta, 2017; Peres & Xu, 2018; and Sabir, et al, 2019). In addition, other variables affecting FDI (lagged FDI, GDP per capita, trade openness, and inflation) are controlled in the model, which all are described in Section 3.2.1.

The following model is used to investigate the effect of institutional quality on FDI:

$$FDI_t = \beta_0 + \beta_1 FDI_{t-1} + \beta_2 VAC_t + \beta_3 PSV_t + \beta_4 GEF_t + \beta_5 RQL_t + \beta_6 RLW_t + \beta_7 CCR_t + \beta_8 GDPC_t + \beta_9 TOP_t + \beta_{10} INF_t + \varepsilon_t \quad \text{.....(3.1)}$$

Where:

- FDI_t is FDI in year *t* (current US$) as a ratio of GDP (current US$).
- FDI_{t-1} is FDI as a ratio of GDP (one year lagged) to show the effect of the previous year's investment on the current FDI inflows.
- VAC_t is voice and accountability.
- PSV_t is political stability and absence of violence/terrorism.
- GEF_t is government effectiveness.
- RQL_t is regulatory quality.
- RLW_t is rule of law.
- CCR_t is control of corruption.
- $GDPC_t$ is GDP per capita (current US$).

- TOP_t is trade openness (sum of export and import) as ratio of GDP.
- INF_t is inflation rate.
- $\beta's$ are estimated parameters.
- ε_t is the error term.

3.2.1 Variables and hypothesized effects

The variables included in the model (Equation 3.1), their measurements and hypothesized effects are discussed in what follows.

- **FDI**: FDI as a ratio of GDP(FDI/GDP) is the dependent variable as used in previous studies (Ahmad & Ahmed, 2014; Buchanan & Rishi, 2012; Esew & Yaroson ,2014; Fakher, 2014; Kurul & Yalta, 2017; Peres & Xu, 2018; and Sabir, et al, 2019).
- **Institutional quality**: the present study used the WGI, which takes six dimensions of governance performance indicators, as a proxy for institutional quality variables. In what follows, these variables and their expected signs are discussed based on previous studies (Ahmad & Ahmed, 2014; Buchanan & Rishi, 2012; Esew & Yaroson ,2014; Fakher, 2014; Kurul & Yalta, 2017; Peres & Xu, 2018; and Sabir, et al, 2019).
    - **Voice and accountability**: increase in voice and accountability is expected to increase FDI inflows by encouraging political reliability, participation in the political system, and promoting democratic institutions.
    - **Political stability and absence of violence/terrorism**: it eases doing business through stable political systems and induces more FDI inflows.
    - **Government effectiveness**: it is expected to affect FDI positively by modernizing the bureaucracies of public services and easing doing business.
    - **Regulatory quality**: higher regulatory quality influences FDI positively by eliminating intrusion of public power and excessive regulation on the market and unofficial activities.
    - **Rule of law**: greater exercise of rule of law encourages FDI inflows by reducing the uncertainty and easing the business activities.

- **Control of corruption**: the stronger is control of corruption, the more economic success which is a function of effort and competence, rather than connections and bribery.

- **GDP per capita**: FDI inflows tends to increase in countries that have larger market size, which is often represented by GDP per capita (Ahmad & Ahmed, 2014; Buchanan & Rishi, 2012; Esew &Yaroson ,2014; Fakher, 2014; Kurul &Yalta, 2017; Peres & Xu, 2018; and Sabir, et al, 2019).
- **Trade openness**: countries open for trade tend to attract more FDI inflows. Different measures of trade openness are employed in the empirical literature and, for the present study, trade (sum of export and import) as percentage of GDP is used as proxy for trade openness(Ahmad & Ahmed, 2014; Esew & Yaroson ,2014; Fakher, 2014; and Sabir, et al, 2019).
- **Inflation rate**: inflation rate is measured by the annual percentage change in the consumer price index and is taken as a proxy measure for macroeconomic stability. Countries that have a low rate of inflation is expected to be more attractive to FDI(Ahmad & Ahmed, 2014; Buchanan & Rishi, 2012; Esew & Yaroson ,2014; Kurul & Yalta, 2017; and Sabir, et al, 2019).
- **Lagged FDI**: captures one-year lagged value of FDI as a ratio of GDP. FDI flows are influenced from the previous year's FDI and the lag FDI is used as an explanatory variable to show the relationship between the previous year's investment on the current FDI inflows (Kurul & Yalta, 2017; Peres & Xu, 2018). Knowing something about the FDI from last year tells us quite a bit about the likely range of the FDI during this year, because FDI tends to remain fairly stable from one year to the next and a positive relationship is expected with FDI (Wooldridge, 2013).

3.3 Data analysis

The present study used both descriptive and econometric analysis to analyze the status and effect of institutional quality on FDI inflows, which are discussed below.

3.3.1 Descriptive analysis

Descriptive statistical analysis is conducted with the help of average, trend and variability analysis so as to compare the data on institutional quality and FDI between Ethiopia and Kenya. Measures such as the mean, standard deviation, and graphic analysis are used to describe the trend in institutional quality and FDI in both countries. The trend of institutional quality and FDI inflows was measured to see how the variables are changing over time for both countries. Besides, coefficient of variation is estimated for institutional quality and FDI to discuss and compare the variability of institutional quality and FDI inflows over time.

3.3.2 Econometric analysis

The econometric approach is used to examine the effect of institutional quality on FDI inflows. To this end, Autoregressive distributed lag (ARDL) is employed. The time series data tests (stationarity, co-integration, and multicollinearity) and T-test were conducted using Eviews and Microsoft Excel 2019. The Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are conducted to check for stationarity in the variables, the ARDL Bounds test is used to confirm the existence of co-integration between variables. After finding the existence of co-integrating variables, the ARDL model is used to investigate the long-run relationship between institutional quality and FDI inflows.

3.2.2.1 T- test

The t-test is one of the tests used for the purpose of hypothesis testing in statistics so as to determine if there is a significant difference between the means of two groups, which may be related in certain features (Herkenhoff & Fogli, 2013). A t-test is performed to test whether the variation of the mean of each of the variables in Ethiopia and Kenya is “significant” by evaluating the difference between the means of the two groups. The null hypothesis of the t -test is that the mean value for Ethiopia for a variable (say FDI) is equal to the mean value for Kenya for the same variable.

3.2.2.2 Multicollinearity test

The correlation statistics is a powerful measure to quantify the magnitude and direction of a relationship between two variables. The correlation coefficient (r) whose value can range from +1 to -1, measures the degree of correlation between two sample variables and it provides two important pieces of information: the strength and the direction of relationship between the variables. If *r* is close to 1 then the two variables are positively correlated, if *r* is close to -1 the two variables are negatively correlated whereas if *r* is close to 0 there is little linear relationship between two variables (Herkenhoff & Fogli, 2013). When two or more explanatory variables have a strong coefficient of correlation, this situation is referred to as multicollinearity. The rule of thumb suggests that r values (correlation coefficients) greater than +0.6 or less than -0.6 between the explanatory variables should be flagged as possible multicollinear variables and should be eliminated. To test, for multicollinearity problem, a correlation matrix is computed (Herkenhoff & Fogli, 2013). The present study applies this approach to test for multicollinearity among the variables.

3.3.2.3 Stationarity tests

Many economic time series data have a tendency of growing over time. On a practical level, in order to understand the relationship between two or more variables using statistical analysis, one needs to assume some sort of stability over time and a stationary time series process is one whose probability distributions are stable over time (Wooldridge, 2013). Stationarity requires that the time series values for the mean, the standard deviation, and the covariance, be invariate over time. Time series which exhibit a trend or seasonality are clearly not stationary and it is not possible to generalize its behavior to other time periods. Ordinary least squares (OLS) regression requires that the time series data being evaluated be stationary. Otherwise, OLS is no longer efficient, the standard errors are understated, and the OLS estimates are biased and inconsistent (McGowan & Ibrahim, 2012).

To test for a unit root (non-stationarity) of a stochastic time series, the value of the random variable is regressed against lagged values of the same random variable. The simplest approach to testing for a unit root begins with an autoregressive process of order one AR(1) model (as shown in Equation 3.2) (Wooldridge, 2013):

$$y_t = \alpha + \beta y_{t-1} + e_t, t = 1,2,3 \text{……………………………………………….(3.2)}$$

where, y_t is the value of the time series at time (t), α is the intercept term, β is the regression coefficient, $y_{t-1}$is the lagged value of the time series, and e_t is the error term.

If $|\beta|$ is equal to one, then the process generating the time series is non-stationary (or has a unit root) while if $|\beta| < 1$, the process is stationary. The null hypothesis is that H_0: β =1 and the alternative hypothesis is that β is less than one. H_1: β <1. A convenient equation for carrying out the unit root test is to subtract y_{t-1} from both sides of Equation 3.2 and to define $\theta = \beta - 1$.

$$\Delta y_t = \alpha + (\beta - 1) y_{t-1} + e_t, t = 1,2,3 \text{…………………………………….(3.3)}$$

$$\Delta y_t = \alpha + \theta y_{t-1} + e_t, t = 1,2,3 \text{ ……………………………………..…...(3.4)}$$

Now test the hypothesis: H_0: $\theta = 0$ against H_1: $\theta < 0$. A series with a unit root is said to be integrated of order one or I(1). A stationary series without trend is to be integrated of order 0 or I(0). One method to test for stationarity is the unit root test of Dickey-Fuller (1979; cited in McGowan & Ibrahim, 2012). This model is only valid for a first order autoregressive process AR(1) processes. If the underlying return generating process exhibits serial correlation of order greater than one, Augmented Dickey-Fuller (ADF) test must be used. ADF unit root test are used at level form and first difference of each series. In the ADF test, the lag length is included to solve the problem of autocorrelation and to enhance the robustness of the result (McGowan & Ibrahim, 2012). Thus, ADF is used in the present study.

Another method used to test stationarity is the Phillips-Perron (PP) test which uses non-parametric statistical methods to take care of the serial correlation in the error terms without adding lagged difference terms. The PP test has an advantage over the ADF test as it gives robust estimates when the series has serial correlation and time-dependent heteroscedasticity and there is a structural break as stated by Mallik and Chaudhury (2001; cited in Tadele, A, 2014). Both tests use the null hypothesis of non-stationarity against the alternative of stationarity. The general form of the ADF is:

$$y_t = \beta_1 + \beta_t + \delta y_{t-1} + \sum_{k=1}^{n} \alpha \Delta y_{t-k} + \varepsilon_t \text{……………………………………………(3.5)}$$

Where $\beta, \delta,$ and α are estimated parameters, ε_t is an error term and $\Delta y_{t-1} = (y_{t-1} - y_{t-2})$, $\Delta y_{t-2=}(y_{t-2} - y_{t-3})$, $\Delta y_{t-n=}(y_{t-n} - y_{t-(n+1)})$.

3.2.2.4 Autoregressive distributed Lag (ARDL)

ARDL is a testing tool for the presence of long-run relationship between time series data. ARDL models are standard least squares regressions that include lags of both the dependent variable and explanatory variables as regressors (Greene, 2003). In ARDL model the dependent variable is expressed by the lag and the values of the independent variable with their lags. It is one of the most dynamic models in econometric literature (Ghouse, et al, 2018). The ARDL methodology follows general to specific approach and that is why it could be possible to tackle many econometric problems, misspecification and autocorrelation, and come up with an appropriate interpretative model. The ARDL (1,1) is the simples form of ARDL model. Consider an ARDL(1,1) model:

$$y_t = \alpha + \beta_1 x_t + \beta_2 x_{t-1} + \beta_3 y_{t-1} + \varepsilon_t \quad \text{.....(3.6)}$$

Cointegration is concerned with the analysis of long run relations between integrated variables and reparametrizing the relationship between the considered variables into an Error Correction Model. Therefore, to disaggregate the effect of institutional quality on FDI into short and long-run effects, this study used ARDL model.

Test for cointegration

Cointegration is the existence of long-run relationship between variables. Cointegrated variables are used to test plausible economic relationships, under a long-run equilibrium between non-stationary time series. Cointegration tests identify scenarios where non-stationary time series data are integrated together in a way that they cannot deviate from the equilibrium in the long-run. If a time series data contains unit root and thus are integrated of order one I(1), the I(1) variables should be differenced before they are used in linear regression models, whether they are estimated by OLS or by other methods. This is certainly a safe process to follow. If $\{y_t$:t=0,1,…..$\}$ and $\{x_t$:t=0,1,…..$\}$ are two I(1) processes, then, in general, y_t-βx_t is an I(1) process of any number β. Nevertheless, it is possible that for some $\beta \neq 0$, y_t-βx_t is an I(0) process, which means it has constant mean, constant variance, and autocorrelations that depend only on the time distance between two variables in the series, and it is asymptotically uncorrelated. If such a β exists, we say that y and x are cointegrated, and we call β the cointegration parameter (Wooldridge, 2013).

To test the presence of co-integration, the null hypothesis is that the long-run relationship does not exist against the alternative that the long-run relationship does exist.

If series are integrated of order 1, I(1). That is, stationary after first difference, performing a cointegration test is necessary to establish a long-run relationship. That is, we can assume a long-run relationship in the model despite the fact that the series are trending either upward or downward. ARDL cointegration technique or Bounds test is one of them which is used in this study. If the F-statistics (Wald test) establishes that there is a single long-run relationship and the sample size is small, the ARDL correction representation becomes more efficient.

ARDL Bound test is a cointegration method to test the long-run relationship between time series data. It provides results for cointegration with different orders I(0) or I(1) (Nkoro & Uko , 2016). ARDL cointegration technique or bound test of cointegration has become the solution to determining the long-run relationship between series that are non-stationary, as well as reparametrizing them to the Error Correction Model (Pesaran, et al, 2001).

Error correction model

An ECM is a restricted vector autoregressive model to be used with nonstationary series that are known to be cointegrated. The cointegration term is the error correction term as the deviation from long-run relationship is corrected steadily through a series of partial short-run adjustments. In addition to learning about a potential long-run relationship between two series, the concept of cointegration enhances the kind of dynamic models in a model. If y_t and x_t are I(1) proceses and are not cointegrated, we might estimate a dynamic model in first differences. As an example, consider the Equation 3.6:

$$\Delta y_t = \alpha_0 + \alpha_1 \Delta y_{t-1} + \gamma_0 \Delta x_t + \gamma_1 \Delta x_{t-1} + \varepsilon_t \quad \text{.....(3.7)}$$

Where ε_t has zero mean given Δx_t, Δy_{t-1}, Δx_{t-1}, and further lags. If this is viewed as a rational distributed lag model, one can find the impact propensity, long-run propensity, and lag distribution for Δy as a distributed lag in Δx (Wooldridge, 2013).

The long-run relationship may be rarely observed but there is a tendency to move towards equilibrium. As a result, the error correction model is used to represent the effect of institutional quality on FDI inflows. The purpose of the ECM is to indicate the speed of adjustments from the

short-run equilibrium to the long-run equilibrium state. The greater the coefficients of the parameter, the higher the speed of adjustment of the model from short run to long-run. The short-run effects are captured through individual coefficients of the difference terms error correction model variable contains information about the effect of past values have on the present values the size and the statistical significance of the coefficients of the ECM measures the tendency of each variable to return to the equilibrium. If a coefficient is significant, it implies that past equilibrium errors plays a role in determining the current results (Esew & Yaroson, 2014).

The Error Correction Model (ECM) can be derived from ARDL model through a simple linear transformation, which integrates short -run adjustments with long-run equilibrium without losing long-run information. An error correction model estimates the speed of adjustment to equilibrium in a cointegrating relationship. If variables are indeed cointegrated, the coefficient is expected to be negative and highly significant. The associated ECM model takes a sufficient number of lags to capture the data generating process in general t specific modeling frameworks (Nkoro & Uko , 2016).

Chapter 4: Results and Discussion

This chapter presents the results of the analysis of data followed by a discussion of the research findings and interpretations. The findings are related to the research objectives that guided the study. The institutional quality and FDI variables for both countries are presented and discussed with charts along with the respective statistical descriptive and econometric measures.

4.1 Descriptive analysis and presentation

4.1.1 Trends in FDI and GDP in Ethiopia and Kenya

Based on previous studies, the dependent variable, FDI, is used as a ratio of GDP(FDI/GDP). Charts and descriptive statistics were used in this section to summarize and present the data. As depicted in

Figure 4.1 , the value of FDI (as a ratio of GDP) for Ethiopia was much higher than the value for Kenya during 1997-2006. FDI was lower for Ethiopia and Kenya during 2007 to 2010, which may be linked to the economic downturn in the world following the 2008 financial crisis. In particular, it drops dramatically for Ethiopia. Between 2007/08 and 2011/12 Kenya performed better over Ethiopia but the trend reversed after 2011/12.

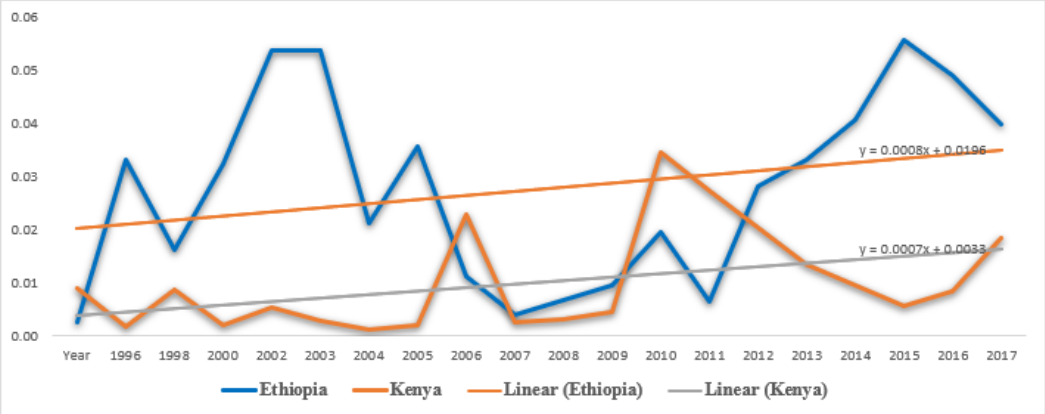

Figure 4.1: FDI as a ratio of GDP of Ethiopia and Kenya

Source: Based on data from World Bank (1996-2018)

Moreover, the absolute figures (in millions) of FDI and GDP are depicted in Figure 4.2 and Figure 4.3 respectively, and the value of FDI for Ethiopia was higher than the value for Kenya during the sample years except in years 2007 and 2011/12 in which the value for Kenya was better. After 2013, value for Ethiopia is much higher than the value for Kenya.

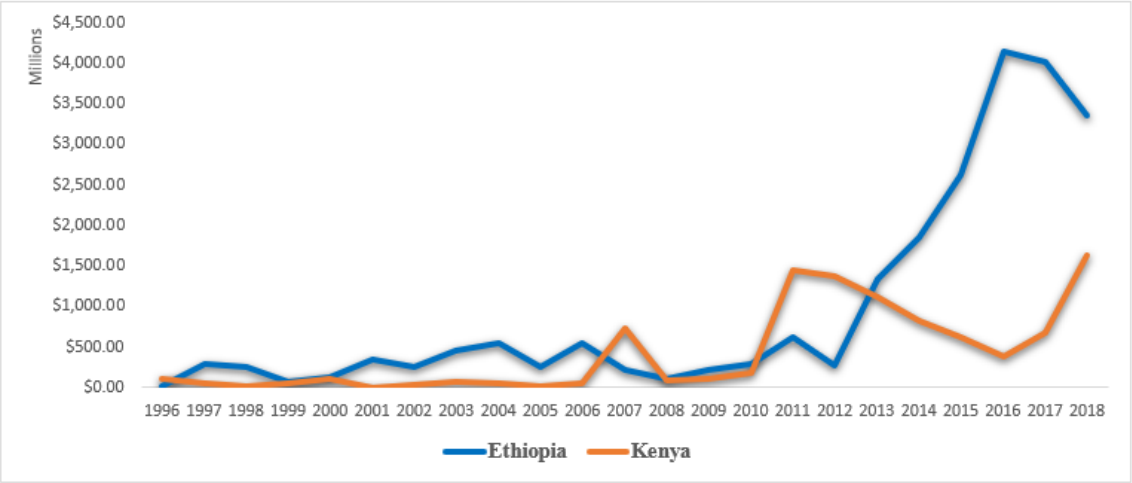

Figure 4.2: FDI of Ethiopia and Kenya

The value of GDP for Kenya was was higher than the value for Ethiopia for all the sample years except in the last three years (2015, 2016 and 2017) during which the value for Ethiopia was higher.

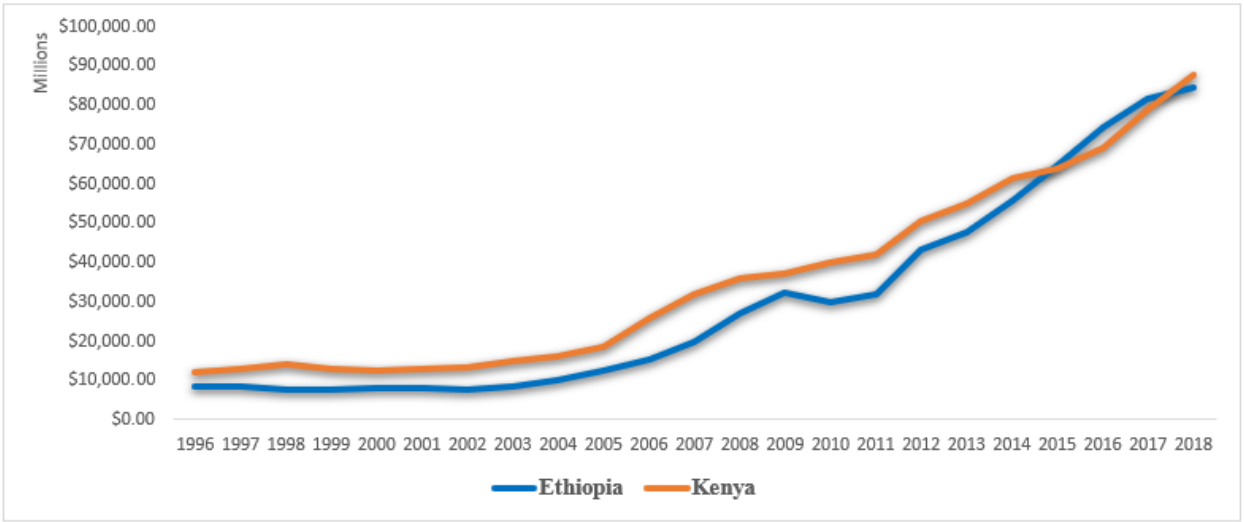

Figure 4.3: GDP of Ethiopia and Kenya

Table 4.1: T-Test for two-sample assuming unequal variances

Variable/measure	Mean		t Stat	P(T<=t) one-tail	t Critical one-tail
	Ethiopia	Kenya			
Foreign direct investment	0.028	0.010	-3.876	0.00	1.699
Voice and accountability	-1.239	-0.334	15.722	0.00	1.699
Political stability and absence of violence/terrorism	-1.438	-1.187	-3.248	0.00	1.696
Government effectiveness	-0.674	-0.512	-2.853	0.00	1.699
Regulatory quality	-1.050	-0.246	-27.785	0.00	1.696
Rule of law	-0.716	-0.788	1.140	0.13	1.688
Control of corruption	-0.607	-0.987	10.817	0.00	1.691

Source: Own calculation based on data from World Bank and WGI (1996-2018)

The average FDI for Ethiopia, 2.8 % of GDP, is greater than the average for Kenya which is 1% (see Table 4.2 and Table 4.3). The t-test also shows a significant difference ($p<0.001$) in the mean value of FDI between Ethiopia and Kenya over the period (see Table 4.1). Overall, the trend of FDI inflows into Ethiopia and Kenya was increasing over the period 1996-2018. Based on the estimate of coefficient of variation (CV), which measures variability of FDI in this case, the value for Ethiopia is more consistent (64%) than the value for Kenya (94%).

Table 4.2 Descriptive statistics of the variables included in the model (Ethiopia)

Variables/measure	Minimum	Maximum	Mean	St Dev	CV	Observation
Foreign direct investment	0.003	0.056	0.028	0.018	64%	20
Voice and accountability	-1.44	-0.99	-1.24	0.12	-10%	20
Political stability and absence of violence/terrorism	-1.80	-0.63	-1.44	0.30	-21%	20
Government effectiveness	-1.21	-0.40	-0.67	0.23	-33%	20
Regulatory quality	-1.30	-0.86	-1.05	0.11	-11%	20
Rule of law	-0.97	-0.43	-0.72	0.18	-25%	20
Control of corruption	-0.93	-0.42	-0.61	0.13	-21%	20

Source: Own calculation based on data from World Bank and WGI (1996-2018)

Table 4.3 Descriptive statistics of the variables included in the model (Kenya)

Variable/measure	Minimum	Maximum	Mean	St Dev	CV	Observation
Foreign direct investment	0.001	0.035	0.010	0.010	94%	20
Voice and accountability	-0.867	-0.115	-0.334	0.228	-68%	20
Political stability and absence of violence/terrorism	-1.43	-0.65	-1.19	0.17	-15%	20
Government effectiveness	-0.70	-0.30	-0.51	0.12	-23%	20
Regulatory quality	-0.32	-0.08	-0.25	0.07	-26%	20
Rule of law	-1.05	-0.41	-0.79	0.22	-28%	20
Control of corruption	-1.16	-0.85	-0.99	0.09	-9%	20

Source: Own calculation based on data from World Bank and WGI (1996-2018)

4.1.2 Trends in institutional quality in Ethiopia and Kenya

Voice and accountability: the estimate of voice and accountability for Ethiopia and Kenya is depicted in Figure 4.4 which shows that the estimate of voice and accountability for Kenya has been better than that of Ethiopia over the period of 1996-2018.

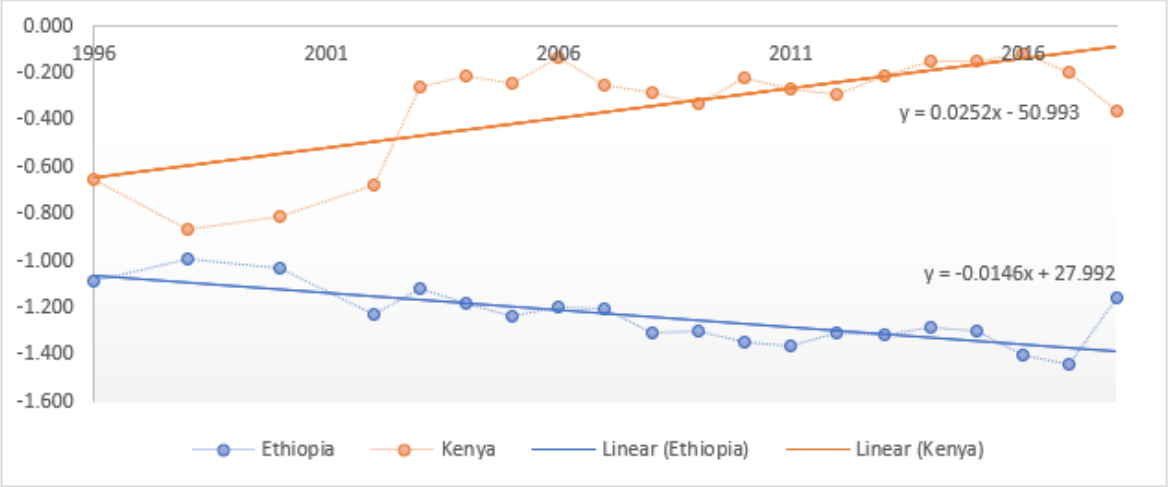

Figure 4.4: Voice and accountability

Source: Based on data from WGI (1996-2018)

Besides, based on Table 4.2 and Table 4.3, the estimated mean of voice and accountability for Ethiopia, -1.24, is less than the average for Kenya which is -0.33 indicating that Kenya performs better in terms of voice and accountability. Besides, the t-test shows a significant difference ($p<0.001$) in the mean value of voice and accountability between Ethiopia and Kenya over the

period (see Table 4.1). Also, as given in Figure 4.4, the trend of voice and accountability has been generally declining on average for Ethiopia whereas it has been increasing for Kenya although with higher variability (with a CV of 68%) as compared to Ethiopia (with a CV of 10%).

Political stability and absence of violence/terrorism: as depicted in Figure 4.5, the estimate of political stability and absence of violence/terrorism for Kenya was better than that of Ethiopia for all sample years except 1998 and 2000 in which the performance of Ethiopia was better.

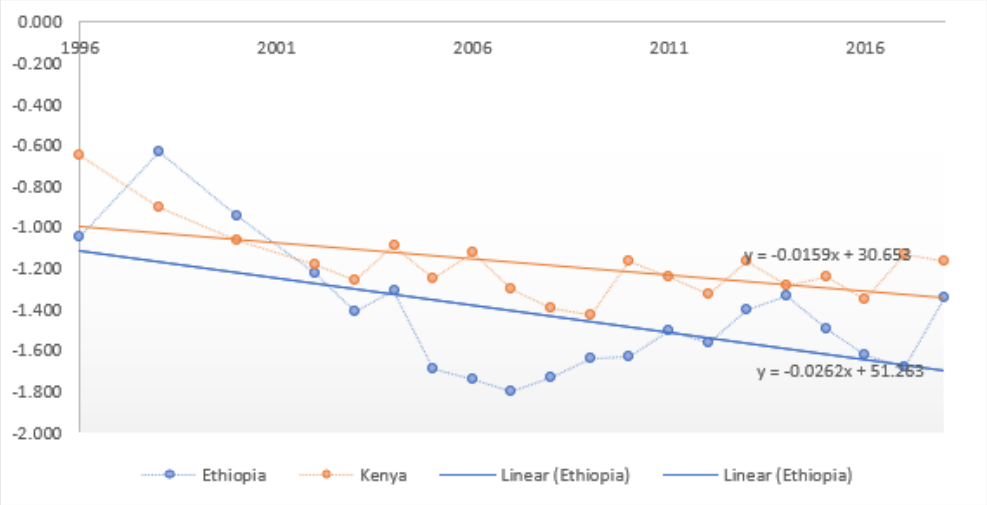

Figure 4.5: Political stability and absence of violence/terrorism

Source: Based on data from WGI (1996-2018)

In addition, based on Table 4.2 and Table 4.3, the estimated mean of political stability and absence of violence/terrorism for Ethiopia, -1.44, is less than the average for Kenya which is -1.19 indicating that Kenya performs better in terms of political stability and absence of violence/terrorism. The t-test also shows a significant difference ($p<0.001$) in the mean value of political stability and absence of violence/terrorism between Ethiopia and Kenya over the period (see Table 4.1). As shown in Figure 4.5, the trend of political stability and absence of violence/terrorism has been generally declining on average for both countries. Based on the CV, the estimate of political stability and absence of violence/terrorism for Ethiopia is more variable (21%) than that of Kenya (15%).

Government effectiveness: as depicted in Figure 4.6, the estimate of government effectiveness for Ethiopia was better between 2008 through 2012 otherwise the estimate of the variable for Kenya was better than that of Ethiopia for the rest of the sample years.

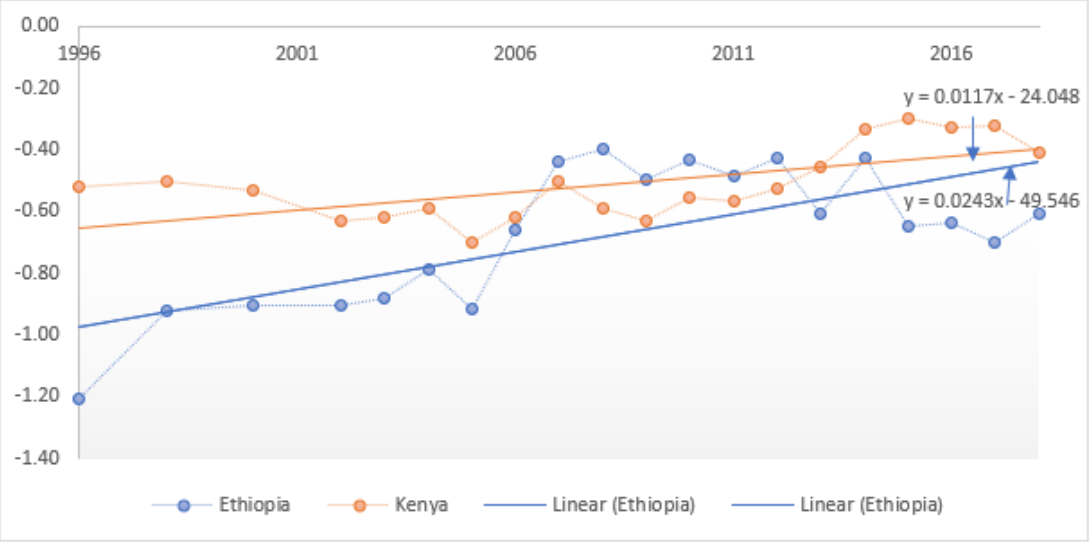

Figure 4.6: Government effectiveness

Source: Based on data from WGI (1996-2018)

In addition, based on Table 4.2 and Table 4.3, the estimated mean of government effectiveness for Ethiopia, -0.67, is less than the average for Kenya which is -0.51 indicating that Kenya performs better in terms of government effectiveness. The t-test also shows a significant difference ($p<0.001$) in the mean value of government effectiveness between Ethiopia and Kenya over the period (see Table 4.1). As shown in Figure 4.6, the trend of government effectiveness has been generally increasing on average for both countries. Based on the CV, the estimate of government effectiveness for Ethiopia is less consistent (33%) than that of Kenya (23%).

Regulatory quality: as depicted in Figure 4.7, the estimate of regulatory quality for Kenya was far better than that of Ethiopia in all the sample years.

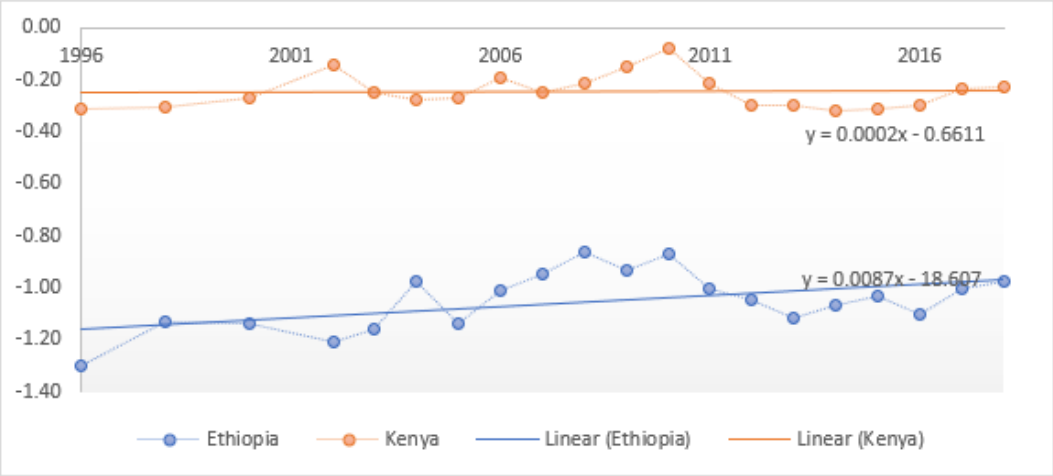

Figure 4.7: Regulatory quality

Source: Based on data from WGI (1996-2018)

Moreover, based on Table 4.2 and Table 4.3, the average regulatory quality for Ethiopia, -1.05, is less than the average for Kenya which is -0.25 indicating that Kenya performs better in terms of regulatory quality. The t-test also shows a significant difference ($p<0.001$) in the mean value of regulatory quality between Ethiopia and Kenya over the period (see Table 4.1). As shown in Figure 4.7, the trend of regulatory quality has been generally increasing on average for both countries. Based on the CV, the estimate of regulatory quality for Ethiopia is more consistent (11%) than that of Kenya (26%).

Rule of law: as shown in Figure 4.8, the estimate of rule of law for Ethiopia was better in 1996, 1998, 2003, 2006 through 2013 than the estimate for Kenya. In the rest of the sample years the estimate for Kenya was greater than that of Ethiopia.

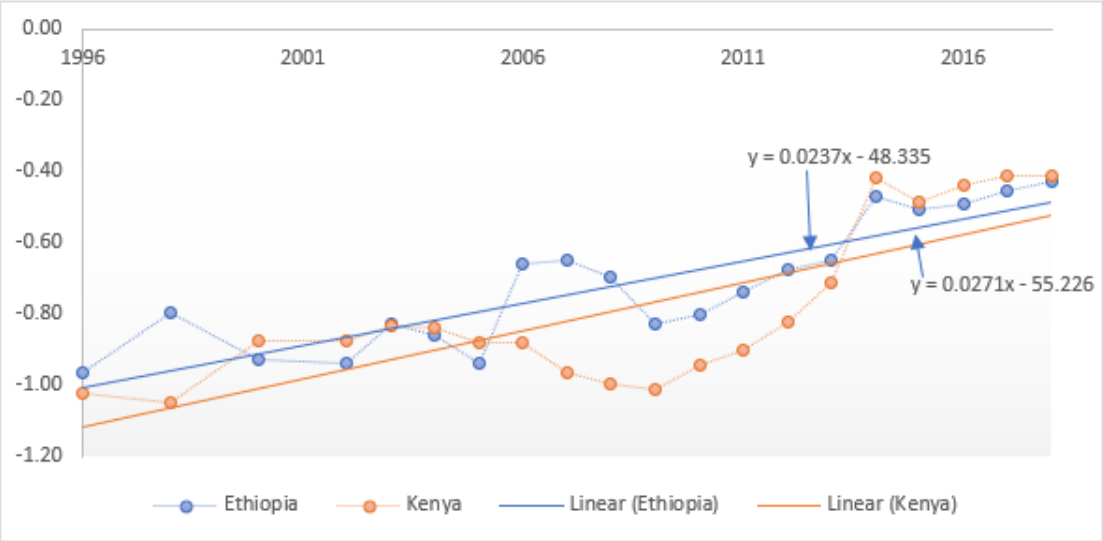

Figure 4.8: Rule of law

Source: Based on data from WGI (1996-2018)

Moreover, based on Table 4.2 and Table 4.3, the average rule of law for Ethiopia, -0.72, is greater than the average for Kenya which is -0.79 indicating that Ethiopia performs better in terms of rule of law. However, the t-test shows an insignificant difference in the mean value of rule of law between Ethiopia and Kenya over the period (see Table 4.1). As shown in Figure 4.8, the trend of rule of law has been generally increasing on average for both countries. Based on the CV, the estimate of rule of law for Ethiopia is less variable (25%) than that of Kenya (28%).

Control of corruption: as represented in Figure 4.9, the estimate of control of corruption for Ethiopia was by far better than that of Kenya in all the sample years.

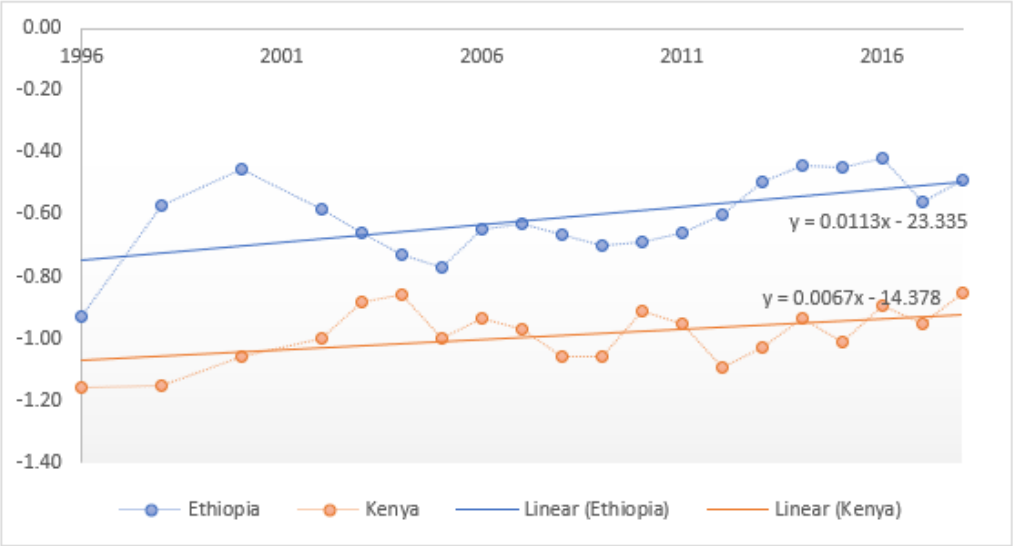

Figure 4.9: Control of corruption

Source: Based on data from WGI (1996-2018)

The mean estimate of control of corruption for Ethiopia,-0.61, is greater than the average for Kenya which is -0.99 (see Table 4.2 and Table 4.3) which indicates that Ethiopia performs better than Kenya. The t-test also shows a significant difference ($p<0.001$) in the mean value of control of corruption between Ethiopia and Kenya over the period (see Table 4.1). As shown in Figure 4.9, the trend of control of corruption has been generally increasing on average for both countries and based on CV, the estimate of control of corruption for Ethiopia is more variable (21%) than that of Kenya (9%).

4.2 Statistical test results

4.2.1 Correlation matrix

A correlation matrix is a table showing correlation coefficient between variables such that each cell in the table shows the correlation between two variables. Typically, a correlation matrix is "square", with the same variables shown in the rows and columns (Herkenhoff & Fogli, 2013). The correlation matrix for variables of the model in this study for both countries are shown in Table 4.4 and Table 4.5.

Table 4.4:Correlation matrix of the variables (Ethiopia)

	FDI	VAC	PSV	GEF	RQL	RLW	CCR	GDPC	TOP	INF
FDI	1									
VAC	-0.051	1								
PSV	0.081	0.736	1							
GEF	-0.203	-0.637	-0.625	1						
RQL	-0.157	-0.462	-0.602	0.818	1					
RLW	0.396	-0.508	-0.357	0.568	0.384	1				
CCR	0.443	-0.193	0.083	0.336	0.073	0.657	1			
GDPC	0.286	-0.652	-0.346	0.496	0.316	0.893	0.584	1		
TOP	-0.093	-0.246	-0.564	0.428	0.385	-0.073	-0.260	-0.269	1	
INF	-0.261	-0.443	-0.564	0.675	0.603	0.257	0.012	0.160	0.544	1

Source: Own calculation based on data from World Bank and WGI (1996-2018)

The correlation matrix is symmetrical, with the same correlation shown above the main diagonal being a mirror image of those below. This is because the correlation between x and y is the same value as the correlation between y and x. The line of 1's going from the top left to the bottom right is the main diagonal , which shows that each variable always perfectly correlates with itself. Based on Table 4.4, in the case of Ethiopia, the correlations between voice and accountability and political stability and absence of violence/terrorism, regulatory quality and government effectiveness, and control of corruption and rule of law are strong. The reason may be because the variables do not change much over time and not necessarily because of multicollinearity.

Table 4.5: Correlation matrix of the variables (Kenya)

	FDI	VAC	PSV	GEF	RQL	RLW	CCR	GDPC	TOP	INF
FDI	1									
VAC	0.174	1								
PSV	-0.150	-0.593	1							
GEF	0.260	0.243	0.002	1						
RQL	-0.216	0.045	-0.251	-0.456	1					
RLW	0.158	0.459	-0.220	0.812	-0.317	1				
CCR	0.008	0.607	-0.362	0.128	0.263	0.504	1			
GDPC	0.410	0.556	-0.391	0.765	-0.085	0.792	0.318	1		
TOP	0.086	0.014	-0.052	-0.744	0.146	-0.699	-0.208	-0.607	1	
INF	-0.032	0.168	-0.219	-0.343	-0.001	-0.364	-0.126	-0.180	0.439	1

Source: Own calculation based on data from World Bank and WGI (1996-2018)

In the case of Kenya, as shown in Table 4.5, the correlations between voice and accountability and control of corruption; and rule of law and government effectiveness are strong.

4.2.2 Stationary test

A time series data needs to be tested for stationarity and the result of ADF and PP tests for both countries are presented in Table 4.6 and Table 4.7. In these two tests, the null hypothesis of non-stationarity (unit root) of institutional quality and FDI variables of the two countries against the alternative hypothesis of stationarity is tested.

Table 4.6: ADF and PP tests on variables (Ethiopia)

ADF and PP Test statistics-Ethiopia								
	Level				First Difference			
Variable	ADF	P-value	PP	P-value	ADF	P-value	PP	P-value
FDI	-2.443	(0.1442)	-2.443	(0.1442)	-5.7400***	(0.0002)	-5.7400***	(0.0002)
lagFDI	-2.588	(0.1126)	-2.588	(0.1126)	-7.6795***	0.000	-7.6795***	0.000
VAC	-2.083	(0.2529)	-2.083	(0.2529)	-4.1933***	(0.0051)	-4.1933***	(0.0051)
PSV	-1.806	(0.3661)	-1.806	(0.3661)	-4.6540***	(0.0002)	-4.6540***	(0.0002)
GEF	-2.7678*	(0.0816)	-2.7678*	(0.0816)	-5.8067***	(0.0002)	-5.8067***	(0.0002)
RQL	-2.8481*	(0.0705)	-2.8481*	(0.0705)	-5.8781***	(0.0002)	-5.8781***	(0.0002)
RLW	-1.175	(0.6627)	-1.175	(0.6627)	-5.3219***	(0.0005)	-5.3219***	(0.0005)
CCR	-3.2249**	(0.0343)	-3.2249**	(0.0343)	-4.9221***	(0.0012)	-4.9221***	(0.0012)
GDPC	1.457	(0.9984)	1.457	(0.9984)	-3.0275**	(0.0512)	-3.0275**	(0.0512)
TOP	-1.795	(0.3715)	-1.795	(0.3715)	-4.8687***	(0.0013)	-4.8687***	(0.0013)
INF	-3.4112**	(0.0236)	-3.4112**	(0.0236)	-5.6634***	(0.0003)	-5.6634***	(0.0003)
Critical values(1% level)	-3.832		-3.832		-3.857		-3.857	
Critical values(5% level)	-3.030		-3.030		-3.040		-3.040	
Critical values(10% level)	-2.655		-2.655		-2.661		-2.661	

Source: Own calculation based on data from World Bank and WGI (1996-2018)

***, ** and * denotes stationarity at 1%,5% and 10% significance levels respectively.

Table 4.6 presents the results of the unit root tests (ADF and PP) for Ethiopia and it reveals that government effectiveness, regulatory quality, control of corruption and inflation rate are stationary in their levels at both tests. At the first difference, the calculated statistics clearly rejects the null hypothesis of unit root at 1% significance level for all the variables in the model except GDP per capita, which is found to stationary nearly at 5% significance level. The first difference for the

ADF and PP test confirms that the variables are stationary and have the same order of integration I (1). That is the data in the model are first difference stationary series.

Table 4.7: ADF and PP tests on variables (Kenya)

ADF and PP Test statistics-Kenya								
	Level				First Difference			
Variable	ADF	P-value	PP	P-value	ADF	P-value	PP	P-value
FDI	-2.733*	(0.0870)	-2.7330*	(0.0870)	-5.1956***	(0.0007)	-5.1956***	(0.0007)
lagFDI	-2.5893	(0.1123)	-2.5893	(0.1123)	-5.0766***	(0.0008)	-5.0766***	(0.0008)
VAC	-4.5095***	(0.0024)	-4.5095***	(0.0024)	-6.9198***	0.0000	-6.9198***	0.0000
PSV	-4.3258***	(0.0036)	-4.3258***	(0.0036)	-5.5681***	(0.0003)	-5.5681***	(0.0003)
GEF	-1.1289	(0.6817)	-1.1289	(0.6817)	-3.7634**	(0.0121)	-3.7634**	(0.0121)
RQL	-2.5059	(0.1296)	-2.5059	(0.1296)	-4.1010***	(0.0061)	-4.1010***	(0.0061)
RLW	-0.3135	(0.9057)	-0.3135	(0.9057)	-4.0313***	(0.0070)	-4.0313***	(0.0070)
CCR	-2.803*	(0.0765)	-2.803*	(0.0765)	-4.9564***	(0.0011)	-4.9564***	(0.0011)
GDPC	1.808902	(0.9994)	1.808902	(0.9994)	-2.555165	(0.1200)	-2.555165	(0.1200)
TOP	-0.662437	(0.8335)	-0.662437	(0.8335)	-4.2811***	(0.0042)	-4.2811***	(0.0042)
INF	-3.8873***	(0.0089)	-3.8873***	(0.0089)	-7.0332***	(0.0000)	-7.0332***	(0.0000)
Critical values(1% level)	-3.8315		-3.8315		-3.8574		-3.8574	
Critical values(5% level)	-3.0300		-3.0300		-3.0404		-3.0404	
Critical values(10% level)	-2.6552		-2.6552		-2.6606		-2.6606	

Source: Own calculation based on data from World Bank and WGI (1996-2018)

***, ** and * denotes stationarity at 1%,5% and 10% significance levels respectively.

Table 4.7 presents the results of the unit root test for Kenya and it reveals that FDI, voice and accountability, political stability and absence of violence/terrorism, control of corruption and inflation rate are stationary in their levels. At the first difference, the calculated statistics for FDI, the lag FDI, voice and accountability, political stability and absence of violence/terrorism, regulatory quality, rule of law, control of corruption, GDP per capita, trade openness and inflation rate clearly rejects the null hypothesis of unit root at 1% significance level whereas government effectiveness is stationary at 5% significance level. Therefore, the first difference for the ADF and PP test confirms that the variables are stationary and have the same order of integration I (1). That is the data in the model are first difference stationary series.

4.3 The effect of institutional quality on FDI inflows into Ethiopia and Kenya

4.3.1 Identifying long-run relationship between institutional quality and FDI

ARDL Bounds cointegration test

Given the variables included in the model are stationary at first difference, the next step is to test the existence of a co-integration relationship between the variables. Cointegration test is conducted to examine the long-run relationship among variables. For this purpose, the study uses the ARDL Bounds co-integration test (Bounds F-statistic) is used to test the existence of the long-run relation between the variables under investigation. In practice, testing the relationship between the forcing variable(s) in the ARDL model leads to hypothesis testing of the long-run relationship among the underlying variables. The null(H_0) hypothesis is that the long-run relationship does not exist and the alternative(H_1) is that the long-run relationship does exist. When the computed F-statistic is greater than the upper bound critical value, then the null hypothesis is rejected (the variables are cointegrated). If the F-statistic is below the lower bound critical value, then the null cannot be rejected (there is no cointegration among the variables). If the computed statistic falls within the critical value bounds, then the result is inconclusive (Nkoro & Uko , 2016).

Table 4.8: ARDL Bounds test result for the variables (Ethiopia)

F-Bounds Test	Null Hypothesis: No levels relationship			
Test Statistic	Value	Signif.	I(0)	I(1)
			Lower bound	Upper bound
F-statistic	2.481572	10%	1.8	2.8
		5%	2.04	2.08
		2.5%	2.24	3.35
		1%	2.5	3.68

Source: Own calculation based on data from World Bank and WGI (1996-2018)

Therefore, as shown in Table 4.8, the calculated F-statistic of the Bounds test (2.48) for Ethiopia is greater than the upper bound critical value at 5%, then the null hypothesis is rejected (the variables are cointegrated). That is, there is a long-run relationship between variables which requires the estimation of the short-run and long-run relationships.

Table 4.9: ARDL Bounds test result the variables (Kenya)

F-Bounds Test	Null Hypothesis: No levels relationship			
Test Statistic	Value	Signif.	I(0)	I(1)
			Lower bound	Upper bound
F-statistic	1.587997	10%	1.8	2.8
		5%	2.04	2.08
		2.5%	2.24	3.35
		1%	2.5	3.68

Source: Own calculation based on data World Bank and WGI (1996-2018)

The F-statistic of the Bounds test (1.58) for Kenya (see Table 4.9) is below the lower bound critical value (of even at 10%), then the null cannot be rejected (there is no cointegration among the variables). That is, based on the ARDL Bounds test, there is no long-run relationship between variables of Kenya and no further estimation of the long-run relationships is required.

4.3.2 Short and long-run effect of institutional quality on FDI: ARDL

As co-integrating relationship was observed between institutional quality and FDI inflow for Ethiopia, the short-run and long-run equation can be estimated for the variables. The short-run equation coefficients of the variables for Ethiopia is computed using ARDL model are shown in Table 4.10 at a maximum lag of 1 for the dependent variable. The nine (9) independent variable are used in the model at their levels. The model selection method used is Akaike info criterion (AIC). In the short-run, lagged FDI, political stability and absence of violence/terrorism, regulatory quality, rule of law, and trade openness have a positive effect and inflation rate has a negative effect on FDI in Ethiopia as expected (see Table 4.10). Moreover, rule of law has a significant positive effect on FDI.

Table 4.10: The short-run equation coefficients of the variables (Ethiopia)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	0.171747	0.240343	0.714591	0.4952
VAC	-0.080060	0.056012	-1.429327	0.1908
PSV	0.022342	0.021382	1.044901	0.3266
GEF	-0.080276	0.041476	-1.935485	0.0890
RQL	0.022924	0.065682	0.349019	0.7361
RLW	0.113365	0.055877	2.028825	0.0770
CCR	-0.013360	0.067531	-0.197836	0.8481
GDPC	-3.82E-05	4.91E-05	-0.778424	0.4587
TOP	0.057837	0.100160	0.577448	0.5795
INF	-0.029547	0.035199	-0.839434	0.4256
C	0.000120	0.068844	0.001737	0.9987
R-squared	0.784469	Mean dependent var		0.029039
Adjusted R-squared	0.515055	S.D. dependent var		0.017203
F-statistic	2.911760	Akaike info criterion		-5.718240
Prob(F-statistic)	0.071647	Durbin-Watson stat		2.020897

Source: Own calculation based on data World Bank and WGI (1996-2018)

The long-run equation coefficients of the variables for Ethiopia is computed using ARDL model are shown in Table 4.11 which displays the estimates of long-run variables, their standard errors, their t-statistics, as well as the appropriate P-values.

Based on Table 4.11, in the long-run, FDI in Ethiopia is determined by the institutional quality as all the significant institutional quality indicators, political stability and absence of violence/terrorism, regulatory quality and rule of law have the expected positive signs. That is, political stability and absence of violence/terrorism, regulatory quality and rule of law are vital in attracting FDI to Ethiopia.

Table 4.11: The long-run equation coefficients of the variables (Ethiopia)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
VAC	-0.096661	0.079251	-1.219677	0.2573
PSV	0.026975	0.030161	0.894370	0.3972
GEF	-0.096922	0.042995	-2.254256	0.0542
RQL	0.027678	0.078585	0.352204	0.7338
RLW	0.136872	0.074775	1.830453	0.1046
CCR	-0.016130	0.081612	-0.197647	0.8483
GDPC	-4.62E-05	6.33E-05	-0.729226	0.4867
TOP	0.069830	0.121836	0.573148	0.5823
INF	-0.035674	0.042945	-0.830697	0.4302
C	0.000144	0.083118	0.001737	0.9987
EC = FDI - (-0.0967*VAC + 0.0270*PSV -0.0969*GEF + 0.0277*RQL + 0.1369 *RLW - 0.0161*CCR -0.0000*GDPC + 0.0698*TOP -0.0357*INF + 0.0001)				

Source: Own calculation based on data World Bank and WGI (1996-2018)

The error correction equation (see Table 4.12) permits modeling adjustments that lead to a long-run equilibrium relationship among the variables. The coefficient of the error correction term is -0.828 and significant which shows that the system adjusts its previous period disequilibrium at a speed of 82.8% for reaching long-run steady state. As per Table 4.12, the error correction term equation signifies long-run relationship between FDI and institutional quality indicators for Ethiopia.

Table 4.12: The ARDL error correction coefficient (Ethiopia)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)	-0.828253	0.105685	-7.837022	0.0001
R-squared	0.770035	Mean dependent var		0.001962
Adjusted R-squared	0.770035	S.D. dependent var		0.016655
S.E. of regression	0.007987	Akaike info criterion		-6.770871
Sum squared resid	0.001148	Schwarz criterion		-6.721164
Log likelihood	65.32328	Hannan-Quinn criter.		-6.762459
Durbin-Watson stat	2.020897			

Source: Own calculation based on data World Bank and WGI (1996-2018)

Even though co-integrating relationship was not observed between institutional quality and FDI for Kenya, the short-run equation can be estimated for the variables. The short-run equation coefficients of the variables for Kenya is also computed using ARDL model are shown in Table 4.13 at a maximum lag of 1 for the dependent variable. The nine (9) independent variable are

used in the model at their levels. The model selection method used is Akaike info criterion (AIC). In the short-run, voice and accountability, political stability and absence of violence/terrorism, government effectiveness, control of corruption, and trade openness have a positive effect and inflation rate has a negative effect on FDI in Kenya as expected.

Table 4.13: The short-run equation coefficients of the variables (Kenya)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-0.301941	0.413735	-0.729791	0.4863
VAC	0.001483	0.001224	1.211780	0.2602
PSV	0.011391	0.022572	0.504632	0.6274
GEF	0.006046	0.048075	0.125755	0.9030
RQL	-0.135616	0.074471	-1.821059	0.1061
RLW	-0.060033	0.034036	-1.763790	0.1158
CCR	0.040053	0.045281	0.884555	0.4022
GDPC	4.25E-05	1.76E-05	2.417515	0.0420
TOP	0.093395	0.065393	1.428213	0.1911
INF	-0.032995	0.055325	-0.596388	0.5674
C	-0.084076	0.062268	-1.350225	0.2139
R-squared	0.606160	Mean dependent var		0.010275
Adjusted R-squared	0.113861	S.D. dependent var		0.009875
F-statistic	1.231284	Akaike info criterion		-6.225601
Prob(F-statistic)	0.391646	Durbin-Watson stat		1.898300

Source: Own calculation based on data World Bank and WGI (1996-2018)

Chapter 5: Conclusions

This study attempts to examine the effect of institutional quality on FDI inflows into Ethiopia and Kenya. The study used descriptive and econometric methods to establish empirical establish empirical link between institutional quality and FDI on Ethiopia and Kenya. Descriptive statistical tools such as mean, standard deviation, coefficient of variation and graphic analysis are used to describe the trend in institutional quality and FDI in both countries. The T-test is used to test if there is a significant difference between the means of the data for Ethiopia and Kenya. Multicollinearity of the variables is tested using the correlation statistic. Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are conducted to check for stationarity in the variables, the ARDL Bounds co-integration test is used to confirm the existence of co-integration between variables. The ARDL is used to examine the short-run and long-run relationship between institutional quality and FDI inflows.

The trend of FDI inflows (as a % of GDP) into Ethiopia and Kenya has been increasing over the period from 1996-2018. The study also found a significant difference between Ethiopia and Kenya in the mean value of FDI at 5% level indicating that average FDI inflow has been significantly higher for Ethiopia than Kenya. On average FDI inflow is higher and more consistent for Ethiopia than the average for Kenya over the period.

The estimated average of institutional quality indicators, namely, voice and accountability, political stability and absence of violence/terrorism, government effectiveness, and regulatory quality for Ethiopia is less than the average for Kenya, which is indicating that Kenya performs better in terms of institutional quality. On the other hand, the estimated average for rule of law and control of corruption is greater for Ethiopia than that of Kenya indicating that Ethiopia performs better in terms of rule of law and control of corruption. The study also confirmed that there is a significant difference between Ethiopia and Kenya in the estimated average value of institutional quality indicators, with the exception of rule of law. Therefore, the estimated average of voice and accountability, political stability and absence of violence/terrorism, government effectiveness, and regulatory quality for Kenya is higher than that of Ethiopia whereas the estimated average for control of corruption is higher for Ethiopia than that of Kenya.

The trends of government effectiveness, regulatory quality, rule of law, and control of corruption has been generally increasing on average for both countries over the period. However, the trend of political stability and absence of violence/terrorism has been generally declining on average for both countries. The trends in voice and accountability has been generally declining on average for Ethiopia whereas it has been increasing for Kenya with higher variability as compared to Ethiopia. On other hand, the estimate of political stability and absence of violence/terrorism, government effectiveness, and control of corruption for Ethiopia is more variable than the same variables for Kenya. The estimate of regulatory quality and rule of law for Ethiopia is less variable than that of Kenya.

Based on the results of the ARDL Bounds test, there is a long-run relationship between variables which requires the estimation of the short-run and long-run relationships for Ethiopia. The error correction equation signifies long-run relationship among the variables for Ethiopia. In the long-run, foreign direct investment in Ethiopia for the period under study is determined by the institutional quality as all the significant institutional quality indicators, political stability and absence of violence/terrorism, regulatory quality and rule of law have the expected signs. That is, political stability and absence of violence/terrorism, regulatory quality and rule of law are important in attracting foreign direct investment to Ethiopia.

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Annexes

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Declaration

I, the undersigned, declare that this is my original work and has not been presented for a degree in any other university and that all sources of materials used for the thesis have been duly acknowledged.

The examiners' comments have been duly incorporated.

Declared by:

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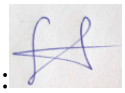
Signature: 

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