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FOREIGN DIRECT INVESTMENT, INEQUALITY AND POVERTY: THE ROLE OF THE POLITICAL CLIMATE.

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Foreign direct investment, inequality and poverty: the role of the political climate.

By

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and

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Abstract

The geographical region of Sub-Saharan Africa, South East Asia and Latin America host some of the poorest nations in the world. The problem with poverty emanates from its restriction to access to quality healthcare, quality education and an overall decline in the quality of life (Santiago, Wadsworth & Stump, 2011). Though data and trends of poverty suggest tremendous results in lifting people out of poverty, another cancer exists – inequality. The study employed a panel regression with data on 55 countries from Sub Saharan Africa, Latin America and South East Asia. The study showed that Foreign Direct Investment in poor countries exacerbates the problem of poverty and inequality. However, it is hampered by a sound political climate as the political climate tend to foster equality. Other variables such as Gross Capital Formation, Natural Resource Rent and the Growth in GDP per capita showed a significant relationship with inequality. The study revealed a natural resource curse. The recommendation of this study reechoes that of Gossel (2022) urging countries to move away from FDI in the extractive industry

Preface

This thesis serves as the concluding academic exercise of our Master of Science degree from the University of Stavanger Business School. The motivation of this study emanates from the efforts put in by a significant number of world leaders to attract Foreign Direct Investment (FDI) to their countries. The study is again motivated by the conscious effort of African leaders putting measures in place to juggle issues concerning Foreign Direct Investment. For instance, Ghana and Nigeria (our home countries) have instituted specialized agency overseeing investments and FDI for that matter within the countries. As people originating from least developed countries, we had a concern for the growing rate of poverty and inequality, and this was another motivation to undertake this study.

The journey to this thesis started about six months ago reading the famous paper "Growth is good for the poor" by Dollar and Kray (2002). It also started with a Christmas being quite unorthodox as two individuals from two West African rival countries collaborated to bring out this thesis. It has been a fruitful journey especially on nights we had to stay up late to complete tasks and objectives we sought to achieve. Considering our background, it was exciting to have first-hand evidence that we could come to a consensus to produce this thesis.

This thesis would never have been possible without our supervisor Wanwei (Angela) He. It was a relief seeing her email closing "Best, Angela". Her inspiration, guidance and advice was very instrumental to the development of the study. Her input towards the thesis will forever be cherished. We would also like to thank our families, friends and benefactors for their constant support and understanding.

Stavanger, June 1, 2023

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Contents

List of Figures

List of Tables

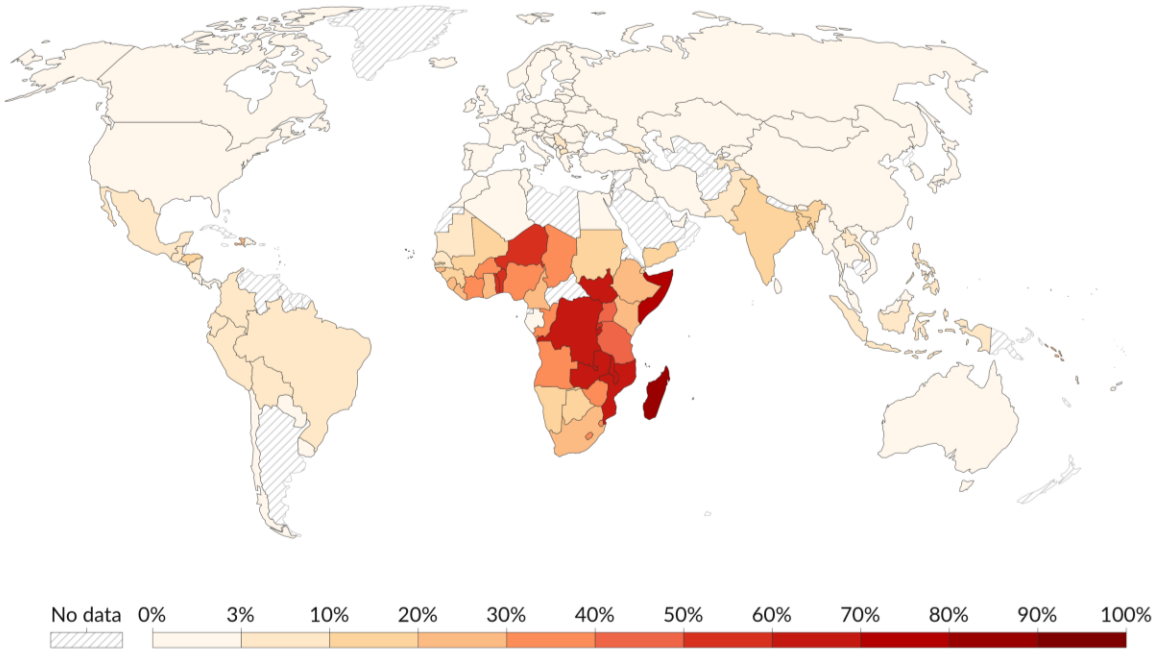
CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

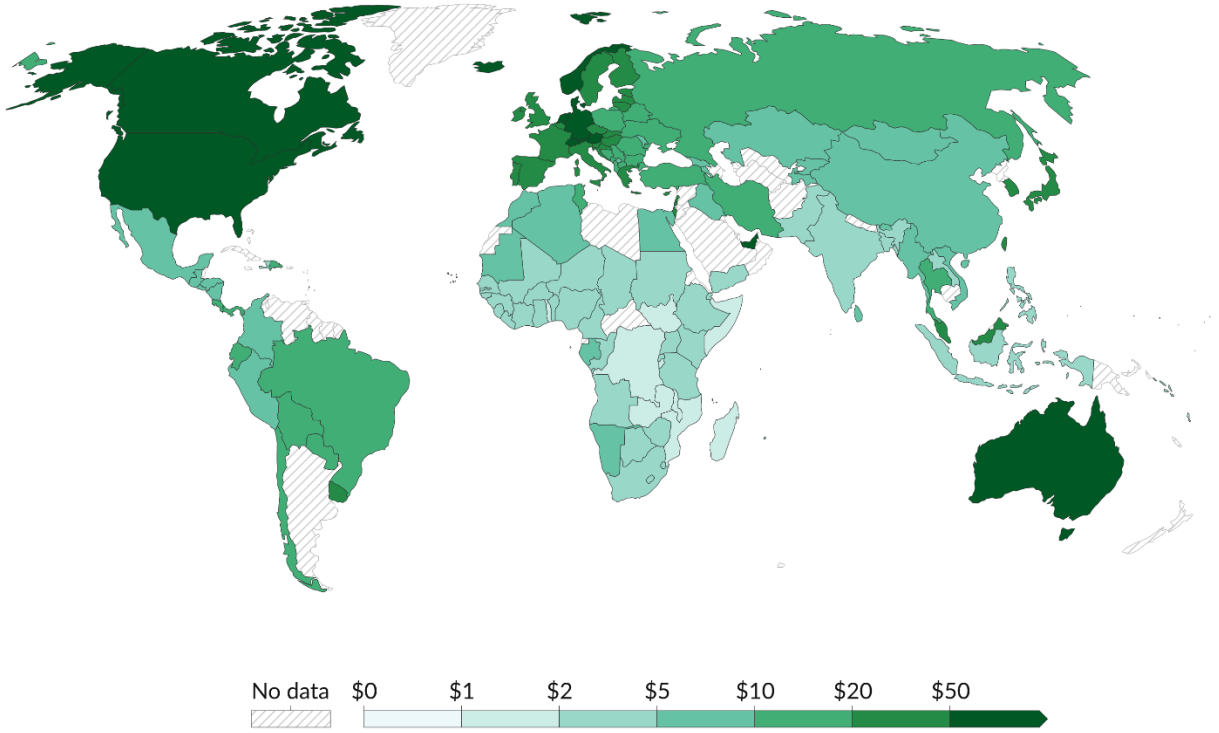
The United Nation has made it one of its missions to eradicate poverty from the face of the earth. This is reflected in it, then, Millennium Development Goals (MDGs) and now Sustainable Development Goals (SDGs). Poverty takes the number one spot for both MDGs and SDGs, indicating the severity of the issue of poverty. Currently, the international poverty line is USD 2.15/day and about 2 billion inhabitants of this planet live in poverty (Hasell, Roser, Ortiz-Ospina & Arriagada, 2022). The daunting reality is the fact that the majority of poor people are concentrated in one region – Sub Saharan Africa (SSA). The figure below shows the share of population living in extreme poverty. The median income of most SSA countries ranges between USD 1 and USD 5 as shown in figure 1.2. This shows SSA being a region filled with poor countries. From figure 1.2, it can be seen that SSA also contain countries with median income between USD 1 and USD 2, well below the poverty line. Again, the charts presented in figure 1.1 and 1.2 show some degree of poverty in regions such as Latin America as well as India and parts of South East Asia.

Figure 1. 1 Population living in extreme poverty as at 2016.



Source: OurWorldinData.org

Figure 1. 2 Median Income per Day as at 2016[1]

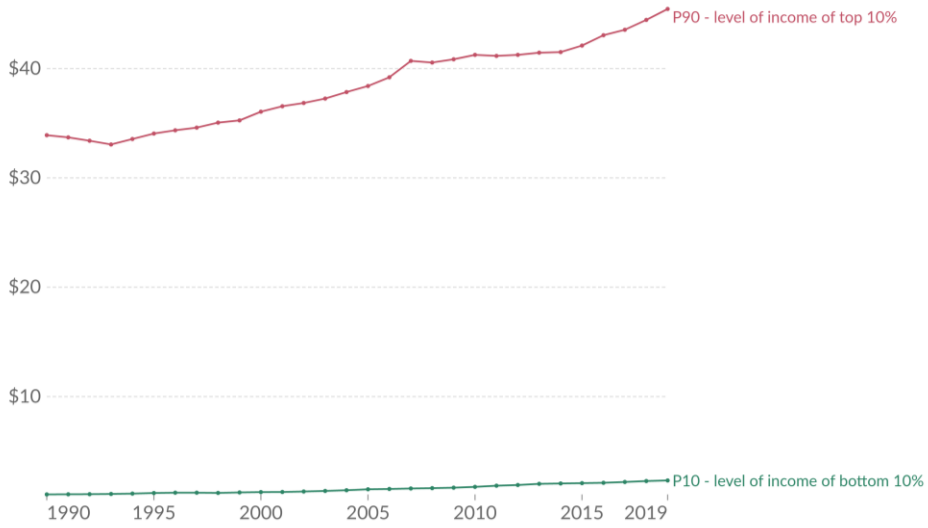


Source: OurWorldinData.org

The problem with poverty emanates from its restriction to access to quality healthcare, quality education and an overall decline in the quality of life (Santiago, Wadsworth & Stump, 2011). Though data and trends of poverty suggest tremendous results in lifting people out of poverty, another cancer exists – inequality. Trickle down economic theory from studies such as Dollar and Kray (2000) have seen economic growth translate into economic growth of poor people (see also Dollar, Kleineberg & Kray, 2016). However, data suggest that the gap between the rich and the poor rises. This phenomenon is prevalent both globally and in Sub Saharan Africa as well. This is displayed in the charts below (figure 1.3 and figure 1.4). From the trend in figure 1.3, an increase in income level of poor people can be seen over the years as the income level of the bottom 10% rises. This suggests that poor people are being lifted out of poverty. However, over the year, the data saw more growth in income level of the top 10%. Hence, increasing inequality.

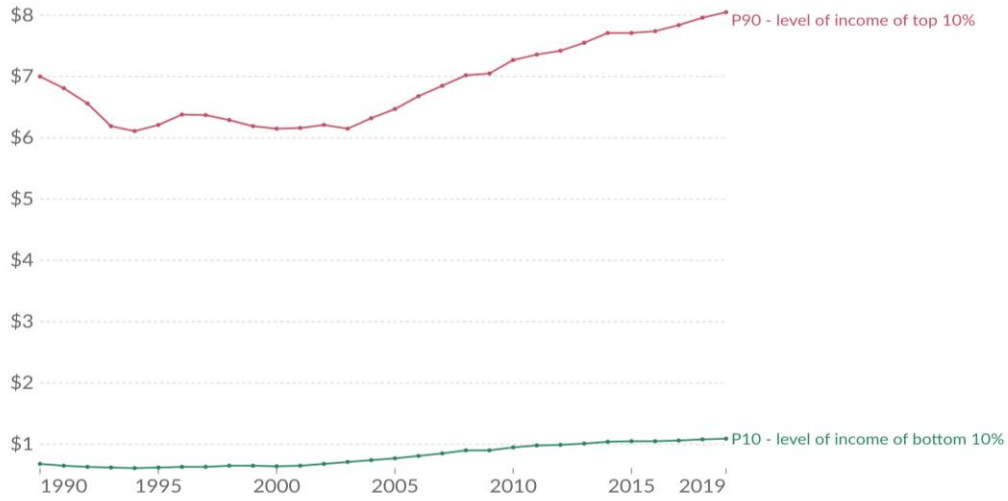
[1] Data is adjusted for inflation and for differences in the cost of living between countries. Due to data availability, 2016 data was used instead of 2021 data as 2021 data had a lot of missing values especially for Sub-Sahara African countries.

Figure 1. 3 Global Income level (1990 to 2019): Top 10% vs Bottom 10



Source: OurWorldinData.org

Figure 1. 4 Income Level[2] of Sub-Saharan Africa (1990 to 2019): Top 10% vs Bottom 10%



Source: OurWorldinData.org

[2] Data is adjusted for inflation and for differences in the cost of living between countries.

1.2 Problem Statement

The FDI-growth nexus has had its fair share of probing within the academic literature. This has been done in extant literature such as Alfaro et al., (2004; 2009; 2010), Asiedu (2002; 2006), Asiedu and Lien (2011), Agbloyor (2019), Ofoeda, Agbloyor and Abor (2022), Adem and Güvercin (2020) which have explored the FDI-growth nexus. According to studies, FDI has an impact on economic growth though through some absorptive capacities (see Alfaro et al, 2004; Agbloyor, 2019; Ofoeda et al. 2022). Again, studies such as Kualihowa and Adjasi (2018), Lee, Lee and Cheng (2020) and Nguyen (2021) have argued a significant relationship between FDI and poverty and inequality. Studies have explored various factors influencing this relationship. For instance, Nguyen (2021) tried to explore the impact of FDI on poverty and inequality through governance and education. Also, Lee et al. (2020) explored the nexus through the lens of financial development. Hossain and Rahman (2017) argued that factors such as political stability, government effectiveness, rule of law among other governance variables have an impact on FDI. Judging from the finding of Hossain and Rahman (2017) and the line of argument of absorptive capacity found in studies such as Alfaro et al. (2004) and Asiedu (2006), it can be reasoned that the political climate of a country could influence the impact of FDI on poverty and inequality. Therefore, this study intends to explore the moderating effect of the political climate on the impact of FDI on inequality and poverty.

Again, quite a number of studies have looked at the effect of FDI on poverty as well as FDI on inequality. Other studies have explored the impact of corruption on FDI and the impact of corruption of on poverty. However, this study will be one the first to shed light on the effect of FDI on poverty in the context of corruption and political governance. It will also be one of the few studies to look at FDI factoring in the time periods before and after the pandemic.

1.3 Objectives of the Study

The primary objective of the study is to assess the nexus between foreign direct investment and poverty and inequality. The study also seeks to evaluate the role of the political climate in influencing the impact of foreign direct investment and poverty and inequality.

Hence, to achieve this broad objective, specific objectives are set. These specific objectives are:

i. To investigate the link between foreign direct investment and poverty

ii. To investigate the link between foreign direct investment and inequality

iii. To assess the role of the political climate in moderating the impact of foreign direct investment on poverty and inequality.

1.4 Research Questions

In order to attain the set objectives in this study, research questions are set to serve as a framework which guides the course of the study. Below are the research questions used in conducting this study.

i. What is the impact of foreign direct investment on poverty?

ii. What is the impact of foreign direct investment on inequality?

iii. What is the role of the political climate in influencing the impact of foreign direct investment on both poverty and inequality?

1.7 Organization of the Study

This subsection of the study outlines the organization of the study. The study is presented in five chapters. The first chapter is the introduction to the study. The chapter presents a brief background to the study and also discusses the problem the study intends to investigate. In this chapter also, the objectives of the study as well as the research questions are outlined. The second chapter looks at the overview of key concepts. This section looks at the definition of foreign direct investment, poverty, inequality and inequality. It sets the contextual tone of the study. The third chapter looks at both theoretical and empirical literature in the field of FDI, poverty, inequality and corruption. This informs the basis on which the data obtained for the study is analyzed. The fourth chapter looks at the methodology of the study. It looks at the methods used in analyzing data obtained for the study to aid in the achievement of the study's objectives. Issues regarding the population, sample as well as variables used in investigating the phenomenon at hand. The fifth chapter looks at the analysis and discussion of the study. It is in this section that the findings of this study are discussed. The sixth chapter is a summary of the entire study. This includes the conclusion of the study as well as some recommendations.

CHAPTER TWO

OVERVIEW OF FDI, CORRUPTION, INEQUALITY AND POVERTY

2.1 Introduction

In this section, an overview of key concepts to the study is reviewed. This is done so as to attain a broad understanding of these concepts. This chapter looks at the various definitions of key terms such as foreign direct investment, corruption, poverty and inequality.

2.2 FDI, Poverty, Inequality and Corruption.

2.2.1 Foreign Direct Investment

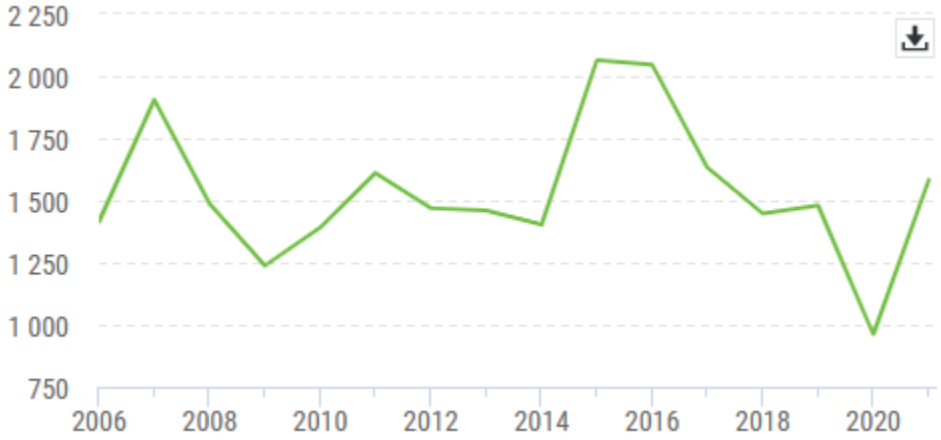
According to the OECD, FDI is recorded as the value of cross-border transaction pertaining to direct investment within a defined time period, usually quarterly or a year. The direct investment usually connotes that host economy or the direct investment enterprise aims at obtaining a lasting interest from the foreign entity (Duce & España, 2003). The lasting interest means a long-term relationship between the direct investment enterprise and the investor. FDI is also defined by the percentage of ownership held by a foreign investor in a host economy. From the IMF's Balance of Payment Manual, FDI is defined as a 10% ownership stake owned by a direct investor in the direct enterprise. Thus, according to the IMF manual, investments of a foreign investor who hitherto had no investment is considered FDI when the investor acquires 10% or more equity stake in the direct investment enterprise. From this point, any transaction is also considered as direct investment. The manual also defines investments less than 10% as portfolio investment in the form of shareholding.

Duce and España, (2003) defines the terms direct investment and direct investment enterprise in accordance to the standards to the IMF and the OECD. According to the study, a direct investor could be individual, group of individuals, an incorporated or unincorporated firm which could be private or public, a group of such incorporated or unincorporated firms, or a government which have a direct investment in a direct investment enterprise running its operation in a geographic jurisdiction other than that of the direct investor. A direct investment enterprise is a firm, incorporated or unincorporated, in which a direct investor has 10% or more voting or ordinary shares or its equivalent (in the case of an unincorporated firm).

2.2.1.1 Statistics and trends of FDI

According to the UNCTAD Handbook of Statistics (2022), there was a 64% increase in global FDI inflows in the year 2021. This was a total of US$ 1.6 trillion. The trend of global FDI is shown in figure 2.1. Figure 2.1 shows the plot of aggregate FDI inflows over time. The vertical axis shows FDI inflows quantified in US$ billion while the horizontal axis shows the time in terms of years.

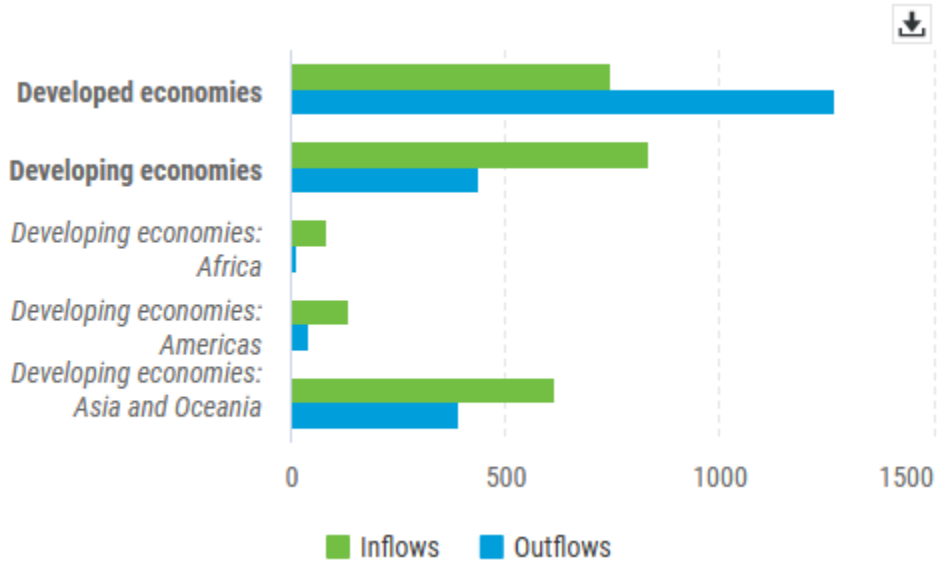
Figure 2. 1 Global FDI Inflows



Source: Azémar and Giroud (2023)

The FDI flows of developed economy grew by about 133%, more than double. FDI outflows form developed economies increase more than three folds. This amounted to US$ 1.3 trillion, rising from US$ 408 billion in the year 2020. Developing economies also saw a 17.8% rise in FDI outflows. This amounted to US$ 438 billion. FDI flows to Africa grew more than 100% compared to the previous year 2021. The total FDI flows to Africa in the year 2021 amounted to US$ 83 billion, rising from US$ 39 billion in the year 2020. Developing countries in the Americas also saw a 56% increase in FDI inflows. Also, developing countries in Asia collectively attracted 39% of global FDI inflows. This was a total of US$ 619 billion. Nonetheless, from the graph in figure 2.2, developing countries in Africa and Americas seem to have the least slices of the FDI pie.

Figure 2. 2 FDI Inflows and Outflows



Source: Azémar and Giroud (2023)

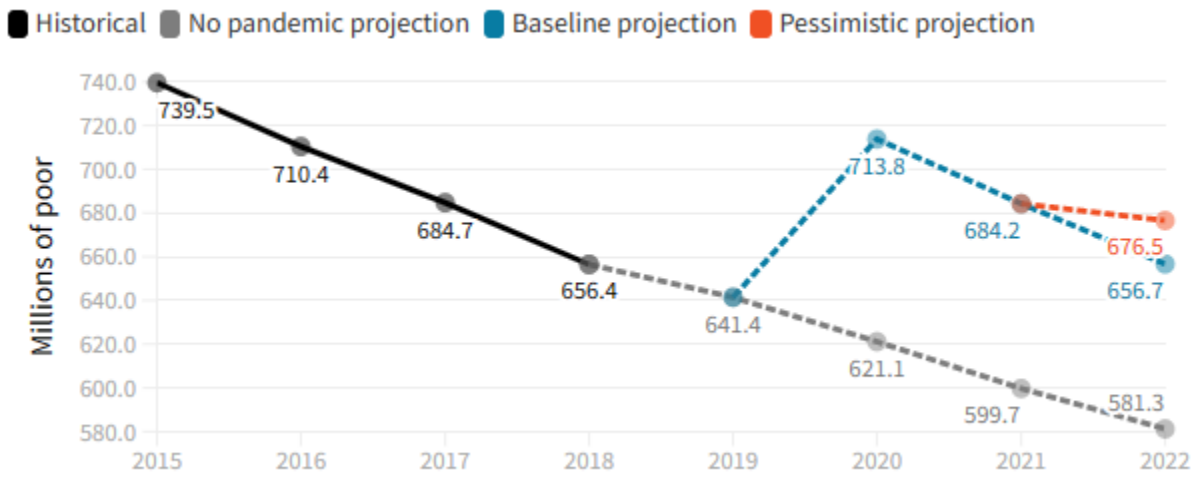
2.2.2 Poverty

Augments from extant literature such as that of Gohou and Soumare (2012) have explained that the issue concerning poverty is a multidimensional one as it encompasses other aspect of one's livelihood such as health, education, nutrition, access to basic services and other factors and not just the income level of the individual. The theory on poverty looks at poverty as either absolute or relative. Absolute poverty is defined by Todaro and Smith (2012) as an individual's inability to meet his minimum level of essential items such as food, clothing, shelter, healthcare among other needs of the individual needed for survival. Relative poverty is discussed as the inability of lower earning individuals to access credit, start or expand a business or educate one's children. A relatively poor person could be absolutely poor or not. The World Bank draws the poverty line at USD2.15 for low-income countries, USD3.65 for lower-middle-income countries and USD6.85 for upper-middle-income countries based on 2017 purchasing power parity (PPP). The definition of poverty by the World Bank is centered on the income. To factor in the multidimensional nature of poverty, the World Bank has also introduced the Multidimensional Poverty Measure (MPM) which tried to factor into the international poverty line of USD 2.15 other dimensions such as access to education and basic infrastructure. Another multidimensional measure of poverty is the global Multidimensional Poverty Index (MPI) developed by the United Nation Development Program (UNDP) and Oxford University in

2021. This measure adds up to traditional measures of poverty by including the hindrances with regards to education, health and living standards.

There has been a tremendous effort to reduce the number of poor people around the globe. Hence, the data from the World Bank suggest that a decline in the number of people in extreme poverty. Figure 2.3 shows a decline in the global poverty headcount since 2015. However, the World Bank report and data suggest that the decline was hampered by the COVID-19 pandemic in the year 2020. This returned the poverty level back to the year 2016. Estimates from the World Bank suggested a further decline in the poverty headcount if the pandemic had not occurred. The data also suggest that efforts are being made after the pandemic to reduce global poverty headcount.

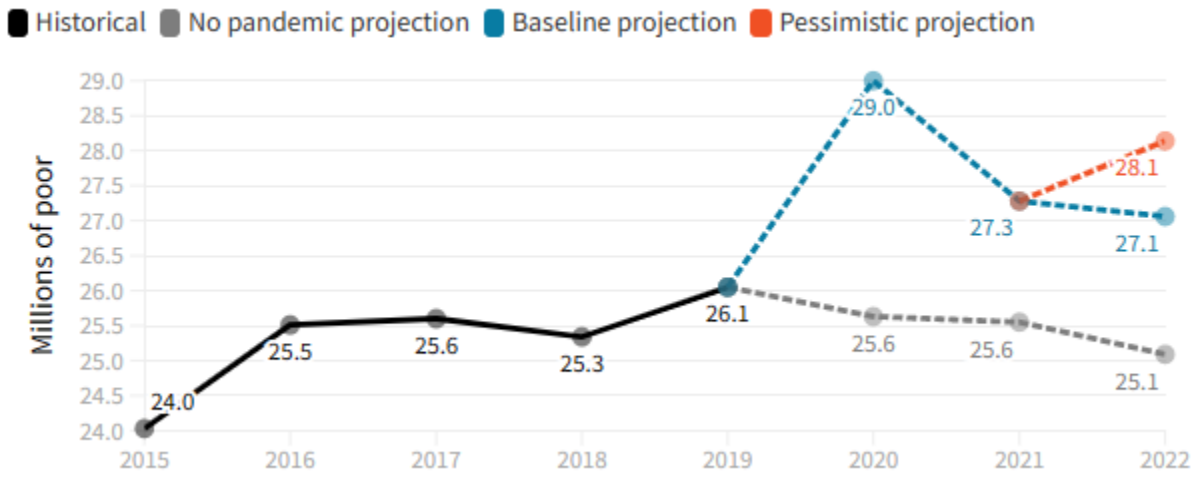
Figure 2. 3 Global Trend of Poverty Headcount



Source: (Lakner et al., 2022)

Despite the tremendous effort to reduce the number of poor people around the globe, some regions still have an increasing poverty headcount. Such regions include Latin America and the Caribbean and Sub-Saharan Africa. Hence, the data from the World Bank suggest an increase in the number of people in extreme poverty. Figure 2.4 shows a rise in the global poverty headcount in Latin America and the Caribbean since 2015. The baseline trend was expected to decline after 2019. However, the World Bank report and data suggest that the decline was hampered by the COVID-19 pandemic in the year 2020 and recorded higher poverty headcounts instead. The data also suggest that efforts are being made after the pandemic to reduce the poverty headcount.

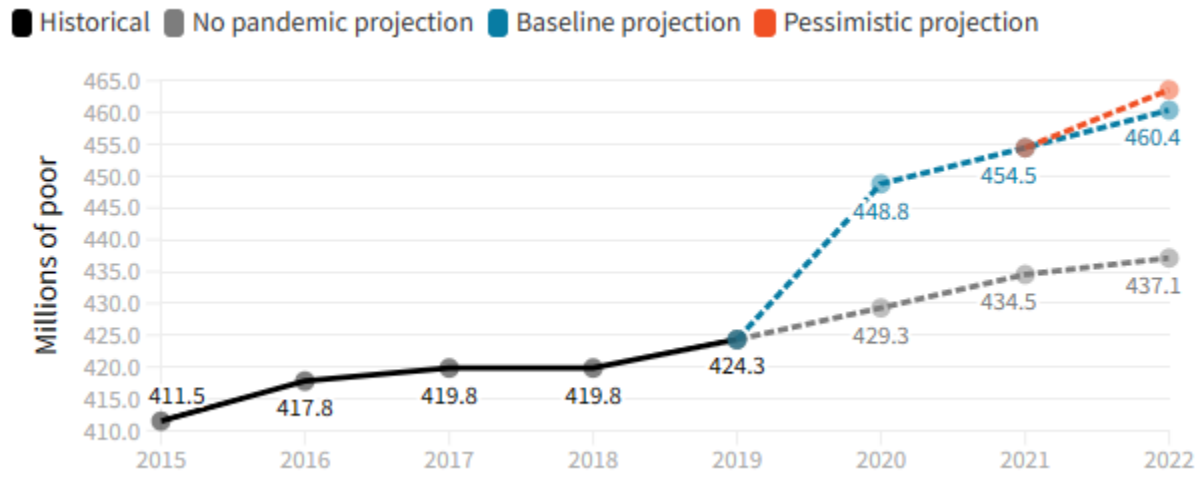
Figure 2. 4 Poverty headcount within Latin America and the Caribbean



Source: (Lakner et al., 2022)

The trend and figures regarding Sub-Saharan Africa is much worse compared to earlier trends reviewed in this study. Figure 2.5 shows a rise in the global poverty headcount in Sub Saharan Africa since 2015. The baseline trend was expected to still be on the rise, and this has further been exacerbated by the COVID-19 pandemic in the year 2020. The data also does not suggest efforts being made after the pandemic to reduce poverty headcount within the sub region.

Figure 2. 5 Poverty headcount within Sub Saharan Africa



Source: (Lakner et al., 2022)

2.2.3 Income Inequality

The concept of inequality is multidimensional in nature. Hence, inequality can be seen through a number of lenses. Cowell (1995) describes inequality as the deviation from equality. The dimensions of inequality include wealth, consumption, opportunities and income. For the purpose of this study, income inequality will be focused on. The rational for this concentration on income inequality stems from Kabeer (2010). The study argues that other dimensions of inequality such as unequal opportunity which is usually associated with marginalized groups in society emanates from income inequality. Thus, it is important and imperative that significant effort is dedicated in addressing income inequality. Other studies have also shown the interdependence of one dimension of inequality upon the other. The UNDP (2013) shows that income inequality serves as a hindrance to individual in accessing opportunities while inequality due to opportunities also hinders individuals to quality and high paying jobs resulting in income inequality.

The definition of income looks at the amount of disposable income within a particular year, and it accounts for income from capital income, public cash transfer and income from employment and self-employment (OECD, 2023). The OECD measure income inequality using five indicators. One is the Gini coefficient. The Gini coefficient ranges from 0 to 1 with 0 being the perfect case of equality and 1 being perfect inequality. Hence, lower values are desirable. The Gini coefficient, developed by Corrado Gini in 1912 and based on the Lorenz curve, is the cumulative proportion of the population taking into account the cumulative proportion of income. Other measures such as the S80/S20, the P90/P10, the P50/P10 and the Palma ratio. The S80/S20 is obtained by dividing the income of the richest 20% by the average income of the poorest 20%. The P90/P10 is obtained by the ratio of the top 10% income earners of the population and the first decile. The P50/P10 measures the median income to the upper bound value of the first decile. The Palma ratio is another metric used in measuring inequality. It is obtained by dividing the share of income by the top 10% income earners of the population by the income of the bottom 40% of the population.

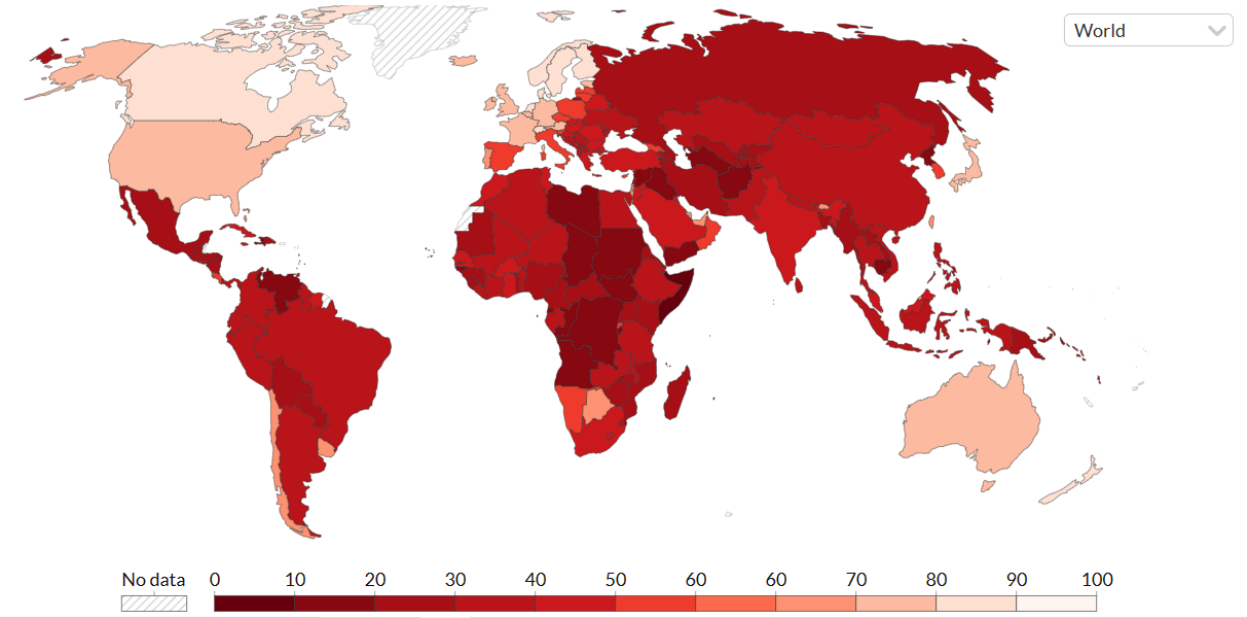
2.2.4 Corruption

According to the World Bank (2020), corruption can be viewed as the abuse of one's position in a public office for personal and private gains. The World Bank's description of corruption encompasses behaviors ranging from the taking of bribes to the stealing of funds belonging to the public. It is pervasive in our society and exist in every country (Bajpai & Myers, 2020). The issue with corruption is its disproportionate impact on the most vulnerable in society (World Bank, 2020). This increases their cost for services such as

education, health and justice and inhibits access to such services. Another adverse effect of corruption is the erosion of trust in government, the undermining of the social contract, the hampering of economic development and the further exacerbation of inequality (Transparency International, 2023).

The graph below shows the pervasive nature of corruption in the very fabric of society using data from the year 2018. The scale ranges from 0 to 1 or 0 to 100 lower values being undesirable levels of perceived corruption. From the map, it can be seen that no country ranges between 90 and 100. However, regions such as Canada, Norway, Finland, New Zealand and Sweden lead in terms of better values. These countries rank between 80 and 90. Within Sub-Saharan Africa, Seychelles, Botswana and Rwanda rank as the top three countries with better values.

Figure 2. 6 Global Corruption Perception Index



Source: OurWorldinData.org

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CHAPTER THREE

LITERATURE REVIEW

3.1 Introduction

In this section, relevant literature that is central to the study is reviewed. This is done so as to attain a broad understanding of scholarly works that have been done within the scientific community. It also reviews both theoretical and empirical literature written in the field FDI, poverty and inequality.

3.2 Theoretical Review

The theoretical review provides a framework that provides the student with various viewpoints and lenses through the subject matter of foreign direct investment and governance in relation to poverty and inequality are looked at. The theoretical review of this section seeks to explain the relationship between these variables

3.2.1 Theoretical Review on FDI.

There have been quite a number of contending theories on the FDI – inequality nexus. This study discusses the modernization theory and the dependency and world systems theory.

3.2.1.1 The Modernization Theory

This neoclassical theory emanates from the work of Kuznet (1955) and Rostow (1960). The theory is of the view that economies undergo different stages of development and thus various stages have various implications on the income inequality of the economy. The theory considers the technological transfer of FDI which is often associated with a spillover effect. The expectation is that the inflow of foreign capital at the inception will increase the gap between the rich and the poor. However, this is also expected to follow the hypothesis of Kuznet's (1955) inverted U-curve and reduce inequality after the optimal stage of development has been achieved.

3.2.1.2 The Dependency and World-Systems Theory

The theory starts by splitting economies into core and periphery (Mihaylova, 2015). The core is associated with economies characterized by high industrial development and abundance of skilled labor. The periphery is also associated with mostly developing countries, and it is characterized by an abundance of unskilled labor. The theory is of the view that the development of the periphery is largely driven by the core through

the advancement in technology. As long as the periphery is dependent on the core for their development, income inequality is bound to exist. The theory argues that though FDI from primarily core economies may have spillover effects into periphery economies through higher wages, there is a high chance that FDI will be capital intensive, secluding an aspect of people in society and constraining employment (Pigato, 2000). This has the tendency to result in income inequality. This is particularly true in Africa where a significant amount of FDI is in the extractive industry (Hansen, 2014).

3.3.2 Theoretical Review on Corruption.

In this section, theoretical literature on corruption is reviewed. The theories to be reviewed includes the grabbing hand hypothesis and the helping hand hypothesis. Theoretical frameworks such as the Principal – Agent frameworks and demand and supply are employed in this section to give a theoretical view of corruption.

3.3.2.1 The Grabbing Hand Hypothesis

The debate on whether or not corruption yields any benefit to the economy has been argued by many researchers (see Wu et al. 2017). Some of whom are of the view that corruption has the tendency to yield negative benefits to the economy. This strand of literature argues that corruption acts a grabbing hand which burdens investors and players in the economy by imposing costs on transactions. According to Shleifer and Vishny (1993), corruption under this hypothesis can be likened to an unofficial tax except that its agreements cannot be enforced by law. Considering a firm with profit $\pi = TR - TC$. Where TR is total revenue and TC is the total cost. Payment of unofficial tax changes the profit function to $\pi = TR - TC - C$ where C is cash outflow used in paying bribes. From the profit function, corruption has an inverse relationship with corruption and thus, in highly corrupt countries, the profit of the firm reduces and this raises uncertainty about the future cashflows of the firm. This raises two issues. (1) The increases the cost of capital for the firm as investors require a higher rate of return and (2) Driving away good firms who do not want to engage in corruption and attracting not so good firms leading to inefficient resource allocation (see Akerlof, 1978; Wei and Li, 2017; Liu et al, 2021). Therefore, corruption is deemed to sand the wheels (Liu et al. 2021) and lead to inefficient resource allocation (Hao et al., 2020). The inefficient allocation of resource has the potential to hinder the spillover effect emanating from FDI which could alleviate poverty and reduce inequality.

Again, considering the argument of Rose-Ackerman (1999) which is a typical demand and supply model, in a setting where the government official has a fixed number of permits to sell say within the extraction

industry. If the demand for the permits exceeds the supply of permits which is fixed, the government official can make permits available to firms willing to pay bribes. In this case, the permits are given to the firms in order of the magnitude of bribes paid. This clears the excess market and an equilibrium is attained. However, due to the bribes being illegal, the government official keeps a smaller circle so at to avoid being caught and thus deal with firms the official is well acquainted with. Hence, the market fails to operate as a competitive market and inefficiency sets in.

3.3.2.2 The Helping Hand Hypothesis

The other strand of literature argues in favor of corruption yielding some benefits. Arguments by Leff (1964) and Huntington (1968) is of the view that corruption can be of economic benefit by eliminating tedious bureaucratic delays. This argument is usually present in studies on developing economies where sound structures, standards and institutions are lacking (see Cuervo-Cazura, 2008, Wu et al., 2017). Also, the helping hand argument tends to be found in studies on countries with abundant natural and mineral resources and usually a weak rule of law. The helping hand argument is of the view that corruption can increase performance by cutting down on bureaucratic time and processing and greasing the squeaky wheels of government machinery so as to achieve efficiency (Bardhan, 1997).

2.3.2.3 The Agency Theory

Transparency International describe corruption as the abuse of power entrusted into an entity of person for private gains. The agency theory takes a look at the relationship between one party (the principal) who contracts another party (the agent) to act on his behalf and perform duties to the interest and benefit of the principal. In this relationship, it is possible that the agent could act in a manner that will not be in the best interest of the principal. This situation is known as conflict of interest. According to Eisenhardt (1989), this conflict of interest arises when information is concentrated on the side of the agent such that it is difficult for the principal to assess whether or not the agent is acting in his own interest. This agency relationship can be seen in the light of the state contracting an official to act on its behalf. Because officials are those at the helm of affairs, they have first-hand information and confrontation as compared to the state. This means that officials can take abuse their office and position to satisfy their own gains. Again, this fosters the making of sub-optimal decisions and allocation of resources which has potential to make the rich richer, widening inequality.

3.4 Empirical Review

3.4.1 FDI and Income Inequality

The theoretical review of the impact of FDI on inequality has not been consistent. This is also seen in empirical literature. There are three strands of literature concerning the impact of FDI on income inequality. The first strand of literature argues an adverse impact of inequality by FDI. Studies such as Adams (2009) looked at the impact of FDI on the economic growth of Sub-Saharan Africa. The study controlled for country specific effects and found an inverse relationship between FDI and economic growth. The findings of Adams (2009) suggest that the primary motive of FDI is purely for profit as it tends to be at the detriment of economic growth and inequality.

Another study from Mihaylova (2015) conducted in central and eastern Europe also examined the impact of FDI on income inequality. The study also found results similar to Adams (2009). These findings have also been found in studies conducted around the world. For instance, Herzer and Nunnenkamp (2011) conducted their study in ten European countries and found an inverse relationship between FDI and inequality. Pan-Long (1995) also conducted a study using thirty-three developing countries. However, this study found out that FDI had an adverse impact on inequality in some Asian countries. Other similar findings have been found in studies such as Basu and Guariglia (2007) and Choi (2006).

The second strand of literature argues an improvement of inequality by FDI. Among these studies include that of Figini and Gorg (2011). The study tried to find the impact of FDI on income inequality on a global scale using over one hundred countries. The findings from the study suggested that the level of economic development of the country played a role in the impact of FDI on income inequality. Hence, FDI in developed countries appeared to reduce inequality while FDI seem to make inequality worse in developing economies. Figini and Gorg (2011) also presents a non-linear term which tends to exist in developing countries but not developed countries. This appears to be consistent with the modernization theory as the effect of FDI on income inequality seem to vary a different stage of development. This is similar to Kaulihowa and Adjasi (2018) which examined the impact of FDI on income inequality using a panel dataset of sixteen African countries from 1980 to 2013. The study, just as Figini and Gorg (2011), also examined the non-linear effect using a pooled mean group estimator and found a “U” shaped effect on inequality by FDI. The study concluded that FDI improves equality. Kaulihowa and Adjasi (2018) also made the case that growth emanating from FDI may not necessarily translate into better equality and thus, it is imperative that structures are put in place to gear FDI strategically in order to curb skill-biased employment and target both ends of the labor market so as better reduce inequality. Studies with similar results include Jensen and Rosas (2007) and Te Velde (2003) who also found FDI to foster equality.

The third strand of literature does not find any significant relationship between FDI and inequality. This includes Milanovic (2002) and Sylwester (2005) which found no evidence of FDI on income distribution.

3.4.2 Determinant of Inequality.

Extant literature has tried to understand and bring to light some factors influencing inequality. One of such studies include Anyanwu (2016). The study used a panel dataset of 17 West African countries and found FDI and trade to be the main drivers of inequality this was seen in Kaulihowa and Adjasi (2018). Bigsten (2016) found physical capital, human capital, land, distortion in the labor market be significant drivers of inequality. Fosu (2015) saw income growth to be a strong determinant of income inequality and poverty. Fosu (2018) also argued poor governance as determinant of inequality which has the tendency to increase income inequality. Education was seen to be a determinant of inequality as it was a means of improving human capital and making labor skilled. Studies such as Asongu et al. (2019) and Tchamyou et al (2019) made arguments in favor or education. Tchamyou et al. (2019) examined the moderating impact of ICT on the link between education and inequality. The study used forty-eight African countries over an eleven-year period from 2004 to 2014. The findings of the study suggested that equipping citizen with an ICT education strategically position them to be able undertake opportunities and reduce income inequality.

3.5 Summary

This chapter covers the literature review of the study. In this chapter, the definitions of poverty, inequality, FDI and corruption was laid out so as to set the tone of the study. The chapter showed some statistic and trends of FDI and poverty. The trend showed a slump in global FDI due to the COVID-19 pandemic. For poverty, the trend and statistic showed an impact of the COVID-19 pandemic. The downward trend in global poverty saw an increase in the poverty headcount due to the pandemic. The trend for Sub Saharan African and Latin America and the Caribbean saw an upward trend over time. This suggested that poverty in these regions was on the rise and this was further exacerbated by the COVID-19 pandemic. The chapter saw the review on theoretical and empirical literature. Theories on FDI conflicted as the modernization theory was expected to follow the Kuznet's (1955) inverted U shape, reducing inequality at a stage in development. The dependency and world-systems theory posited a tendency to further worsen inequality. The theories of corruption were of the view that there could be a helping hand improving poverty and inequality or a grabbing hand worsening inequality. This inconsistency was also found in empirical literature. The study, based on empirical studies, outlined some determinant of poverty and inequality. However, studies showed inconsistent results among these determinants. Kaulihowa and Adjasi (2018)

argued the need to proper structures to be put in place to help translate the impact of FDI into reducing poverty and inequality. Therefore, in this study, the political climate in explored. This is one unique thing done in this study that sets it apart from other studies. The political climate is an environment in which FDI can improve the welfare of people and reduce poverty and inequality and therefore, the study focuses on the interaction between FDI and the political climate.

CHAPTER FOUR

METHODOLOGY

4.1 Introduction

This chapter looks at the various statistical tools as well as the estimation techniques that are employed to achieve the set objectives in this study. Therefore, the chapter gives a brief overview of the panel regression estimation techniques and discusses its forms. Also, this chapter spells out the scope and sources of the data, the variables used in the regression as well as outlining the dependent and the independent variable used in the study. Again, the model specification is given in this chapter.

4.2 The Scope and Sources of Data

This section looks at the entirety of the data used for the study. It looks at the design of the study, the population, the type of data collected as well as the data source.

4.2.1 Population

Due to the concentration of poverty in Sub-Saharan Africa with some degree in regions such as Latin America and South East Asia, countries in these regions become the population for this study. It is from this population that a sample is drawn. The study ideally intended to use data from all countries. However, due to availability of data, the study employed a convenience sampling method. This is a non-probabilistic sampling technique where respondents are chosen from a group of people based on the fact that they are easy to reach. In this study, the convenient sample is simply based on availability of data from selected regions of the world.

4.2.2 Sources of Data

The study gathers data from the year 1996 to 2021. This yearly data from 57 countries. The data for foreign direct investment will be obtained from the World Bank's World Development Indicators along with other control variables as inflation, trade openness, GDP per capita among others. The study also intends to obtain data on governance variables from the World Bank's World Governance Indicators. This will include variables such as Voice and Accountability, Control of Corruption, Political Stability and Absence of Violence among others. A panel data set was constructed for these countries to be able to explore both time dimension as well as the cross-sectional variation.

4.2.3 Data Type

The study makes use of secondary data in its analysis. According to Lopez (2017), secondary data is data that has been collected by someone else other than the one using it. It may have been collected for other purposes but still may have some usefulness for the current researcher using it. The advantages for using secondary data include ease in accessibility, less costly, and time saving (Lopez, 2017).

Panel data is obtained from the secondary data collected. Panel data combines both time series data and cross-sectional data and can look at the variation occurring in a variable over time as well as cross-sectional features making observations of entities at a point in time. Also, the use of the panel data in this study is due to the fact that it can deal with the shortcomings of both time series and cross-sectional data (Brooks, 2008). A panel regression estimation and the STATA software are used in estimating the nexus between poverty, inequality and FDI and the role of the political climate.

4.3 Model Specification

The study employs a panel regression in the impact of FDI on poverty and inequality. The panel regression also estimates the role of the political climate in influencing the impact of FDI on poverty and inequality. Based on the theories as well as empirical studies reviewed, the model employed in this study is given as:

$$Y_{it} = \beta_1 Y_{it-1} + \beta_2 FDI_{it} + \beta_3 PC_{it} + \beta_4 (FDI_{it} * PC_{it}) + \sum_{j=5}^{9} \beta_j X_{it} + \varepsilon_{it} \quad \text{..... (Equation 3.1)}$$

Where;

Y_{it} represents the dependent variables used in the study. It is the measure of poverty and inequality of a particular country (i) as at a particular point in time (t)

Y_{it-1} represents the lag of poverty or inequality respectively.

FDI_{it} represent foreign direct investment of a specific country and time

PC_{it} represent the political climate of a country in time. This includes corruption, voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and voice and accountability.

X_{it} represents the set of control variables. This includes GDP per capita, Gross Capital Formation, natural resource rent and trade.

ε_{it} is the error term.

The model presented is a modified form of the model presented by Gossel (2022). Determinants from literature discussed in subsection 3.4 below are included to modify the model.

4.4 Definition and Justification of Variables

Extant literature has seen some factors to be prominent in the determination of income inequality and poverty. These determinants are the lag of inequality and poverty, the level of economic development, trade openness, natural resource endowment and education. This section defines and explains the variables employed in the econometric model of the study. The variables are then justified using scholarly works done by other researchers and accepted into the scientific community. Again, the sources and measurements of the variables are mentioned.

4.4.1 Dependent Variables

The dependent variables of this study are inequality and poverty. The metrics employed in measuring these variables emanates from chapter two of this study. The literature review on poverty saw a number of measurements of poverty. This included the Multidimensional Poverty Measure (MPM) which factors other dimensions such as access to education and basic infrastructure into the international poverty line of USD and the Multidimensional Poverty Index (MPI) developed by the United Nation Development Program (UNDP) and Oxford University. The study also used households' final consumption expenditure due to its availability of data following Magombeyi and Odhiambo (2017). The literature review also saw a number of metrics for income inequality. These were the Gini coefficient, the S80/S20, the P90/P10, the P50/P10 and the Palma ratio. The study, following Gossel (2022), employs the Human Development Index (HDI) due to availability of data. The maximum data point in the panel is 1391 with other variables with datapoints being more than 1000. However, data for poverty and Gini stands at 306 each. This makes the HDI, which has 1200 datapoints preferable (also see Gossel, 2022).

4.4.2 Independent Variables

4.4.2.1 Foreign Direct Investment

Foreign direct investment is measured as the net inflow of FDI as a percentage of GDP and is obtained from the World Bank's World Development Indicators. The relationship between FDI and poverty and inequality has been divided. There are studies (Uttama, 2015; Isreal, 2014) that argues a positive impact of FDI on

poverty. A survey of studies on the FDI-poverty nexus conducted by Magombeyi and Odhiambo (2017) saw an overwhelming number of studies on the nexus advocating for a positive relationship. Nonetheless, another strand of literature argues in an inverse or insignificant relationship between FDI and poverty. Such studies include that of Ali and Nishat (2010) and Huang et al. (2010). Magombeyi and Odhiambo (2017) is also of the view that the methodology, proxies and sample size used could be the reason for the conflicting results. In view of that, FDI is expected to be positive in reducing poverty and inequality in this study. Data on FDI is obtained from the World Bank's World Development Indicator database.

4.4.2.2 Political Climate

The political climate comprises of corruption, voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and voice and accountability. The variables are obtained for the World Bank's World Governance Indicators. The variables have been seen to positively impact FDI inflows (see Saidi, Ochi & Ghadri, 2013). It is expected that FDI within the presence of these variables improves poverty and inequality. Hence, FDI through better values for political climates, is expected to reduce poverty and inequality. It should be noted that lower values of the Gini coefficient are desirable and thus, an inverse relationship is expected so as to improve poverty and inequality.

4.4.3 Control Variables

4.4.3.1 Lag of Inequality

Inequality and poverty have been shown to persist over time. Hence, current inequality and poverty levels depend on the past and that inequality may exist in a given year because it existed in the years prior. Income inequality has been seen to change slowly over time, and this has been shown in quite a number of empirical studies (see Gupta et al. 2002; Mahmood, Noor & Law, 2014; Anyanwu, 2016; Asongu & Odhiambo, 2019; Tchamyou, 2021). Due to the nature of this variable, a positive relationship is expected.

4.4.3.2 GDP per capita

The GDP per capital is the gross domestic product divided by the population of the country and is the proxy for economic development. Following the argument of Kuznets (1955), developing countries are expected to find a negative relationship while developed countries are expected to find a positive relationship between GDP per capita and poverty and inequality (Dincer & Gunalp, 2012; Anyanwu, 2016). The study largely employs data on developing countries and thus, it is expected that an inverse relationship between

GDP per capita and poverty and inequality exists. Data on GDP per capita is obtained from the World Bank's World Development Indicator database.

4.4.3.3 Gross Capital Formation

Gross capital formation is a measure of domestic investment within a country. As the old capital stock of production wears out, it is required that they are produced. Hence gross capital formation is the additional fixed assets provided by the economy. This includes drains, railways and roads, housing, plant and machinery, among others. A positive relation is expected between gross capital formation and inequality as increases in gross capital formation could translate into more and improved factors of production, leading to productivity and a reduction in inequality (Chaudhry & Imran, 2013). It should also be noted that other studies such as Anyanwu (2016) found a positive relationship between domestic investment and income inequality. The gross capital formation of a country is presented in this study as the percentage of its GDP, and it is obtained from the World Bank's World Development Indicator database.

4.4.3.4 Natural Resource Rent

Natural resource rent is the amount generated from the natural resource endowment in a country. There are two views in relation to the link between natural resource rent and inequality. First is the natural resource blessing. This is the view that rent from the natural resource can make the citizens of a country richer through jobs, welfare programs and healthcare, thereby reducing poverty and inequality (Anyanwu, 2016; Mallaye et al. 2015). The other view is the natural resource curse. This is the view that the reliance on the natural resource of a country worsens inequality and poverty. This is because, it tends to attracts conflict and corruption as it is captured by people in power. Hence, the long-term benefits of the natural resource are not realized, leaving the citizens in poverty while those in power gets richer. Considering the countries on which data is being collected, it is quite unclear the relationship to expect. Data on natural resource rent is obtained from the World Bank's World Development Indicator database.

4.4.3.5 Trade

Trade, measured as a percentage of GDP shows how globally integrated a country is. It is expected to have an inverse relationship with income inequality and poverty. This is because, globalization fosters economic growth as countries can focus on goods and services, they can produce better and import those they cannot (Dollar & Kraay, 2004). However, Polpibulaya (2015) has also shown that this benefit of trade is mostly

enjoyed by developed countries. Data on trade is obtained from the World Bank's World Development Indicator database.

4.5 Estimation Technique

A panel estimation technique is employed in analyzing the data gathered to achieve the set objectives of this study. Because the study makes use of panel data, variables have both the *i* and *t* subscripts attached to them. This shows both the time (t) and space (i) dimensions and therefore, panel data, though it combines cross-sectional and time-series data. According to Gujarati (2004), panel data has some advantages over both cross-sectional data and time-series data and these advantages are discussed below.

i. Because panel data is composed of both individual variables over time, there is bound to be heterogeneity in these units which can be considered.

ii. Since panel data combines both time series and cross-sectional data, there are more data points to be observed, and this leads to more variability, less collinearity, more degrees of freedom and more efficiency.

iii. Again, panel data makes it possible for the researcher to view the dynamics of changes since it repeats cross section of observations.

iv. Also, because panel data gives the researcher more data points, it can reduce the biases that may arise if all individuals were added up as though it was one giant aggregate.

v. Panel data, compared to both time series and cross-sectional data, is also best in studying complex behavioral models.

4.5.1 The OLS estimator

This is probably the simplest way to go about the panel data. Here, the researcher could lump together by stacking up the data set for the explained variable such that a single column with all-time series and cross-sectional observation is contained. The same is done with the explanatory variables, and the explained variable is regressed on the explanatory variable using a single estimated equation. However, there are severe limitations, hence this study goes ahead to explore other options. This is because the OLS requires the assumption of no serial correlation as well as homoscedasticity. However, from literature, inequality and poverty tend to surface every now and then, persisting over time (see Anyanwu, 2016; Asongu &

Odhiambo, 2019; Tchamyou, 2021). This gives an indication that the assumption of no serial correlation has a high chance of being breached, and thus the OLS is likely to give a bias estimation. Therefore, in anticipation that the OLS is less likely to be used, the study employs the Prais-Winsten estimation technique: a GLS estimator.

4.5.2 Prais-Winsten Estimator

The Prais-Winsten estimation technique, credited to Prais and Winsten (1954), can be used in the correction of serial correlation as well as heteroskedasticity. This estimation technique proves to handle the inefficiency of the Cochrane-Orcutt estimator. Wooldridge (2002) explains how the Cochrane-Orcutt estimation works. With the Cochrane-Orcutt estimator, an attempt to deal with serial correlation is done by taking a quasi-difference, thus assuming the econometric model below,

$y_t = \alpha + X_t\beta + \varepsilon_t$ …….…… (Equation 3.2)

the Cochrane-Orcutt method remodels the residuals by the use of a stationary first-order autoregressive model

$\varepsilon_t = \rho\varepsilon_{t-1} + e_t$ ……..……. (Equation 3.3)

such that the absolute value of ρ is less than one, showing that the residuals decay over time and e_t is white noise. With the estimated ρ, the quasi-difference is taken.

$y_t - \rho y_{t-1} = \alpha(1-\rho) + \beta(X_t - \rho X_{t-1}) + e_t$ ……..… (Equation 3.4)

However, this comes with a limitation because in transforming model (1), the first observations are lost. This is where the Prais-Winsten estimation takes over from the Cochrane-Orcutt estimation technique. Instead of making use of the lags, the Prais-Winsten transforms the model (1) by multiplying through by $\sqrt{(1-\rho^2)}$.

4.5.3 The Generalized Method of Moments (GMM) estimator

Using the Prais-Winston regression does a great deal in dealing with issues concerning heteroskedasticity and autocorrelation. However, issue concerning endogeneity may still exist. The GMM estimator can be useful in dealing with such issues. The estimator deals with endogeneity by taking the difference between past data and present data in order to transform the data. There are essentially two types of the GMM

estimator. These are the difference GMM (Arellano & Bond, 1991) and the system GMM (Arellano & Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998). The difference GMM removes fixed effects by taking the differences of the past and present data in order to transform the independent variables. However, this differencing has the tendency to general invalid estimates (see Roodman, 2009) and saw the need for further development on the estimator. Hence, the system GMM was developed to cater for this issue. The system GMM estimator formulates two equations by assuming there exist a correlation between the first differences and the fixed effect. The two equations are the original equation presented and the equation generated due to transformation. The system GMM comes in two folds – the one step and two-step system GMM. The system GMM also controls for both autocorrelation and heteroskedasticity and has the assumption of no autocorrelation and validity of instruments. Hence, it is essential that the researcher tests and satisfies these conditions to ensure consistent estimates.

4.6 Summary

This chapter gave an overview of the research design employed by the study and discussed the criteria by which country were selected into the sample used by the study. The method for analyzing the data obtained was explained and the reasons for the adoption of the estimation technique was given. Also, the econometric model employed in this study was laid out and the variables used as well as the measurement of these variables were discussed.

CHAPTER FIVE

RESULTS, ANALYSIS AND DISCUSSIONS

5.1 Introduction

In this chapter, the data collected is analyzed. The results are displayed and discussed in this chapter. To do this, the data obtained is handled using Microsoft excel and saved as a .csv file to be fed into python and STATA. This section of the study makes use of graphs, charts and tables to display the data obtained. Also, statistical outputs from STATA are displayed and discussed.

5.2 Data Description

The table below in table 5.1 shows the descriptive statistic of the data gathered on the panel dataset. This shows the number of observations for a particular variable within the dataset, the mean, the standard deviation, the minimum as well as the maximum value of the variables. Figures are also presented to describe some key variables within the dataset.

Table 5. 1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Corruption	1389	-.66	.606	-1.916	1.633
Government Effectiveness	1385	-.728	.624	-2.45	1.161
Political Stability	1389	-.569	.876	-3.313	1.283
Regulatory Quality	1388	-.73	.62	-2.548	1.197
Rule of Law	1391	-.638	.674	-2.591	1.044
Voice and Accountability	1391	.477	3.826	-2.233	18
Foreign Direct Investment	1350	6.75	11.798	-18.918	161.824
Growth of GDP per capita	1304	4.34	11.644	-48.392	61.6
Gross Capital Formation	1172	22.116	10.727	0	79.401
Poverty	135	6.001	15.805	.11	65.1

Natural Resource Rent	1241	10.949	11.268	.001	81.913
Trade	1241	65.174	39.585	-8.965	225.023
Inequality	1260	.494	.147	0	.804

Figure 5. 1 Trend of Human Development Index (HDI) over time

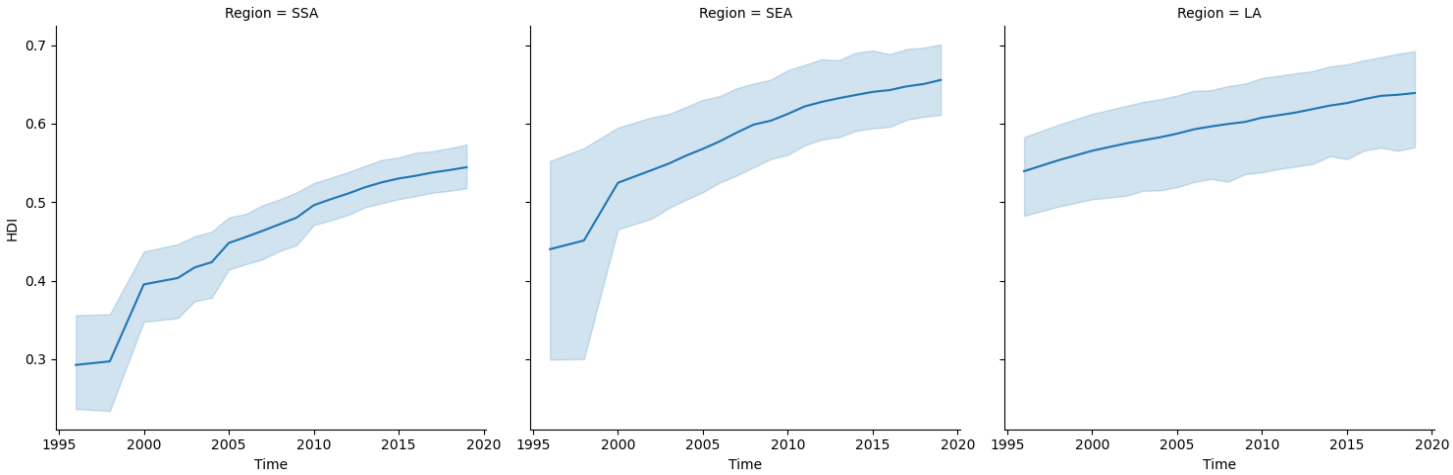
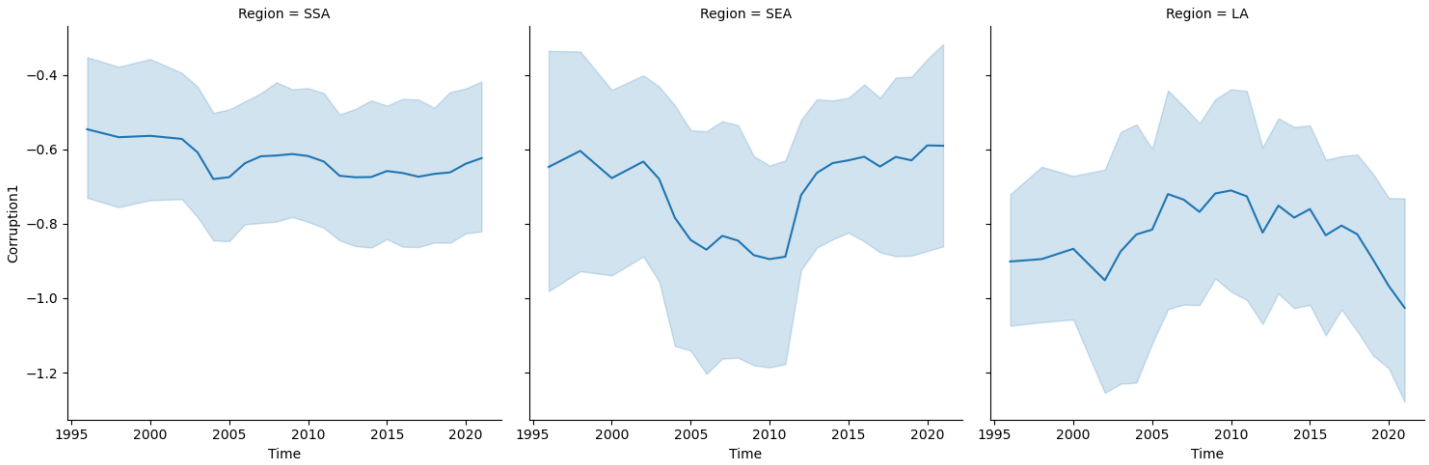


Figure 5.1 shows the trend of HDI across time. The graph is also plotted by regions where SSA represents Sub Saharan Africa, SEA represents South East Asia and LA represents Latin America. The trend shows an upward trend over the years. However, Sub Saharan Africa seem to have lower values compared to South East Asia and Latin America. Also, the graphical presentation shows a sharp inclination from the year 1999 to 2000 in SSA and SEA. This may be due to efforts put in place to actively increase HDI within these regions.

Figure 5. 2 Trend of Corruption over time.



Corruption used in this study is the perception of the extent to which private gains, both large and small, are obtained from the use of public power. Corruption data from the World Governance Indicators ranges from +2.5 to -2.5 with higher values being preferred to lower values. The sample has corruption scores below 0. This shows some signs of high corruption in countries within these regions. The graph also shows a decline in corruption for Sub Saharan Africa. This is a worrying trend as higher values are preferred, however, from 2016, an upward trend is being seen. The trend for South East Asia shows a dip after the year 2001, however, the corruption index returned to its original state after 2010. The trend for Latin America saw an improvement and then a decline.

Figure 5. 3 Trend of Political Stability over time.

Figure 5.3 shows the trend of Political stability and Absence of Violence/Terrorism. The variable measures the perception that the country will face some political induced violence or instability or some form of

terrorism. Over the years, Sub-Saharan Africa and Latin America seems to be on the decline which indicates a worsening. However, the trend of SSA seems to be much gentle compared to that of LA. The trend of South East Asia saw an increase.

Figure 5. 4 Trend of Voice and Accountability over time.

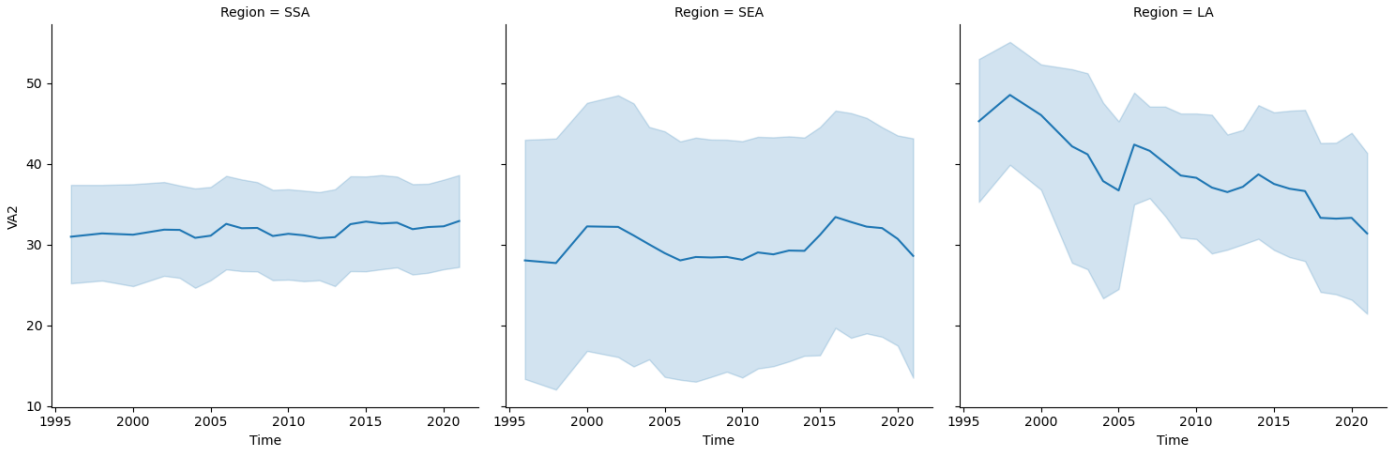


Figure 5.4 displays the trend of Voice and accountability which measures the extent to which citizens in a country perceive that they are able to vote or select government leaders, express themselves freely, freely form or belong to groups without hindrances and a free media. Both SSA and SEA seem to show some small improvement in this metric over time. However, there seem to be a decline in trend of Latin America, though they present higher values.

Figure 5. 5 Trend of Regulatory Quality over time.

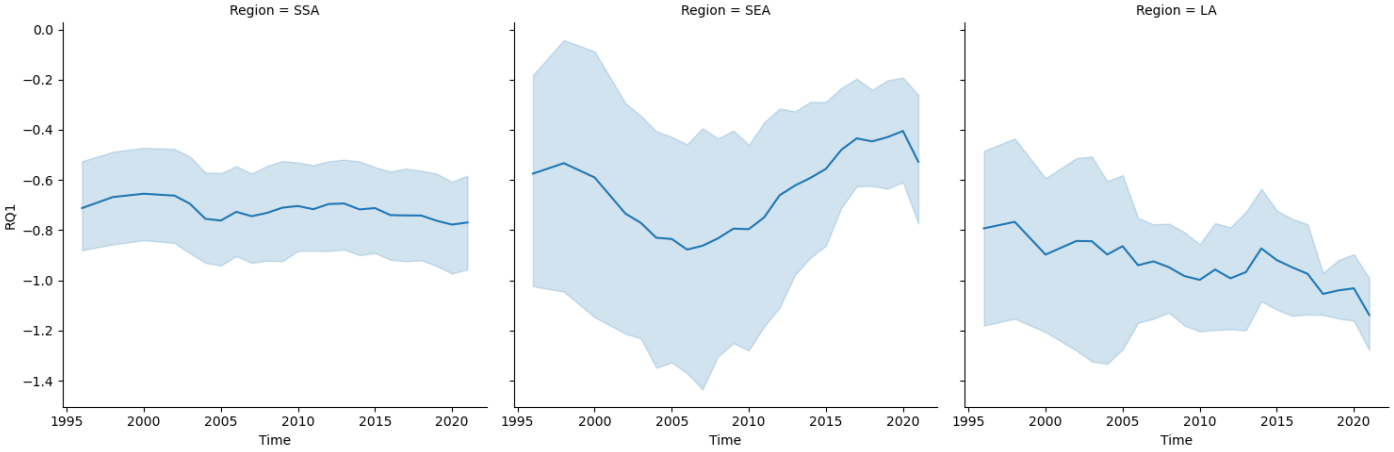


Figure 5.5 shows the trend of Regulatory Quality over time. Regulatory Quality measures citizen's perception of their government's ability to formulate and implement policies and laws that foster the development and growth of the private sector. The trends show a decline in SSA and LA while a decline is seen in SEA from 1998 to 2006 and then an increase afterwards. This seems to suggest some strong policies enacted to produce an enabling environment for businesses to thrive.

Figure 5. 6Trend of Government Effectiveness over Time.

Government effectiveness looks at the perception of citizen in terms of the quality of the civil service, public services, policy formulation and implementation and public services. Figure 5.6 shows the trend of government effectiveness over the years. SSA again saw a decline in government effectiveness while SEA saw an upward trend in government effectiveness from the year 2007. In general, the trend of LA shows an upward and downward movement over the time frame.

Figure 5. 7 Trend of Rule of Law over time.

The variable, rule of law, measures the extent to which citizens perceive confidence in abiding by the laws of society, the extent to which contracts can be enforced, confidence in the courts and likelihood of crime and violence. Figure 5.7 shows the trend of rule of law over time. The trend of SSA is almost constant as its decline over the years has been very gentle. The trend of SEA shows quite some volatility compared to that of SSA. Overall, there is hardly an improvement in the trend. LA has the highest values among the 3 regions. However, there seems to be a decline in the trend suggesting the inability of the region to sustain the level of the rule of law at previous level.

Figure 5. 8 Trend of Foreign Direct Investment (FDI) over time.

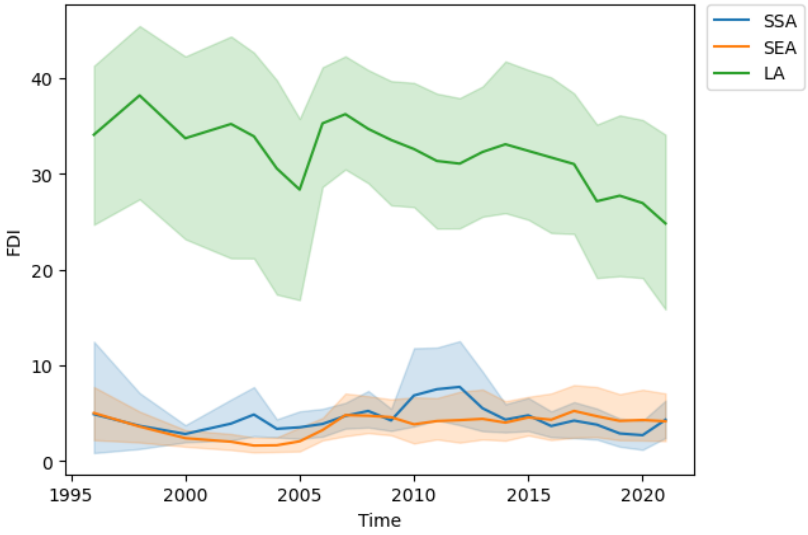


Figure 5.7 shows the trend of FDI over time across the three regions used for the study. The trend showed that over the time frame employed by the study, Latin America received the most foreign direct investment with Sub Saharan Africa and South East Asia coming next. In chapter two of the study, data from UNCTAD (2022) showed Oceania and Asia to be the highest recipient of FDI in the developing world. However, the analysis from this study suggests that most of this FDI goes to middle-income and high-income countries as countries in South East Asia barely compete with Sub Sahara Africa.

5.3 Multicollinearity and VIX

The correlation matrix is used in this chapter to help detect issues regarding multicollinearity. Multicollinearity becomes an issue because when two or more independent variables are correlated, it

becomes difficult to tell which variable is causing the variability in the dependent variable. According to Brooks (2008), when there is the issue of multicollinearity, the model tends to have a high R^2 but with the independent variables not being significant. In this study, the usual rule of thumb of a correlation of 0.5 and above between independent variables is considered. However, according to Gujarati (2004), the severity of multicollinearity is the problem. Thus, the VIF is used to explore the severity of the issue of multicolinearity. With the VIF also, as a rule of thumb, the variables with a value of 10 and above is dropped so as to solve the issue of multicollinearity. The correlation matrix and VIF shown in Appendix 1 and 2 of this study respectively. From the correlation matrix, Voice and Accountability, Growth of GDP per capita and Rule of Law show a very high VIF. However, this is not a problem as then do not appear in the same model simulataneously.

5.4 Regression analysis

Table 5.2 shows regression results of the impact of FDI on poverty and the role of the political climate. The results show a direct relationship between FDI and poverty in model 1,2,3,5 and 6. Hence, FDI seems to worsen poverty as it increases. The results also show a significant relationship in the role of the political climate in the FDI-poverty nexus through the rule of law. However, due to missing data, the STATA statistical software eliminated 5 countries. The regression results show that poverty depends on its lag as the lag of inequality is consistently significant throughout the models. Thus, poverty has been shown to persist over time. Robustness checks are conducted in this study. This can be found in Appendix 4 of the study. The diagnostics indicates that the data suffers from heteroskedasticity and autocorrelation. This heavily influences the estimation technique employed in the study. Estimation techniques are also discussed in chapter four of this study. The robustness test shows consistency in the sign of variables. However, level of significance differs.

Table 5.3 displays the regression results of the impact of FDI on inequality and the role of the political climate. The data was collected on 61 countries. However, due to missing data, the STATA statistical software eliminated 6 countries. The regression results show that poverty and inequality really depend on its lag as the lag of inequality is consistently significant throughout the models. Inequality and poverty have been shown to persist over time. Hence, current inequality and poverty levels depend on the past and that inequality may exist in a given year because it existed in the years prior. The lag of inequality is shown in the regression to have a positive relationship with inequality. This finding is consistent with studies such as Gupta et al. 1998; Mahmood, Noor & Law, 2014; Anyanwu, 2016; Asongu & Odhiambo, 2019; Tchamyou, 2021).

The results also presented some findings supporting the fact that FDI has an impact on inequality. This can be seen in model 1,2, 5 and 6. Chapter three of this study reviewed three strands of literature on the FDI-inequality nexus with one strand of literature arguing an adverse impact of inequality by FDI. This is also seen is this study. This could be due to the sole motive of making profit and not reducing inequality (Adams 2009). Hence, trickle-down economics do not seem to work. Again, Gossel (2022) argues the need for poorer states such as those in SSA to move away from FDI in the extractive industry. The findings are also consistent with that of Mihaylova (2015) and Nunnenkamp (2011).

The variables for political climate are presented in six other variables as outlined in chapter three of the study. It is for this reason that six models are presented; one in each model. However, regulatory quality and rule of law appears to be significant in improving inequality. Both variables have a positive and significant relationship with inequality. Rule of law suggests a well-functioning judicial system and that contracts can be enforced through legal means and not dissolve into conflict. It is also means that pro poor laws can be formulated and efforts to reduce inequality. Regulatory quality also suggests the formulation of sound policies by the government to foster the growth of businesses in the private sector. In this light, it stands to reason that rule of law and regulatory quality could serve as a mechanism through which conscious efforts to reduce inequality can be achieved. The interaction variable of rule of law and FDI and Regulatory quality and FDI show an inverse relationship. This suggest that in the presence of rule of law and regulatory quality, FDI still has an inverse and significant relationship on inequality. This ties in to the statement by Gossel (2022) urging SSA countries to diversify away from the extraction of natural resources and attract FDI in other sectors of the economy.

Control variables such as Gross Capital Formation, Natural Resource Rent and the Growth in GDP per capita showed a significant relationship with inequality. Both Gross Capital Formation and the Growth in GDP per capita showed a positive relationship while Natural Resource Rent showed a negative relationship. In chapter three of this study, a positive relation was expected between gross capital formation and inequality as increases in gross capital formation could translate into more and improved factors of production, leading to productivity and a reduction in inequality (Chaudhry & Imran, 2013). The results also showed similar results to that of Chaudhry and Imran (2013). Also, a direct relationship observed between the growth in GDP per capita and inequality indicated that economic growth improves inequality. The regression results also show a negative and significant relationship between Natural Resource Rend and Inequality. Hence, the data suggest a natural resource curse. Though worrying, this is not strange as FDI seem to have no spillover effect as it tends to be in the extractive industry. This comes back to the argument made by Gossel (2022) on the need for SSA state to diversify their economy and reduce the heavy

focus of the exploitation of their natural resource. This study extends this argument to poorer states in general.

Table 5. 2 Foreign Direct Investment and Poverty: The Role of The Political Climate[3]

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Poverty	0.885***	0.871***	0.872***	0.891***	0.881***	0.879***
	(0.0151)	(0.0161)	(0.0157)	(0.0155)	(0.0152)	(0.0156)
Rule of Law	-1.083***					
	(0.415)					
Foreign Direct Investment	0.138***	0.135***	0.102***	0.0597	0.117***	0.102***
	(0.0349)	(0.0493)	(0.0334)	(0.0380)	(0.0397)	(0.0298)
(Rule of Law*FDI)	0.137**					
	(0.0560)					
Growth of GDP per capita	-0.131***	-0.0974***	-0.0972***	-0.142***	-0.102***	-0.0999***
	(0.0306)	(0.0259)	(0.0264)	(0.0364)	(0.0263)	(0.0262)
Gross Capital Formation	-0.106***	-0.135***	-0.130***	-0.125***	-0.129***	-0.136***
	(0.0221)	(0.0217)	(0.0218)	(0.0238)	(0.0215)	(0.0215)
Natural Resource Rent	-0.0689***	-0.0827***	-0.0814***	-0.0482***	-0.0671***	-0.0600***
	(0.0199)	(0.0218)	(0.0212)	(0.0184)	(0.0196)	(0.0186)
Trade	-0.000649	-0.00152	-6.75e-05	-0.00143	-0.00213	-0.00135
	(0.00554)	(0.00550)	(0.00542)	(0.00549)	(0.00530)	(0.00604)
Regulatory Quality		-1.343***				
		(0.434)				
(Regulatory Quality*FDI)		0.0802				
		(0.0575)				
Government Effectiveness			-1.063***			
			(0.370)			
(Government Effectiveness*FDI)			0.0428			
			(0.0441)			
Voice and Accountability				0.211		
				(0.169)		

[3] Estimates in Table 5.2 are generated using the Prais-Winsten Estimator

(Voice and Accountability*FDI)				-0.000673		
				(0.00502)		
Corruption					-0.764*	
					(0.398)	
(Corruption1*FDI)					0.0614	
					(0.0512)	
Political Stability						-0.570**
						(0.282)
(Political Stability*FDI)						0.0674**
						(0.0334)
Constant	10.48***	12.08***	11.87***	11.18***	11.46***	11.87***
	(1.491)	(1.534)	(1.504)	(1.574)	(1.501)	(1.506)
Observations	888	888	888	888	888	888
R-squared	0.914	0.913	0.912	0.915	0.913	0.913
Number of Countries	56	56	56	56	56	56

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5. 3 Foreign Direct Investment and Inequality: The Role of The Political Climate[4]

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Inequality	0.745***	0.701***	0.726***	0.749***	0.727***	0.731***
	(0.0443)	(0.0398)	(0.0405)	(0.0438)	(0.0426)	(0.0427)
Rule of Law	0.0160***					
	(0.00387)					
Foreign Direct Investment	-0.000253***	-0.000869***	-0.000125	-0.000137	-0.000248**	-0.000246***
	(6.71e-05)	(0.000137)	(9.14e-05)	(9.70e-05)	(0.000105)	(6.34e-05)
(Rule of Law*FDI)	-0.000244**					
	(0.000122)					
Gross Capital Formation	0.000259	0.000485***	0.000313*	0.000347**	0.000388***	0.000366**
	(0.000162)	(0.000161)	(0.000164)	(0.000157)	(0.000148)	(0.000172)
Natural Resource Rent	-0.000482**	-0.000556***	-0.000501***	-0.000431**	-0.000534***	-0.000497**
	(0.000196)	(0.000200)	(0.000192)	(0.000187)	(0.000188)	(0.000196)

[4] Estimates in Table 5.3 are generated using the Generalized Method of Moments

Growth of GDP per Capita	0.000205*	0.000219*	0.000255**	0.000276**	0.000193*	0.000271**
	(0.000110)	(0.000113)	(0.000116)	(0.000117)	(0.000113)	(0.000117)
Trade	2.20e-05	2.22e-05	1.54e-06	1.95e-05	8.51e-05	2.88e-05
	(8.16e-05)	(8.66e-05)	(7.89e-05)	(7.51e-05)	(8.32e-05)	(8.60e-05)
Regulatory Quality		0.0164***				
		(0.00218)				
(Regulatory Quality*FDI)		-0.000773***				
		(0.000160)				
Government Effectiveness			-0.00403			
			(0.00589)			
(Government Effectiveness*FDI)			-6.45e-05			
			(7.50e-05)			
Voice and Accountability				0.000734		
				(0.00318)		
(Voice and Accountability*FDI)				-1.12e-05		
				(4.86e-05)		
Political Stability					-9.97e-05	

					(0.00266)	
(Political stability*FDI)					-0.000154**	
					(6.88e-05)	
Corruption						0.000783
						(0.00423)
(Corruption*FDI)						-0.000123
						(7.51e-05)
Constant	0.145***	0.168***	0.144***	0.133***	0.142***	0.144***
	(0.0244)	(0.0214)	(0.0219)	(0.0230)	(0.0223)	(0.0231)
Observations	800	800	800	800	800	800
Number of Countries	55	55	55	55	55	55

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5.5 Summary

In this chapter, the data collected has been analyzed. The results were displayed and discussed in this chapter as well. This section of the study made use of graphs, charts and tables to display the data being analyzed. The data suggested that FDI has an inverse relation inequality. The study also found two out of six metrics of the political climate to have an impact on inequality and moderates the impact of FDI on inequality. To answer the research question outlined in chapter one of the study, the study showed an inverse relationship between FDI and poverty and inverse relationship between FDI and inequality. Though the study was unable to present evidence of the political climate moderating the impact of FDI on poverty, evidence of the moderating impact of FDI on inequality was found and shown in the study.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter concludes the study. It entails a summary of the findings obtained from the data, and conclusions drawn from the findings. These conclusions are tailored towards the research questions in Chapter One of the study. Some recommendations are given as well.

6.2 Summary

The primary aim of the study was to understand the nexus between FDI and poverty and inequality as well as the role the political climate play in moderating this nexus. The study looked at poor regions of the world and as such focused on low and lower-middle income countries in Sub-Saharan Africa, South East Asia and Latin America. In Chapter one of the study, the objectives of the study were laid out. In view of this, the primary objective of the study was the impact of FDI on poverty, the impact of FDI on inequality and the role the political climate played in these impacts of FDI. In order to achieve these objectives, a panel dataset was employed which contained fifty-five countries. A panel regression was then employed to ascertain the impact of FDI on poverty and inequality and the moderating impact of FDI.

The regression results show that inequality really depends on its lag as the lag of inequality is consistently significant throughout the models. Inequality and poverty have been shown to persist over time and has a positive relationship. The results also presented some findings supporting the fact that FDI has an impact on poverty and inequality which explained by Adams (2009) could be due to the sole motive of making profit and not reducing inequality.

Regulatory quality and rule of law was found to improve inequality. Both variables have a positive and significant relationship with inequality. However, the interaction variable of rule of law and FDI and Regulatory quality and FDI show an inverse relationship. Again, the coefficient of the interaction terms suggests a little dampening of the inverse relationship between FDI and inequality.

The study also saw control variables such as Gross Capital Formation, Natural Resource Rent and the Growth in GDP per capita showed a significant relationship with inequality. Gross Capital Formation and the Growth in GDP per capita showed a positive relationship while Natural Resource Rent showed a negative relationship.

6.3 Conclusion

The geographical region of Sub-Saharan Africa, South East Asia and Latin America host some of the poorest nations in the world. The problem with poverty emanates from its restriction to access to quality healthcare, quality education and an overall decline in the quality of life (Santiago, Wadsworth & Stump, 2011). Though data and trends of poverty suggest tremendous results in lifting people out of poverty, another cancer exists – inequality. Foreign Direct Investment in poor countries exacerbates the problem of poverty and inequality. However, it is hampered by a sound political climate as the political climate tends to foster equality.

This study shows the relationship existing between the foreign direct investment and poverty and inequality and contributes to existing literature by establishing the role of the political climate in aforementioned relationship. The study is unique as it focuses on geographical regions around the world with high concentrations of poverty. This is different from other studies focusing which focused on continental regions such as Africa, Sub-Saharan Africa, Asia, Europe and the likes. It is also one of the few studies to look at FDI factoring in the time periods before and after the pandemic.

6.4 Recommendations

The study was conducted using a sample of firms from Sub Saharan Africa, South East Asia and Latin America. Thus, it has some implication for these nations. The study revealed a natural resource curse. The recommendation of this study reechoes that of Gossel (2022). In his study, he argues the need for poorer states such as those in SSA to move away from FDI in the extractive industry. Therefore, leaders of nations and economic blocks such as the African Union, the East African Community, the Economic Community of West African States, the Association of South East Asia among others could consciously enact policies that tend to shift the economy from the extraction of minerals and raw materials to manufacturing and service.

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APPENDIX

Appendix 1 Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Inequality	1.000												
(2) Corruption	0.327	1.000											
(3) Government Effectiveness	0.527	0.788	1.000										
(4) Political Stability	0.339	0.651	0.624	1.000									
(5) Regulatory Quality	0.402	0.750	0.849	0.594	1.000								
(6) Rule of Law	0.491	0.756	0.859	0.666	0.759	1.000							
(7) Voice and Accountability	0.291	0.072	0.260	0.125	0.049	0.478	1.000						
(8) Foreign Direct Investment	0.151	-0.023	0.106	0.097	-0.093	0.220	0.633	1.000					
(9) Poverty	-0.685	0.008	-0.344	-0.110	0.073	-0.587	-0.623	-0.561	1.000				
(10) Growth in GDP per Capita	0.222	0.009	0.182	0.073	-0.032	0.292	0.841	0.635	-0.564	1.000			
(11) Gross Capital Formation	0.154	0.160	0.116	0.144	0.166	0.066	-0.360	-0.113	0.286	-0.296	1.000		
(12) Natural Resource Rent	-0.205	-0.368	-0.407	-0.202	-0.384	-0.368	-0.070	0.139	0.095	0.025	0.113	1.000	
(13) Trade	0.218	0.300	0.188	0.357	0.240	0.001	-0.463	-0.238	0.325	-0.336	0.443	0.109	1.000

Note: Pairwise correlation showing the association between variables.

Appendix 2 Variance inflation factor

	VIF	1/VIF
Voice and accountability	32.403	.031
Growth of GDP per capita	20.486	.049
Rule of Law	10.726	.093
Foreign Direct Investment	8.71	.115
Government Effectiveness	6.299	.159
Regulatory Quality	5.133	.195
Corruption	4.162	.24
Trade	3.996	.25
Lag of inequality	3.989	.251
Gross Capital Formation	3.568	.28
Poverty	3.24	.309
Political Stability	2.236	.447
Natural Resource Rent	1.717	.582
Mean VIF	8.205	.

Appendix 3 List of Countries

Country Name	Country Code	Region
Angola	AGO	Sub Saharan Africa
Benin	BEN	Sub Saharan Africa
Bolivia	BOL	Latin America
Botswana	BWA	Sub Saharan Africa
Burkina Faso	BFA	Sub Saharan Africa
Burundi	BDI	Sub Saharan Africa
Cabo Verde	CPV	Sub Saharan Africa
Cambodia	KHM	South East Asia
Cameroon	CMR	Sub Saharan Africa
Central African Republic	CAF	Sub Saharan Africa
Chad	TCD	Sub Saharan Africa
Comoros	COM	Sub Saharan Africa
Congo, Dem. Rep.	COD	Sub Saharan Africa
Congo, Rep.	COG	Sub Saharan Africa
Cote d'Ivoire	CIV	Sub Saharan Africa
El Salvador	SLV	Latin America
Equatorial Guinea	GNQ	Sub Saharan Africa
Eritrea	ERI	Sub Saharan Africa
Eswatini	SWZ	Sub Saharan Africa
Ethiopia	ETH	Sub Saharan Africa
Gabon	GAB	Sub Saharan Africa
Gambia, The	GMB	Sub Saharan Africa
Ghana	GHA	Sub Saharan Africa
Guinea	GIN	Sub Saharan Africa
Guinea-Bissau	GNB	Sub Saharan Africa
Haiti	HTI	Latin America
Honduras	HND	Latin America
India	IND	South East Asia
Kenya	KEN	Sub Saharan Africa
Lao PDR	LAO	South East Asia
Lesotho	LSO	Sub Saharan Africa
Liberia	LBR	Sub Saharan Africa
Madagascar	MDG	Sub Saharan Africa
Malawi	MWI	Sub Saharan Africa
Mali	MLI	Sub Saharan Africa
Mauritania	MRT	Sub Saharan Africa
Mauritius	MUS	Sub Saharan Africa
Mozambique	MOZ	Sub Saharan Africa
Myanmar	MMR	South East Asia
Namibia	NAM	Sub Saharan Africa
Nicaragua	NIC	Latin America
Niger	NER	Sub Saharan Africa
Nigeria	NGA	Sub Saharan Africa

Philippines	PHL	South East Asia
Rwanda	RWA	Sub Saharan Africa
Sao Tome and Principe	STP	Sub Saharan Africa
Senegal	SEN	Sub Saharan Africa
Seychelles	SYC	Sub Saharan Africa
Sierra Leone	SLE	Sub Saharan Africa
Somalia	SOM	Sub Saharan Africa
South Africa	ZAF	Sub Saharan Africa
South Sudan	SSD	Sub Saharan Africa
Sri Lanka	LKA	South East Asia
Sudan	SDN	Sub Saharan Africa
Tanzania	TZA	Sub Saharan Africa
Timor-Leste	TLS	South East Asia
Togo	TGO	Sub Saharan Africa
Uganda	UGA	Sub Saharan Africa
Vietnam	VNM	South East Asia
Zambia	ZMB	Sub Saharan Africa
Zimbabwe	ZWE	Sub Saharan Africa

Appendix 4 Robustness Checks

Appendix 4A. Test for Heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of poverty
chi2(1) = 143.06
Prob > chi2 = 0.0000

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of poverty
chi2(1) = 153.59
Prob > chi2 = 0.0000

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of poverty
chi2(1) = 153.34
Prob > chi2 = 0.0000

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of poverty
chi2(1) = 154.36
Prob > chi2 = 0.0000

Appendix 4B. Test for Autocorrelation

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F(1, 2) = 35.153
Prob > F = 0.0273

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F(1, 2) = 27.129
Prob > F = 0.0349

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F(1, 2) = 24.938
Prob > F = 0.0378

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F(1, 2) = 31.924
Prob > F = 0.0299

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
F(1, 2) = 37.233
Prob > F = 0.0258

Appendix 4C Foreign Direct Investment and Poverty: The Role of The Political Climate

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Poverty	0.625***	0.616***	0.619***	0.618***	0.622***	0.622***
	(0.0246)	(0.0243)	(0.0244)	(0.0244)	(0.0244)	(0.0244)
Rule of Law	-1.449					
	(0.931)					
Foreign Direct Investment	0.177***	0.173***	0.0907*	0.0528	0.128***	0.0768**
	(0.0585)	(0.0579)	(0.0466)	(0.0359)	(0.0478)	(0.0373)
(Rule of Law*FDI)	0.168***					
	(0.0611)					
Growth of GDP per capita	-0.203***	-0.206***	-0.200***	-0.202***	-0.204***	-0.201***
	(0.0327)	(0.0329)	(0.0329)	(0.0329)	(0.0328)	(0.0330)
Gross Capital Formation	-0.174***	-0.188***	-0.181***	-0.184***	-0.179***	-0.177***
	(0.0278)	(0.0276)	(0.0278)	(0.0278)	(0.0277)	(0.0278)
Natural Resource Rent	-0.118***	-0.115***	-0.112***	-0.112***	-0.112***	-0.111***
	(0.0264)	(0.0260)	(0.0265)	(0.0261)	(0.0260)	(0.0260)
Trade	0.0428***	0.0441***	0.0436***	0.0445***	0.0435***	0.0439***
	(0.0121)	(0.0121)	(0.0122)	(0.0121)	(0.0121)	(0.0121)
Regulatory Quality		-2.223**				
		(0.928)				
(Regulatory Quality*FDI)		0.146**				
		(0.0570)				
Government Effectiveness			-0.764			
			(0.933)			
(Government Effectiveness*FDI)			0.0551			
			(0.0426)			
Voice and Accountability				-0.538		
				(0.540)		
				0.00691		

(Voice and Accountability*FDI)				(0.0118)		
Corruption					-0.341 (0.882)	
(Corruption1*FDI)					0.109** (0.0447)	
Political Stability						-0.604 (0.458)
(Political Stability*FDI)						0.0939** (0.0393)
Constant	27.84*** (2.156)	28.44*** (2.119)	29.03*** (2.158)	29.65*** (2.097)	29.10*** (2.165)	29.03*** (2.078)
Number of observations	888	888	888	888	888	888
R-squared	0.532	0.532	0.528	0.528	0.531	0.531
Number of Countries	56	56	56	56	56	56

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: Estimates in Appendix 4C are generated using the Fixed Effect Estimator

Appendix 4D Foreign Direct Investment and Poverty: The Role of The Political Climate

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Poverty	0.895***	0.881***	0.884***	0.899***	0.891***	0.889***
	(0.0121)	(0.0119)	(0.0120)	(0.0119)	(0.0115)	(0.0116)
Rule of Law	-1.019***					
	(0.365)					
Foreign Direct Investment	0.135***	0.126***	0.0985***	0.0567*	0.113***	0.0983***
	(0.0292)	(0.0435)	(0.0285)	(0.0307)	(0.0320)	(0.0253)
(Rule of Law*FDI)	0.136***					
	(0.0413)					
Growth of GDP per capita	-0.129***	-0.0939***	-0.0942***	-0.142***	-0.0989***	-0.0970***
	(0.0242)	(0.0214)	(0.0218)	(0.0293)	(0.0215)	(0.0215)
Gross Capital Formation	-0.0989***	-0.127***	-0.122***	-0.118***	-0.122***	-0.129***
	(0.0201)	(0.0182)	(0.0188)	(0.0205)	(0.0185)	(0.0183)
Natural Resource Rent	-0.0630***	-0.0767***	-0.0737***	-0.0443***	-0.0615***	-0.0548***
	(0.0172)	(0.0167)	(0.0178)	(0.0148)	(0.0167)	(0.0151)
Trade	-0.000412	-0.00108	2.84e-05	-0.000973	-0.00186	-0.00121
	(0.00467)	(0.00482)	(0.00484)	(0.00487)	(0.00483)	(0.00513)
Regulatory Quality		-1.246***				
		(0.356)				
(Regulatory Quality*FDI)		0.0716				
		(0.0483)				
Government Effectiveness			-0.956***			
			(0.361)			
(Government Effectiveness*FDI)			0.0414			
			(0.0337)			
Voice and Accountability				0.216		
				(0.177)		
(Voice and				-0.000480		

Accountability*FDI)				(0.00520)		
Corruption					-0.705**	
					(0.352)	
(Corruption1*FDI)					0.0592	
					(0.0372)	
Political Stability						-0.512**
						(0.245)
(Political Stability*FDI)						0.0625**
						(0.0287)
Constant	9.599***	11.11***	10.84***	10.39***	10.56***	10.95***
	(1.239)	(1.160)	(1.174)	(1.257)	(1.178)	(1.160)
Number of observations	888	888	888	888	888	888
Number of Countries	56	56	56	56	56	56

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes: Estimates in Appendix 4D are generated using the Random Effect Estimator

Appendix 4E Hausman Test

Hausman (1978) specification test (Rule of Law)

	Coef.
Chi-square test value	159.984
P-value	0

Hausman (1978) specification test (Regulatory Quality)

	Coef.
Chi-square test value	161.644
P-value	0

Hausman (1978) specification test (Government Effectiveness)

	Coef.
Chi-square test value	158.933
P-value	0

Hausman (1978) specification test (Voice and Accountability)

	Coef.
Chi-square test value	161.697
P-value	0

Hausman (1978) specification test (Corruption)

	Coef.
Chi-square test value	164.511
P-value	0

Hausman (1978) specification test (Political Stability)

	Coef.
Chi-square test value	163.219
P-value	0

The Hausman tests above rejects the null hypothesis in favor of the alternate hypothesis. The Hausman test suggests that the fixed effect model is more suitable.

Appendix 4F The role of the political climate on the effect of FDI on poverty (Using mortality rate)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Poverty	0.962***	0.965***	0.961***	0.966***	0.965***	0.964***
	(0.00467)	(0.00419)	(0.00445)	(0.00427)	(0.00448)	(0.00422)
Rule of Law	-0.283*					
	(0.149)					
Foreign Direct Investment	0.000108	-0.00520	-0.00239	-0.00662	-0.00484	-0.00441
	(0.00572)	(0.00832)	(0.00435)	(0.00607)	(0.00513)	(0.00493)
(Rule of Law*FDI)	0.0103					
	(0.00852)					
Growth of GDP per capita	-0.00512	-0.00519	-0.00446	-0.00671	-0.00517	-0.00466
	(0.00469)	(0.00456)	(0.00450)	(0.00570)	(0.00456)	(0.00455)
Gross Capital Formation	-0.00273	-0.00444	-0.00367	-0.00394	-0.00439	-0.00492
	(0.00602)	(0.00571)	(0.00576)	(0.00599)	(0.00579)	(0.00570)
Natural Resource Rent	-0.00480	-0.00288	-0.00564	-0.00311	-0.00291	-0.00352
	(0.00415)	(0.00418)	(0.00436)	(0.00429)	(0.00400)	(0.00421)
Trade	0.00369	0.00324	0.00386	0.00338	0.00324	0.00402*
	(0.00237)	(0.00242)	(0.00239)	(0.00252)	(0.00231)	(0.00241)
Regulatory Quality		-0.0324				
		(0.148)				
(Regulatory Quality*FDI)		0.000593				
		(0.00955)				
Government Effectiveness			-0.313**			
			(0.144)			
(Government Effectiveness*FDI)			0.00557			
			(0.00506)			
Voice and Accountability				0.0179		
				(0.0491)		
(Voice and				-0.000105		

Accountability*FDI)						
				(0.00129)		
Corruption					-0.0354	
					(0.156)	
(Corruption1*FDI)					0.00122	
					(0.00583)	
Political Stability						-0.143
						(0.0881)
(Political Stability*FDI)						0.00317
						(0.00459)
Constant	0.156	0.248	0.185	0.185	0.245	0.200
	(0.345)	(0.309)	(0.305)	(0.356)	(0.303)	(0.297)
Number of observations	914	914	914	914	914	914
R-squared	0.994	0.994	0.995	0.995	0.994	0.995
Number of Countries	57	57	57	57	57	57

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: Estimates in Appendix 4F are generated using the Prais-Winsten Estimator

Appendix 4G The role of the political climate on the effect of FDI on poverty (Using life expectancy)

VARIABLES	(1) life	(2) life	(3) Life	(4) life	(5) life	(6) life
Lag of Poverty	0.967***	0.968***	0.966***	0.971***	0.967***	0.967***
	(0.00473)	(0.00466)	(0.00488)	(0.00473)	(0.00460)	(0.00480)
Rule of Law	0.115**					
	(0.0555)					
Foreign Direct Investment	-0.00263	0.0129	0.00171	0.00361	0.00496	0.00158
	(0.00549)	(0.00821)	(0.00562)	(0.00448)	(0.00656)	(0.00416)
(Rule of Law*FDI)	-0.00500					
	(0.00641)					
Growth of GDP per capita	0.00511	0.00586**	0.00427	0.00853**	0.00527*	0.00575**
	(0.00353)	(0.00291)	(0.00303)	(0.00384)	(0.00289)	(0.00288)
Gross Capital Formation	0.00311	0.00438*	0.00477*	0.00242	0.00466*	0.00542**
	(0.00276)	(0.00259)	(0.00271)	(0.00283)	(0.00263)	(0.00263)
Natural Resource Rent	0.000153	-0.000172	0.000675	-0.00148	0.000459	-0.000618
	(0.00195)	(0.00201)	(0.00196)	(0.00187)	(0.00197)	(0.00192)
Trade	0.000920	0.000638	0.000641	0.000867	0.000567	0.000191
	(0.000960)	(0.000901)	(0.000903)	(0.000947)	(0.000857)	(0.000986)
Regulatory Quality		0.00793				
		(0.0553)				
(Regulatory Quality*FDI)		0.0168**				
		(0.00838)				
Government Effectiveness			0.100*			
			(0.0523)			
(Government Effectiveness*FDI)			0.00429			
			(0.00638)			
Voice and Accountability				0.00978		
				(0.0211)		
(Voice and				-0.00104		

Accountability*FDI)						
				(0.000662)		
Corruption					0.0682	
					(0.0575)	
(Corruption1*FDI)					0.00898	
					(0.00712)	
Political Stability						0.0566
						(0.0411)
(Political Stability*FDI)						0.00880*
						(0.00514)
Constant	2.325***	2.171***	2.398***	2.067***	2.272***	2.327***
	(0.282)	(0.281)	(0.299)	(0.272)	(0.276)	(0.293)
Number of observations	914	914	914	914	914	914
R-squared	0.993	0.993	0.993	0.993	0.993	0.993
Number of Countries	57	57	57	57	57	57

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: Estimates in Appendix 4G are generated using the Prais-Winsten Estimator

Appendix 4H The role of the political climate on the effect of FDI on inequality (Stata Robust Estimates)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
Lag of Inequality	0.745***	0.701***	0.726***	0.749***	0.727***	0.731***
	(0.108)	(0.102)	(0.105)	(0.102)	(0.104)	(0.104)
Rule of Law	0.0160*					
	(0.00884)					
Foreign Direct Investment	-0.000253	-0.000869**	-0.000125	-0.000137	-0.000248	-0.000246
	(0.000196)	(0.000369)	(0.000211)	(0.000237)	(0.000259)	(0.000167)
(Rule of Law*FDI)	-0.000244					
	(0.000249)					
Gross Capital Formation	0.000259	0.000485*	0.000313	0.000347	0.000388	0.000366
	(0.000271)	(0.000288)	(0.000267)	(0.000303)	(0.000279)	(0.000278)
Natural Resource Rent	-0.000482	-0.000556	-0.000501	-0.000431	-0.000534	-0.000497
	(0.000415)	(0.000391)	(0.000416)	(0.000377)	(0.000375)	(0.000392)
Growth of GDP per Capita	0.000205	0.000219	0.000255	0.000276	0.000193	0.000271
	(0.000220)	(0.000229)	(0.000255)	(0.000239)	(0.000240)	(0.000254)
Trade	2.20e-05	2.22e-05	1.54e-06	1.95e-05	8.51e-05	2.88e-05
	(0.000158)	(0.000176)	(0.000168)	(0.000151)	(0.000170)	(0.000170)
Regulatory Quality		0.0164***				
		(0.00546)				
(Regulatory Quality*FDI)		-0.000773**				
		(0.000332)				
Government Effectiveness			-0.00403			
			(0.0108)			

(Government Effectiveness*FDI)			-6.45e-05			
			(0.000158)			
Voice and Accountability				0.000734		
				(0.00317)		
(Voice and Accountability*FDI)				-1.12e-05		
				(5.96e-05)		
Political Stability					-9.97e-05	
					(0.00445)	
(Political stability*FDI)					-0.000154	
					(0.000141)	
Corruption						0.000783
						(0.00773)
(Corruption*FDI)						-0.000123
						(0.000154)
Constant	0.145**	0.168***	0.144**	0.133**	0.142**	0.144**
	(0.0606)	(0.0569)	(0.0574)	(0.0545)	(0.0551)	(0.0564)
Observations	800	800	800	800	800	800
Number of Countries	55	55	55	55	55	55

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: Estimates in Appendix 4G are generated using the Generalized Method of Moments Estimator (Robust)