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CORRUPTION AND FOREIGN DIRECT INVESTMENT INFLOWS: EVIDENCE FROM WEST AFRICA

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DECLARATION

I, TALATU JALLOH, fully acknowledge that this thesis, titled 'Corruption and Foreign Direct Investment (FDI) Inflows: Evidence from West Africa' is the outcome of my independent undertaken with supervision from Dr. William Bekoe and Dr. Wassiuw Abdul Rahaman. I also duly acknowledge that any extra literature in my work is rightfully referenced.

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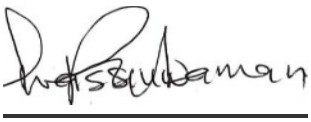

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ABSTRACT

The significance of foreign capital inflows to West Africa cannot be underestimated, more so when almost all the countries in the sub-region are virtually aid-dependent. One way to access this much-needed resource can be through Foreign Direct Investment (FDI). This rationalization has ignited a stiff competition for FDI among nations, sub-region and regions. However, FDI inflows to West Africa have been dwindling over the years, which may impede efforts to achieve the Sustainable Development Goals (SDGs) by 2030, as well as the economic self-reliant of countries in the sub-region. And, a major factor that has been largely associated with low FDI inflows is corruption.

Against this backdrop, the thesis attempts to achieve three objectives namely, (i) Investigate the long and short-run effect of corruption on FDI inflows to West Africa, (ii) Establish a threshold level for which corruption can or cannot discourage FDI inflows to West Africa and, (iii) Explore whether the effect of corruption on FDI inflows in West Africa differs in the West African Monetary Zone (WAMZ) and the West African Economic and Monetary Union (WAEMU). The thesis used a panel data of 15 countries for the period 1999-2018, whilst employing the Panel Autoregressive Distributed Lag (ARDL) estimation technique.

The results indicated that in the long-run, corruption adversely affects the inflow of FDI to West Africa, which is in agreement with the grabbing hand hypothesis. Furthermore, from the results, it was determined that the long-run threshold level of corruption for West Africa was 6.3, below which FDI inflows cannot be discouraged by corruption, otherwise, FDI inflows could be discouraged. Finally, the results revealed that in the long-run corruption negatively affect the FDI inflow in both WAMZ and WAEMU, albeit at different magnitudes. However, the short-run panel estimates failed to determine a corruption threshold level for West Africa, while the effect of

corruption on FDI inflows was only found to be statistically significant for WAEMU, which show support for the helping hand hypothesis. Nevertheless, the country-specific short-run results were found to show differences in signs and significance across countries, hence, showing support for both the grabbing hand and helping hand hypotheses. Also, a short-run country-specific threshold level of corruption was established for both Mali and Burkina Faso as 6.2 and 4.9, respectively. Based on the results, it is recommended that governments should focus on mechanisms that will strongly discourage people from engaging in corruption by reducing unnecessary delays and ensuring that the consequences for perpetrators are dire. Furthermore, governments, particularly in countries that had a score above the threshold level, should intensify efforts to fight corruption and reduce it to at least the threshold level, which is just enough for attracting FDI. This can be done by strengthening, and ensuring effective monitoring of public institutions and agents while providing a reward for honesty.

DEDICATION

This work is dedicated to my family and all those that supported me in various ways.

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LIST OF ABBREVIATIONS

ACC	Anti-Corruption Commission
ACFTAA	Africa Continental Free Trade Area Agreement
ANLC	Agence Nationale de Lutte Contre la Corruption
ARCOP	Autorité de régulation de la commande publique
ARDL	Autoregressive Distributed Lag
ASCE-LC	Autorité Supérieure de Contrôle d'Etat et de Lutte contre la Corruption
AU	African Union
AUCPCC	African Union Convention on Preventing and Combating Corruption
BBC	British Broadcasting Corporation
BPM	Balance of Payment Manual
CADF	Cross-Sectional Augmented Dickey-Fuller
CEN-CAD	Community of Sahel-Saharan States
CEPIC	Investment Promotion Centre in Cote d'Ivoire
COMESA	Common Market for Eastern and Southern Africa
CORR	Corruption
CPI	Corruption Perception Index
CRC	Constitutional Review Commission
CSD	Cross-Section Dependence
DOLS	Dynamic Ordinary Least Squares
EAC	East African Community
ECOWAS	Economic Community of West African States
EFCC	Economic and Financial Crimes Commission
EFTA	European Free Trade Association

FDI	Foreign Direct Investment
FE	Fixed Effect
FMOLS	Fully Modified Ordinary Least Squares
FTAA	Free Trade Area of the Americas
GDP	Gross Domestic Product
GDPPC	Gross Domestic Product Per Capita
GIEPA	Gambia Investment and Export Promotion Agency
GIPC	Ghana Investment Promotion Centre
GMM	Generalized Method of Moments
HALCIA	Haute Autorité de Lutte contre la Corruption
HAPLUCIA	Haute Autorité de Prévention et Lutte contre la Corruption et les Infractions Assimilées
ICPC	Independent Corrupt Practices and Other Related Offences Commission
ICRG	International Country Risk Guide
IGAD	Intergovernmental Authority on Development
IMF	International Monetary Fund
INF	Inflation
MC	Marginal Cost
MG	Mean Group
MNEs	Multinational Enterprises
MR	Marginal Revenue
NEPD	Nigeria Enterprises Promotion Decree
NIC	National Investment Commission
NPPRA	National Public Procurement Regulatory Authority

NR	Natural Resources
OECD	Organization of Economic Co-operation and Development
OLI	Ownership, Locational and Internalization
OLS	Ordinary Least Squares
PI	Political Instability
PMG	Pooled Mean Group
RM	Random Effect
RUF	Revolutionary United Front
SADC	Southern African Development Community
SLIEPA	Sierra Leone Investment and Export Promotion Agency
SOFITEX	Société Nationale des Fibres et Textiles
SSA	Sub-Saharan Africa
SWBR	Single Window Business Registry
TOP	Trade Openness
UN	United Nations
UNCAC	United Nations Convention Against Corruption
UNCATOC	United Nations Convention Against Transnational Organized Crimes
UNCTAD	United Nations Conference on Trade and Development
WAEMU	West African Economic and Monetary Union
WAMZ	West African Monetary Zone
WBE	World Business Environment
WDI	World Development Indicators
WEF	World Economic Forum
WGI	World Governance Indicators

CHAPTER ONE

INTRODUCTION

1.1 Background

Foreign Aid and Foreign Direct Investment (FDI) are two of the most widely craved resources by governments in developing economies like Africa. As opposed to foreign aid which comes with conditions and possible repayment, FDI, on the other hand, presents itself as a decent alternative for supplementing any financial development gap (Tsikata, 2005). Beyond that, FDI also serves as a source for job creation, technology transfer, access to the international market, and improved standard and quality of goods and services provided, thus, inducing economic growth and development (Akonnor, 2018; UNCTAD[1] 2010; Ayanwale, 2007). Evidence from fast-growing economies like China, India, and Brazil, underscores FDI's importance. For example, in 2018, China accounted for 10 percent of the World's total FDI inflows (UNCTAD, 2019).

Therefore, the growing shift towards FDI inducing policies over the past decades comes as no surprise. Over the past five decades, global FDI inflows have increased remarkably. However, the global FDI inflows during the 1970s were relatively low, US$23.8 billion on average (Table 1.1). This period, understandably, was dominated by two prominent schools of thought: The Capitalist and the Socialist. The Capitalist viewed FDI as a vital component towards complementing domestic development – their approach was more liberal and open to FDI. Whereas, on the other hand, the Socialist viewed FDI as an imperialist instrument to subdue weaker nations and

[1] The United Nations Conference on Trade and Development (UNCTAD).

subscribers to this idea adopted anti-trade measures which are unfavourable to FDI activities, hence, a partial reason for the low FDI inflows at the time. Hoever, by the 1980s, with the socialist structure steadily losing support, average FDI inflows tripled to US$ 92.9 billion, representing 0.62% as a share of global Gross Domestic Product (GDP). In the subsequent period, the 1990s, as capitalism became the dominant structure, average FDI inflows rose significantly to slightly over US$ 397 billion (a 1.33% as a share of GDP) – representing over 300 percent growth in FDI inflows compared to the 1980s. The global average of FDI inflows in the 2000s is now in trillions. From 2000 to 2009, FDI inflows amounted to almost US$1.1 trillion on average which represents a 2.33% as a share of GDP (Table 1.1). Over the period 2010-2018, FDI inflows stood at US$ 1.5 trillion (2.04% as a share of GDP), which is 65 times more than the levels in the 1970s. Most of the FDI inflows in millions of US$ accrue to the developed economies and represents a higher portion in terms of GDP for the developing economies. However, over time, developing economies, have made tremendous strides to catch up with the developed economies in terms of the value of FDI inflows it attracts (Table 1.1).

Africa's experience with FDI inflows over the past decades is similar to that of the global trend (Table 1.1). The region has made steady progress in terms of the FDI it attracts. As shown in Table 1.1, FDI flows to the region in the 1970s, on average was slightly over US$1 billion (representing 0.56% as a share of GDP). Anti-trade policies were dominant during this period, given that most African countries just overcame submission from their colonial masters. The value was doubled during the 1980s, and by the 1990s, when most of the countries in Africa adopted liberal policies towards trade, the region tripled that figure to US$6.6 billion. The impressive form continued as the region enjoyed an astounding US$31 billion FDI inflows on average during 2000-2009, and during this same period, FDI inflows accounted for the highest share of GDP (2.63%) on average.

Thereafter, the region experienced a modest increase in FDI inflows to US$49 billion, which is 2.18% as a share of GDP on average for the period 2010-2018.

Table 1.1: Average FDI inflows (1970-2018) and World share (2016-2018)

	Average FDI Inflows in millions of US$ (% GDP)				
	1970-1979	1980-1989	1990-1999	2000-2009	2010-2018
World	23800 (-)	92931 (0.62)	397497 (1.33)	1085732 (2.33)	1548023 (2.04)
Developed economies	18045 (0.41)	72435 (0.61)	282794 (1.33)	748995 (2.33)	874396 (2.04)
Developing economies	5755 (0.57)	20496 (0.7)	114703 (1.92)	336737 (2.88)	673627 (2.39)
L/A & C	2654 (0.74)	6365 (0.79)	37636 (1.97)	81571 (2.9)	166404 (2.97)
Asia	1902 (-)	11779 (-)	70165 (1.06)	223255 (1.89)	455926 (1.86)
Africa	1124 (0.56)	2202 (0.44)	6636 (1.11)	31007 (2.36)	49304 (2.18)

Note: The values in the bracket represents FDI inflows as a share of Gross Domestic Product (GDP) and L/A & C means Latin America & Caribbean**. Source:** Authors computation using UNCTAD (2019) dataset.

However, most of the FDI inflows to the region are distributed disproportionately across sub-regions. In brief, North Africa remains the highest recipient of FDI inflows in millions of US$ into the region, averaging US$12 billion from 1999 to 2018 annually (UNCTAD database, 2019). Nonetheless, as a share of GDP, the sub-region's FDI inflow accounts for less than 3 percent on average over the same period, 2.32% (Figure 1.1). The FDI inflows in 2006 (almost US$22 billion) accounted for 5% as a share of GDP, the highest yet (Figure 1.1). Nevertheless, years of consecutive decline saw the sub-region register its lowest FDI inflows in value terms in seven years, US$7 billion in 2011 and the lowest as a percentage of GDP for over a decade at 1.1%. This was mainly due to the political uprisings[2] that swept across countries in the sub-region. The sub-region has since picked up, and once again is at the forefront in terms of the FDI it attracts.

[2] These political uprisings were popular called the Arab Spring. It was a series of pro-democracy protests in 2011 that initially started in Tunisia and quickly spread to Egypt, Libya and Morocco (see History.com Editors, 2018; Makdisi, 2017).

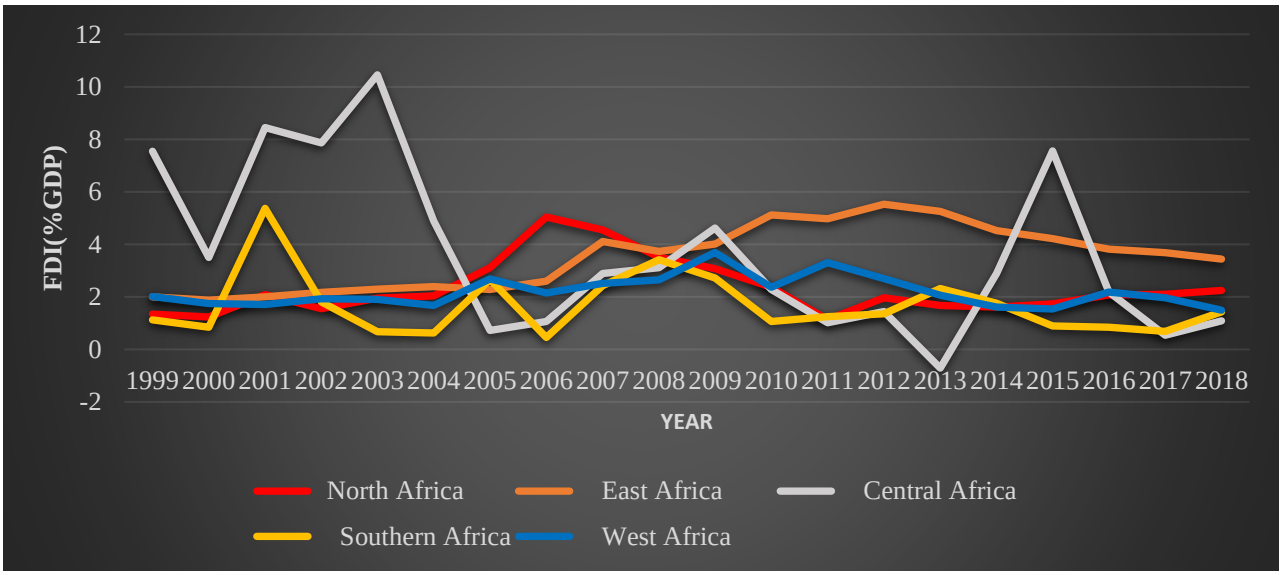

Figure 1. 1:FDI Inflows (%GDP) across sub-regions in Africa (1999-2018)
Source: Author's computation using data from UNCTAD (2019)

In sharp contrast, Central Africa received the least FDI flows on average from 1999 to 2018 (US$4.2 billion) but the highest as a percentage of GDP (3.7%) (UNCTAD database, 2019). Flows of FDI into the sub-region has been mainly irregular (Figure 1.1). Between 1999 and 2018, Central Africa remained the only sub-region to record a negative FDI inflow of almost US$2 billion in 2013 representing -0.7% as a share of GDP (Figure 1.1). Two years later, remarkably, the sub-region attracted over 30% of the flows to Africa in 2015, making it the largest recipient of FDI inflow in value terms and as a share of GDP (US$17 billion and 7.6% respectively). A similar irregular pattern is observed for the Southern Africa sub-region which has an average FDI inflow as a percentage of GDP of 1.7%, the lowest in Africa, representing around US$5 billion in value terms from 1999 to 2018. The fluctuation is largely influenced by FDI patterns in South Africa - the sub-region's largest FDI recipient (UNCTAD 2012, 2019). Unlike Southern and Central Africa, the trend of FDI flows to East Africa has mostly been upward in terms of value (UNCTAD database, 2019) and share of GDP (Figure 1.1). Average FDI inflows from 1999 to 2018 account

for 3.5% of GDP in the sub-region making it the second-highest after Central Africa and this represented almost US$8 billion in value terms.

To the sub-region of interest, West Africa, from 1999 to 2018, the sub-region attracted the second-highest FDI inflow to Africa on average, US$9 billion, which accounts for 2.2% as a share of GDP (UNCTAD database 2019). From Figure 1.1, between 1999 and 2004, FDI as a share of GDP was fairly constant, roughly floating below 2%, but became irregular, albeit staying above pre-2005 levels, until 2011 when the sub-region registered its highest FDI inflow yet (US$18 billion which represented 3.3% of GDP). Since then, however, FDI inflows, as shown in Figure 1.1, has virtually been falling. In part, this can be attributed to the outbreak of Ebola, and the risk of instability related to elections in Nigeria coupled with the dispute between the government and some Multinational Enterprises (MNEs) (UNCTAD, 2019). Also, interestingly, there is a stark difference among FDI recipients within the sub-region. The top five recipient countries from 1999 to 2018 are Nigeria (49.6%), Ghana (19.7%), Cote d'Ivoire (4.5%), Niger (4.2%) and Liberia (3.7%) in terms of value. These five countries together enjoy 82% of the FDI to the sub-region and most of which are rich in mineral and natural resources. For instance, in 2018, Ghana's US$2.9 billion FDI inflow (the highest in the sub-region for that year) was attributed to investment on the Sanko gas field and Asanko Gold Ghana Limited by Eni Group and Gold Field Limited respectively, while Nigeria, the largest oil producer in the sub-region, enjoyed reinvestment earnings by major oil companies (UNCTAD, 2019).

However, in comparison with other developing regions, Africa lags in terms of the volume of FDI it receives in monetary terms compared to Asia and Latin America and the Caribbean. This might be surprising given that the continent is hugely endowed in natural and mineral resources which

are crucial inducing factor of FDI; likewise, the level of corruption (Asiedu, 2006; Fahad &Ahmed, 2016; Okafor *et al.*, 2017; Luu *et al.*, 2018).

Corruption can serve as a useful yardstick for assessing the business climate in a country (International Finance Corporation: World Bank Group, 2019). Higher levels of corruption have been suggested to poison the ability of a nation in attracting FDI (Largade, 2017). According to two separate surveys conducted by the World Business Environment (WBE) and the United Nations Conference on Trade and Development (UNCTAD) on thousands of firms in 1999/2000, as cited by Asiedu (2006), corruption ranks as the number one factor constraining FDI to Africa in each survey.

Although no country is immune from corruption, however, in Africa, the practice is widespread (Hanson, 2009). Based on the World Bank's World Governance Indicators (2019) statistics, from 2000 to 2018, the continent sits bottom with an average score of -0.6 on the control for corruption index[3]– almost the same as the West African average. Europe came out top with a 0.7 score followed by America (0.1) and Asia (-0.2). Similarly, based on Transparency International's Corruption Perception Index, measured on a scale of 0 (most corrupt) to 100 (least corrupt) Africa averaged a score of 31 compared to Europe (65), Asia (44), and America (44) from 2015 to 2018.

Besides, corruption not only deters investment but it also challenges the government's effort to achieve sustainable economic, social and political development, by increasing the rate of poverty, widen the inequality gap in a society and lead to political instability which can cost lives at worst. Furthermore, it suffocates the development of a fair and efficient market due to its illegality, which comes along with huge risk and uncertainty for investors in particular. In short, the cost of

[3] The index is measured on a scale of -2.5 (most corrupt) to 2.5 (least corrupt).

corruption runs deep. For example, the global economy is estimated to lose around US$3.6 billion annually due to corruption according to the United Nations Secretary-General, António Guterres (Johnson, 2018), while it was estimated that least corrupt governments mobilize 4% more in tax revenues as Gross Domestic Product (GDP) than governments with the highest level of corruption at the same development category (Mauro *et al.*, 2019).

Despite that, two strands of the argument exist regarding the effect of corruption on FDI, the "grabbing hand hypothesis" and the "helping hand hypothesis". Briefly, the grabbing hand hypothesis argues that corruption deters FDI, whereas the helping hand contends that corruption is not that 'bad' for attracting FDI. Several empirical studies have supported the grabbing hand hypothesis (Al-Sadig, 2009; Mosikarri *et al.*, 2018; Luu *et al.*, 2018), while others support the helping hand hypothesis (Egger and Winner, 2005; Quazi *et al.*, 2014; Gossel, 2018). Nonetheless, corruption is a globally rebuked phenomenon. Thus, for this thesis corruption is considered harmful and as such inhibits FDI.

1.2 Statement of the Research Problem

The importance of foreign capital inflow to West Africa cannot be underestimated, more so when most of the countries in the sub-region are aid-dependent (OECD, 2018). One way in which foreign capital can be accessed is through FDI. Apart from the transfer of technology and skills FDI brings to a nation, it might also help to address the gap in trade between targeted foreign exchange requirements and those derived from export earning plus public foreign aid, as well as, cover revenue gap arising from the expected government tax revenues and locally raised taxes. This rationalization has ignited serious competition for FDI among nations, sub-regions and regions worldwide.

For the most part, FDI inflows to West Africa has generally increased over time (UNCTAD database, 2019). From 1999 to 2018, FDI inflows averaged US$9 billion (representing 2.2% as a share of GDP) which makes it the second-largest recipient of FDI inflows on the African continent (ibid). Nonetheless, FDI inflows to West Africa have witnessed a continuous decline since 2011 in terms of volume and as a share of GDP (ibid). Between 2011 and 2018, the sub-region experienced a 49% decline in the volume of FDI inflows (ibid). The sub-region averaged US$12.5 billion (equivalent to 1.9% as a share of GDP) from 2012 to 2018 (ibid). This was three times less than the average for Sub-Saharan Africa, US$36.7 billion (representing 2.3% as a share of GDP), and almost US$2 billion less in comparison to that of North Africa (US$13.4 billion) and East Africa (US$13.9 billion) over the same period. In 2018, for example, despite the value of FDI inflows increasing by 11% for Africa, the sub-region experienced a 15% fall in its inflows, the lowest in over 11 years (UNCTAD, 2019). This is worrisome, especially when countries in the sub-region have sight of achieving the Sustainable Development Goals by the year 2030 and becoming economically self-reliant. Besides that, the Africa Continental Free Trade Area Agreement (ACFTAA) comes with huge opportunities for FDI inflows while the government of the United States of America has promised to increase its investment in Africa (UNCTAD, 2019).

According to UNCTAD's World Investment Report [(WIR), 2001] as cited by Habib and Zurawicki (2002), many African countries attract less FDI due to rampant corruption, poor and non-growing economy. While, Asiedu (2006); Largarde (2017); Okafor *et al.*, (2017), have cited corruption as a major obstacle to the attraction of FDI inflows. Although leaders within the West African sub-region are making efforts to curb corruption, the practice is still prevalent as performance remains poor compared to the other sub-regions. For instance, data from the World Bank's World Governance Indicators (WGI) corruption index show an average score of -0.62 from

2000 to 2018 for the sub-region which is poor in comparison to Southern Africa (-0.25), East Africa (-0.53) and North Africa (-0.56). Aside from that, in 2018, based on Transparency International corruption perception ranking, eleven out of the sixteen countries in the sub-region are ranked in the bottom half, while only Cape Verde, with a score of 57/100[4] had a score above the average (50).

Notwithstanding, findings in the literature (corruption-FDI nexus), which has been widely studied, have no consensus as evidence exists for both the grabbing hand hypothesis (Fahad and Ahmed, 2016; Epaphra and Massawe, 2017; Luu *et al*., 2018) and the helping hand hypothesis (Quazi *et al*., 2014; Hasan *et al*., 2017; Gossel, 2018); while others found no evidence at all (Al-Sadig, 2009; Bellos and Subasat, 2012; Udenze, 2014). However, majority of the studies focus on global (Egger and Winner, 2006; Al-Sadig, 2009; Ardiyanto, 2012; Luu *et al.*, 2018), regional (Woo and Heo, 2009; Quazi *et al*., 2014; Abotsi and Iyavarakul, 2015; Gossel, 2018), national (Hasan *et al.*, 2017; Mosikarri *et al.*, 2018; Kasasbeh *et al.*, 2018; Omodero 2019) or firm-level studies (Hines, 1995; Wheeler and Mody, 1992; Smarzynska and Wei 2000; Hakkala *et al*., 2008) leaving sub-regional level studies mostly unattended. Just as with different continents, sub-regions have diverse cultures with distinct regulatory environments and as such, must not be treated as a single entity by investors (Anyanwu and Yameogo, 2015). Thus, the need to explore sub-regional analysis independently, becomes paramount.

Aside from that, almost all panel studies in the subject area (Quazi *et al*., 2014; Fahad and Ahmed, 2016; Epaphra and Massawe, 2017; Gossel, 2018) ignored the possibility of a correlation between residuals in the different cross-section units and slope heterogeneity, partly due to the estimation

[4] The index on corruption for transparency international has a scale running from 0 (absolute corruption) to 100 (no corruption), thus making the average score 50.

techniques adopted. The former can arise due to the interdependence among countries (Pesaran, 2004), through trade interactions or shared policies. Ignoring its possibility can lead to imprecise estimates or cause serious identification problem (Eberhardt, 2011). Thus, accounting for it is imperative, especially in sub-regional or regional studies, where countries normally share common protocols and agreements. About the latter, slope homogeneity is assumed by all standard panel estimation techniques like the Fixed and Random effect models, and the general Methods of Moments (GMM) (ibid). Hence, an estimation technique that accounts for the aforementioned methodological issues is imperative.

To this end, and given the declining trend in FDI inflow to the sub-region and the dearth on sub-regional studies, the thesis seeks to understand the role of corruption on the inflow of FDI to West Africa. Furthermore, the thesis complements the existing literature by adopting a more suitable approach, the panel Autoregressive Distributed Lag (ARDL) Model, to remedy the aforementioned methodological problems in investigating the effect of corruption on FDI in West Africa. Beyond that, with the common knowledge that corruption is harmful, the level of corruption must be minimized to its lowest since it cannot be completely exterminated. However, it begs the question: what level of corruption qualifies as the lowest possible level? On that note, this thesis further attempts to establish a minimum level, henceforth called threshold, for West African countries.

1.3 Research Questions

The thesis is driven by the following research questions;

- ✓ What is the long-run and short-run effects of corruption on FDI inflows to West Africa?

- ✓ What is the threshold level of corruption for which FDI inflows can or cannot be discouraged to West Africa?
- ✓ Does the effect of corruption on FDI inflows in West Africa differs in the West African Monetary Zone (WAMZ) and the West African Economic and Monetary Union (WAEMU)?

1.4 Research Objectives

The thesis is directed towards achieving the following objectives:

- ✓ Investigating the long-run and short-run effects of corruption on FDI inflows to West Africa.
- ✓ Establish a threshold level for which corruption can or cannot discourage FDI inflows to West Africa.
- ✓ Explore whether the effect of corruption on FDI inflows in West Africa differs in the West African Monetary Zone (WAMZ) and the West African Economic and Monetary Union (WAEMU).

1.5 Significance of the Thesis

With many West African countries unable to raise enough resources domestically, FDI presents a decent alternative to serve as a supplementary source. The sub-region is the second-largest FDI recipient in Africa and the top recipient for SSA, averaging US$9.2 billion from 1999 to 2018 (UNCTAD dataset 2019). However, FDI inflows to the sub-region have virtually been falling since 2011. The situation is more concerning because it is occurring at a time when the continent of Africa has been identified as a major potential recipient of FDI inflows as a result of, but not

limited to, the Africa Continental Free Trade Area Agreement (ACFTAA) (UNCTAD, 2019). Thus, understanding the role of corruption on FDI inflows to West Africa is timely and crucial.

Therefore, through this empirical exercise, the thesis provides policymakers with the opportunity to understand the complex relationship between corruption and FDI, using a more suitable macro panel estimation technique (the panel ARDL model). This can serve as a yardstick for assessing how effective corruption measures have impacted the sub-region FDI inflow, which can act as a guide to redress the current situation. Beyond that, determining the threshold level ensures both policymakers and foreign investors to be well-positioned in making investment policies (decision). Away from that, findings on FDI-corruption studies are inconclusive (as discussed earlier in section 1.1 and 1.2), thus making the thesis relevant and significant as it contributes to the ongoing debate on corruption and FDI.

1.6 Scope of the Thesis

Rather than studying the continent as a whole or Sub-Saharan Africa, the thesis focuses on fifteen countries[5] within the West African sub-region. Most of the countries in the sub-region sit on a privileged geographic location and are rich in natural and mineral resources. The sub-region not only plays host to the biggest economy (Nigeria) on the continent, which also doubled as the biggest oil producer but also to some of the fastest-growing economies on the continent like Ghana, Senegal and Cote d'Ivoire, thus, making the sub-region a vital part of the continent's growth. Aside from that, on average, the sub-region is the second-largest FDI recipient on the continent and the highest FDI recipient in Sub-Saharan Africa (UNCTAD dataset, 2019). However, FDI

[5] Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

flows to the sub-region has seemingly dwindled for over half a decade now. Beyond that, there are limited sub-regional studies on this topic. Hence, the dedication of the thesis to the West African sub-region. The period considered for the thesis span from 1999 to 2018. This period was chosen due to the availability of data for all the countries under consideration.

1.7 Organization of Thesis

The thesis comprises five chapters, and is organized as follows; Chapter One deals with the introduction of the thesis, which consists of the background information, statement of the research problem, research questions, research objectives, the significance of the thesis and the scope. Chapter Two presents an overview of FDI and corruption in West Africa. Chapter Three focuses on the literature review with both the theoretical and empirical studies reviewed. Chapter Four presents the methodology of the thesis, which comprises the theoretical framework, empirical model specification, estimation techniques and data type and sources. Also, the presentation and discussion of results are carried out under this chapter. Whiles the final chapter, Chapter Five, presents the summary. conclusion and recommendations.

CHAPTER TWO

OVERVIEW OF FOREIGN DIRECT INVESTMENT AND CORRUPTION IN WEST AFRICA

Introduction

This chapter provides a detailed analysis of Foreign Direct Investment (FDI) activities and corruption in West Africa. The overview proceeds as follows: FDI in West Africa, corruption in West Africa, and a country analysis of FDI and corruption.

2.1 Foreign Direct Investment in West Africa

According to the United Nations geoscheme[6], West Africa is one of the five sub-regions[7] in Africa. The sub-region is made of 16 domiciled states with diverse cultures and languages[8] – rooted in their different colonial experiences and administrations. Despite their existing diversities, member states are economically and politically integrated under the Economic Community of West African States (ECOWAS). The ECOWAS, formed in 1975, however, is made up of 15 states (see Footnote 2) and is meant to strengthen the economic and political cooperation among those member states. Also, there are two monetary unions within ECOWAS; The West African Economic and Monetary Union (WAEMU) and The West African Monetary Zone (WAMZ) (Debrun *et al.* 2002). The WAEMU is made up of eight, mostly francophone, countries, namely

[6] A system that divides countries into regions and sub-regions.
[7] The other four sub-regions are North Africa, East Africa, Central Africa and Southern Africa.
[8] Member states either speak one of the three of official languages namely French, English and Portuguese. However, within member states, there are thousands of local languages like Yoruba, Hausa, Wolof, Krio, Mende, and so on (Wallace and Fargion, n.d).

Cote d'Ivoire, Benin, Burkina Faso, Togo, Guinea Bissau, Mali, Senegal and Niger. Unique about the union is that all its members use the same currency, the CFC Franc. The WAMZ, on the other hand, is made up of six countries, mostly Anglophone, and they are; Ghana, Guinea, The Gambia, Sierra Leone, Liberia and Nigeria; each using its respective currency. Appendix 9, shows the map of ECOWAS member states considered in the thesis.

West Africa remains one of the most strategic and influential sub-region in terms of FDI activities within the continent. The majority of the states in West Africa sit along the Atlantic Ocean which makes transhipment of goods and services very easy. Also, it plays host to some of the biggest economies in Africa, such as Nigeria and Ghana. Besides, member states in the sub-region are highly endowed in natural resources, including, Ghana with gold[9], Nigeria with oil[10], Niger with uranium[11], Guinea with Bauxite[12], and others. These attributes make the sub-region an attractive spot for FDI operations.

Nonetheless, the sub-region's history with FDI inflows was not prominent until the end of the 1980s (Figure 2.1). A partial reason for the limited FDI flows into West Africa during these periods, understandably, can be linked to the colonial past countries in the sub-region were subjected to in the pre-1960s[13]. With economic decline and stagnation, attention towards FDI as a growth-inducing instrument became prominent around the 1990s as countries adopted the structural economic reform programme in line with recommendations from the Bretton Wood Institutions[14] (Heidhues and Obare, 2011). As a result, FDI flows into West Africa has picked up

[9] In fact, the country recently became the largest gold producer in Africa (Whitehouse, 2019).
[10] The country produces 2.2% of the World total oil, and the largest supplier on the African continent (Stebbins, 2019).
[11] Niger control 7% the world's total uranium, the fourth-largest in terms of world reserves (Mohanty, 2018).
[12] Guinea is the number one bauxite producer in the world, holding a third of its reserve worldwide (Reuters, 2007).
[13] The idea of FDI did not fit well for these countries at the time due to their colonial history, more so, when the idea was trumpeted by their former colonial masters.
[14] International Monetary Fund and the World Bank.

and largely improved. From 1999 to 2018, the sub-region attracted an average of US$9 billion in FDI inflows. However, since 2011, the sub-region, virtually, has been experiencing a decline in FDI inflows in terms of value (Figure 2.1) and as a share of GDP (see Figure 1.1). For example, from 2011 to 2018, FDI flow into West Africa fell by 49%, and as a percentage share of GDP, FDI has virtually been falling for over seven years, and the 2018 value was the lowest recorded in over two decades (see Figure 1.1). The recent trends of FDI flow to the sub-region is not particularly encouraging, especially with the Africa continent identified as a promising spot for FDI activities, citing the adoption of the African Continental Free Trade Area Agreement (ACFTAA) as a major factor (UNCTAD, 2019)[15]. Notwithstanding, the sub-region remains the second-highest recipient of FDI in Africa after North Africa[16]. Figure 2.1 illustrates the Trend of FDI inflows in million US$ into West Africa for the period 1970-2018.

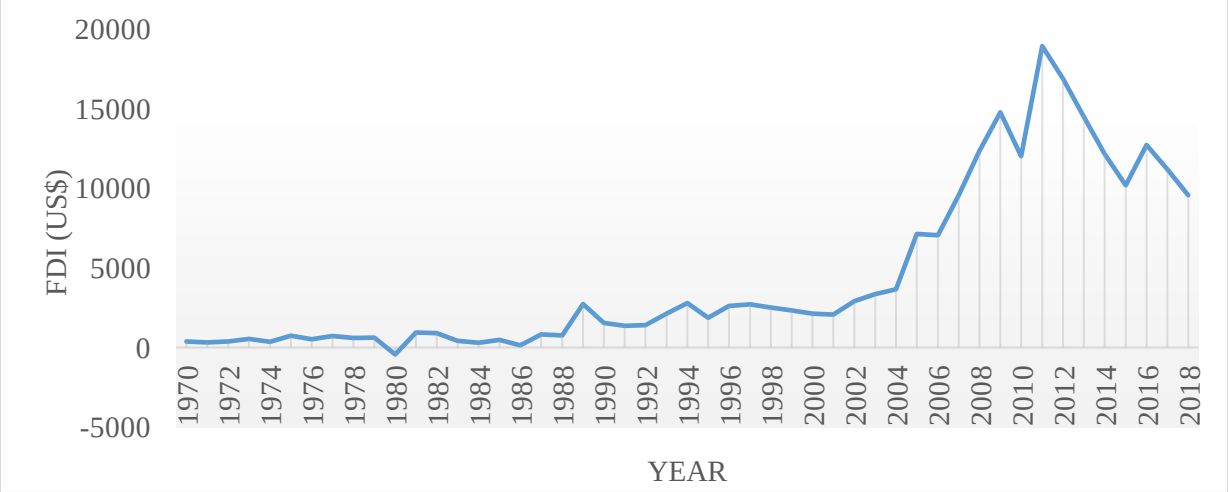

Figure 2. 1:Trends in West Africa's FDI Inflow in Million US$
Source: Author's computation using data from UNCTAD (2019).

[15] On top of that, the United States seeks to ramp up its investment activities in Africa through the Better Utilization of Investment Development Act of 2018 (UNCTAD, 2019). While, the Japanese government, at the Seventh Tokyo International Conference on African Development (TICAD) promised to invest their efforts in ensuring private investment from Japanese companies continue (Ministry of Foreign Affairs – Japan, 2019).
[16] From 1999 to 2018, on average, North Africa attracted around US$12 billion FDI inflows, West Africa (US$9 billion), East Africa (US$7 billion), Southern Africa (US$4.8 billion) and Central Africa (US$4.2 billion).

As with the sub-regional differences, countries within West Africa differ significantly in terms of the volume of FDI they receive. Statistics fromUNCTAD database (2019) show that, during the period 1999-2018, the average FDI inflows received by Nigeria (around US$4 billion), is more than twice what the other members received. Ghana followed in the second position, attracting close to US$2 billion on average, and Cote d'Ivoire with an average FDI inflow of slightly over US$400 million was in third place. The least FDI inflow accrued to Guinea Bissau, attracting just around US$13 million on average. To underscore the disparities among countries, for instance, Guinea Bissau's average FDI inflows represented about 0.3% of Nigeria's average FDI inflows.

However, in terms of FDI as a share of Gross Domestic Product (GDP), during 1999-2018, Nigeria's FDI inflows represent 1.7% of GDP on average (UNCTAD database, 2019). This does not, in any way, undermine the importance of FDI, rather it might suggest that FDI has exerted little independent growth effect in Nigeria (Omowunmi, 2012). The FDI inflows to Liberia on the other hand, represents 23.8% of GDP, making it the largest recipient in terms of FDI share to GDP. Cape Verde (7.5%), Sierra Leone (6.8%), Niger (5.7%) and Guinea (3.9%) are all in the top five in terms of the average FDI inflows as a share of FDI. Furthermore, the second-largest recipient of FDI in terms of volume, Ghana, has FDI holding slightly below 3.8% share to GDP. Coincidentally, Guinea Bissau occupied the least position with its average FDI inflows representing only 1.55% of GDP.

Based on the reviews, it was observed that for most countries in West Africa, FDI inflows are directed to the natural and mineral resource, infrastructure, telecommunications and tourism sector (see section 2.3). Furthermore, foreign investment coming out from West Africa is minute compared to the investments coming into the sub-region (UNCTAD database, 2019). In brief, on

average, the sub-region recorded an outflow of FDI worth US$741 million from 1999 to 2018 (ibid). This amount is five times less than the average for Sub-Saharan Africa (SSA), around US$4 billion, three times less compared to Southern Africa, and two times less than that for Northern Africa (ibid). Liberia recorded the highest average annual FDI outflows in the sub-region,US$344 million, followed by Togo (US$123 million), Nigeria (US$88.4 million), Cote d'Ivoire (US$57 million) and Senegal (US$42 million) for the period 1999-2018.

2.2 Corruption in West Africa

As a term, corruption is relative and broad. It happens in several of forms, takes place in various sectors (or everyday life) and can be ambivalent (Blundo and Olivier de Sardan, 2006). Besides, one can easily have a judgement about the phenomenon despite the difficulty in observing it (Andvig, 2008). Hence, the contention in its very definition (see section 3.2). However, in this thesis, it is viewed as the abuse of public office for personal gain (McMullan, 1961; Bardhan, 1997). This is so because most of the corruption in the business arena is done in partnership with public officials.

Although no country is immune to corruption, it is more widespread and visible in African countries (Hanson, 2009). According to Blundo and Olivier de Sardan (2006), "In terms of the simple 'presence or absence of acts,' there is little or nothing that distinguishes African corruption or its embeddedness in the administrative arena and social life from European corruption. However, the scale does vary considerably as well, of course, as the 'style' (i.e. codes and manners) and the forms of legitimization used. It is the scale and widespread nature of these features, and not their mere presence, that are unique to African countries …". Blundo and Olivier de Sardan (2006) observed that gratuity, commission for illicit service, nepotism, uwaranted fee

for public service, toll and misappropriation are some of the basic forms of corruption that apply to almost any African country. A similar observation was made by Andivg (2008) for Sub-Saharan African countries. For some of these forms of corruption to continue, public officials and(or) private agents adopt corrupt strategies such as corrupt investment[17], forming a lasting relationship, engage in a quest for wealth accumulation, create a trusted circle of corrupt agents and so on (Blundo and Olivier de Sardan, 2006).

Corruption is one of the major challenges facing governments, due to its tendency to undermine and distort public policy, which can lead to resource misallocation. Corruption can starve countries of genuine investors and thus, likely to increase the rate of poverty (Andvig, 2008). Its cost is not only the mere bride paid or money stolen, but also includes some of the immeasurable costs such as the businesses or investments that never surfaced and the loans that are not granted (Sowell, 2015). In short, it suffocates development efforts and comes with a profound cost.

West African countries are no exception to widespread corruption. This, in many ways, might have held back the sub-regions potential for growth and development, despite the natural and mineral resource abundance. Instances of corruption in the sub-region have never been lacking. For instance, "The $10 billion energy scandal" nvolving Petro-Tim Limited and British Petroleum (BP) in Senegal, that will see Senegalese lose billions of dollars in royalties due to a suspicious exploration concession right to drill oil and gas off the coast of Senegal in 2011 (BBC, 2019a). Also, in 2016, a major telecom giant in Nigeria, MTN, sacked a staff believed to have paid the country's Chief of Staff a sum of N500 million (US$1.3 million) to help reduce a fine imposed on the company by the federal government (Sahara Reporters, 2016). While in the Transparency

[17] It involves private agents (especially business persons) giving some form of gift to a public official with the expectation of something in return – more like a favour that requires repayment in some form in the future.

International's Global Corruption Report (2009), it was stated that unofficial payments in Ghana are normally made by contractors and suppliers to secure contracts. Related issues of corruption can be found in almost all countries in West Africa (see section 2.3).

The high level of corruption among West African countries is further supported by available corruption data from the World Bank, Transparency International and other institutions alike. As shown in Figure 2.2, it can be observed that only Cape Verde reported a positive average score, 0.78, making it the least corrupt country in the sub-region. The rest occupies the negative segment on the number line, failing to meet the mean score of zero. This, to an extent, highlights the widespread nature of corruption in the sub-region. Guinea Bissau had the least average score (-1.27), making it the most corrupt country in the sub-region. Figure 2.2 shows the average corruption score for ECOWAS countries.

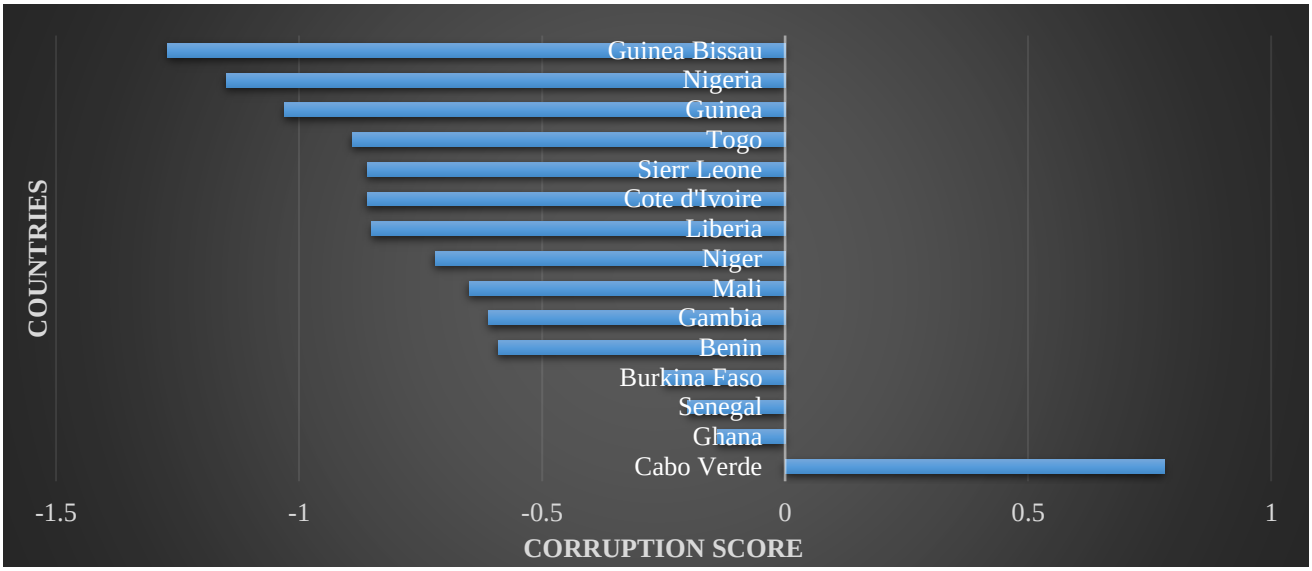

Figure 2.2: ECOWAS countries Average Corruption Score (2000-2018)
Note: The values are shown on a scale of -2.5 (most corrupt)to $+\ 2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

As a sub-region, West Africa had a score of -0.62 on average from 2000 to 2018 (World Bank WGI database, 2019). This, in comparison to Southern Africa (-0.25) and Eastern Africa (-0.53) and North Africa (-0.56), is poor. Nonetheless, the score was almost equal to the SSA average (-0.63) but better than the average recorded for central Africa (-1.1).

However, there is a growing awareness about the negative effect of corruption within the continent, which is a vital step in combating this menace. For example, in 2018, the theme of the African Union (AU) was "Winning the fight against corruption: A sustainable path to Africa's transformation" – indicative of the growing consciousness. Beyond that, in 2003, the AU adopted the African Union Convention on Preventing and Combating Corruption (AUCPCC) which was ratified in 2007. One of the objectives of this convention is to help member states coordinate and harmonize their policies and legislation with the intent to minimize and at best eradicate corruption from the continent as well as to help states create governance structures that will embrace transparency and accountability in their dispensation. Also, almost all the countries on the continent are signatory to the United Nations Convention Against Corruption (UNCAC). These are all necessary steps towards the right direction in the fight against corruption, at least on paper.

Furthermore, the effort to fight corruption is not only pushed forward at the regional and global level but also at the national level as well. Countries on the continent are setting up Anti-Corruption bodies to investigate, independently, any corruption-related activities; conducting audits on government finances and making such reports public; and expanding the space for civil society organizations and opposition parties to partake in the governance process. All these can help to promote transparency and accountability. For instance, in 2003, the government of Ghana enacted the Public Procurement Act (No. 663) (Zinnbauer *et al.*, 2009) to provide guidelines for public

procurement with an idea to curb corruption. Similar acts also exist for the other countries in the sub-region and the continent. Nonetheless, countries in West Africa and the continent as a whole need to do more if corruption is to be eradicated.

2.3 Foreign Direct Investment and Corruption Analysis by Country

2.3.1 Sierra Leone

Historically, FDI activities in Sierra Leone was minimal until the 2000s. This was partly due to the civil war in the 1990s[18]. The major foreign investor around the 1970s to 1980s was De Beers, which was limited at best as a result of the low-capital intensive input used in their mining operations (UNCTAD Sierra Leone, 2010). Nevertheless, midway through the 1980s, the company folded up its operation, which explains the sharp decline in FDI inflows in 1986 (Figure 2.3). Towards 1991, FDI inflows virtually stagnated due to the political turmoil, only to pick up slightly in the early 2000s after investments in the telecommunication sector and restart of mining explorations (ibid). From 2002 to 2018, the country made tremendous progress in attracting FDI. In comparison to 2002, the country's FDI grew by 5890% in 2018. The country enjoyed its highest FDI inflow yet, in 2011 of US$950.5 million – largely associated with the investment made by two London-junior miners, African minerals and London mining, into the production of iron ore which was selling at US$190 per tonne (Fastmarkets, 2015). However, three years later, both companies folded up at a time when the price of iron ore fell by 68% to US$60 per tonne (ibid), causing FDI inflows to fall significantly. Also, coupled to that was the outbreak of the EBOLA

[18] The war affected the whole country and led to both human and capital losses. From 1991 to 1999, more than 75,000 people were killed, and closed to 3 million people were displaced and forced to become refugees (Smillie *et al.*, 2000). Furthermore, the economy shrank by over 40% between 1990 and 1999 (Bangura, 2014). By the early 2000s, peace was restored in the country.

virus in 2014. Between 2011 and 2014, the inflow of FDI fell by 60%. However, since after the EBOLA outbreak ended in 2015, FDI inflows have been picking up once again. Figure 2.3 illustrates the Trends in FDI inflows in million US$ to Sierra Leone for the period 1970-2018.

Figure 2.3:Trends in Sierra Leone's FDI Inflows in Million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019).

Traditionally, the country's main investors are Nigeria, Sweden, Belgium, Germany, Mauritius, the United States and China (Export Enterprises Sierra Leone, 2020). Over the years the country has attracted FDI to its service, mining, manufacturing and tourism sectors, even though most of the volatility in FDI is created by investment in the mining sector (ibid). The Manufacturing sector attracts investment mostly from investors in light manufacturing like beverages and tobacco products (UNCTAD Sierra Leone, 2010). Some of the major investment projects in the country are the rubber production project estimated around US$1.2 billion, financed by China Hainan Rubber Group, China Kingho Group mining project complex worth around US$6 billion, and a subsidiary of French Bollore Group new dock investment for US$ 120 million (Export Enterprises Sierra Leone, 2020).

The country's richness in natural resources and its strategic maritime geographic location (boasting with one of the largest natural harbours in the world), makes it an attractive spot for FDI activities. Aside from that, the government provides fiscal incentives to, in particular, foreign investors. For instance, any locally produced goods require no export licenses except for gold, diamond and government-designated good; investment in rice and timber earns an investor a 10year corporate tax holiday; and also, investors in the mining sector can receive a deduction of 100% for prospecting and exploration (Ministry of Finance and Economic Development, 2016).

In 2007, the government established the Sierra Leone Investment and Export Promotion Agency (SLIEPA)[19]. The functions of the agency, among others include the promotion of investment in Sierra Leone, providing investors with investment-related information, facilitate business registration and assist in the obtainment of any relevant investment document. Also, the government of Sierra Leone has bilateral investment treaties with countries like Germany (since 1966), the United Kingdom (2001) and China (2001).

However, the shortage of skilled labour, poor infrastructure, corruption and limited access to finance is posing a serious challenge to FDI inflows (World Bank's Enterprise Surveys Sierra Leone, 2017). The country ranks 128th and 133rd in the Global Competitiveness Report (2018) in skills and infrastructure respectively out of 140 countries. Also, the World Bank's Doing Business Report 2019 ranked Sierra Leone 163rd out of 189 countries, a three steps decline from the previous year's, while, on the other hand, the country made a ten-step jump in Transparency international's corruption perception index ranking for 2019 from the previous year to 119th out of 180 countries.

[19] Prior, there was an investment promotion Act of 2004 assigned to the Sierra Leone Export Development and Investment Corporation (SLEDIC). The functions of SLEDIC were assigned to SLEIPA after the investment and export promotion Act in 2007.

The improved performance is also reflected in the corruption score from the World Bank's World Governance Indicator (WGI). Figure 2.4 shows, largely, an upward trending curve. For example, the corruption score in 2018 was -0.5 compared to -0.8 in 2002. Figure 2.4 illustrates the trends in corruption performance in Sierra Leone for the period 2002-2018.

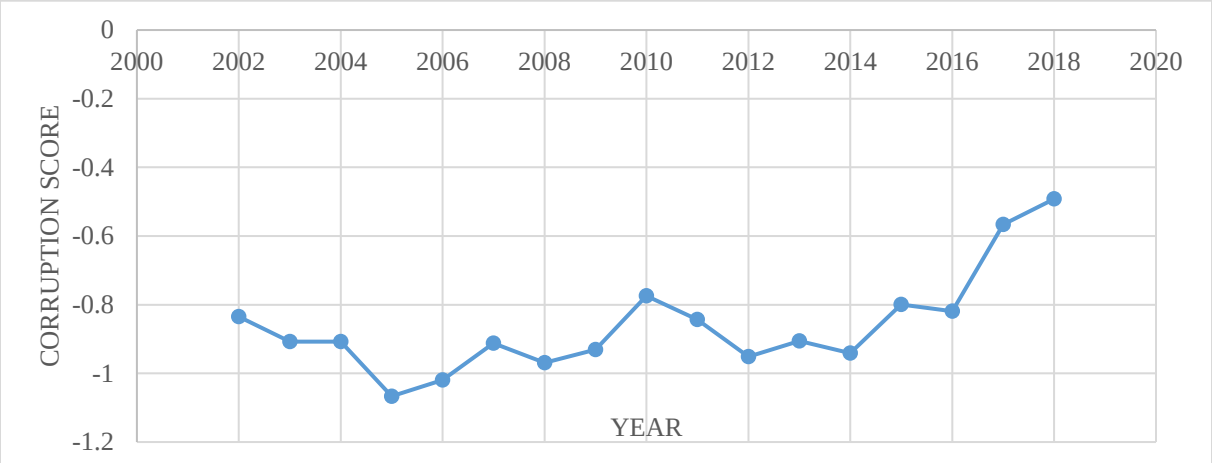

Figure 2. 4:Trends in Sierra Leone's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

Nonetheless, corruption remains widespread in the country at both the street and grand level (Chêne, 2010) and measures to combat corruption remain largely ineffective (Department of State - Sierra Leone, 2018). The incidence of corruption remains high in the country based on World Economic Forum's [(WEF) 2018], Global Competitiveness Report, ranking 109th out of 140 countries (Schwab, 2018). Also, in Transparency International's Global Corruption Barometer Report (2009), 52% of citizens acknowledged that they engaged in a corrupt act to gain a service they need (Pring and Vrushi, 2019). It was also revealed that 46% of firms experienced a request for bribe payment at least once, 30% of the firms were expected to provide gifts for tax officials and 71% of firms were expected to issue gifts to secure government contracts (World Bank's Enterprise Surveys Sierra Leone, 2017).

The country, however, has a body charged with the responsibility of probing, investigating and prosecuting corrupt agents in both the public and private sectors through the Anti-Corruption Commission (ACC). Despite the prevailing corruption in the country, the commission has registered some success stories. For Instance, from 2009 to 2011, the ACC indicted several prominent government officials such as the former Commissioner General of the National Revenue Authority, the Minister of Fisheries and the head of the gold market regulatory body (Department of State - Sierra Leone, 2011). Also, the current President, Julius Maada Bio, was presented a cheque of 7.5 billion leones (US$766 thousand) which is part of a 16 billion leones (US$1.6 million) of stolen cash recovered by the ACC from corrupt officials (Thomas, 2019) Further efforts to combat corruption includes the creation of the office of the Ombudsman, tasked with handling citizen's complaints, the office of the Auditor-General and the increased space for the media and civil societies to participate in the governance process.

2.3.2 Ghana

Unlike other countries in the sub-region, Ghana has enjoyed a relatively peaceful political environment. Similar to other countries, FDI activities started expanding around the 1990s, following measures by successive governments to shift its approach towards a market economy since 1983. Foreign Direct Investment(FDI) activities largely seem non-existent from the mid-1970s to the early 1990s, as they were virtually constant, slightly above zero (Figure 2.5). Between 1970-1992, the country attracted an average FDI inflow of US$15.7 million. The highest peak of FDI inflow, yet, was US$3.4 billion in 2016. This, in part, was primarily driven by the high global prices for cocoa and the US$7 billion offshore oil and natural gas investment project (UNCTAD, 2017). However, in the subsequent years, the country witnessed a decline in its FDI inflow - 2017

(US$3.2 billion) and 2018 (US$2.9 billion) - leading to a 14% decline between 2016 and 2018. Notwithstanding, the 2018 FDI inflows reported represents the largest share of FDI to the sub-region after huge investments were made by Eni Group on the Sankofa gas field and the 50% share acquisition by Gold Field Limited, a South African Company, in Asanko Gold Ghana Limited (UNCTAD, 2019).

Ghana stands as one of the most democratic countries on the African continent and operates a very open economy (The World Bank Ghana, 2019). It also has one of the most stable institutions, and boasts of numerous natural and mineral resources such as gold, cocoa and oil, making it a location foreign investors would find attractive (ibid). Besides, the country provides several fiscal incentives for foreign investors, ranging from locational incentives to investment Guarantees. For example, Ghana offers a tax holiday of 10 years with zero percent corporate income tax for companies operating as free zones developers or enterprises while also exempting from any excise or import duties for plant, machinery, equipment or parts [Ghana Investment Promotion Centre, no date (n.d)]. Beyond that, the country also has an existing agency, the Ghana Investment Promotion Centre (GIPC), charged with encouraging and promoting investment in Ghana, whiles also hosting an annual investment summit to positions itself as a worthy FDI destination (Export Enterprises Ghana, 2020). The country enjoys several bilateral investment treaties and enjoys huge investment inflows from China, India, United Kingdom, South Africa, Turkey, Mauritania and France (ibid). Figure 2.5 shows the trends in Ghana's FDI inflows in million US$ for the period 1970-2018.

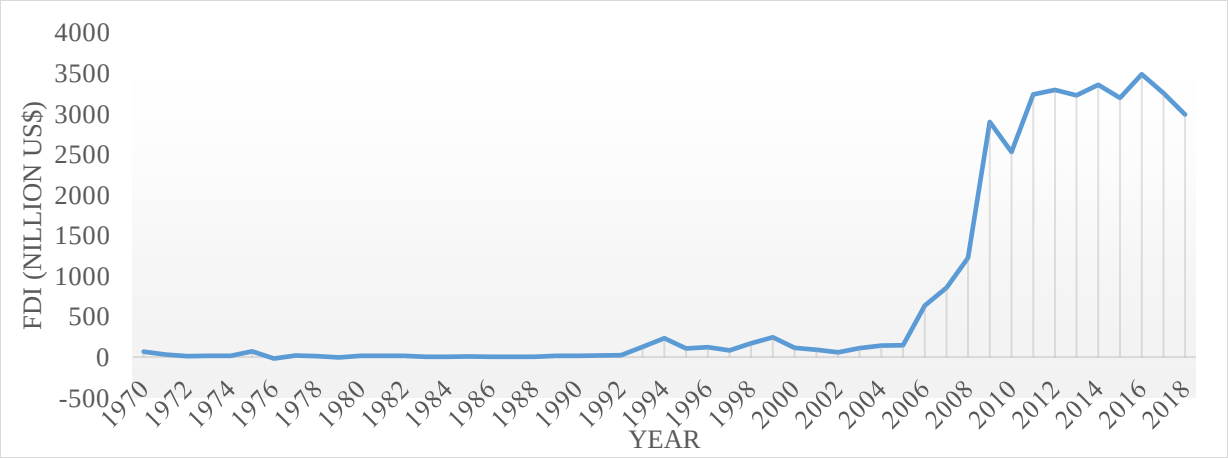

Figure 2. 5:Trends in Ghana's FDI inflow in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

Although the country comparatively performs better than many other African countries, there still exist challenges with access to financial services, tax administration, adequate infrastructure supply and corruption which hinders the country from attaining its potential FDI inflow (World Bank's Enterprise Surveys Ghana, 2013). The country was ranked 114th out of 189 countries in the Doing Business Report by World Bank (2019), jumping six spots from 2018 (120th) and 116th, 104th and 112th out of 140 countries in infrastructure, skills and financial system respectively in the 2018 WEF Global Competitiveness Report (Schwab, 2018) despite improvements from the previous year. However, there was an increase in the incidence of corruption (Schwab, 2018). The country also ranked 80th out of 180 countries in the Transparency International corruption perception index (2019) from 78th in 2018. Based on the trends (Figure 2.6), the corruption score for Ghana has been irregular, although performance for the past thirteen years is above pre-2006 levels. However, performance since 2010 has largely been falling. Figure 2.6 shows the trend of corruption using data from the World Bank's World Governance Indicator (WGI) in Ghana.

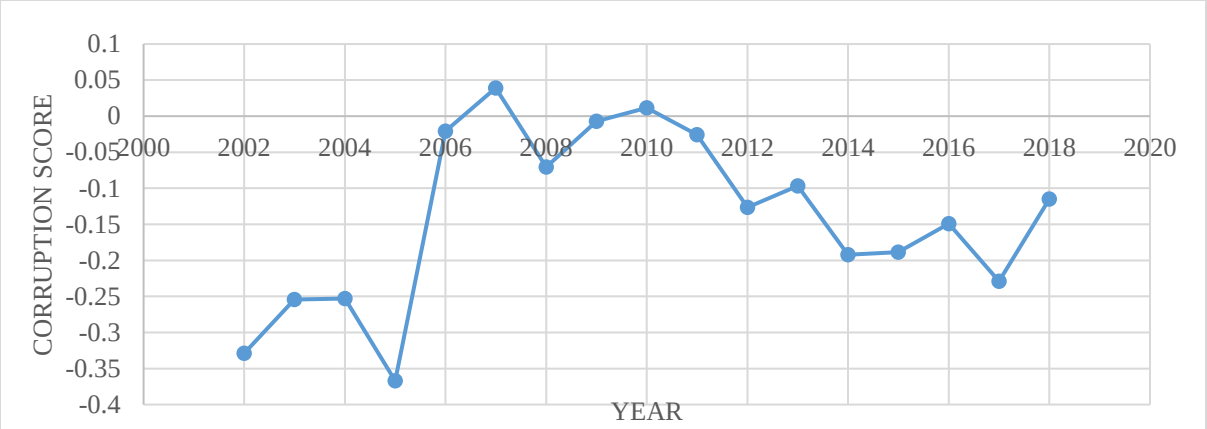

Figure 2. 6: Trends in Ghana's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

According to Transparency International's Global Corruption Barometer Report (2019), 33% of public service users were found to have paid bribe the previous year (Pring and Vrushi, 2019). In a World Bank's enterprise survey in 2013, 18.7% of firm's experience requests for bribe payment at least once, 19.1% of firms were expected to offer gifts to be granted operation licenses, and 35.2% of firms were expected to issue gifts to secure government contracts (World Bank's Enterprise Surveys Ghana, 2013). Furthermore, American Businesses reported that requests for "favours" to acquire services were made by Ghanaian contacts (Department of State – Ghana, 2014). Also, the issue of fraud through scams are reportedly common in Ghana (ibid). In a bid to tackle this menace, the Government of Ghana has tasked the Economic and Organized Crime Office (EOCO)[20], which is the anti-corruption body established in 1998, to investigate both private and public officials suspected of corrupt engagement. Annoh and Asuma (2019) reported that ECOCO recovered around 99.2 million cedis (US$17.1 million), being proceeds from organized crimes between 2014 and 2019, and for which 102 cases were prosecuted. Also, in line with efforts to curb corruption, the Auditor general office annual report is made public. Ghana also created the

[20] It was initially called the Serious Fraud Office before 2010.

Public Office Holders (Declaration of Assets and Disqualification) Act 1998, the Whistleblower Act 2006 and the Anti-Money Laundering Act 2008 as well as providing increased space for civil society activities (Zinnbauer *et al*., 2009). All these measures have the potential for enhancing transparency and accountability if rightfully enforced.

2.3.3 Nigeria

For over three decades, Nigeria has been a busy spot for FDI activities – most of which is directed to the oil and gas sector. However, in the 1970s up to the late 1980s, the government imposed several trade restrictions under the Nigeria Enterprises Promotion Decree (NEPD)[21] which limited the inflow of FDI. Around 1979, these restrictions forced some Transnational Corporations (TNCs), like Citigroup, IBM and Barclays Bank to divest (UNCTAD Nigeria, 2009), and by 1980, the country recorded its lowest FDI inflow, a negative value of US$738 million[22] (Figure 2.7). The restrictions were partially relaxed by the late 1980s, and in 1989 the country attracted around US$1.8 billion in FDI inflows. However, in 1995, the government virtually lifted all restrictions on foreign investors through the Nigerian Investment Promotion Commission Act 1995. Since then, FDI flow to Nigeria largely increased until 2011 – a year in which the country attracted almost US$9 billion in FDI inflows, making it the highest yet. The country has since experienced about 77% decline in FDI inflows between 2011 and 2018. This was primarily due to the risk of instability caused by the designated terrorist group, Boko-haram, the political problem in the Niger

[21] Some of the restrictions by NEPD: certain investment activities were exclusively reserved for locals, placing quota on permitted foreign participation, and reducing foreign investment ownership from 100 to 60 percent (UNCTAD Nigeria, 2009).

[22] FDI inflow is measured as the summation of the three components of FDI flow, namely equity capital, reinvested earnings and intra-company loans (see footnote 98 for definitions) If at least one of these components is negative and is not being offset by the remaining components, FDI will have a negative sign, otherwise positive.

Delta state[23] and the dispute between the government and some TNCs (UNCTAD, 2019). Nigeria generally influences the volatility of FDI inflows in the sub-region as it remains the largest recipient on average. Between 1999-2018, the country received half the average that accrued to the sub-region (UNCTAD dataset, 2019). Figure 2.7 illustrates the trend in FDI inflows in million US$ into Nigeria for the period 1970-2018.

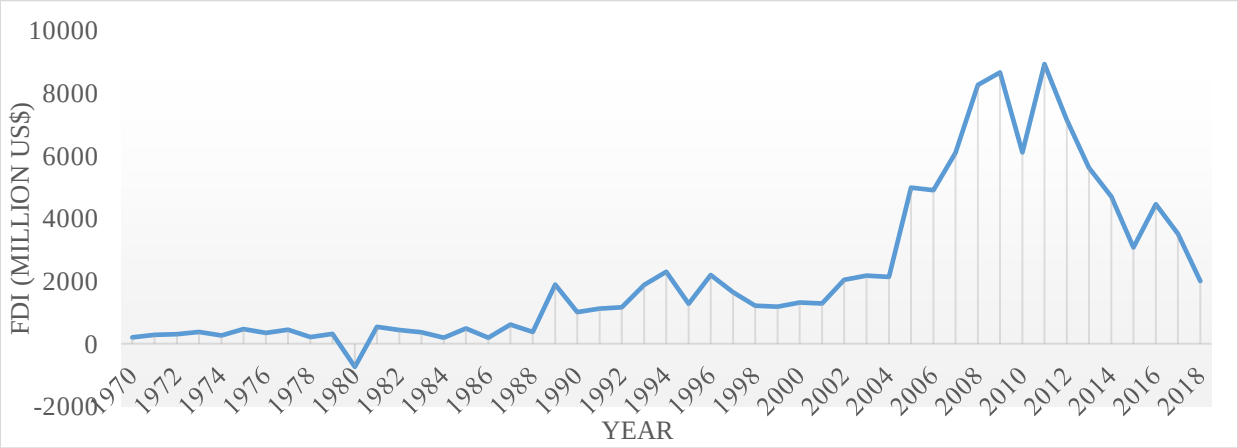

Figure 2. 7: Trends in Nigeria's FDI Inflow in Millions of US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

The country has been operating a free economy since the turn of the 1990s. Some of the country's main attracting features are its partially privatized economy, large market and enormous richness in natural resources, especially oil and gas (The World Bank Nigeria, 2019). These advantages make Nigeria very attractive for FDI activities. For instance, it hosts some of the biggest oil-producing companies in the World like Shell limited, Petrobras, Total, Statoil and Exxon Mobil (Fajana, 2005). Nevertheless, the Federal government of Nigeria has investment incentives for foreign investment in various sectors. For example, companies in the agricultural sector, whose activities are solely in agricultural activities, enjoy unrestricted capital allowance and are

[23] This is as a result of the agitation by locals as they feel marginalized in the development process even though most of the oil exploration and exploitation happens from area.

indefinitely entitled to carry forward unutilized capital allowances (Nigeria Investment Promotion Commission, n.d). Also, a company investing in solid mineral mining can benefit from a three-year exemption of tax once operation commences while investment in the tourism sector attracts a 25% tax exemption of income in convertible currencies (ibid). The country's main investing countries include the United States, China, France, United Kingdom, Netherlands and Norway and enjoy bilateral and multilateral trade agreements with countries like the United States, United Kingdom and China (Export Enterprises Nigeria, 2020).

The country is ranked 146th out of 189 countries in World Bank's Doing Business report (2019), moving a spot up from the previous year. However, the country's high corruption levels, political instability, limited access to finance, irregular supply of electricity and high tax rates (World Bank's Enterprise Surveys Nigeria, 2014), are some of the serious challenges that hinder the country's FDI potential. In terms of infrastructure, institution, financial system and skills, the country respectively ranked 124th, 127th, 131st and 124th in a ranking of 140 countries in WEF's Global Competitiveness Report (2018) (Schwab,2018). In the same report, the country had a score of 27 out of 100 (with 100 being the best) for corruption incidence, a decline compared to the previous year. Also, Transparency International's (2019) corruption perception index ranking, puts the country 146th out of 180 countries two-step up from the previous year.

Figure 2.8 shows the corruption trend for Nigeria since 2002 using World Bank's WGI dataset (2019). It can be observed that performances have shied away from the mean mark of zero. Nevertheless, until 2008, the performance was improving, and in part, this can be linked to the strong commitment shown by the government under the reign of Chief Olusegun Obasanjo between 1999-2007 to fight corruption (Azeez, 2011). During this period, a governor in Bayelsa

state was arrested on 40 counts of corruption-related activities in 2005, and in 2006 the Switzerland ambassador to Nigeria announced the release of US$700 million to the government, being looted money kept with Swiss banks by Sani Abacha (ibid)[24]. However, the opposite pattern followed from 2008 till 2014 before improving again. In 2012, it was estimated that the country has lost over US$400 billion in oil revenue through corruption since independence (Okoye, 2012). Figure 2.8 illustrates the trends in corruption performance for Nigeria for the period 2002-2018.

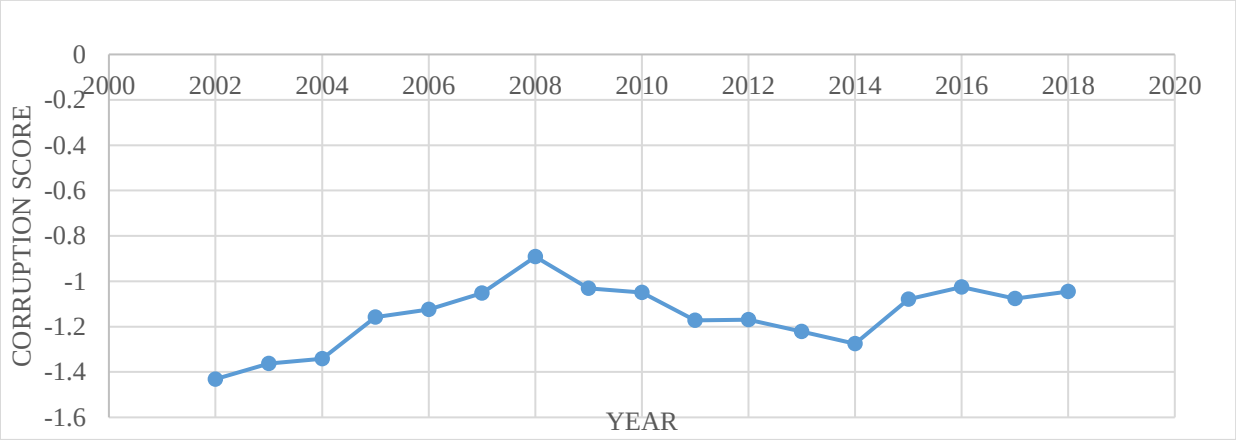

Figure 2.8: Trends in Nigeria's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

Furthermore, the Global Corruption Barometer Report by Transparency International (2019) found that 44% of public service users were found to have paid bribe the previous year (Pring and Vrushi, 2019), while 26, 28 and 24% of firms are requested to offer gifts during a public transaction, expected to offer gifts to secure government contracts and gain licenses for operation respectively (World Bank's Enterprise surveys Nigeria, 2014).

However, Nigeria's effort to combat corruption started in 2000 after the establishment of the Independent Corrupt Practices and Other Related Offences Commission (ICPC) to prosecute

[24] See Azeez (2011) for more instances of corruption.

corrupt public officials. Howbeit, in 2004 a more robust commission to tackle corruption was created, the Economic and Financial Crimes Commission (EFCC), with the mandate to investigate, prevent, and prosecute any public and private person engage in corruption (Rex, 2020). These steps underscore governments commitment to tackle corruption (Ribadu, 2004, as cited by Alamu, 2016). Furthermore, Nigeria is a signatory to several corruption conventions such as the United Nations Convention Against Corruption (UNCAC) signed in 2003, and the United Nations Convention Against Transnational Organized Crimes (UNCATOC) signed in 2000. Beyond that, the Nigerian government also enacted the Public Procurement Act 2007 and the Fiscal Responsibility Act 2007 all in a bid to enhance transparency which in turn can lead to the possibility of reduced corruption (Zinnbauer *et al*., 2009).

2.3.4 Cote d'Ivoire

The inflow of FDI to Cote d'Ivoire over the last 15 years has generally increased. This cannot be said for the period 1970 to the early 1990s (Figure 2.9). In 1977, the country received the least FDI yet, US$14.65 million but picked up by US$68.66 million the following year. The volatility of FDI inflows during the 1970s and 1980s were mainly influenced by the price uncertainty of coffee, in particular Robusta coffee for which the country is a major producer (UNCTAD, 1985). The Country enjoyed a successive increase in the FDI it receives from 1994 to 1998, before experiencing a 69% fall in 1999. Since 1999, the country has largely enjoyed an increase in the flow of FDI into its shores. For instance, in 2017, the country recorded its highest FDI inflows yet, US$972.6 million. A major reason for this success can be attributed to the joint policy between Ghana and Cote d'Ivoire to industrialize cocoa processing which attracted investment from Hershey (United States of America), a cocoa processing firm (UNCTAD, 2018). Also, an

investment of US$35 million to increase production in the manufacturing of beverages was made by Heineken (Netherlands) (ibid). Figure 2.9 presents trends in FDI inflows in million US$ in Cote d'Ivoire for the period 1970-2018.

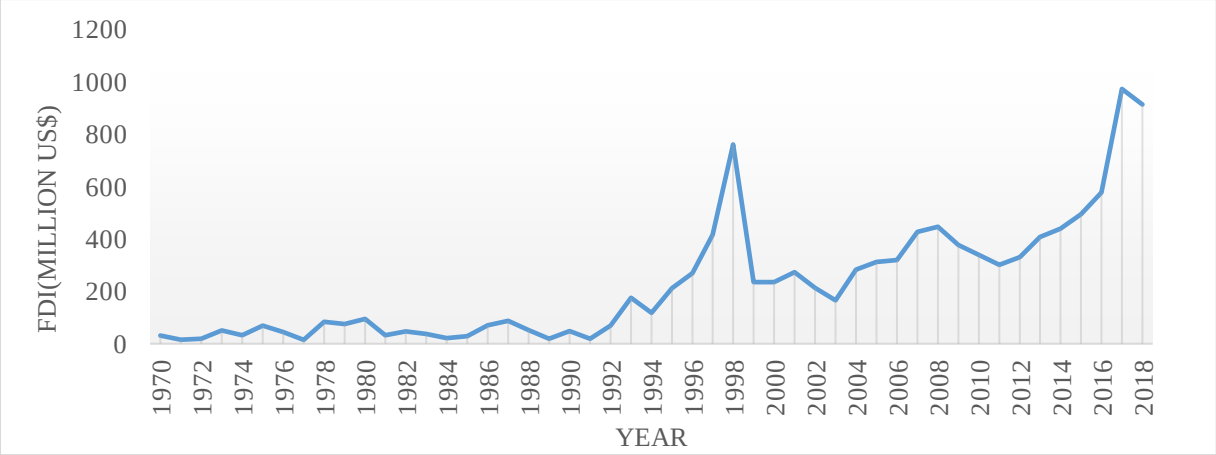

Figure 2.9: Trends in Cote d'Ivoire's FDI inflows in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019).

Cote d'Ivoire remains as one of the fastest-growing economies in Africa (UNCTAD, 2018), with a relatively diversified economy. The country is the largest producer of cocoa in the World (FAO, 2003) and is also endowed with other natural resources including oil reserves and rubber plantation, making it an attractive destination for foreign investors. Historically, it was observed that foreign investment is mostly channelled to the agricultural sector, particularly in cocoa production (UNCTAD Newsletter, 2019). The country also established the Investment Promotion Centre in Cote d'Ivoire (CEPIC) in 2012 tasked with promoting investments in Cote d'Ivoire (Fortune of Africa, 2014). Since 2011, the government under the dispensation of President Alassane Ouattara has embarked on several reforms to industrialized the nation among which include the implementation of a dedicated court for addressing business issues, as well as, the design of some fiscal incentives for the private sector such as the export tax on cocoa butter, cocoa paste and cocoa powder that was reduced from 14.6% to 11, 13.3 and 9.6% respectively in 2016

while also, mining entities can enjoy exemption in their profits from the exploitation of mineral deposits from corporate income tax for up to five years after commencing the exploration phase (Deloitte, 2017a). In the latest Doing Business report by the World Bank Report (2019), the country occupies 122nd out of 189 countries which betters the previous year's position of 139nd. The major investing countries in Cote d'Ivoire are the European Union countries and Canada (Export Enterprises Ivory Coast, 2020). Furthermore, the country has several bilateral investment treaties with other countries, including Belgium, Ghana, the United Kingdom and Germany.

However, the country still has an evolving political structure given its recent past of political instability, access to finance and corruption are limiting factors to the country's FDI potential (World Bank's Enterprise Surveys Cote d'Ivoire, 2016). In the Global Competitiveness Report by the WEF 2018, out of 140 countries, the country ranked 118th, 113th, 130th and 115th for institutions, infrastructure, skills and financial system respectively (Schwab, 2018). The country ranked 87th in terms of corruption incidence in the same report, reflecting an improvement from the past year. In a similar survey, the country ranked 106th out of 180 countries in Transparency International's corruption perception index for 2019, a one-step improvement from the 2018 ranking. Despite corruption being relatively high compared to Cape Verde or Ghana in the sub-region, Cote d'Ivoire has made some decent improvement in its effort against corruption which is also reflected in Figure 2.10. It can be observed that corruption performance improved after 2011, indicative of government dedication and reform programmes. For example, in 2013, the High Authority for Good Governance (HAGC) was formed to investigate practices of corruption and referring cases to the public prosecutor (Shipley, 2018a). Also, the government launched the Brigade for the Fight Against Corruption in 2012, as well as, developing mechanisms that will allow citizens to report

corruption (Chêne, 2016). Figure 2.10 shows the trend in corruption score for Cote d'Ivoire for the period 2002-2018.

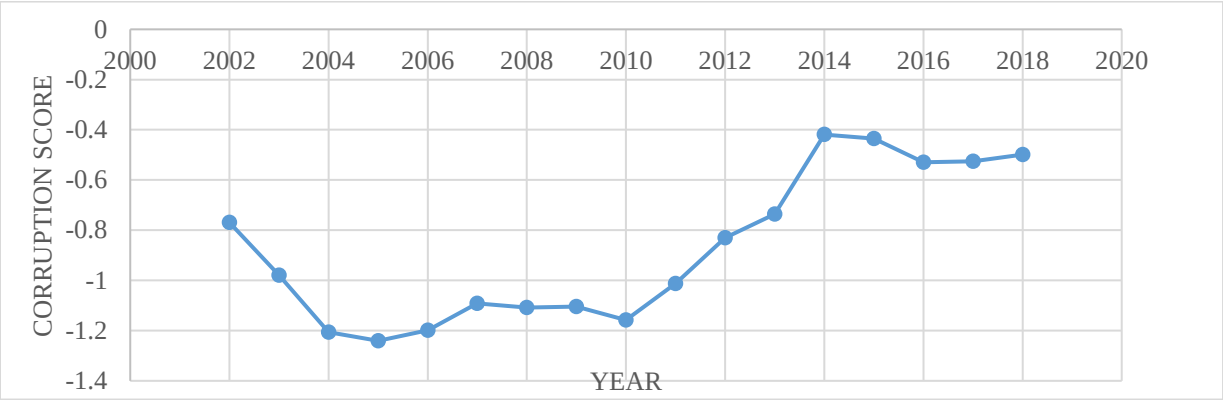

Figure 2. 10: Trends in Cote d'Ivoire's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

Notwithstanding Cote d'Ivoire's recent improvements in international corruption scores, petty, bureaucratic, political and grand corruption remain widespread (Shipley 2018a; Chêne, 2016). Between 2014 and 2018, 36 businesses were precluded from participating in government procurement due to corruption (VOA Africa, 2018). Also, 36% of firms reported that they were expected to offer gifts to secure government contracts (World Bank's Enterprise Surveys Cote d'Ivoire, 2016), while 34% of citizens were said to have experienced paying a bribe for public service in the previous year in Transparency International's Global Corruption Barometer Report (2019) (Pring and Vrushi, 2019).

2.3.5 The Gambia

The Gambia is the smallest country in the West African sub-region with an open economy. Between 1970 and 1989, the Gambia attracted an average FDI inflow of US$1.8 million. This highlights how quiescent FDI activities were in the 1970s and 1980s in the country. In sharp

contrast, FDI inflows averaged US$31 million for the period between 1990 and 2018. A major reason for this improvement in the FDI inflows can be attributed to reforms undertaken in line with "The Gambia Incorporated Vision 2020" launched in 1996. Some of these reforms include the creation of the Single Window Business Registry (SWBR)[25], ensuring that the revenue institution collaborates with the commercial banks for ease of tax payments in addition to the building of new tax offices and also modernizing the environmental legislation (UNCTAD The Gambia, 2017). The highest FDI inflow yet was recorded in 2006, when the country attracted slightly over US$80 million in FDI inflows (Figure 2.11). This was mainly due to investments in real estates and construction, tourism and telecommunications (UNCTAD The Gambia, 2017). However, the experience briskly ended, as for the most part, the country went through periods of decline until 2016 when the country recorded its lowest FDI inflow (US$-27 million) – a period of huge divestments. This all-time low was registered as a result of culminating factors since 2007: the global financial crisis[26], the loss of overall confidence in the country's economy in the later years of former President Yahya Jammeh[27] and the hotly contested election in late 2016[28]. However, with a new government in power after the election, the country's FDI inflow has once again picked up as efforts to win back investors trust are rejuvenated. For example, in 2017, the government hosted, through the Gambia Investment and Export Promotion Agency (GIEPA), the International Agriculture Investment Forum to promote investment activities and opportunities in the agriculture sector (Department of State – The Gambia, 2019). The country has most of its FDI inflows from the Middle Eastern countries, North Africa and Nigeria and enjoys bilateral and

[25] Created to ensure that registration of businesses can be done at one central point, thus facilitating business ease (Nyockeh, 2015).
[26] The 2008 global financial crisis significantly affected the country's tourism sector (IMF country report, 2009) – a major FDI sector.
[27] This occurred through unclear provisions and regulations related to investment as well as investor's concerns over government interference in business operations (UNCTAD The Gambia, 2017)
[28] Due to the tension before and after the election, foreign investors might have held back any investment plans.

multilateral trade agreements with countries like the United Kingdom, Qatar, Turkey, Iran, Kuwait, Netherlands and China. Figure 2.11 illustrates The Gambia's trend in FDI inflow in million US$ from 1970 to 2018.

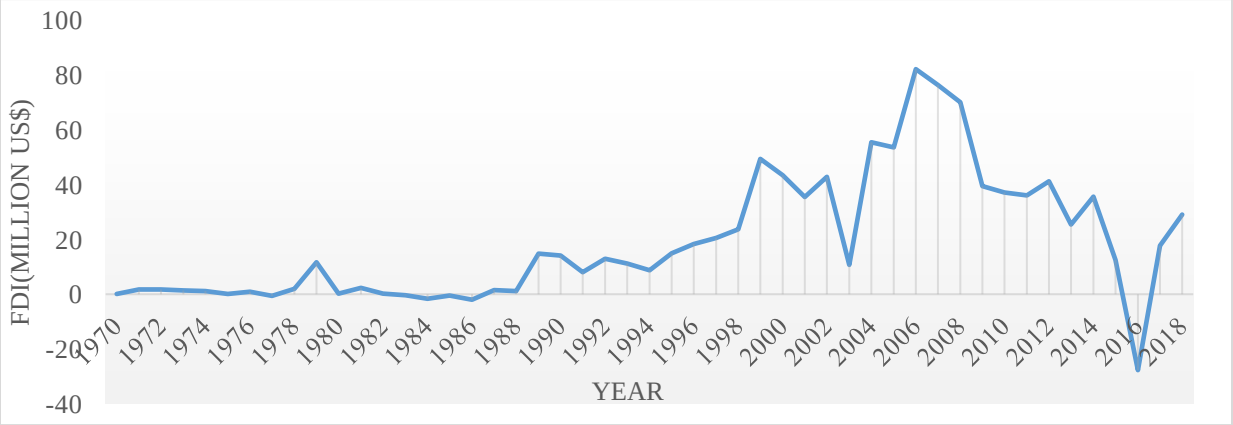

Figure 2. 11: Trends in The Gambia's FDI inflow in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

The country is popularly known as the "smiling coast of Africa" for its 60 km Atlantic coastline. Its market access and proximity to other West African countries make it an attractive destination for FDI activities. Apart from these advantages, the country has an agency delegated with the responsibility of promoting investment into the Gambia, GIEPA, and offers several fiscal incentives from import duties exemptions to tax holiday (Department of State – The Gambia, 2019). Notwithstanding these attractive packages and features, poor electricity supply, constraint to accessing financial services and an intricate tax system are some of the major hindrances to the inflow of FDI in the Gambia (World Bank's Enterprise Surveys Gambia, 2006). Also, in comparison to many other countries in Africa and the sub-region, the Gambia has limited mineral resources. The country ranks 149th out of 180 countries in the World Bank's Doing Business Report (2019), losing three spots compared to 2018. The country also ranks 95th, 110th, 115th and

110th for institutions, infrastructure, skills and financial system respectively out of 140 countries in the 2018 WEF Global Competitiveness Report (Schwab, 2018).

Another challenge faced by the country is widespread corruption in the form of kleptocracy and grand corruption (Rahman, 2019). The country has a high incidence of corruption (Schwab, 2018), and was ranked 96th out of 180 countries in Transparency International's 2019 corruption perception index, losing three spots compared to the previous year. From 2002 to 2016, the corruption score in The Gambia was largely falling (Figure 2.12), indicative of the massive corruption associated with the previous regime under Yahyah Jammeh[29]. His regime was accused of engaging in a series of state-looting and rogue business dealings (Sanyang and Camara, 2017).

However, the performance has changed for the better post-2016 election when a new government under Barrow was elected (Figure 2.12). Under the new administration's commitment to delivering good governance, President Barrow has created a Constitutional Review Commission (CRC) to reform the constitution and improve citizens' rights (National Democratic Institute, 2018), as well as committing to an open-door policy towards the media (Affoah, 2017). Also, there has since been an increased space for the activities of civil society organizations (Rahman, 2019) which, in addition to the earlier measures, can promote good governance and increase transparency and accountability. Notwithstanding the recent improvements in the corruption indices, whether or not the new administration will succeed to curb widespread corruption is too early to tell (ibid). Figure 2.12 shows The Gambia's trend in corruption score from 2002 to 2018.

[29] He led a dictatorship regime for 22 years (Rahman, 2017).

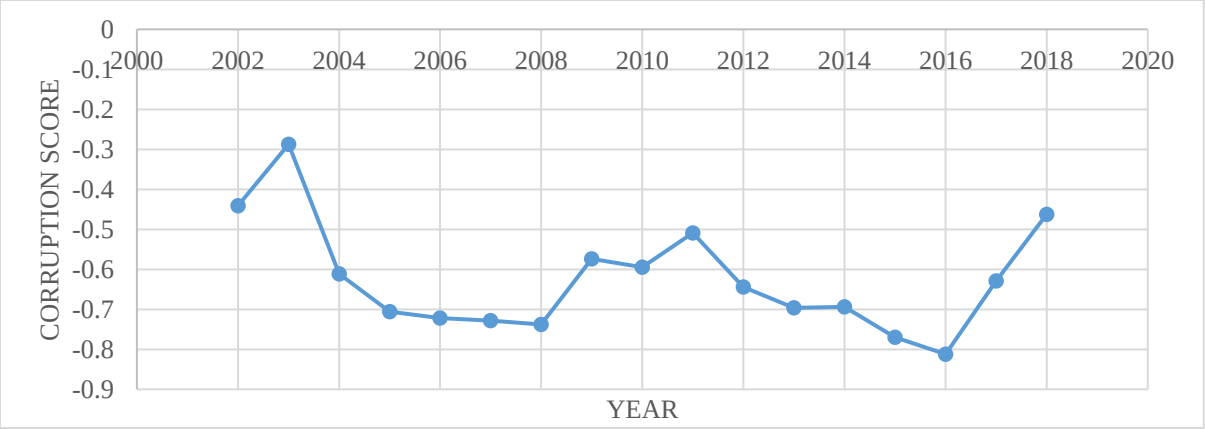

Figure 2. 12: Trends in The Gambia's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

2.3.6 Cape Verde

Cape Verde is a small island, isolated from the rest of its sub-regional neighbours (see Appendix 9), and relatively shy of mineral resources. After securing independence in 1975, the small island country practised a statist approach[30] and a one-party government system that was in crisis by the end of the 1980s (African Development Bank, 2012). This partly explains the frivolous nature of FDI until the mid-1990s (Figure 2.13). A reform process ensued after the inefficiencies of the one-party state structure, starting with the switch to a multi-party state, and by 1991, elections were held, and a new government was elected. The new government embarked on several reform programs[31] geared towards liberalizing the economy and promoting the private sector to spur growth (World Bank, 1998). From 1992 to 2000, the country attracted FDI inflows of around US$186 million on average, of which half was generated from privatizations[32] (UNCTAD Cape

[30] A form of state-led model of development characterized by centralized planning structure. This type of model or approach allows the state to largely control resources and almost all sectors of the economy.
[31] Such as the Capacity Building Project for Private Sector Promotion, the Privatization and Regulatory Capacity Building Project, the Economic Reforms Support Operation and the Energy and Water Reform and Development Project (see World Bank, 1998).
[32] The privatization occurred in telecommunication, water, energy and banking (African Development Bank, 2012).

Verde, 2018). Foreign direct investment inflow increased by about US$196 million between 2001 and 2008 and reached an all-time peak in 2008 with over US$200 million. However, the majority of the FDI inflows were through greenfield investment in the tourism sector, which on average accounted for over 50% of the FDI (ibid). Some of the investing companies were Resort Group (United Kingdom), RIU (Spain), Hilton (United States) and Oásis Atlántico (Portugal). After 2008, FDI flow to the country fell due to the global financial and economic crisis, as the country's major investors come from Europe. The other two peaks in the inflow of FDI were attained in 2014 (US$180 million) and 2016 (US$127 million) with the tourism sector being the largest recipient sector. Figure 2.13 illustrates the trend in FDI inflows in million US$ to Cape Verde from 1986 to 2018.

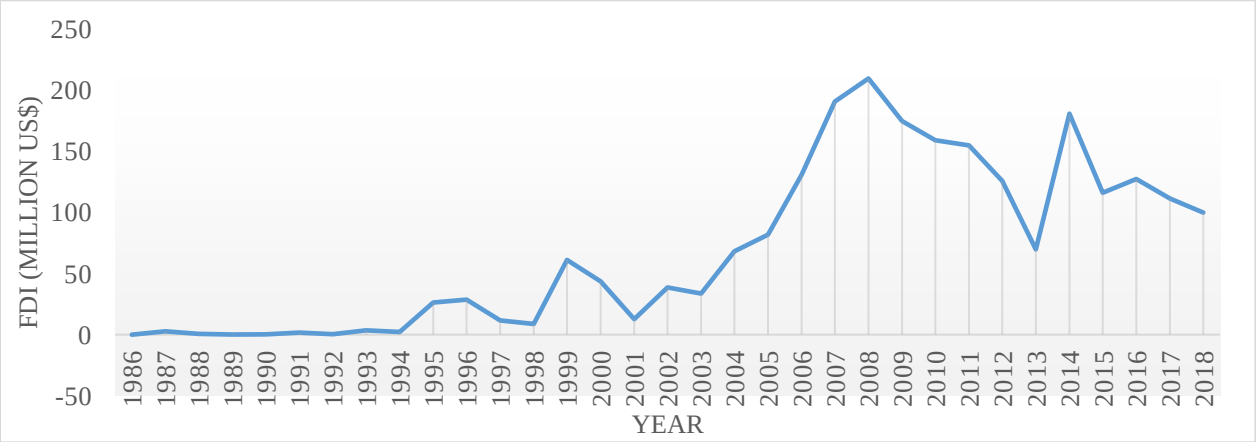

Figure 2. 13: Trends in Cape Verde's FDI inflows in million US$ (1986-2018)[33]
Source: Author's computation using data from UNCTAD (2019)

Cape Verde's attractive tourism sector, sound economic policies, strong economic and governance indicators, stable macroeconomic variables[34] and its open investment regime makes it an excellent

[33] UNCTAD FDI inflows data on Cape Verde starts from 1986.
[34] Cape Verde's local currency, the escudo, is pegged to the euro which leverage it from macroeconomic fluctuations and has benefitted the country in terms of lower inflation rate, price stability and the accumulation of steady reserve (African Development Bank, 2012).

spot for FDI activities. The country is the least corrupt in West Africa and it fully attained a middle-income status in 2007, as decided by the United Nations in 2004. Nevertheless, the country's continued dependence on tourism[35], makes it less diversified, and this limits its potential for attracting FDI in other sectors. Also, as an Island nation, the ability to trade with the other countries in the sub-region is limited, whereas, firms identified informal sector practice, limited access to finance, electricity supply, crime and theft and the tax system as some of the major obstacles to doing business in the country (World Bank's Enterprise Surveys Cape Verde, 2009). The country ranked 137th out of 189 countries in World Bank's Doing Business 2019 report, a decline from the previous year by six spots.

The country has an enviable corruption performance in all the reported institutional indices in the sub-region. The country ranked 41 out of 180 countries in Transparency international's corruption perception index (2019), marking an improvement from the previous year by four steps. Also, as shown in Figure 2.14, the country's corruption score for the World Governance Indicator (WGI) has consistently remained above the mean, zero. This performance can be traced from the earnest and sustained focus on strengthening and building of institutions free of corruption as well as the government's deliberate effort to foster pluralism, participatory political process and trust between the government and citizenry (African Development Bank, 2012). A practice of exhortation and severe sanctions against corruption (ibid) is also responsible for the country's corruption performance over time. According to Transparency International's Global Corruption Barometer (2019), only 8% of citizens' reported to have experienced bribe in the past year (Pring and Vrushi, 2019), while 2% of firms reported having experienced requests for bribe payment at least once and

[35] Tourism in Cape Verde accounts for about 45% of its GDP and 40% of its employment (UNCTAD Cape Verde, 2018).

0% of firms were ever expected to offer gifts to be granted operation licenses or secure government contracts (World Bank's Enterprise Surveys Cape Verde, 2009). Figure 2.14 shows trends in Cape Verde's corruption score from 2002 to 2018.

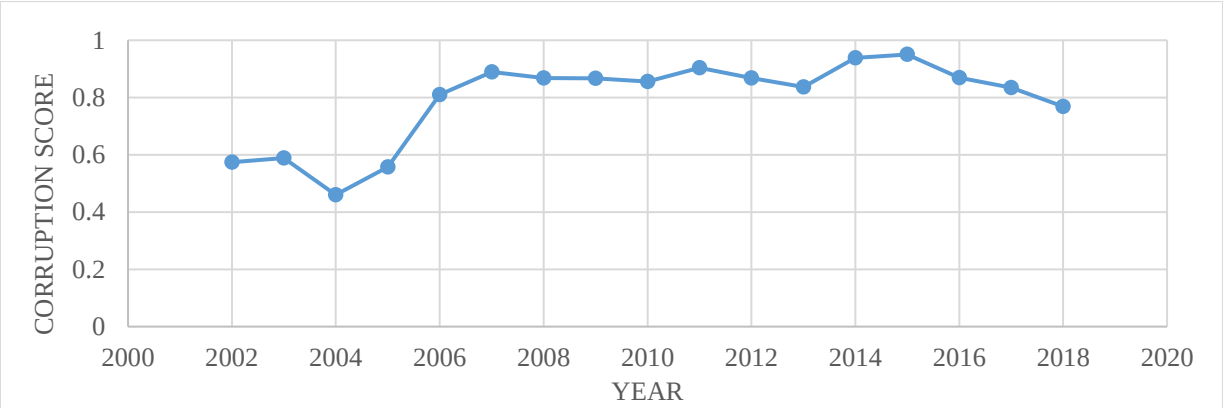

Figure 2. 14: Trends in Cape Verde's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 $(most\ corrupt)$ to $+2.5$ $(least\ corrupt)$.
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

2.3.7 Liberia

Located along the Atlantic Ocean, Liberia was among the fastest growing and most developed economies in Sub-Saharan Africa until the late 1970s (Dalton, 1995). However, FDI inflows were irregular during this period. A coup d'état in 1980 and the outbreak of civil war between 1989 and 1996, were major reasons that led to the country recording its lowest FDI inflow yet in 1996, a negative value of US$132 million, as shown in Figure 2.15. Between 1997 and 2004, FDI to the country was very volatile primarily due to the sanctions imposed on the country by the United Nations in 2001 for its support to the Revolutionary United Front (RUF), a rebel group in neighbouring Sierra Leone, only to be lifted in 2005. From 2005 to 2013, the country witnessed a significant increase in the inflow of FDI, during which the highest of over US$1 billion occurred in 2013 (Figure 2.15). Most of the investments during these periods were primarily channelled into the mineral and natural resources sector, in particular the iron ore, timber and rubber industries

(Paczynska, 2016). In 2014, the country was seriously affected by the EBOLA outbreak resulting in a significant decline in FDI inflows by about US$800 million from the previous year. Since then, the country has experienced a consecutive decline from 2015 to 2018 (Figure 2.15). Some of the major foreign investment companies in the country are China Union, Indian ArcelorMittal, Indonesian Golden Valoreum, Equatorial Palm Oil and Firestone Natural Rubber Company a subsidiary of Bridgestone Americas Inc., in the United States of America (Paczynska, 2016). Figure 2.15 shows the trends in Liberia's FDI inflows in million US$ for the period 1970-2018.

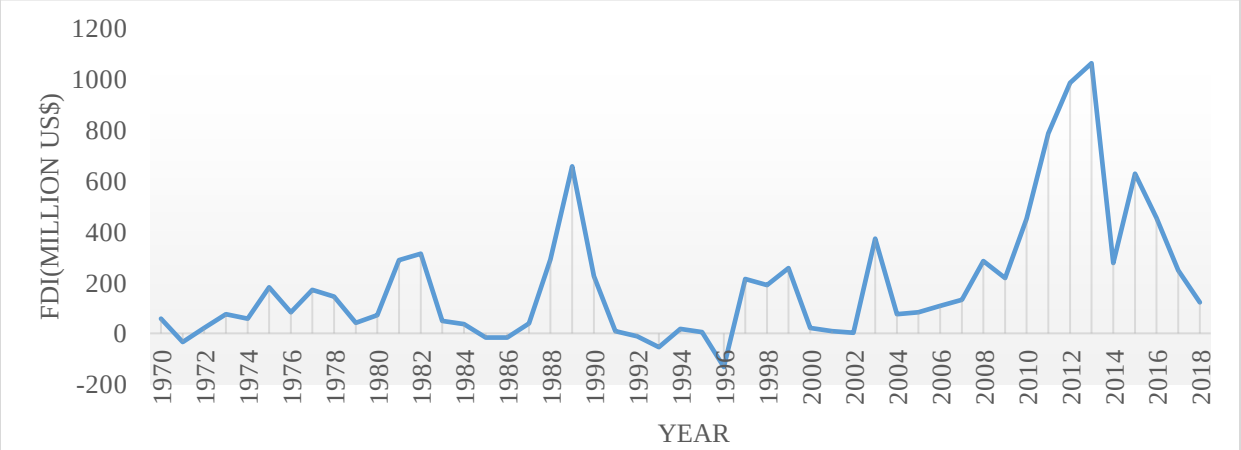

Figure 2. 15: Trends in Liberia's FDI inflow in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019).

Liberia operates an open economy system and is rich in mineral and natural resources, especially rubber and timber, making it a great source of attraction to foreign investors. Also, the country offers investment incentives in the services, manufacturing and extractive industries, ranging from tax deductions to tax exemptions (KPMG, 2018). In 2010, the country established the National Investment Commission (NIC) through the Investment Act of 2010 to craft policies and design programs to improve the country's business environment. The country also enjoys bilateral investment treaties with the Belgium-Luxembourg Economic Union, France, Germany and

Switzerland. The country is ranked 174th out of 189 countries in World Bank's Doing Business Report (2019), gaining two spots from the 2018 ranking.

Nevertheless, efforts to attract FDI are hampered by limited access to finance, poor electricity supply, corruption, complicated customs and trade regulation and the tax rates (World Bank's Enterprise surveys Liberia, 2017). The country ranked, out of 140 countries, 115th, 136th, 129th and 127th for institutions, infrastructure, skills and financial systems respectively in WEF's Global Competitiveness Report (2018), as well as occupying 109th for the incidence of corruption (Schwab, 2018). Also, the country ranked 137th out of 180 countries in Transparency International's 2019 corruption perception index, a seventeenth spot decline from the 2018 ranking. Figure 2.16 illustrates the corruption score of Liberia from 2002 to 2018. It is evident from Figure 2.16 that over time, there has been amassive improvement since 2005, especially 2004 to 2007. Beyond that, however, the performance has been irregular although above pre-2006 levels. Figure 2.16 shows corruption score trends in Liberia from 2002 to 2018.

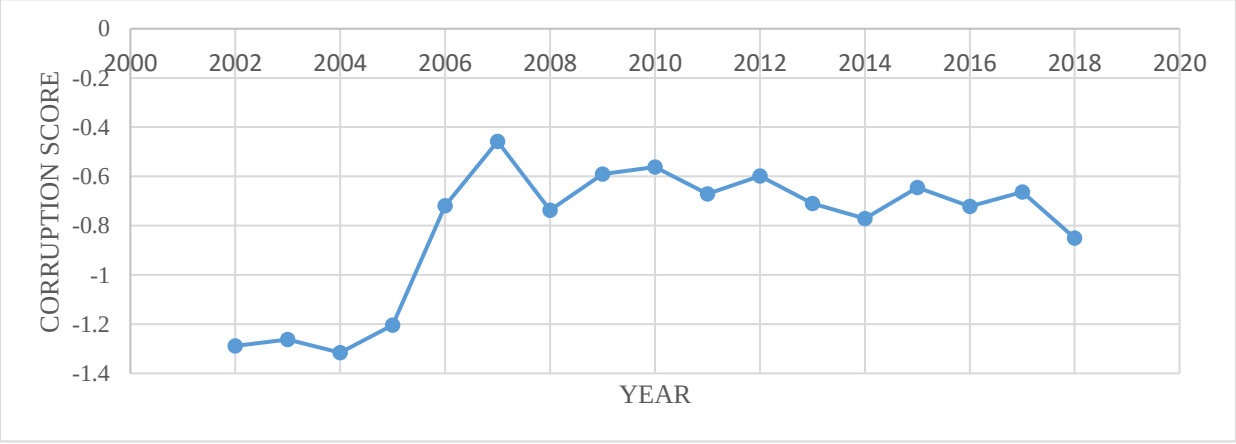

Figure 2. 16: Trends in Liberia's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

Despite the decent improvement, petty and political corruption, as well as, nepotism and cronyism remain active (Lee-Jones, 2019). For example, it was alleged that close to US$1 million was paid on behalf of Sable Mining, a British extractive firm, to secure an iron ore concession by Varney Sherman, who once headed former President Ellen J. Sirleaf's political party, while around 20 of the country's notable timber logging contracts were marred by grafts (Clarke and Azango, 2017). Also, in Transparency International's Global Corruption Barometer Report (2019), it was found that 53% of the citizens reported having paid bribes in the past year (Pring and Vrushi, 2019), whilst 43 and 45% of firms reported that they were expected to give gifts to secure government contracts and get an operating license (World Bank's Enterprise Surveys Liberia, 2017).

Nonetheless, the government continues to increase its effort to combat corruption in the country. For example, in 2019, the Kamara Abdullah Kamara Act of Press Freedom[36] was passed to promote the safe practice of journalism in the country (Lee-Jones, 2019). Also, the Freedom of Information Act was passed in 2010 which allows the public to access public records or information, while in 2008, the Liberia Anti-Corruption Commission was formed and charged with the responsibility to investigate, prevent and prosecute persons involved in corruption (ibid). Additionally, the country boast of a vibrant and active civil society organization with an expanding media space (ibid).

2.3.8 Senegal

Senegal is among the most democratic nations in Africa and the country operates an open economy. The country is rich in natural and mineral resources like gold, petroleum oils and diphosphorus pentaoxide. The country also boasts of a privileged geographic location and the

[36] It was named after a former president of Liberia's Press Union and veteran journalist Kamara Abdullah Kamara.

recently discovered of oil and gas (Africanews, 2019), has made it all the more attractive to FDI inflows while enjoying trade agreements with several countries including the United States of America and China. Nonetheless, the country's FDI inflow history, as shown in Figure 2.17, has been largely irregular. From 1970 to 1989, the inflow of FDI into Senegal averaged US$10 million. During this period, the country's economy was struggling due to a lack of investment partly due to the volatile and unsustainable growth rates due to fluctuation in prices of raw materials coupled with a situation of macroeconomic instability (Deloitte, 2017b). By the mid-1990s, to reverse the economic situation, the country adopted economic reforms in line with suggestions made by their international donors, and since then, FDI activities in the country has been on a relatively upward trajectory. As a result of the reform programme, in 1997, 42% of the national telecommunication company, Sonatel, was acquired by France Telecom, and total FDI inflows that year increased to about US$177 million – thirty-five times more than it was in 1970 (ibid). In 2018, FDI inflows to Senegal was US$629 million, constituting slightly over a fourteen times increase compared to 2005, US$44 million. Most of the FDI flows into the country have resulted from the design and implementation of the Emerging Senegal Plan for the development in infrastructure, energy, agriculture, drinking water and health (ibid). The country experience most of its foreign investment from, Morocco, France, Indonesia and the United States. Figure 2.17 illustrates the flow of FDI trends into Senegal from 1970 to 2018 in million US$.

Senegal offers investment incentives to foreign investors and allows for 100% foreign ownership in all sectors except the provision of public goods such as road networks, energy and water (Department of State - Senegal, 2019). Besides, foreign firms can invest in the country without any fear of systematic discrimination in favour of domestic firms (ibid). The country ranked 141st out of 189 countries in World Bank's Doing Business Report (2019), improving by a spot from

the 2018 ranking. However, the country's potential for FDI inflows is significantly hampered by limited access to finance, poor electricity supply, a complicated tax administration and the customs and trade regulation (World Bank's Enterprise Surveys Senegal, 2014). In WEF's Global Competitiveness Report (2018), the country ranked 111th, 118th and 104th out of 140 countries in infrastructure, skills and financial system respectively (Schwab, 2018).

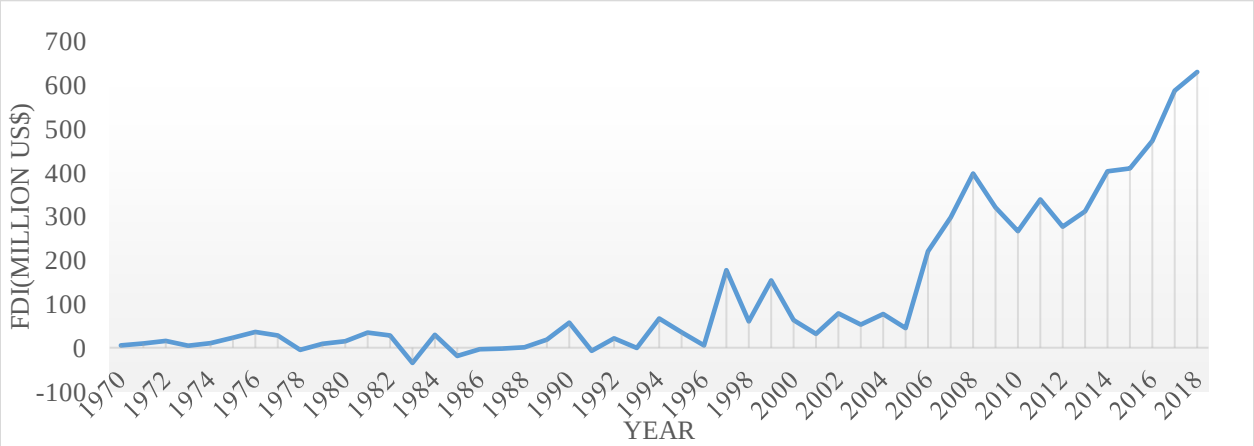

Figure 2. 17: Trends in Senegal's FDI inflow in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019).

Although Senegal, in comparison to other countries in the sub-region, performs better in international corruption indices, corruption, nevertheless, remains a societal problem through grand, administrative and bureaucratic corruption as well as organized crime and clientelism (Shipley, 2018b). For example, Karim Wade, the son of the former president of Senegal, Abdoulaye Wade, was suspected of receiving commissions for public contracts (Le Monde, 2016 as cited by Shipley, 2018b) and in 2015, he was sentenced for unexplained wealth (Shipley, 2018b). Also, 19% of firms revealed that they were expected to offer gifts to secure government contracts while 11% were requested to make bribe payment at least once (World Bank's Enterprise Surveys Senegal, 2014). Furthermore, 15% of public service users reported having paid a bribe in the past year, according to the 2019 Transparency International's Global Corruption Barometer

Report (Pring and Vrushi, 2019). The country is ranked 66th out of 180 countries in Transparency International's 2019 corruption perception index, improving by a spot from the 2018 ranking.

Figure 2.18 shows the trend in corruption score for Senegal from 2002 to 2018. From the graph, it is evident that pre-2010, the performance was declining and post-2010 the performance has generally improved. These performances depict two different administrations: the first, the administration of former president Abdoulaye Wade[37] and the second, the administration of the current president Macky Sall. Under the former, the country was marred by corruption, as reflected in Figure 2.18. For example, in 2009, the president was accused of public fund misuse as he offered US$200,000 to a departing International Monetary Fund (IMF) resident official, Alex Segura (BBC 2009) while public funds went unaccounted for after large scale infrastructure projects under the Organization of Islamic Conference (African Confidential 2010 as cited by Shipley, 2018a).

Figure 2.18: Trends in Senegal's Corruption Score from 2002-2018
Note: The values are shown on a scale of -2.5 (most corrupt) to $+\ 2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

In contrast, corruption performance under the latter has improved significantly but not in any way, meaning that the current regime is free from corruption. The most recent of high-profile corruption

[37] He ruled Senegal from 2000 to 2012.

scandals involved the president's brother[38]. Nonetheless, the current administration has created new institutions to help in the fight against corruption of which some are the new anti-corruption commission, an office to fight against fraud and corruption, the Office National de Lutte Contre la Fraud et la corruption, and a court dedicated for cases involving illicit enrichment, the Cour de Répression de l'Enrichissement Illicite (Shipley, 2018b).

2.3.9 Mali

Following independence in 1960, Mali's initial political and economic structure took the socialist path. As a result, FDI activities were negligible from the 1970s up to the early 1990s. In 1992, the country instituted a democratic form of governance, which allowed the country to be more receptive to FDI activities. By 1993, from seemingly nothing the previous years, FDI inflows to the country was US$4 million, and from 1994 to 2000, the country averaged an FDI inflow of about US$50 million. The country enjoyed its highest FDI inflows yet in 2009 (US$748 million) (Figure 2.19). Almost half of this amount was in the acquisition of around 50% stake in the state's telecommunication network, Sotelma, for US$334 million (UNCTAD, 2010). However, in the years that followed, FDI inflow has been sharply unstable, experiencing peaks and troughs. For example, in 2018, FDI inflows fell by US$196 million compared to a year earlier, 2017 (US$562 million). The country's major investors are from the United Kingdom, Australia, Canada, South Africa and Cote d'Ivoire. The country also enjoys bilateral investment treaties with several countries from Europe, the Middle East and Africa.

[38] Aliou Sall, the president's brother, was involved in a suspicious gas deal with a company called Petro-Tim (see BBC, 2019a)

Mali boasts of substantial natural resources such as gold, iron, bauxite and cotton. The country's law, by and large, treats domestic and foreign investors equally, despite some limits to foreign ownership in the mining and media sector (Department of State - Mali, 2019). Furthermore, the country established the Agency for investment promotion to provide answers to potential investors queries. Nevertheless, the country is politically unstable due to its ongoing battle with the Tuareg rebel group in the north, as well as being associated with weak infrastructure, limited access to finance and a strong presence of corruption (World Bank's Enterprise Surveys Mali, 2016). For instance, out of 140 countries, the country ranked 132nd, 123rd, 133rd and 129th in institutions, infrastructure, skills and financial system respectively according to the 2018 WEF Global Competitiveness Report (Schwab, 2018), thus, ranking 145th out of 189 countries in World Bank's Doing Business report 2019, losing two spots from the 2018 ranking. Figure 2.19 shows the trend of FDI inflows in million US$ for Mali from 1970 to 2018.

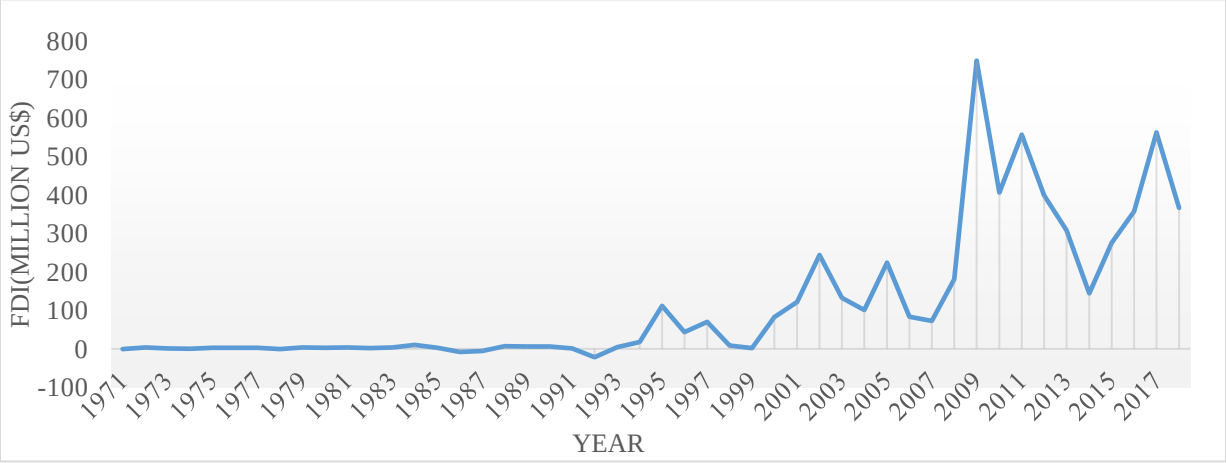

Figure 2.19: Trends in Mali FDI inflows in million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

International perception indices and surveys show that corruption in the form of grand, bureaucratic and administrative corruption is widespread in Mali (Shipley, 2017). For example,

several donors[39] suspended support for the country in 2014 while reports of alleged corruption in public procurement are rife (Department of State - Mali, 2019). In Transparency International's 2019 corruption perception index, the country experienced a ten spot decline from the 2018 ranking to 130th out of 180 countries; also, 21% of citizens were said to have paid a bribe to access public services according to the Global Corruption Barometer report 2019 (Pring and Vrushi, 2019); while 34%, 32%, 63% and 24% of firms reported having experienced a bribery incidence at least once, expected to offer gifts when meeting tax officials, expected to offer gifts to secure government contract and expected to give gifts to secure operating licenses respectively (World Bank's Enterprise Surveys Mali, 2016). From Figure 2.20, it is clear that despite improvement in the past seven years, performance is still low compared to periods between 2003 and 2009 and far way below the mean score of zero. Figure 2.20 presents the corruption score trend for Mali from 2002 to 2018.

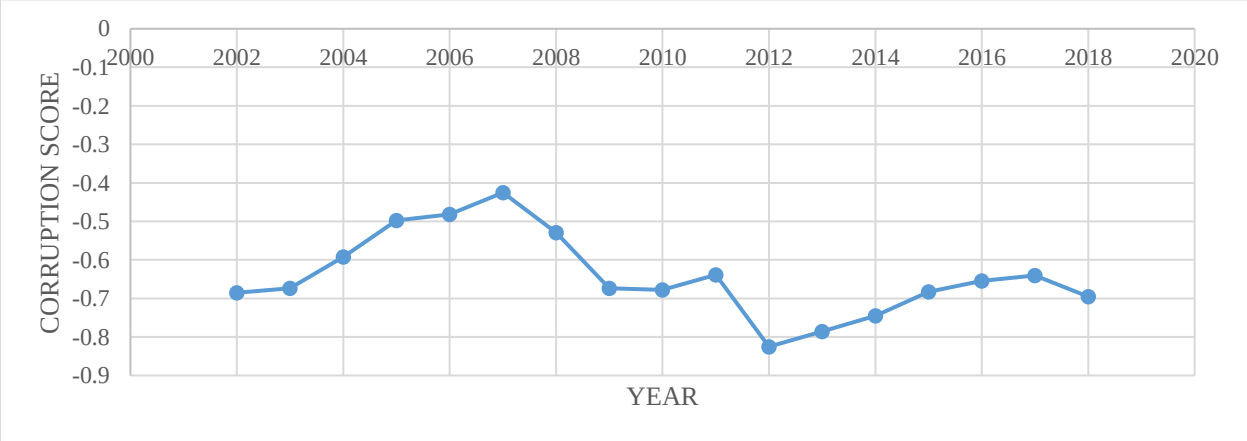

Figure 2.20: Trends in Mali's Corruption Score from 2002-2018
Note: The values are shown on a scale of −2.5 (most corrupt) to + 2.5 (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

[39] Including The World Bank, International Monetary Fund and France. For instance, the International Monetary Fund (IMF) suspended assistance based on a state-guaranteed loan of US$200 million to a private company that was found to have been providing supplies to the army for items at a charge 10 times the actual price (Reuters, 2014)

Nonetheless, in 2017, the government commissioned an office for combating illicit enrichment (Office Central de Lutte Contre l'Enrichissement Illicite). The office is responsible for receiving asset declaration from public servants, for investigating and referring corruption cases for prosecution. Also, in 2007 the office for processing financial information, La Cellule Nationale de Traitement des Information Financières was created while the Bureau du Verificateur General otherwise the Auditor General's Office has been in existence since 2004. Furthermore, the free practice of the media and civil society organization activities is largely unchallenged (Shipley, 2017).

2.3.10 Benin

Foreign direct investment in Benin was virtually non-existent until the late 1980s (Figure 2.21). This was attributed to the vast nationalization programme – under a socialist political structure - that allowed the predominance of the state in all sectors of the economy (UNCTAD Benin, 2005). However, this political structure collapsed in 1989 due to the deterioration in the economic situation that was associated with the mismanagement of state-owned enterprises, coupled with some external shocks[40]. The new regime undertook an ambitious structural reform and privatization programme under the guidance of the IMF and the World Bank (ibid). As shown in Figure 2.21, FDI flows to the country, following the reforms, increased continuously until it reached a peak in 1991 (US$120 million), only to fall sharply the following year to around US$1 million. Since then, although fluctuating in some periods, FDI inflows, generally, has been increasing. From 2000 to 2018, the country has managed an average FDI inflow of US$156 million

[40] The end of the oil boom in Nigeria and uranium in Niger in 1983, the collapse in commodity prices in 1986 and the depreciation of the Nigerian naira were all external factors that led to a deterioration in the economic situation in Benin (UNCTAD Benin, 2005).

with the highest FDI inflow, yet, occurring in 2014 (US$405 million) (Figure 2.21). Figure 2.21 present FDI inflow in million US$ trends for Benin from 1970 to 2018.

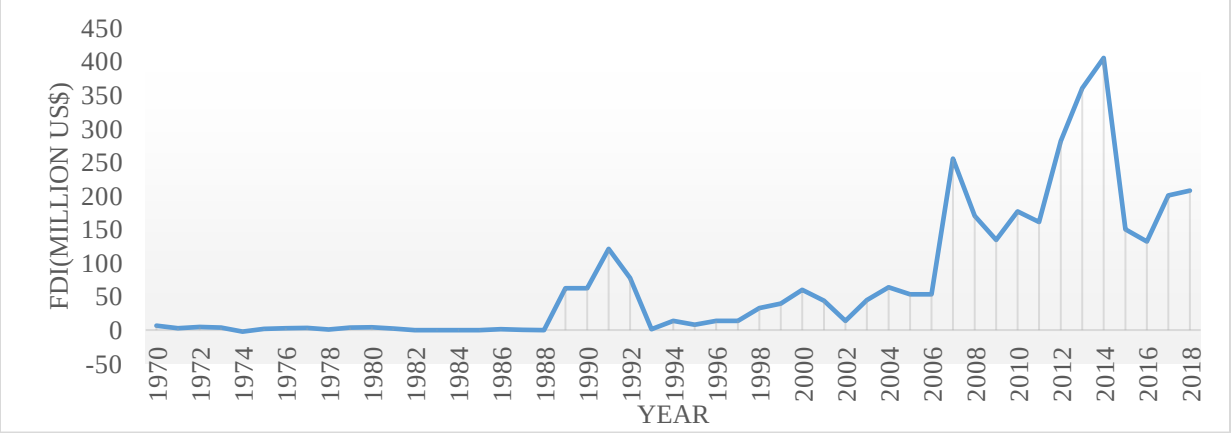

Figure 2. 21: Trends in Benin's FDI Inflows in Million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

For over two decades, Benin has enjoyed a relatively stable democracy on the African continent, as well as operating an open economy. The country has limited natural resources, but it has market access due to the proximity with other countries within the sub-region, such as Nigeria, Burkina Faso, Togo and Niger (see Appendix 9). Furthermore, the country provides investment incentives ranging from tax reduction to duty-free on imported inputs or exported products to investors (Department of State - Benin, 2018). In 2015, to induce FDI inflows, the Investment and Export Promotion Agency was established and, in 2016, the government undertook an investment reform programme, the National Infrastructure Development Plan, through public-private partnerships which are expected to help boost FDI (ibid). Also, the country has bilateral investment treaties with several countries including China and Canada. However, its key investor countries are Nigeria, France, Cote d'Ivoire, Senegal, Canada and Brazil.

Benin is ranked 153rd out of 189 countries in World Bank's Doing Business 2019 report, losing two spots from the 2018 rankings. This partly results from obstacles such as accessing finance and

adequate supply of electricity, the tax administration, informal sector practices and the tax rates (World Bank's Enterprise Surveys Benin, 2014). Aside from that, the terrorist threat from neighbouring Nigeria, is also a major factor affecting the country's attractiveness to foreign investors. The country ranked 114th, 126th, 119th, and 132nd out of 140 countries for institutions, infrastructure, skills and financial system respectively based on WEF's 2018 Global Competitiveness Report (Schwab, 2018). Also, despite government efforts to combat corruption[41], several forms of corruption[42] remain a serious challenge in the country (Chêne, 2014). For example, in the 2019 Global Corruption Barometer report by Transparency International, 27% of the citizenry of Benin reported having paid a bribe for using a public service during the past year (Pring and Vrushi, 2019), while, in the World Bank's Enterprise Surveys in 2016, 15, 25 and 42% of firms revealed to have experienced a request to pay a bribe at least once, expected to offer gifts to get a construction permit and to secure a government contract respectively (World Bank's Enterprise Surveys Benin, 2016).

Figure 2.22 shows the World Governance Indicator (WGI) corruption score trend for Benin from 2002 to 2018. It can be seen that the country's corruption score is below the mean score of zero and has been irregular, although showing a somewhat consistent pattern of improvement since 2012 (Figure 2.22). Recent improvement can, to some extent, be attributed to the passing of the new anti-corruption law in 2011, the establishment of the National Public Procurement Regulatory

[41] For example, there exist a greater space for reporting misconduct and good governance violations for human rights organisations, civil society, the media and so on, whilst also agencies such as the Post and Communication Regulation Agency, the Anti-Money Laundering Agency, the National Commission on Systems and Freedom, and the National Anti-Corruption Authority have been established by the government to monitor business conducts (Department of State - Benin, 2018)

[42] Such as Petty, bureaucratic, grand, political and public service corruption

Authority (NPPRA) and the national anti-corruption authority (Autorité Nationale de la Lutte Contre la Corruption) in 2012 and 2013 respectively (Chêne, 2014).

Figure 2. 22: Trends in Benin's Corruption Score from 2002-2018
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

2.3.11 Burkina Faso

Foreign direct investment activities in Burkina Faso were virtually inactive until the early 1990s (Figure 2.23). From 1970 to 1989, FDI flows to Burkina Faso averaged, per year, US$2 million. It was not until around the 1990s that FDI began to seriously pick up when the government launched a reform programme for economic liberalization and privatization under the structural adjustment programme. Between 1990 and 2001, the country's Brakina brewery company was acquired by Castel (France), the Burkinabe cement factory (Société Burkinabè des Ciments et Matériaux) was purchased by Umar Holderbank (Switzerland) and the sugar factory (SOSUCO) was sold to Agha Khan Group (UNCTAD Burkina Faso, 2009). All of these companies, before the reforms, were under the state's direct control. The FDI peak in 2000 (US$23 million) was largely due to the sale of telephone licenses – and associated infrastructure investment – to Telecel (US$8 million) and Celtel (US$11 million) (ibid). FDI inflows grew by US$7 million for the

period 1980-1990 in comparison to 1991-2001 on average. Although irregular, FDI inflow to Burkina Faso has been growing since the early 2000s. From 2002 to 2007, for instance, the country averaged an FDI inflow of US$78 million. Partly responsible for this was investment in the mining sector (especially in gold), a 51% share acquisition of ONATEL's[43] capital by Maroc Telecom in 2007 and French dagris' 34% share purchase of the Burkinabe Textile Fibres Society, the Société Nationale des Fibres et Textiles (SOFITEX), in 2004 (ibid). In 2018, the country's FDI remarkably picked up from a 26-year low of about US$3 million in 2017 to US$480 million, and was attributed mainly to mining operations by MNEs (UNCTAD, 2019). Burkina Faso's major investing countries are Lebanon and France. Figure 2.23 illustrates the trends in Burkina Faso's FDI inflow in million US$ from 1970 to 2018.

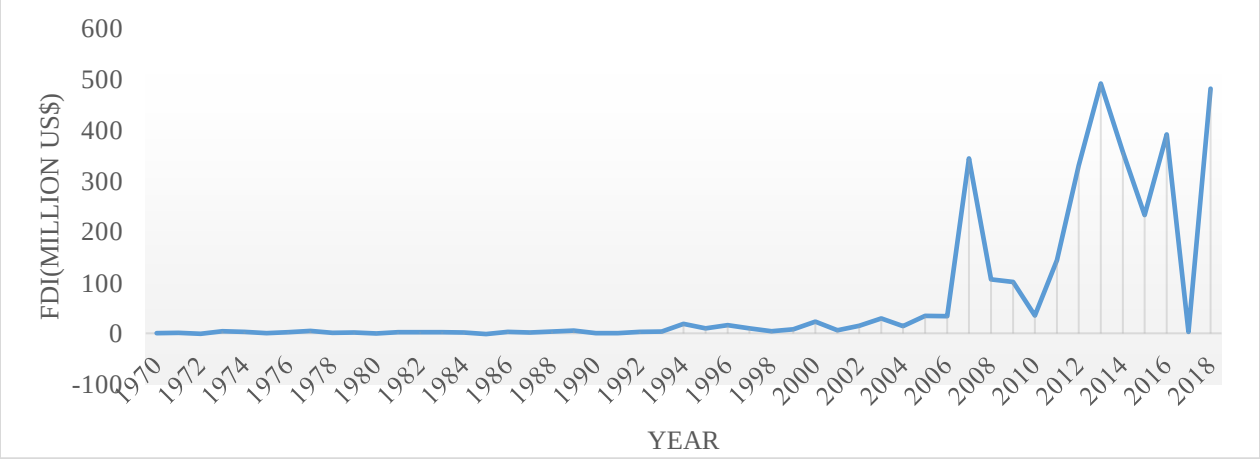

Figure 2. 23: Trends in Burkina Faso's FDI Inflows in Million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

The country's richness in natural resources such as Gold, oil and Manganese, makes it a hot spot for natural resource-seeking FDI. Despite that, the country's investment code offers both local and foreign entities the right to fixed property, concessions, access to permits, and opportunity to

[43] A publicly traded state owned telecommunication network.

participate in state contracts. Besides the rights, incentives such as the value-added tax on specific equipment are also offered (Department of State - Burkina Faso, 2018). However, the landlocked nature of the country, together with bottlenecks in the energy, transport and skills (International Finance Corporation, 2019) limits the country's FDI inflow potential. Also, firms reported that access to finance and the high tax rates are acting as serious obstacles to doing business in the country (World Bank's Enterprise Surveys Burkina Faso, 2009), in addition to the ongoing jihadist violence[44]. The country ranked 128th,137th and 124th for infrastructure, skills and financial system out of 140 countries respectively in the WEF's 2018 Global Competitiveness Report (Schwab, 2018) while ranking 151st out of 189 countries in World Bank's Doing Business 2019 report, losing three spots from the 2018 ranking.

Furthermore, corruption in Burkina Faso is reportedly a widespread phenomenon (Ardigo, 2019). The country ranked 85th out of 180 countries in Transparency International's 2019 corruption perception index from 78th the previous year, and 131st for corruption incidence in WEF's Global Competitiveness Report (Schwab, 2018). Also, in the 2019 Global Corruption Barometer report by Transparency International, 16% of citizens' reported to have paid a bribe for public service in the past year (Pring and Vrushi, 2019) while 19 and 4% of firms said they were expected to offer gifts to secure a government contract and an operating license respectively (World Bank's Enterprise Surveys Burkina Faso, 2009). According to Ardigo (2019), patronage, private sector and bureaucratic corruption are among some of the pervasive forms of corruption. For example, in the Global Corruption Barometer Report (2019), the majority of people think that business executives are the most corrupt (Pring and Vrushi, 2019). Also, the authorities and mining

[44] Three prominent Jihadist group operates in the country namely the Ansarul Islam, the Group for the Support of Islam and Muslims (GSIM) and the Islamic State in the Greater Sahara (ISGS) (BBC, 2019b).

companies are said to engage in a number of corrupt practices in the extractive industry due to underlying weaknesses in the organization of the mining sector and the lack of transparency in the public management of mining revenues (Réseau National de Lutte Anti-Corruption, 2014)[45].

Nonetheless, in recent years, the government has stepped up its effort to tackle the widespread nature of corruption in the country. In 2015, the government established the access to public information act - a law that requires the mandatory declaration of assets for cabinet members, the whistleblowing protection law and created a national body to fight corruption, the Autorité Supérieure de Contrôle d'Etat et de Lutte Contre la Corruption (ASCE-LC) as well as the creation, in 2014, of an agency for regulating public procurements, the Autorité de régulation de la Commande Publique (Ardigo, 2019). So far, these reforms have improved the countries corruption performance over the years as evident in Figure 2.24. Figure 2.24 shows the trend in corruption score for Burkina Faso from 2002 to 2018.

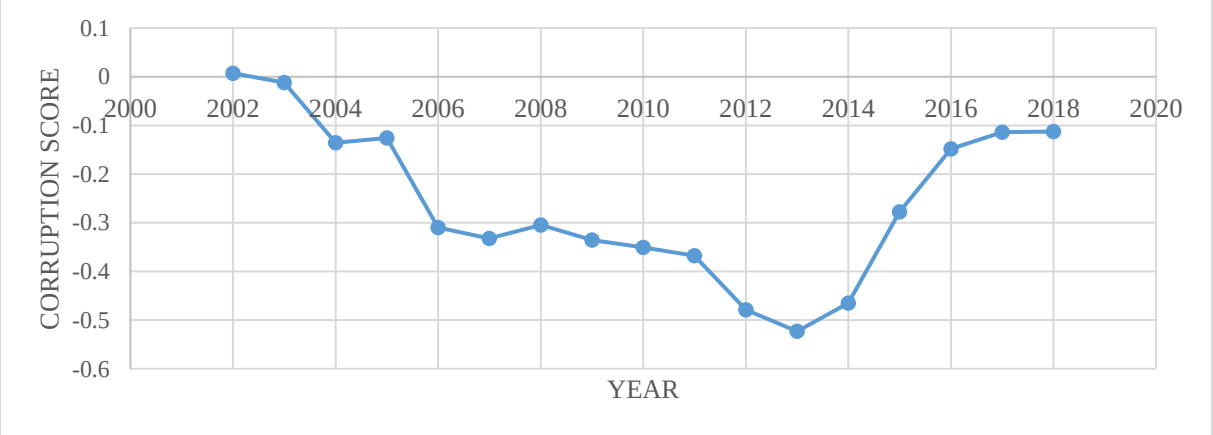

Figure 2. 24: Trends in Burkina Faso's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

[45] From their survey, most of the respondent see the politicians as the major benefactors from corruption in the mining sector.

2.3.12 Guinea

Guinea is enormously rich in bauxite, aluminium, and has significant deposits of gold and iron ore. Also, the country sits along the Atlantic Ocean, a position of geographical advantage, thus, making the country a desirable destination for FDI activities. However, FDI flows to Guinea remained on the margins until the mid-1980s (Figure 2.25). The trends in FDI over this period is very much attributed to the political inclination (socialism) of the government at the time, which saw the state-control almost all the sectors in the economy (Bangoura, 2015). From 1973 to 1984, FDI inflows were US$0.1 million on average. However, by 1985, the government of Guinea adopted policies to reduce the states' role in the economy by returning commercial activities to the private sector and promote investment (ibid). This was followed by sluggish growth in the flow of FDI to the country until the early 2000s (Figure 2.25). Nevertheless, in comparison to the 1973-1984 average, FDI inflows during the period 1985-1996 averaged around US$13 million more. While, from 2002 to 2018, FDI flows to Guinea averaged over US$300 million. The peak during this period was reached in 2016 when the country attracted over US$1.5 billion in FDI inflow. Worth noting, however, is that majority of the country's FDI inflows accrue to the mining sector (especially towards bauxite and aluminium) (UNCTAD, 2012 & 2019). The main investing countries in Guinea are China, the United States and Canada. Figure 2.25 shows the trend in FDI inflows in million US$ for Guinea from 1973 to 2018.

For over two decades, Guinea has been operating an open economy, whilst also offering fiscal incentives to investors including tax and customs exemption, as well as, protecting investors by inaugurating a trade court in 2018 (Department of State - Guinea, 2019). However, the country's poorly developed infrastructure, high level of corruption and risk of instability due to ongoing

political struggles between the ruling and opposition party[46], are all factors inhibiting the flow of FDI to the country. For example, out of 140 countries, the country is ranked 126th, 131st, 136th, 111th and 125th in institutions, infrastructure, skills, financial system and for the incidence of corruption in the 2018 WEF's Global Competitiveness Report (Schwab, 2018). Also, the country ranked 130th out of 180 countries in Transparency International's 2019 corruption perception index from 138th the previous year. Unsurprisingly, the country is ranked 152nd out of 189 countries in the World Bank's Doing Business 2019 report.

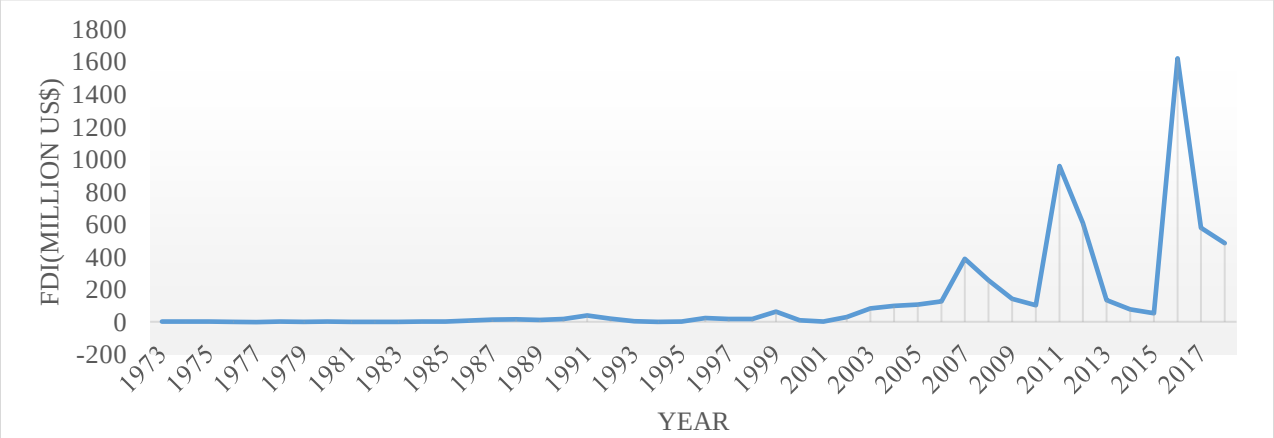

Figure 2. 25: Trends in Guinea's FDI Inflows in Million US$ (1973-2018)[47]
Source: Author's computation using data from UNCTAD (2019)

Endemic corruption in Guinea is in manifestation from the street to the grand-level (Dufka, 2011). For example, in 2017, the Och Ziff Capital Management Group executives were caught up in a graft campaign in which they paid bribes to win mining contracts in some African countries including Guinea (Matt and Keri, 2017). In another bribery scandal, a close adviser to the president of Guinea, Alpha Condé, was reportedly given unofficial payment by Ritto Tinto, an Anglo-Australian mining giant, to win mining rights in one of the largest iron ore deposits in the world

[46] Since 2015, there have been series of violent protest with the latest being spurred by cries against what they termed "constitutional coup" as the president seek a third term (Agence France-Presse, 2019).
[47] UNCTAD's FDI data for Guinea starts from 1973.

(Perelman, 2016). In Transparency International's Global Corruption Barometer report 2019, 76% of the people surveyed believe their government is doing a poor job in tackling corruption while 42% reported having paid a bribe over the last 12 months (Pring and Vrushi, 2019). In another survey by the World Bank, 25% of firms said that they were expected to present gifts in order to secure a government contract (World Bank's Enterprise Surveys Guinea, 2016). The widespread nature of corruption is reflective in Figure 2.26 as performance remains below pre-2005 levels and well below the mean score of zero. Figure 2.26 shows the trend in corruption score for Guinea from 2002 to 2018.

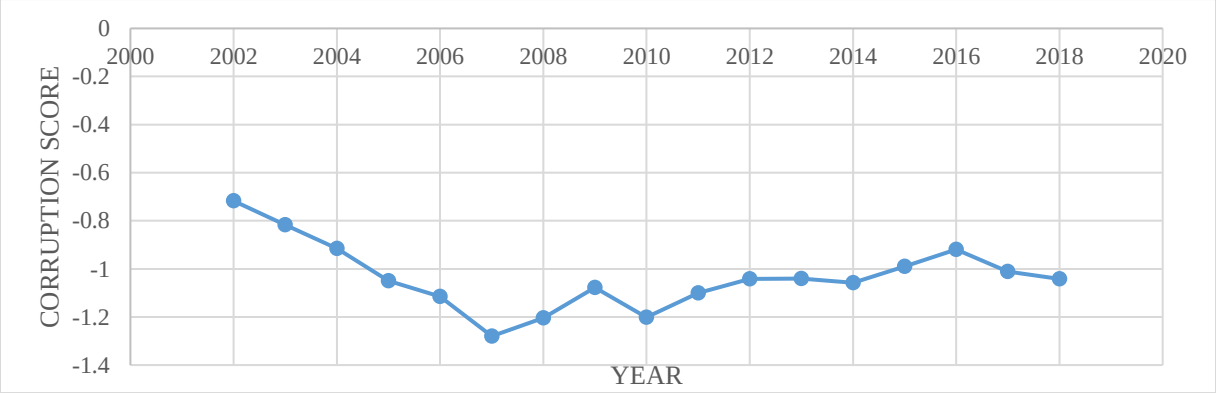

Figure 2. 26: Trends in Guinea's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+\ 2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

Efforts to fight corruption has long been dormant despite the establishment of the national anti-corruption agency, the Agence Nationale de Lutte Contre la Corruption (ANLC), in 2004. A reason for this can be associated with the fact that the agency has to report directly to the president and it was operating without any corruption law until 2017 (Department of State - Guinea, 2019)[48]. Apart from the ANLC, the government has embarked on Judicial reforms and in 2011 the National Audit

[48] The agency is without any conviction (Department of State - Guinea, 2019), as it lacks the necessary resources and capacity to deliver (Coulibaly and Diallo, 2013).

Commission was established (ibid). These reforms and measures, notwithstanding, without the political will and required support will continue to be ineffective.

2.3.13 Guinea Bissau

The flow of FDI to Guinea Bissau from 1984 to 2018, on average, has been relatively low, standing at around US$10 million per year. The country was one among many other countries to adopt the structural adjustment reform programme suggested by the IMF and the World Bank during the 1980s and 1990s. As a result, the country's FDI inflows attained a peak in 1997 of US$11 million (Figure 2.27). Unfortunately, the country was consumed by a war the following year,1998 (see Global Security 2017), resulting in a sharp decline in the inflows of FDI and by 1999, FDI inflow was almost insignificant at US$0.7 million. However, since the turn of the 2000s, FDI flows to the country has taken an upward trend, although irregular. In 2010, the country was able to attract a record value of US$33 million in FDI - the highest yet. It is reported that the fishing sector accounts for the majority of the FDI into the country with other sectors like agriculture, energy and real estate also attracting a fair amount of FDI (Export Enterprises Guinea Bissau, 2020). China, the United States of America, India and Portugal are some of the major investing countries in Guinea Bissau. Figure 2.27 presents trends in FDI inflows in million US$ in Guinea Bissau from 1984 to 2018.

The country's natural and mineral resources[49], its fiscal incentives[50], as well as, the even treatment for both local and foreign firms[51] are some of its attractive features for inducing FDI. Beyond that,

[49] The country is said to have an estimated 17 million ton of bauxite reserves, rich in phosphates, diamond, gold and timber (Marques da Cruz, 2020)
[50] There is a provision for exemption on custom duties and tax on general sales tax, and also a provision for a gradual reduction of income tax in seven years and so on (UNCTAD Compendium of Investment Laws., 2011)
[51] According to the Guinea Bissau National Investment Agency

the ambition to diversify the economy to accommodate investment in the infrastructure, energy and water sector further illustrates commitment from the government in welcoming FDI (Export Enterprises Guinea Bissau, 2020). Notwithstanding, underdeveloped infrastructure, high corruption, weak legal framework, lack of transparency in the tax and customs administration and political instability are some of the main obstacles for FDI inflows to the country (The World Bank Group, 2017). The country is ranked 175th out of 189 countries in World Bank's Doing Business 2019 report, improving by one spot from the 2018 ranking.

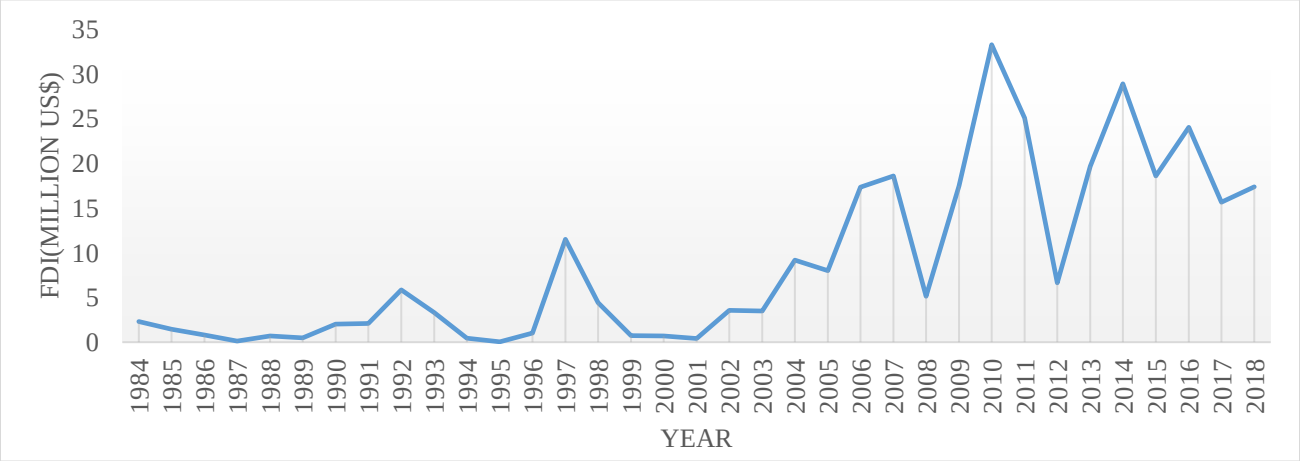

Figure 2.27: Trends in Guinea Bissau's FDI Inflows in Million US$ (1984-2018)[52]
Source: Author's computation using data from UNCTAD (2019)

Corruption, in all forms[53], in Guinea Bissau is rampant and international corruption indices largely corroborate this. The country, on average ranks as the worst country in West Africa in terms of corruption performance (See Figure 2.4). In 2019, the country ranked 168th out of 180 countries in Transparency International's corruption perception index, while 62% of firms in a survey reported that they had to make unofficial payments to get things done (World Bank's Enterprise Surveys Guinea Bissau, 2006). Also, from Figure 2.28, it is clear that corruption performance has been

[52] The regularity of data started from 1984.
[53] Petty, bureaucratic and grand forms of corruption.

virtually falling over time, with the country unable to match or better its 2002 level. Some of the cited reasons for the country's high corruption levels can be traced to the mismanagement of the civil service which leads to delay, and even non-payment, of salaries (Linder, 2014). Figure 2.28 presents the trend in the Corruption score for Guinea Bissau.

Information on recent government efforts to fight against corruption is lacking. Nonetheless, it is worth mentioning that the country is part of the United Nations Convention Against Corruption (UNCAC) and the African Union Convention on Preventing and Combating Corruption (AUCPCC); has a committee against corruption that was established in 1995, a financial intelligence unit and a procurement system (Linder, 2014). The effectiveness and functionalities of these institutions are unknown for this thesis owing to the unavailability of information. However, since after the coup d'état in 2012, reforms by the previous government were put on hold and not much is believed to have been done (African Economic Outlook, 2014 as cited by Linder, 2014).

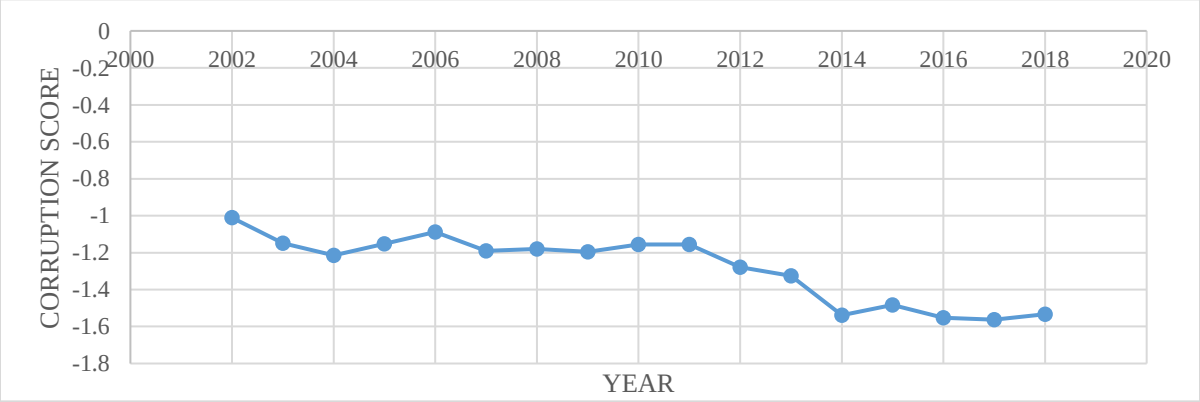

Figure 2.28: Trends in Guinea Bissau's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

2.3.14 Niger

The flow of FDI to Niger during the 1980s fell by US$4 million on average compared to the 1970s, when the country averaged US$14 million per year. However, average FDI inflows during the 1990s generally remained the same as the 1980s. The flow of FDI to Niger remained limited until the early 2000s (Figure 2.29). A plausible explanation for this would be the fragile political climate in the country during these periods. For example, during the 1990s, the country experienced two coup d'états, in 1996 and 1999. From 2000 to 2018, the country had experienced an average FDI inflow of about US$400 million, with the peak occurring in 2011 when the country attracted over US$1 billion of foreign investment (Figure 2.29). Most of the FDI inflows are, however, channelled to the mining sector, in particular uranium (Export Enterprises Niger, 2020). The country's main investing countries are France, China and the United States (ibid). Figure 2.29 illustrates the trend in FDI inflows in million US$ to Niger from 1970 to 2018.

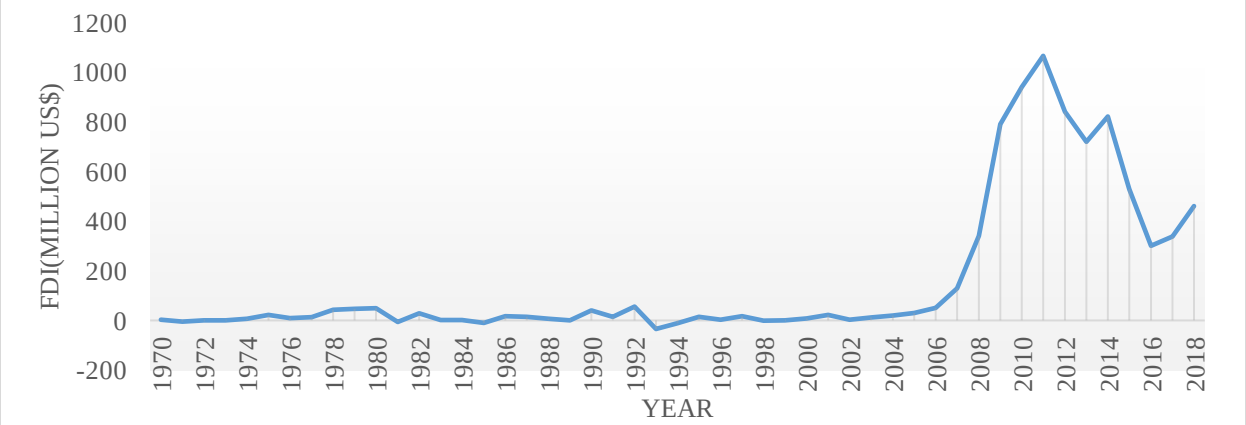

Figure 2. 29: Trends in Niger's FDI Inflows in Million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

Niger operates an open economy, and its mineral resource richness makes it an attractive spot for FDI operations. Notwithstanding, the government regularly design policies, and offer fiscal incentives to lure FDI. For example, the government recently introduced a new investment code

in 2014 that guarantees equal treatment to investors regardless of their origin, the protection of FDI and the provision of tax incentives for strategic sectors, including the agriculture, energy, real estate, hospitality and so on (Department of State - Niger, 2019). Furthermore, the country has a dedicated agency, the Maison de l'Entreprise, that facilitates the establishment of a business while also creating an online platform to ensure a business is registered with ease[54]. However, the landlocked nature of the country as well as its challenge with high levels of corruption, poor quality infrastructure and limited access to finance (World Bank's Enterprise Surveys Niger, 2017) together with the insecurity caused by armed Islamist groups in the Sahel region, acts as obstacles to the much needed FDI.

Niger is ranked 143rd out of 189 countries in World Bank's Doing Business Report (2019), climbing one spot from the 2018 ranking. The country also ranked 120th out of 180 countries in Transparency International's 2019 corruption perception index, losing six spots from the previous year. Corruption, in the forms: petty, bureaucratic and grand, remains a serious challenge in Niger (Chêne, 2017). For instance, in the Global Corruption Barometer report by Transparency International (2019), 62% of people perceived corruption to have increased during the past year, and 57% believe that the government is not doing enough to fight corruption, as well as 23% of citizens acknowledged that they paid bribe is the previous year to access a public service (Pring and Vrushi, 2019). Also, 46% of firms that were surveyed in the World Bank Enterprises Survey (2017) reported that they were expected to present gifts to secure a contract from the government (World Bank's Enterprise Surveys Niger, 2017). Although policies are in place to make contract

[54] Between 2016 and 2018, the time and cost for business registration significantly dropped from US$190 to US$33 (Department of State Niger, 2019).

agreements for the exploration and exploitation of the country's natural resources, such standards are less often followed (Chêne, 2017).

Nonetheless, the country's effort to tackle corruption received praised from the Millennium Challenge Corporation (MCC) Board in 2014 (Department of State - Niger, 2016). In 2010 the government of Niger adopted a new constitution that contains provisions that require the declaration, by public officials (the President included), of personal assets and the reporting by the government of any revenue from the extractive industries, thus, enhancing greater transparency (ibid). Also, aside from the national anti-corruption body created in 2011, the Haute Autorité de Lutte Contre la Corruption (HALCIA), a law for the prevention and repression of corruption was passed in 2018 (ibid). Furthermore, the country is a party to several anti-corruption initiatives[55]. These efforts have been very much reflected in the country's corruption performance over time (Figure 2.30). From Figure 2.30, it is evident that Niger's corruption score has generally improved over the years, which can be attributed to some of the measures that have been taken by governments over the years.

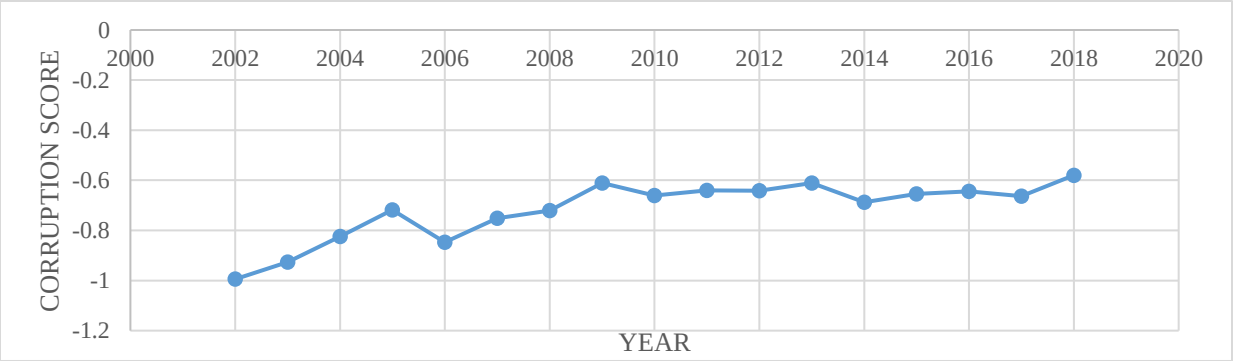

Figure 2. 30: Trends in Niger's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

[55] The United Nations Convention Against Corruption, African Union Convention on Preventing and Combating Corruption, the Protocol on Combating Corruption of ECOWAS among others (Department of State - Niger, 2019).

2.3.15 Togo

Foreign direct investment to Togo has generally been inconsistent over time, although it tended to increase for the period 1997 to 2018[56] (Figure 2.31). On average, FDI inflows to the country during the 1970s was US$13 million. This average was US$1 million more during the 1990s, after picking up from an initial decline in the 1980s by US$3 million. Compared to the average of the 1990s, FDI inflow to the country grew by almost 300% and above 1000% over the periods 2000-2009 and 2010-2018 respectively. The peak of the FDI inflows to Togo happened in 2011 when the country attracted an FDI value of US$711 million. Some of the country's main investing countries are Brazil, France and Canada, and investment is mostly channelled to the primary sector (phosphates, cotton, coffee and cocoa) and tertiary sector (infrastructure) (Export Enterprises Togo, 2020). Figure 2.31 illustrates the trends in FDI inflows in million US$ to Togo from 1970 to 2018.

Figure 2. 31: Trend in Togo's FDI Inflows in Million US$ (1970-2018)
Source: Author's computation using data from UNCTAD (2019)

[56] For the most part, this was as a result of the government of Togo's economic reform that simplified their foreign trade regime, all in an effort to liberalize the economy in the 1990s (see World Trade Organization, 1999)

Apart from the country's endowment in resources like phosphate and cotton, Togo, for over two decades, has been operating an open economy (World Trade Organization, 1999) and has undertaken reforms over the years; provides incentives for companies in free trade zone areas[57] and has a non-discriminatory law against investors regardless of nationality (Department of State - Togo, 2018) thus, making it an attractive destination for FDI activities. Besides, the country has an investment promotion agency, the Togo Invest Corporation whiles also having a bilateral trade agreement with several countries, including the United States of America, China, France and Germany (ibid). In the 2019 World Bank's Doing Business 2019 report, the country made a massive jump from 156th the previous year to 137th out of 180 countries reported. Notwithstanding, FDI to Togo is challenged by high tax rates, cumbersome tax administration, limited access to finance, political instability, inconsistent electricity supply and pervasive corruption (World Bank's Enterprise Surveys Togo, 2016).

The widespread corruption in Togo is evident in the corruption indices reported in several indicators and surveys. For example, 32% of public service users acknowledged to paying bribes in the past year according to the Global Corruption Barometer report by Transparency International (2019), as well as, 57% of people perceived corruption to have increased in the previous year, and 68% think that government effort to combat corruption is poor (Pring and Vrushi, 2019). Also, the country is ranked 130th out of 180 countries in Transparency International's 2019 corruption perception index, losing one spot from the previous year. From Figure 2.32, it can be seen that the country's level of corruption has remained below the mean score of zero since 2002. Also, it is

[57] Companies in the free trade zone area benefits from tax exemption on customs duties and Value added tax on imported inputs and goods, as well as exemption from providing workers with many legal protections (Department of State - Togo, 2018)

evident from the graph that performance has dropped since 2016 after consistent improvement since 2013.

Nonetheless, the country has performed way better in the past five years in comparison to the pre-2014 era (Figure 2.32). Some of the contributing factors that can be associated to the recent performances are the establishment of an anti-corruption agency in 2015, the Haute Autorité de Prévention et Lutte Contre la Corruption et Les Infractions Assimilées (HAPLUCIA) - dedicated to fighting corruption and related offences, the extension of anti-corruption laws also to include family members of government officials and their political parties in 2017, as well as, the freedom for non-governmental anti-corruption organizations to operate without any fear of government interference (Department of State - Togo, 2018). Figure 2.32 shows the trend in Togo's corruption score from 2002 to 2018.

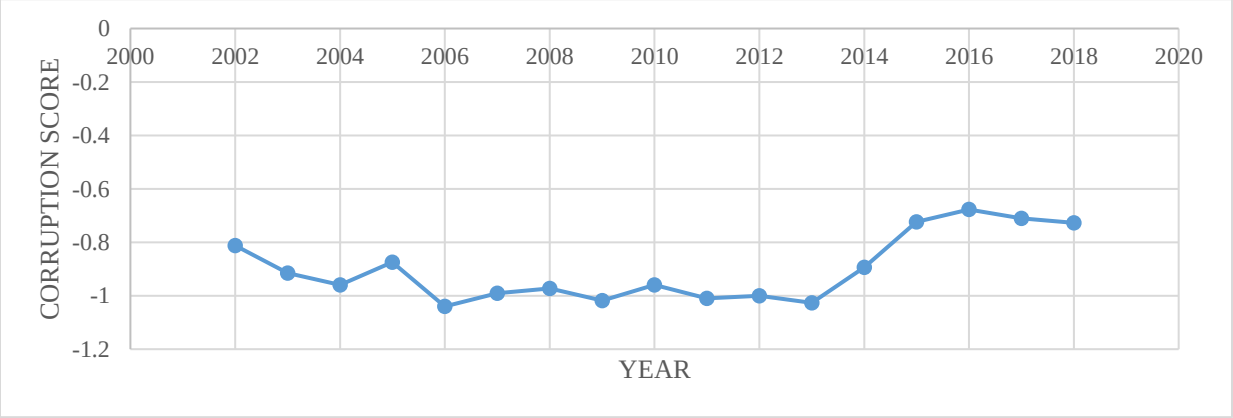

Figure 2. 32: Trends in Togo's Corruption Score (2002-2018)
Note: The values are shown on a scale of -2.5 (most corrupt) to $+2.5$ (least corrupt).
Source: Author's computation using data from the World Bank's World Governance Indicator (2019).

2.4 Conclusion

The chapter presents an overview of FDI and corruption in West Africa as a sub-region and on the 15 West African considered for the thesis individually. From the analysis, it is evident that FDI

inflows to the sub-region have significantly increased over the past decades. A similar judgement can also be made for the individual countries that were analyzed. However, it was observed that FDI inflows to the sub-region have generally been falling since 2011, which is a worrisome development given the importance of FDI as a capital inflow. Following the analysis also, it was clear that corruption, amongst other factors like access to finance, weak infrastructure and high tax rates is a major impediment to the inflow of FDI into the sub-region. The practices and engagements of corruption in all forms are similar and extensive in the majority of the countries in the sub-region. Corruption performance, based on certain indicators, for the sub-region and majority of the countries, is poor at best despite efforts by various governments to tackle the menace. Therefore, investigating the role of corruption on the inflow of FDI to West Africa is relevant and timely.

CHAPTER THREE

LITERATURE REVIEW

Introduction

The objectives of this chapter are to discuss and review studies on Foreign Direct Investment (FDI) and corruption. The chapter starts with the theoretical review of the literature, where the thesis discusses the definitions, forms (types) and theories of both FDI and corruption, and also looks at the possible theories that connect the two. The chapter ends with a review of empirical studies in the subject area.

3.1 Theoretical Literature Review

Under this section, a detailed review of the definition of FDI and corruption used in the thesis is established and also, a review of their theories and hypothesis are carried out.

3.2 Definition of Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) is one of two forms of foreign investment – the other being Foreign Portfolio Investment (FPI) (Wu *et al*., 2012). FPI compose of financial securities and assets held by an investor in another country. This form of investment is done on the stock exchange market, and it is less favourable compared to FDI because of its high liquidity and short-term horizon (UNCTAD, 1999). Although FPI constitutes foreign investment, it does not grant the investor any direct ownership and control over the assets or the businesses.

Unlike FPI, FDI involves the physical investment and purchases made by a company or individual outside of the home country, typically through the acquisition of shares or the establishment of an investment venture from scratch by opening plants, factories, machines or buying buildings (Luu *et al*., 2018). This sort of investment allows investors to have control over a company or an asset, making it a more favourable form of foreign investment in developing economies because it can help to cushion the host country's economy and improve the welfare of its citizens, through job creation and quality service, with a long-term horizon (UNCTAD, 1999). Therefore, since the importance of FPI as a source of capital inflow to developing countries is less in comparison, the thesis, henceforth, restricts the discussion to FDI.

In simple terms, FDI can mean an investment undertaken by a foreign national outside his country. However, a more acceptable definition was put forward by the United Nations Conference on Trade and Development (UNCTAD) in their World Investment Report [(WIR) 2007], in which FDI was defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor) in an enterprise resident in an economy other than that of the foreign direct investor. However, a threshold has been stipulated for a foreign investment to be considered FDI. The International Monetary Fund (IMF) in their seventh edition of the Balance of Payment Manual [(BPM) 2009] and the Organization of Economic Co-operation and Development (OECD) benchmark definition of FDI fourth edition (2008), levied a minimum of 10 percent voting stock or ownership requirement for a foreign investment to qualify as FDI.

The mode of FDI entry can be made through merger and acquisition or the greenfield stage (Luu *et al*., 2018). The merger and acquisition involve the buying wholly or a part of an already existing

enterprise outside the investor's own country. Whereas, the greenfield involves the establishment of an enterprise or company from scratch, in that the foreign investor acquires land or building and establishes his or her plant or factory. According to the United Nations [(UN) 2005], as cited by Razin and Sadka (2007), "the choice of mode is influenced by industry-specific factors. For example, greenfield investment is more likely to be used as a mode of entry in industries where technical skills and production technology are key. The choice may also be influenced by institutional, cultural, and transaction cost factors, in particular, the attitude toward taking overs, conditions in capital markets, liberalization policies, privatization, regional integration, currency risks, and the role played by the intermediaries (for instance, investment bankers) actively seeking acquisition opportunities and taking initiatives in making deals."

FDI can be in the form of flow or stock. FDI flow refers to a recorded transaction during a given period, whereas FDI stocks are the accumulated value held at the end of a given period based on UNCTAD's definitions. However, for this thesis, the focus is on FDI inflows rather than stocks since policy recommendations are most often formed to boost FDI inflows instead of accumulating stock (Ardiyanto, 2012).

3.2.1 Types of Foreign Direct Investment (FDI)

There are mainly two types of FDI: the horizontal and vertical FDI. The horizontal FDI occurs in situations in which a foreign company merges with (or acquires) another company (which might be domestic or foreign) that produces homogeneous goods or provide similar services. Established firms make this type of FDI (Caves, 1971) and by extension, is more common in the world (Carr *et al.,* 2001). This type of FDI appeals mostly to foreign investors with a market-seeking motive and is done mainly to capture or have a share of the market in the host country while cementing

their global competitive position. For example, the telecommunication company Orange acquisition of another telecommunication network, Airtel, in Sierra Leone in 2016 is a practical example of horizontal FDI. Engaging in horizontal FDI not only gives access to a larger market but can also allow foreign investors to escape export tariffs by producing and selling in the host country.

The second type of FDI, the vertical FDI, involves a foreign company merging with another company to add more value to its value chain. Vertical FDI is characterized by fragmenting the production process internationally, locating each stage of production in the country where it can be done at the lowest possible cost (Aizeman and Marion, 2001). Foreign investors who seek to take advantage of raw materials (natural resources-seeking FDI) and cheaper production costs (efficiency-seeking FDI), locates part of their production process in developing countries by using their technology and managerial capabilities (Ardiyanto, 2012). Vertical FDI helps a firm to enhance specialized assets through the facilitation of investment efficiency.

3.3 Theories of Foreign Direct Investment (FDI)

This section presents an analysis on some of the widely recognized FDI theories in the literature, namely The Market Imperfection Theory, Internalization Theory, Eclectic Paradigm and Product Life-Cycle Theory.

3.3.1 The Market Imperfection Theory

Hymer's doctorate thesis on FDI and Multinational enterprises (posthumously published in 1976) was amongst the earliest constructs to explaining FDI motivations. Conscious about the fact that local firms are highly informed about happenings in the domestic market, Hymer (1976) posited

that a foreign firm would only invest in such a market if the firm commands certain advantages over the local firms under an imperfect market system that will prevent them (local firms) from freely accessing those advantages. This unequal ability among firms, Hymer (ibid) noted is a sufficient condition for FDI. The imperfect market system, plus the advantages possessed by the foreign firm, will open a window for making a profit with little or no rivalry. It was on this basis that Kindleberger (1969) noted that market imperfections attract FDI.

Inspired by Kindleberger's (ibid) work, Calvet (1981) classified the market imperfections that might potentially attract FDI as; imperfections of market structure, market disequilibrium hypothesis, market failure imperfections and government-imposed distortions. The imperfection in the market allows firms to operate as oligopolies or monopolist as the markets that characterized them provide some sought of entry barriers to avoid a surge of competition. The ability to differentiate products and control knowledge that can be protected through patent and copyright is a crucial element that motivates FDI (Calvet, 1981; Caves, 1971). The greater the advantages as a result of the market imperfections, the more likely oligopolistic or monopolistic profit will be earned; hence, the more motivated firms become to invest abroad. However, when markets are operated efficiently; with costless information, no barriers to entry, no economies of scale and no government intervention, FDI will not occur, instead, international trade will be the possible form of international engagement (Calvet, 1981). A limitation to the oligopolistic structure is that profit might not always be guaranteed due to the possibility of cheating when firms collude.

3.3.2 The Internalization Theory

Buckley and Casson (1976) argue that the process of internalization starts when a firm finds it more efficient to engage in trade through the internal market than the external market or

intermediate modes. The basis of their argument can be drawn from the fact that the activities of Multinational Enterprises (MNEs) go beyond the mere production of goods and services, and for which these activities are related and interdependent (Calvet, 1981). Buckley and Casson (1976) suggest that due to market imperfections, it is difficult to use the market to organize trade involving intermediate products. However, this provides an incentive to circumvent the market. Hence, the creation of the internal market that can coordinate the activities that are linked by the market under single ownership and control. Therefore, extending this internalization beyond a particular boundary, Buckley and Casson (1976) believe is responsible for MNEs engaging in FDI.

Expanding on the internalization theory, Dunning (1977), noted that the incentives to internalize activities are to capitalize on the advantages of market imperfections in the allocation of resources. Thus, the superior resources commanded by the firms must be backed by the desire and ability to internalize the advantages resulting from their possession. McManus (1972) posited that the idea of international production is not capital transfer but rather the extension of control over boundaries (foreign subsidiaries) which allows them to become the allocators of resources. Therefore, it is very likely that the firms that internalize markets are massive and likely to have accumulated relevant experience over time that allows them to possess a greater advantage over technology and skills.

3.3.3 The Eclectic Paradigm

The eclectic paradigm otherwise known as the Ownership, Location and Internalization (OLI) framework is the most widely adopted approach in explaining FDI activities. This theory was propounded and constinuously updated by Dunning from the 1970s up to the 2000s. The papers in the 1970s especially in 1972 and 1973, tried to provide reasons for foreign firms successfully

competing with domestic firms in supplying the market of the latter and also instead from a domestic base, why they chose to supply their markets from a foreign base respectively. Most of these works, however, were focused on the locational (L) and ownership (O) advantage themes of foreign firms (Dunning, 2001). Later, the "O" and "L" advantages were extended to accommodate another set of choices available to the firms which are related to the way they organize the generation and use of the resources and capabilities under their control and those that can be accessed in different locations. To fully understand the firms' decision-making, the study explains why such firms choose to generate and (or) exploit their "O" advantages internally, rather than to trade these rights in the open market. This advantage is referred to as the internalization (I) advantage which became the third leg of the eclectic sub-paradigms in explaining FDI activities by MNEs.

The eclectic theory was significantly updated by Dunning (2000) in a paper titled: *"The eclectic paradigm as an envelope for economic and business theories of MNE activity".* Dunning (2000) posited that the extent, geography and industrial composition of FDI undertaken by MNEs are contingent on the configuration of three sets of advantages: the ownership advantage, the locational advantage and the internalization advantage. In his words, Dunning (2000) states that "the eclectic paradigm further asserts that the precise configuration of the OLI parameters facing any particular firm, and the response of the firm to that configuration is strongly contextual." Thus, reflecting the structure of the home country of the investing firm and the host country in which they seek to operate; the industry and firm characteristics.

The ownership advantage refers to the competitive advantage of the firm seeking to engage in FDI. The argument for this sub-paradigm is that ceteris paribus, the greater the competitive advantages

of the firm investing, relative to other firms, especially domestic firms, the likelier are they to engage in FDI. Based on existing studies since the 1960s, Dunning (2000) classified the ownership specific competitive advantages into three groups: the first relates to the possession and exploitation of monopolistic advantages arising from the creation of entry barriers to the final product market by firms not possessing them. The second, arises from the control or ownership of a bundle of scarce, unique and sustainable resources and capabilities, reflecting a firm's superior technology efficiency relative to its competitors, thereby, creating barriers to factor (or intermediate goods) market for firms not possessing them. The final one emanates from a firm's managerial abilities and competencies to coordinate existing resources and capabilities with newly identified resources and capabilities harnessed globally.

Notwithstanding, the relative significance of these groups has changed over time, as markets become more liberalized together with a knowledge-intensive approach to wealth-creating activities. Unlike the 1970s and 1980s when the unique competitive advantages of firms were their abilities to produce and organize their assets to existing market requirements internally, emphasis in the 1990s tilted towards the capabilities of the firms to access and organize knowledge-intensive assets from throughout the world (see Knickerbocker, 1973; Vernon, 1974; Rugman 1982; Dunning, 1995). As such, the undertaken of FDI is not only to exploit but also to secure and augment the existing ownership advantages.

Dunning (2000) further divided the ownership advantage into static and dynamic ownership advantages. The static ownership advantages are the income-generating resources and capabilities possessed by a firm at a given point in time. Whereas, the dynamic ownership advantages are the firm's ability to sustain and increase its income-generating assets over time. Moreover, in recent

times, there has been a significant increase in efficiency-seeking FDI, which can be associated with the dynamic ownership advantages.

Locational advantages refer to the attractiveness of alternative countries or regions for FDI. These advantages may include immobile natural or created endowment, large market size, lower transportation and communication costs, better infrastructure, favourable trade policies towards FDI, fiscal incentives, political stability, quality institutional set-up, macroeconomic stability and the presence of competent domestic firms having a unique set of location bund created assets with which MNEs might forge alliances to complement their core competencies (Vernon 1966; Dicken and Lloyd, 1977). If a firm possesses competitive ownership advantages, it is ideal for such a firm to utilize these advantages jointly with the locational advantages existing in foreign markets; otherwise, they would be served only through exports. Therefore, the ability of a firm to engage in FDI is determined by the country's immobile locational advantages which it needs to combine with its competitive advantages.

Internalization advantages provide firms with alternative ways to organize the creation and exploitation of their core competencies, given the locational advantages of different countries or regions. Dunning (2000) argue that as long as the cost of using arm's length markets in the trade of intermediate products, information, and technology, among others,, exceeds those incurred through internal hierarchies, then it is more prudent for a firm to engage in FDI instead of venturing into a market-related agreement with a foreign producer. The study further notes that firms not only attempt to maximize profits by optimizing the use of existing assets internally, but also undertake FDI, as in cases of cross-border mergers and acquisitions, to acquire new resources and

capabilities, gain market power, achieve lower average production costs, or to thwart potential competition.

The idea of the eclectic paradigm is found in many different economic and business theories that focus on explaining a particular kind of FDI. For instance, location theory forms the basis for understanding the 'where' of MNE activity; while the industrial organization and resource theories provide insight as to 'why' foreign own affiliates may possess a competitive edge over their domestic counterparts; (or rights) to independent foreign producers (Dunning, 2000).

3.3.4 The Product Life Cycle Theory

This theory was developed by Vernon in 1966 and is based on the idea that firms engage in FDI, by setting up foreign production facilities, to capitalize on some monopolistic advantages (Vernon, 1979). If these advantages are absent, then firms become reluctant to engage in FDI. The theory follows the assumption that in any advanced country, the stimulus for investing in an innovate marketable product arises from some promise in the market. Vernon (ibid) further predicts that the decision on trade and investment follows three stages of the development of a product, namely: the unstandardized stage, the maturity stage and the standardized stage.

The unstandardized stage is more or less the 'infant' stage of the product's development. At this stage, firms are short-sighted and naive as they do not look beyond serving the domestic (home) market. Thus, any arising demand from a foreign market is served only through export. The home market is of interest not only because of the availability of skilled labour force but also because, at the early stages of the products life, the home market offer producers the flexibility to change their inputs as a result of existing uncertainties about the ultimate market dimension as well as the

evolving nature of production techniques and product specification; the relatively high price inelasticity of demand for the product due to its high product differentiation and monopoly in the early stages; and finally, the home market allows producers to swiftly interact with customers, suppliers and even competitors which severs the improvement of the product very well. A gradual and cautious process characterizes this stage in the product's development.

The next stage is when the product becomes mature. At this stage, demand for the product expands, and efforts at product differentiation intensify, while certain standardization level of the product is achieved. This standardized level of the product reduces the need for flexibility as uncertainties surrounding operation declines. As a result, producers focus switches from product characteristics to production costs. The consideration of taking the risk of setting-up facilities outside the home market becomes stronger reckoned Vernon (ibid). However, the need for investing abroad is mainly contingent on the marginal cost of production plus export cost against the cost of production in the market for import. If the cost of the latter is lower than the former, then it is rational to engage in FDI, otherwise, exporting from the home market's production unit is idle. Also, the producer's decision to invest abroad can be influenced, for example, if the monopoly position of the firm is threatened by potential rival producers who appear ready to manufacture the product from locations that could undersell the firm's original innovative product. Furthermore, the level of tariff protection anticipated for the future and the political situation in the importing country might also be influencing factors.

Finally, the product life cycle model predicts that as products become highly standardized, the price becomes the principal instrument to determine the competitive outcome. At this stage, the production process facing firms in industrialized countries are similar. Firms do not seek market

information to invest because it is available; rather, they seek a market source of supply that gives the lowest cost. As a result, firms will engage in efficiency-seeking FDI to take advantage of cheaper labour costs, found mostly in developing countries. Hence, the low cost of labour becomes the attractive factor drawing investors towards developing areas (ibid).

While this theory was able to explain investment, precisely US investment, during the 1960s, its specific nature cannot be applied to explain the general theory of FDI operations as it was unable to explain FDI trends after the 1970s. Particularly in recent times, the stages of the product life cycle constructed is not necessarily followed by firms, and no longer fits the empirical reality (Densia, 2010).

3.4 Corruption

Corruption is among the highly talked about issues in the global environment by politicians and academics. The increased attention on corruption, partly, can be attributed to the fact that it is very costly. It is estimated that the cost of corruption in the global economy is around US$3.6 trillion annually (Johnson, 2018). Beyond the cost in economic terms, corruption seriously impacts the operation of societies by distorting resources, creating more inequality, poverty and misery on a country's populace. Despite the attracted attention, the definition of the term is not unifying among academics, possibly because it covers a wide range of human actions (World Bank, 1997). Therefore, for many, it can mean different things in different contexts (Bardhan, 1997), hence, making it a vague and contested concept. However, in most of the definitions, a commonly found feature is the 'misuse of entrusted power' by an agent (mostly public officials) (Bardhan, 1997; Shleifer and Vishny, 1993; McMullan, 1961; Transparency International (n.d); World Bank, 1997).

McMullan (1961) defined corruption as "the acceptance of money or money's worth by a public official for doing something that he or she is under a duty to do, not to do, or to exercise a legitimate discretion for improper reasons." Shleifer and Vishny (1993), however, defined corruption as "the sale by government officials of government property for personal gain." While Bardhan (1997) defined corruption causally as "the use of public office for private gain." A commonality in their definitions is the misuse of public trust by a public official. For Shleifer and Vishny (1993), the act of corruption is limited to cash, whereas, in the definitions of Bardhan (1997) and McMullan (1961) corruption is not only restricted to cash but also can extend to other non-payments gestures or act. Transparency International defined corruption as "the abuse of entrusted power for private gain." Dependent on the amount of money lost and the sector involved, Transparency International classified corruption as petty, grand and political. Petty corruption happens when low and mid-level public officials abuse their entrusted power through their daily interaction with ordinary citizens seeking access to essential goods and services in places like schools, police departments and other agencies[58]. Grand corruption occurs at the high level of government where policies are likely to be distorted to benefit those involved at the expense of the public[59]. While political corruption is the one made in cash or in-kind to support a political cause that might lead to favours in the future[60]. This definition encompasses almost all forms of corrupt act public or private agents might engage in through an illegal transaction.

[58] For instance, a traffic warding taking bribe from drivers on the road is one of the most common forms of petty corruption not only in Africa but around the world.

[59] The Ghana Social Security and National Insurance Trust's (SSNIT) $72 million operational business suite scandal investigation in 2017 to digitalize the institution's operations is a good example of grand corruption.

[60] A perfect example of political corruption can be found in the corrupt relationship between former president of South Africa, Jacob Zuma and the wealthy Gupta family who are engaged in several businesses stretching from electronics to mining.

However, for this thesis, the definition of corruption is limited to government corruption or public office corruption. In that light, the thesis adopts the definition by World Bank (1997), which defines corruption as; "The abuse of public office for private gain. Public office is abused for private gain when an official accepts, solicits, or extort a bribe. It is also when private agents actively offer bribes to circumvent public policies and processes for competitive advantage and profit. Public office can also be abused for personal benefit even if no bribery occurs, through patronage and nepotism, the theft of state assets, or the diversion of state revenues".

Corruption manifests itself in several forms including acts like bribery, fraud, extortion and embezzlement. However, concerning FDI, corruption takes the form of bribery (bribes paid to or extorted by government officials) that is, the soliciting of an advantage as an inducement for an action which is illegal, unethical or breach of trust; and it takes the form of gifts, loans, fees, et cetera. (Transparency International, n.d). For instance, government officials might take a bribe to allow otherwise taxable goods to enter the market without paying any taxes; or officials ask for speed money to accelerate the paperwork.

Just as with the definition, the secrecy of corruption makes it impossible for it to be directly measured. Even if it could be measured, its intricacies could probably lead to its elimination (Tanzi, 1998). Apart from the payment of bribes, measuring corruption requires accounting for relatively unimportant actions and identifying each act – which is highly unlikely. However, information about corruption can be accessed indirectly from report on corruption through published sources such as Newspaper and magazines; case studies of corrupt agencies such as customs; or questionnaire-based surveys that measure the perception of corruption in countries such as the World Bank, Transparency International, Afrobarometer and others (Tanzi, 1998).

The three widely used corruption indices by researchers and business people, partly due to their easy accessibility, are the Transparency International's Corruption Perception Index (CPI), the World Bank's World Governance Indicator's (WGI) control of corruption or the Political Risk Services' International Country Risk Guide (ICRG) which, typically, are obtained frrom surveys. Nevertheless, it must be noted, with caution, that these surveys are merely perceptions reflecting subjective opinions, and hence, must not be confused as actual measurements. Until otherwise, these surveys are the best alternative available to researchers to carry out studies on corruption.

3.5 Theories of Corruption

Generally, corruption is modelled using concepts like the Principal-Agent Model, the Demand and Supply Model, the Gravity Model and the institutional theory. The principal-agent corruption model is stereotypical of the classic principal-agent problem, where the principal (government official) deals with the agent (foreign investor) who needs a government-provided good or is trying to avoid higher taxes (Dutta and Mishra, 2004; Aidt, 2003).

The Rose-Ackerman (1999) model is a typical example of the demand and supply model of corruption. In the model, the authority to allocate a scarce commodity to a private agent rest with the government, using legal criteria rather than a willingness to pay. Consider a government official who is allocated a fixed number of import permits to sell, and under the assumption that the demand from importers for the permits exceeds the available permit (supply). If the government official cannot price discriminate, and if the corrupt market operates efficiently, then the permit will be given to the importers with the highest willingness to pay. Thus, clearing the market through a bribe. Here, through corruption in the form of bribe, the demand and supply equilibrium is achieved. However, due to the secrecy and illegality of corruption, it is highly

unlikely for a corrupt market to work as efficiently as a perfectly competitive market mechanism. In such markets, corrupt government officials try to keep their circle as small as possible to avoid detection, and as such only deal with firms, they know very well.

For many governments, a calculated allocation of import and export licenses is often a significant source of payoff for government officials charged with such responsibility. For example, the byname for former Indonesian leader, President Suharto, was "Mr Ten percent" because it was expected of any MNE operating in the country to pay a relatively well-defined bribe to the president or members of his family (Wei, 2000). Also, in Nigeria, under the rule of Shehu Sagari in the early 1980s, his administration ignored free trade reforms recommended by the IMF due to the existing mechanism of import licensing which was the main passage for patronage and payoff (Herbst and Olukoshi 1994).

The Gravity Model has its origin from Newton's (1687) universal law of gravitation but was extended to international trade by Tinbergen in the 1960s. It hinges on the conception that the intensity of trade can be explained by forces such as the income and market size, which constitute the attraction forces; and geographical distance and trade barriers as the opposing forces. In an investment model, for instance, the size of the market can represent the attracting force, while lower institutional quality represents the opposing force. The study by Anderson and Marcouiller (2002) was the first to model the institutional effect on trade flow in the gravity framework. The study showed that trade could increase significantly in the presence of high-quality institutions. Corruption and imperfect contract enforcement are considered components of international trade insecurity. An import demand model was constructed to show that in an insecure world, theft by

corrupt officials generates a price mark-up, the equivalent of hidden tax or tariff, and for which the extent depends on the institutional quality.

The Institutional Theory of corruption follows the rational choice framework (Tolbert and Zucker, 1996; Scott, 2001; Luo, 2005; Rose-Ackerman, 2010). This approach remains a dominant enquiry into the causal explanation for corruption (Hellmann, 2017). The underlying assumption of the model is that the agent (subordinate) always seeks to maximize his or her payoff from corrupt behaviour, while the principal (supervisor or boss) seeks to minimize the welfare cost that arises from corruption. The approach predicts that corruption only occurs when the rationally acting agent considers his risk-benefit outcome for engaging in corrupt behaviour[61]. If the benefit exceeds the risk, the rational agent will engage in corrupt behaviour; otherwise, the agent will abstain. In highly corrupt countries, the risk of engaging in corruption is lower due to the weak or non-existent mechanism for holding corrupt agents accountable. For example, the corrupt environment might lead individuals to engage in corruption as they consider it to be a standard norm (Tolbert and Zucker, 1996). Thus, creating a collective action problem as corruption becomes an expected behaviour, and individuals cannot trust each other to be clean and play their part as principal. Hence, it becomes rational for each individual to free ride on others' anti-corruption efforts.

The inter-individual interaction also shapes the agent's risk-benefit calculations in two ways. First, if corrupt actions are carried out repeatedly between the same partners, mutual trust will grow stronger, thus generating the expectation that the other side will abstain from fraud or betrayal

[61] The profit (benefit) is the amount to be collected in bribe, which proponents of this approach, believe to be higher in conditions of a heavily regulated market (Djankov et al., 2002; Gerring & Thacker, 2005) and resource-rich economies (Vincente, 2010). The risk factors refer to the manager's (principal) ability to monitor and punish the agent for corrupt behaviour. In turn, the principal puts structures in place to curtail any form of corruption such as allowing for greater press freedom, decentralization of government etc.

(Lambsdorff, 2007). Second, in highly corrupt settings, the risk of getting caught and punished for corrupt behaviour is lower than in low-corruption equilibrium because information and skills regarding the logistics of corruption are more widespread in the latter, and because the large-scale reproduction of corrupt exchanges may have prompted the emergence of actors who specialize in the enforcement of exchange contracts (Della & Vannucci, 2012).

McMullan (1961) developed a 'literate in an illiterate society model' based on observed corruption in the British colonies and ex-colonies of West Africa. The author argues that high-level corruption is the result of wide divergence between the attitudes, aims and methods of a country's government and those of the society in which they operate. The idea of the model is that in a society in which public servants are literate and the population it governs are illiterate, then friction between them is inevitable. The interaction is greatest at the base of the public servant pyramid, where functionaries and contacts with the public are most numerous, and it is at this level that the most significant volume of corruption occurs. Also, there is a constant flow of presents and bribes (given unwillingly or willingly), pressed on the official or extorted from the public. This sort of model manifests in cases where for instance, an ill-paid police officer turns his power over wealthy illiterates to supplement his pay. This exchange of power for wealth typifies a corrupt pattern. The model suggests that the illiterate population, entangled in the toils of the literate government servants, are at a disadvantage for which only their wealth can help them. In reality, such a corrupt act can be classified as extortion.

Compared to other studies, Shleifer and Vishny (1993) laid out a simple theoretical framework, in line with the Principal-Agent concept, for corruption. In the model, there is a government-produced good (say permit or license to establish an investment). The good is homogeneous and

it is sold on behalf of the government by a government official (the principal). The official can sell the good with discretion, and this gives the official the freedom to exercise some monopoly power by influencing the quantity of the good, by refusing to provide the good or delay its provision. The difficulty of getting the good can be avoided by the investor (the agent) if a bribe is paid. The value of bribes is maximized by the government official who collects the bribe from the sale of the good. Besides, it is further assumed that the official is free from any detection because his supervisors might be getting a share in the proceeds, which is one of the best ways to reduce the uncertainties and penalties associated with corruption (Jain, 2001).

Using a monopolist curve, Shleifer and Vishny (1993) considered the case of corruption without theft and the case with theft. Under corruption without theft (Figure 3.1) the government official set a price above the government's official price, *p,* to *p* plus *b* (bribe). The official turns over the official price of the good to the government, *p,* and keeps the bribe, *b*. In the end, there is a win for both the government and the government-official because the government does not lose any revenue from the sale of the good, and by overcharging, the official gets to retain the extra (*b*). The marginal cost of providing the good in this scenario is *p*. If the official cannot price discriminate, then as monopolists, he sets marginal revenue (MR) equal to marginal cost (MC). Therefore, since the official's price exceeds the government price, it pays for the official to create a shortage of the good at the official price to collect bribes.

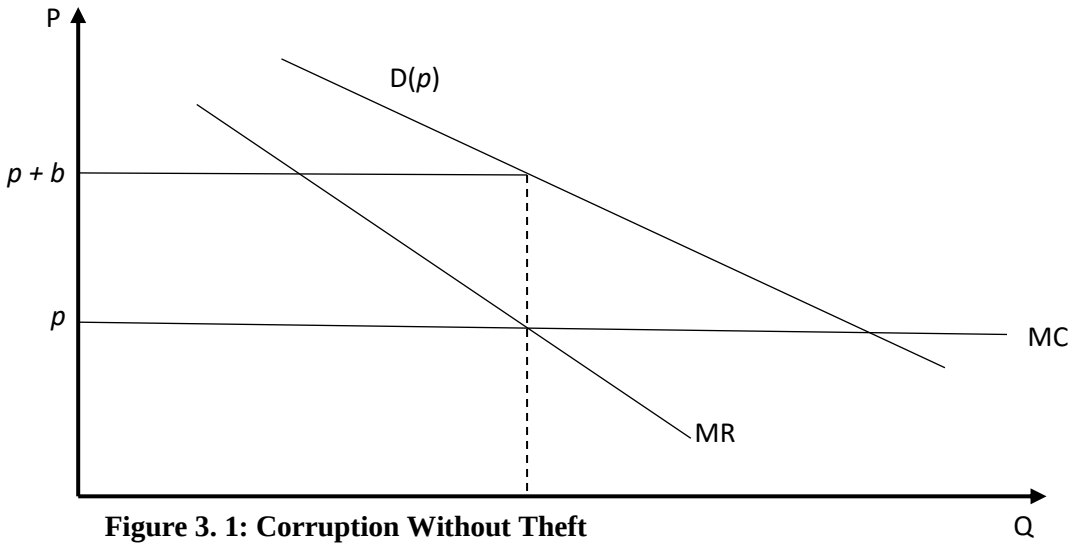

Figure 3. 1: Corruption Without Theft
Source: Shleifer and Vishny (1993)

Regarding corruption with theft, the official simply hides the sale of the good and turn over nothing to the government (Figure 3.2). The price charged for the good is equal to the bribe, *b*, which might be lower than the official government price, *p*. For example, a customs officer might ask the importer to pay an amount equal to *b* and later declare a container load of taxable goods as zero manifests, meaning no cargo in the container. The MC to the official is zero in this circumstance, and the government receives no revenue from the sale of its good by the official. Once again, the official sets MR=MC. In reality, private agents will pay a bribe that is lower than the official price because there is no strong reason that would make the private agent want to pay a bribe equal to or higher than the official price. Just as the government official, private agents also seek to maximize their interest; thus, paying a bribe lower than the official price means lower cost for their operation.

Evidently, to the private agent, corruption without theft increases the total amount paid for the government good and corruption with theft reduces the amount paid for the government good. Therefore, corruption with theft is more attractive to the private agent and is more persistent

because both the official and the private agent have their interest aligned; creating no incentive to report on the official. However, corruption without theft increases the buyer's cost of securing the good, which provides an incentive to inform on the official. Furthermore, corruption with theft undermines government effort to execute its programs because no revenue is collected.

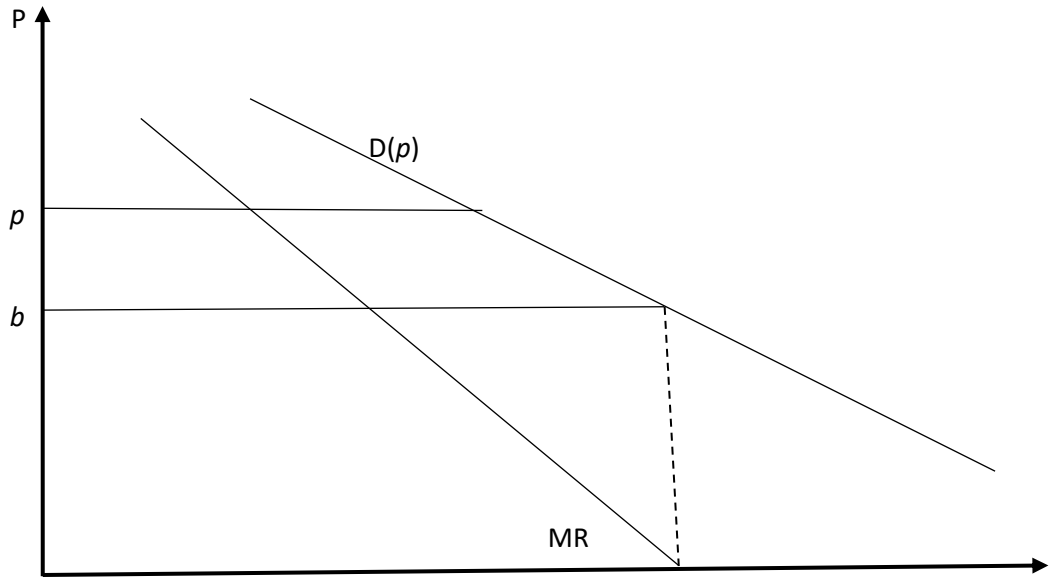

Figure 3. 2: Corruption With Theft
Source: Shleifer and Vishny (1993**)**

Shleifer and Vishny (1993) acknowledged that the assumption underlining their corruption model, in reality, is likely not to hold. Because private agents need several complementary government goods to conduct their operations in any country, and also these goods are, most often, not collected in a single office but require going to different offices that conduct their operations independently of the others. Therefore, bribing in one office to get a good does not stand as a general bribe to get the other complementary goods. Also, the amount of bribe to collect by corrupt officials is likely to vary from office to office. For instance, if bureaucrats can administer policies on their own, due to the profitable corruption opportunities, the bribe rate for the complementary goods might be

increased to gain more. As a result, the final bribe is never paid, leaving investors dismayed and frustrated (McMullan, 1961)

3.6 Corruption and Foreign Direct Investment (FDI) Hypothesis

Corrupt behaviours of government officials, measured in terms of bribery, will affect the economy especially from the viewpoint of FDI. However, the effect of corruption on FDI is not straightforward. There are two standing views on how corruption affects FDI; the 'grabbing hand hypothesis' and the 'helping hand hypothesis'.

3.6.1 The Grabbing Hand Hypothesis

In line with shared knowledge, the grabbing hand hypothesis, as argued by some scholars, is where corruption act as a deterrent to FDI. Corruption under this hypothesis is seen as an unofficial tax burden on the investor, which is supposedly more distortionary and costly than the tax due to its illegality and secrecy (Shleifer and Vishny, 1993). Besides, unlike a tax, corruption is not transparent and agreements are unenforceable in the court of law. The profit of a firm is likely to be less if it operates in a highly corrupt country with corruption-induced uncertainty (Wei, 1997). As a result, the investment will be lower, given that, in general, investors are profit-making oriented. Therefore, corruption, in the form of bribe, acts as a tax on investment profit, reducing the private marginal product of capital and private investment, hence, lowering economic growth (Mauro, 1995; Keefer and Knack, 1996; Kaufmann and Wei 2000).

Thus, corruption increases the investor's cost of doing business, eventually discouraging FDI. The hypothesis is most likely to be true in developed economies, where market institutions have been

established (Cuervo-Cazurra, 2008; Ardiyanto, 2012). Again, several studies have found support for the grabbing hand hypothesis which is discussed under the next section (section 3.7).

3.6.2 The Helping Hand Hypothesis

In contrast, other scholars argue in support of the helping hand, that corruption need not always deter FDI. However, this argument is likely to prevail in a country with an abundance in natural and mineral resources and (or) where the rule of law is weak, or the legal option of doing business is quite limited (Leff, 1964), in particular, developing countries where appropriate market institutions are yet to be established (Cuervo-Cazurra, 2008). As such, foreign investors seeking to exploit these opportunities could find corruption useful, especially when the benefit of engaging in corruption outweighs the cost.

Besides, in rigid administration with pervasive and cumbersome regulations, corruption can be a necessary grease for the systems squeaking wheels (Bardhan, 1997), which can help reduce unnecessary bureaucratic delays for businesses (Lui, 1985) and possibly improve efficiency. Bardhan (1997) pictured bribe as a Coasean bargaining process between a bureaucrat (person who sells public resource in the form of permits and licenses illegally) and the private agent (prospective buyer, for example, a foreign investor) that may lead to an efficient outcome. However, the writer cautioned that inefficiency might creep-in if bribery is used to alter competition or the official allowed an unqualified applicant in the process with a high willingness to pay.

Furthermore, Goodspeed *et al.*, (2011) reasoned that in an environment with a weak tax enforcement mechanism, by paying a bribe, firms might be able to avoid the constraints imposed

by an excessive government through taxes. Such an advantage is likely to be explored by foreign investors coming from relatively corrupt countries (Cuervo-Cazurra, 2008). Thus, more FDI is likely to flow from home countries with relatively high corruption to a host country with high corruption.

3.7 Empirical Literature Review

There are loads of empirics on the relationship between corruption and FDI. However, there is no agreement in the results. Findings are mainly in support of either the grabbing hand hypothesis or the helping hand hypothesis even though some studies found no support, that is, findings revealed no significant relationship between corruption and FDI (Wheeler and Mody,1992; Abed and Davoodi, 2000; Al-Sadig, 2009: Bellos and Subasat, 2012; Udenze, 2014; Bayar and Alakbarov, 2016). Two reasons stand out for this outcome. The first is how corruption as a variable is incorporated in the model – whether explicitly or implicitly. For example, in the study of Wheeler and Mody (1992), corruption was rather implicit - it was aggregated with other indicators to measure institutional quality. Wei (2000)[62] observed this and incorporated corruption explicitly in his model. As a result, Wei (ibid) found the relationship between corruption and FDI to be significant while establishing further that if Singapore's corruption level worsens to that of Mexico's, the effect on FDI inflows will be similar to raising the tax rate by 18-50%. Secondly, the coefficient of corruption mostly becomes insignificant in explaining FDI when the quality of an institution is controlled for in the same model. For example, Al-Sadig (2009), Bayar and Alakbarov (2016) and Epaphra and Massawe (2017), found corruption to be significant in explaining FDI when institutional quality is not controlled for, but otherwise, when it was.

[62] Wei (2000) examine the effects of taxation and corruption on FDI using bilateral FDI flow data from 12 source country to 45 host countries.

Therefore, suggesting that certain institutional indicators might be more important than the level of corruption in attracting FDI. Nevertheless, this must not be misunderstood to mean that corruption can be an underestimated obstacle for the attraction of FDI.

As posited earlier, several studies found support for the grabbing hand hypothesis, that is, corruption negatively affecting FDI. Hines (1995) examines the United State's (U.S) Foreign Corrupt Practices Act of 1977 on the operation of US firms in 35 host countries, where corruption is high for the period 1977-1982. Using the Business International Index as a measure of corruption, the findings suggest that the act significantly reduced US FDI into those countries. In a similar study, Hakkala *et al.* (2008) and Smarzynska and Wei (2000), analyzing a firm-level data, found that FDI inflow is negatively impacted by corruption for which, according to Smarzynska and Wei (ibid), could alter the structure of ownership towards joint ventures while further suggesting that foreign investment in a corrupt environment is likely to be made through a cross-border merger. Away from the firm-level studies, Habib and Zurawicki (2002) analyze the effect of corruption on bilateral FDI flows using a sample of seven source countries and 89 host countries. The result shows that foreign firms tend to avoid situations where corruption is visibly present, as corruption is considered immoral and might be an important cause for inefficiency. Also, Mosikari and Eita (2018) and Kasasbeh *et al.* (2018), in a country-level study, found corruption to deter FDI inflows. A commonality in all but the country-level studies is that a cross-sectional estimation technique was adopted. However, cross-sectional techniques ignore the possibility of unobserved time-invariant effects, which may vary across cross-section units, thus, leaving the results open to potential bias. Al-Sadig (2009) found that controlling for unobserved heterogeneity reduces the estimated coefficient of corruption from 0.21 for a cross-section estimate, to 0.11 for a panel estimate. Thus, underscoring the significance of accounting for unobserved heterogeneity.

Aside from that, there is no shortage of panel data analysis on corruption's negative effect on FDI. Epaphra and Massawe (2017) used, separately, Transparency International's corruption perception index (CPI) and World Bank's control for corruption index as proxy measures for corruption, to explain net FDI inflows in five East African counties[63] over the period 1996-2015 using a fixed effect regression model. Both proxies confirm that corruption negatively impacts net FDI inflows. Egger and Winner (2006), Asiedu (2006), Fahad and Ahmed (2016), and Luu *et al.*, (2018), also evidenced a similar result. However, regressing for each country, Fahad and Ahmed (2016) later found corruption to have varying impacts on FDI for eight different post-conflict countries over the period 1984-2014. In four countries (Democratic Republic of Congo, Kenya, South Africa and Sierra Leone), the results were consistent with the group result, that is, corruption is harmful to FDI; for Algeria, Peru and Sudan, corruption was found to be beneficial; while in Iraq, corruption was found to be insignificant. Whereas, Luu *et al.* (2018), found the effect of corruption on FDI to vary based on the entry mode – which can happen through greenfield investment or cross-border merger and acquisition. The study found FDI through cross-border merger and acquisition to be negatively impacted by corruption, While, the opposite was found for FDI through greenfield investment. This suggests that the type of effect corruption might have on FDI can hinge on the individual country or the mode of FDI entry. An explanation for this might be due to anomaly in the dataset or that investors are receptive to the corruption, which they use to manipulate the system for profits (Chande, 2014).

Abotsi and Iyavarakul (2015), not only found that corruption impacts FDI negatively, but also went further to determine a threshold level for corruption. Using a quadratic model, with the World Bank's control of corruption as a measure of corruption, on a scale of 0 (most corrupt) to 100 (least

[63] The countries were Rwanda, Kenya, Uganda, Tanzania and Burundi.

corrupt), the study found the threshold level to be 44.5. Below this level, the researcher suggests corruption will deter FDI, and above the level, FDI will not be deterred. The study is unique because it stands as the only study yet that attempted to determine the threshold level of corruption. Closest to Abotsi and Iyavarakul (2015) is Oktay (2017), who also used a non-linear model to investigate the effect of corruption on FDI in transition economies for the period 1996-2013, adopting both the panel Dynamic Ordinary Least Squares (DOLS) and panel Fully Modified Ordinary Least Squares (FMOLS) techniques. The author found high levels of corruption to have a positive effect on FDI at first but over time, the effect becomes negative for both former Soviet Union countries, and Central and Eastern European countries. Nevertheless, the study concluded that the ultimate effect of corruption on FDI is negative. Unlike Abotsi and Iyavarakul (2015), Oktay (2017) failed to control for other explanatory variables, which might lead to a misleading result due to the problem of omitted variable bias.

Ignoring the immoral and unethical side of corruption, academically some studies have revealed that corruption can encourage FDI, in line with the helping hand hypothesis. For instance, Bayar and Alakbarov (2016) found corruption to positively impact FDI inflows in the Philippines and Qatar, while Omodero (2019) evidenced a similar result for Nigeria. Also, Hasan *et al.* (2017), using time series data, found corruption to impact FDI in China positively. However, the study has a strong chance of suffering from omitted variable bias as the authors fail to include control variables in the model. In a case study of Africa, Quazi *et al.* (2014) adopted a feasible generalized square estimation technique to evidence further support for the helping hand hypothesis. Another study with an African focus, by Gossel (2018) found corruption to be attractive for foreign investors in Africa due to the weak regulatory framework. However, the study revealed that as

democratic capital accumulates, the usefulness of this association might be outlived, and over time, corruption will become a deterring factor in attracting FDI inflows.

The study by Egger and Winner (2005) analyzed 73 developing and developed countries and found corruption to have a stimulating effect on FDI. However, Ardiyanto (2012) found the effect of corruption on FDI to vary across economies, as results show corruption to be harmful to the inflow of FDI in developed economies but beneficial for FDI inflow to developing economies. This was further strengthened by Al-Sadig (2009), who established that corruption has a positive impact on inward FDI in developing countries. This disagreement might be explained by differences in the institutional framework between developed economies (which tend to have a robust institutional framework) and developing economies (whose institutional framework tends to be weak) (Cuervo-Cazurra, 2008). A summary of the findings which found support for the grabbing hand and helping hypotheses are shown in Appendix 12 and 13, respectively.

3.7 Conclusion

The chapter reviewed both the theoretical and empirical studies on the FDI-corruption nexus. It is evident from the theoretical studies reviewed that the threat of competition and the possibility of monopoly are among the major influencing factors for investing abroad. These factors were well captured in the Product Life-Cycle Theory (Vernon, 1966), Market Imperfection Theory (Hymer, 1976) and Internalization Theory (Buckley and Casson, 1976). The other factors are based on the firm-specific and non-specific advantages as propounded by Dunning (1972, 1973, 2000) in his Eclectic Paradigm. The specific advantages are the Ownership (O) and Internalization (I) advantages, while the Location (L) reflects the non-specific advantage since it is out of the firm's control but rests with the host country. The theory on corruption was observed to be primarilyly

modelled using concepts such as the Principal-Agent problem, Demand and Supply approach, Gravity model and the institutional theory. These concepts are used by scholars such as Rose-Ackerman (1999), McMullan (1961), Shleifer and Vishny (1993) and others, to understand corruption through the behaviour of a corrupt public official and a private agent (society).

Finally, it was evident from the review of empirical studies that the association between corruption and FDI is unclear and thus divided into two prominent strands, namely, the Grabbing Hand Hypothesis and the Helping Hand Hypothesis. Similarly, the empirical evidence is mixed with support for either strand. Furthermore, it was observed that the majority of the studies tend to focus on firm-level, global-level, regional-level or country-level study leaving sub-regional level studies mostly unattended. A sub-regional analysis is imperative because the effect of corruption on FDI inflows might vary across economies as well as sub-regions (Ardiyanto, 2012). Aside from that, the review of the literature revealed that the panel studies ignored accounting for the possibility of cross-section dependence and slope heterogeneity, issues that are likely to render estimates inconsistent (Eberhardt, 2011). Therefore, aside from augmenting the few existing sub-regional studies, the thesis also adopts a suitable approach, the panel Autoregressive Distributed Lag (ARDL) model, to remedy the possible aforementioned methodological challenges.

CHAPTER FOUR

METHODOLOGY AND ANALYSIS OF RESULTS

Introduction

This chapter serves as a pathway to determining the effect of corruption on Foreign Direct Investment (FDI) in West Africa. The objectives of the chapter are to present, the theoretical formwork, empirical model, estimation techniques, data sources as well as the presentation and discussion of estimation results.

4.1 Theoretical Framework

An extended version of the model developed by Kaufman and Wei (2000) is used as the underpinning theoretical framework for this thesis. The model explains the likely cost and benefit associated with an invetment firm for engaging in corruption. In the original framework, the existence of regulatory burdens or red-tape such as tax or delay in getting permits or licenses might be lowered by paying bribes. In the study, Kaufman and Wei (ibid) developed a simple Stackelberg model between a corrupt public official and a firm. The public official makes the first move by choosing the harassment or red tape delay to maximize bribe intake, while the firm, as a price taker, makes the next move to choose the bribe payment to maximize the after-bribe profit. The level of equilibrium of the bribe and red tape is solved by backward induction.

Consider a firm's[64] problem: suppose, b_i is the amount of bribe the firm has to pay to the corrupt public official; π_i is the profit that the firm would have attained without harassment by the public

[64] For this thesis, the firm is assumed to be either fully owned by a foreign investor or has at least a 10% share.

official; and h_i is the nominal harassment level the public official imposes on the firm, for example, the number of days to get a permit or license. Kaufman and Wei (2000) noted that the nominal harassment level is the red tape announced by the public official or "on the book red-tape" before the firm pays any bribe. The nominal harassment is, however, assumed to be firm-specific and this grants the public official discretion over the implementation of a given regulation. Thus, the public official can decide, for instance, the number of days a firm takes before a document is given to that firm. Also, there is a real or an effective harassment level denoted as e_i, which is the red tape the firm face after paying the bribe. This effective harassment is given as;

$$e_i = h_i - s(b_i) \quad (1)$$

Where: $s(b_i)$ is a function that describes how the payment of bribe help to reduce effective harassment. The function is assumed to be twice differentiable and concave ($s_b > 0 \; and \; s_{bb} < 0$). If the nominal harassment, h_i, is held constant, then the linear relationship between bribery and effective harassment is negative. The implication is that the more the bribe paid by the firm, the lower the effective red tape, even though paying bribes has a decreasing return function. Put differently, a firm that pays more bribes is highly likely to spend less time negotiating with a corrupt public official which allows them to face lower capital costs. This somehow suggests a narrow version of the "efficient grease" hypothesis, which Kaufman and Wei (2000) explained to mean that more bribery leads to lower effective red tape.

For simplicity, it is assumed that the pre-bribe profit, π_i is known. Hence, the objective of the firm now is to maximize after-bribe profit, π_i^*, given as:

$$\pi_i^* = w(e_i)\pi_i - b_i \quad (2)$$

Where: w is a function of effective harassment and a product of pre-bribe profit. To maximize the after-bribe profit, we take the first-order condition:

$$\frac{\partial \pi_i^*}{\partial b_i} = \frac{\partial w}{\partial e_i} \cdot \frac{\partial e_i}{\partial b_i} \pi_i - 1 = 0 \qquad (3)$$

$$w_e(h_i, b_i)[-s_b(b_i)]\pi_i - 1 = 0$$

$$-w_e(h_i, b_i)s_b(b_i)\pi_i = 1 \qquad (4)$$

The first-order condition result shows an implicit function that relates to the optimal level of bribe firm i would pay and the nominal harassment rate. However, for the maximization condition to be satisfied, the second derivative must be negative.

Re-writing equation (4) as;

$$-w_e(h_i, b_i)s_b(b_i) = \frac{1}{\pi_i} \qquad (5)$$

Taking second-order condition,

$$\frac{\partial^2 \pi_i^*}{\partial b_i^2} = -\{w_{ee}(-s_b)s_b + w_e(h_i, b_i)s_{bb}(b_i)\}$$

$$= -\{w_{ee}(-s_b^2) + w_e(h_i, b_i)s_{bb}(b_i)\} < 0 \qquad (6)$$

Where: $w_e < 0,\ w_{ee} < 0,\ s_b > 0\ and\ s_{bb} < 0$[65]. Equation (6) satisfies the maximization condition.

Totally differentiating the first-order condition yields the optimal bribery schedule, $b_i = B(h_i)$;

$$-\left\{\frac{\partial w_e}{\partial e_i}\cdot\frac{\partial e_i}{\partial b_i}s_b\pi_i db + \frac{\partial w_e}{\partial e_i}\cdot\frac{\partial e_i}{\partial h_i}s_b\pi_i dh + w_e s_{bb}\pi_i db\right\} = 0 \qquad (7)^{66}$$

$$-\{w_{ee}(-s_b)s_b\pi_i db + w_{ee}s_b\pi_i dh + w_e s_{bb}\pi_i db\} = 0$$

$$w_{ee}s_b^2\pi_i db - w_{ee}s_b\pi_i dh + w_e s_{bb}\pi_i db = 0 \qquad (8)$$

Dividing (8) by π_i leaves us with;

$$(w_{ee}s_b^2 + w_e s_{bb})db - w_{ee}s_b dh = 0 \qquad (9)$$

From (9), we can solve for $\frac{db}{dh}$;

$$\frac{db}{dh} = \frac{w_{ee}s_b}{w_{ee}s_b^2 - w_e s_{bb}} > 0 \qquad (10)$$

From (10), the bribery schedule is upward sloping implying that the higher the nominal harassment the more bribe the firm finds optimal to give. This is very likely from the firm's perspective

[65] $w_e < 0$ because the higher the effective harassment, e_i, the lower *w* and the pre-bribe profit (π_i) and after-bribe profit (π_i^*). $w_{ee} < 0$ because of the diminishing returns in the marginal change in *w* due to a marginal change in effective harassment (Ardiyanto, 2012).

[66] $\frac{\partial e_i}{\partial h_i} = 1$; and $\pi_i$was assumed to be given which makes it a constant.

because the more the firm is harassed, the more the firm would pay. Similarly, from the public official's perspective, if he wants more bribe, he would harass more.

However, the case above is too simplistic as it assumes that the firm does not object to any harassment level as such, tolerates any level of harassment by the corrupt public official. A more realistic case, Kaufman and Wei (2000) reckoned, could be one in which the firm has a limit to the level of harassment it accepts or tolerates, and this might be due to the characteristics of the firm or the source country of the firm. In such situations, the firm has the option to exit or back off if it feels that the harassment level is more than it can take. In this case, there is a maximum amount of harassment (say h_i^*) the firm is willing to accept. At this point, the firm is indifferent between walking away from an investment opportunity or paying a bribe. Nonetheless, the model provides a useful insight for understanding some of the likely costs and benefits a foreign firm might encounter if they decide to be corrupt.

An extension of the model by Kaufman and Wei (2000) is made to incorporate FDI without loss of context. As suggested by Ardiyanto (2012) FDI can be introduced as a function of after-bribe profit, π_i^*;

$$FDI_i = f\{\pi_i^*(b_i)\} \tag{11}$$

From (11), the relationship between FDI and corruption (measured by bribes) can be solved by chain rule as follows:

$$\frac{\partial FDI_i}{\partial b_i} = \frac{\partial FDI_i}{\partial \pi_i^*} \cdot \frac{\partial \pi_i^*}{\partial b_i} \tag{12}$$

Using (12), we can analyze the corruption effect on FDI from the viewpoint of the "grabbing hand" hypothesis and the "helping hand" hypothesis. For the grabbing hand hypothesis, $\frac{\partial \pi_i^*}{\partial b_i} < 0$, because bribes are expected to decrease after-bribe profit. Whereas $\frac{\partial FDI_i}{\partial \pi_i^*} > 0$, since the motivation for FDI is positively correlated with after-bribe profit for the firm. Hence, the overall effect would be the case where FDI is discouraged by corruption, $\frac{\partial FDI_i}{\partial b_i} < 0$. Conclusively, a country with high-level corruption attracts less FDI.

Conversely, the helping hand hypothesis suggests that corruption can also encourage FDI (see Chapter 3.5.2). To analyze this situation, equation (2) is redefined as follows:

$$\pi_i^* = w(e_i)[R - C] - b_i \qquad (13)$$

$R - C = \pi_i$, the pre-bribe profit, where: R= revenue, and C= cost

Equation (13) has an implied opportunity cost in the profit function. Because in reality, a firm requires several complementary documents for it to operate successfully. For example, imagine a firm that has a container to clear for its production in a corrupt country. The clearance process at customs can take weeks for firms, and the longer the time, the higher the cost incurred by the firm due to storage cost at the port because, in reality, these costs are progressive. The cost is even likely to go beyond the storage cost if the firm's production hinges on the inputs in the container stuck at the port[67]. In this case, corruption in the form of bribery can be a useful instrument that

[67] Putting it into perspective, imagine if the total storage cost per week is $3000 and the cost per week without production due to the customs clearance delay is $7000. Then, if the public official was to ask for a bribe (or is offered a bribe by the firm) of $2000 to clear the container in one-go, paying the bribe could save the firm $8000 for the first week and $10000 ($3000 + $7000) for subsequent weeks until the imported goods are cleared and go into the production process.

can substitute for a weak regulatory environment. Thus, $\frac{\partial \pi_i^*}{\partial b_i} > 0$, because corruption in the form of bribery will have a beneficial effect on after-bribe profit, and $\frac{\partial FDI_i}{\partial \pi_i^*} > 0$ since the desire to engage in FDI is positively correlated with after-bribe profit. The total effect, in the end, will be $\frac{\partial FDI_i}{\partial b_i} > 0$, implying that the higher the level of corruption in a country, the more the FDI it attracts.

However, in line with common wisdom, the thesis is of the view that corruption discourages FDI. Thus, it is expected that corruption negatively affects FDI inflow. Aside from that, the theoretical framework serves as the background for which the empirical model is to be specified in the following sub-section (4.2).

4.2 Specification of Empirical Model

Following the extended model by Kaufman and Wei (2000) and as expounded under the theoretical framework, the relationship between FDI, corruption and other control variables is evaluated as;

$$Y_{it} = \gamma_0 + \gamma_1 X_{it} + \omega Z_{it} + \varepsilon_{it} \qquad (14)$$

For $i = 1, 2, \dots, N; and\ t = 1, 2, \dots, T$. Where Y_{it} is a measure of FDI for country i at time t; X_{it} is an index of corruption for country i at time t; Z_{it} are control variables for country i at time t; $\gamma_0, \gamma_1\ and\ \omega$ are parameters to be estimated; and ε_{it} denotes the disturbance term.

In a linear form, and with the inclusion of the control variables, equation (14) can be re-written as;

$$FDI_{it} = \gamma_0 + \gamma_1 CORR_{it} + \gamma_2 GDPPC_{it} + \gamma_3 INF_{it} + \gamma_4 NR_{it} + \gamma_5 TOP_{it} + \gamma_6 PI_{it} + \varepsilon_{it} \qquad (15)$$

Where: FDI is Net Foreign Direct Investment Inflows Per Capita, CORR is Corruption, GDPPC is Gross Domestic Product Per Capita, INF is Inflation, NR is Natural Resources, TOP is Trade Openness and PI is Political Instability. The last term, ε_{it}, maintains its definition in equation (14).

The primary interest of the thesis is to determine the effect of corruption on FDI, while the effects of other control variables on FDI are of secondary interest. The choice of explanatory variables was motivated by the Ownership, Location and Internalization (OLI) theoretical framework by Dunning (2000), availability of data and related studies in the subject area such as Al-sadig (2009); Quazi *et al.*, 2014); Teixiera and Gumaraes (2015); Epaphra and Massawe (2017); and Gossel (2018). The variables employed conforms to the OLI framework that argues the movement of FDI is mainly influenced by a combination of factors including the market, political, policy and institutional factors. In line with this philosophy and given the context of the thesis, the variables under the market factor are Gross Domestic Product Per Capita (GDPPC) and Natural Resources (NR); Political Instability (PI) and Corruption (CORR) represent the political and institutional factor variables respectively; whiles Inflation (INF) and Trade Openness (TOP) reflects the policy factor variables[68].

4.2.1 Description of Variables

Foreign Direct Investment Inflows (FDI)

Foreign Direct Investment (FDI) is defined as net foreign direct investment inflows per capita. It is measured as the summation of the three components of FDI flow, namely equity capital,

[68] A similar categorization was done by Asiedu (2006) and Teixiera and Gumaraes (2015)

reinvested earnings and intra-company loans[69]. If at least one of these components is negative and is not being offset by the remaining components, FDI will have a negative sign, otherwise positive. The thesis used the net foreign direct investment inflow per capita as a proxy measure for FDI. This measure reflects the amount of FDI inflows a country receives divided by the country's total population annually, and it has been widely used (Asiedu, 2006; Al-sadig, 2009; Epaphra and Massawe, 2017). Nonetheless, researchers such as Cuervo-Cazurra (2008), Chande (2014), and Luu *et al.,* (2018), used the volume of FDI inflows in millions of US dollars to measure FDI which, unlike, the per capita does not account for country size differences. However, due to the skewness of the variable, it was log-transformed to make it relatively normal.

Corruption (CORR)

Corruption (CORR) is defined as the level of corruption in a country. The thesis used the control of corruption variable as a proxy for the measurement of corruption[70]. It captures the perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption (World Bank –WGI, 2019). It is a survey-based measure with a focus on both political and bureaucratic corruption (Hamilton and Hammer, 2018). It runs on a scale of -2.5 (most corrupt) to 2.5 (least corrupt). However, for ease of interpretation, the values are rescaled using the following formula $CORR = (2.5 - COC^{*}) \times 2$, Where: CORR is the value created for

[69] Equity capital is the foreign direct investor's acquisition of shares in an enterprise in a country other than that of its residence. Reinvested earnings comprise the direct investor's share of earnings not distributed as dividends by affiliates or earnings not remitted to the direct investor but rather reinvested. Intra-company loans or intra-company debt transactions refer to short- or long-term borrowing and lending of funds between direct investors (parent enterprises) and affiliate enterprises.

[70] Widely, three main sources exist for corruption data, namely Transparency International's corruption perception index, the World Bank's WGI control of corruption or the Political Risk Services' International Country Risk Guide (ICRG). However, ICRG data is not freely accessible and Transparency International's (2018) data offers a very short and unequal data for the countries under study. As a result, data from World Bank's (2019) database is used because of the accessibility and longer time coverage

the new scale and COC^* is the control of corruption value on the original scale. The new scale runs from 0 (least corrupt) to 10 (most corrupt), reflecting that the closer a value is to zero the lesser the level of corruption and vice-versa. A similar transformation was done for the Political Instability (PI) variable. The formula for the transformations might be unique but the approach is not novel (see Abotsi and Iyavarakul (2015); Luu *et al.,* 2018). However, data values were missing for the years 1999 and 2001 for all the countries included in the thesis.

Generally, corruption comes with a huge risk and uncertainty due to its illegality (Shleifer and Vishny, 1993) and as such, creates unnecessary delay and additional cost for investors (Cuervo-Cazurra, 2008). This, in turn, could discourage investment and by extension FDI. Corruption is among the key variables that can influence the locational advantage of a host country to attract FDI (Quazi *et al.,* 2004; Epaphra and Massawe, 2017). Interestingly, the association between FDI and corruption is not definitive theoretically and empirically as it often split between the grabbing hand and the helping hand hypotheses. Nonetheless, in this thesis, corruption is expected to be harmful to FDI because of the additional cost it creates, thus, having a negative sign.

Gross Domestic Product Per Capita (GDPPC)

Gross domestic product per capita (GDPPC) is defined as gross domestic product per capita in current United States dollar (US$). It reflects a country's standard of living and development (Asiedu, 2013), and is measured as the gross domestic product divided by the total population in

a country, which is denoted as GDPPC in the model[71]. In the thesis, it is a proxy measurement for the market size (Charkrabarti, 2001).

A large market size provides multinational corporations (MNCs) an opportunity for more revenue generation, profit maximization and the realization of economies of scale (Tsikata, 2005). Hence, the larger the market size, the more the inflow of FDI. On that note, the thesis expects the effect of GDPPC on FDI to be positive. However, the variable is transformed into a logarithm form due to the large values, hence, making interpretation easier.

Trade Openness (TOP)

Trade Openness (TOP) is defined as the sum of import and export as a percentage of GDP. This variable measures how open a country's economy is to the rest of the world in terms of trade (Epaphra and Massawe, 2017; Luu *et al.*, 2018). The more open a country's economy, the likelier it is to adopt favourable economic policies that can be appealing and safer for foreign investors (Quazi *et al.*, 2014). Thus, attracting more FDI. However, Asiedu (2002) cautioned that the impact of TOP on FDI is not outright and depends on the type of investment[72]. Nevertheless, the thesis expects the effect of TOP on FDI to be positive.

Natural Resources (NR)

Natural Resources (NR) is defined as total natural resource rent as a percentage of GDP. This variable measures the endowment level in terms of the natural and mineral resources of a country.

[71] Gross domestic product (GDP) growth is another widely used measure for a country's market size.

[72] Asiedu (2002) argue that lower TOP can boost FDI when investment is market-seeking (or horizontal) which is due to MNCs trying to dodge trade restrictions by opening up subsidiaries reflecting the tariff-jumping hypothesis. Conversely, export-oriented (or vertical) investment can benefit from higher degree of TOP as it minimizes the transaction costs associated with exporting by limiting the imperfections in the market and encouraging investment.

It is measured as the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents and forest rents (World Bank – WDI, 2019). It is widely acknowledged and empirically established that a country's natural resource base is among the major factors that attract FDI, in particular natural resource-seeking FDI, in Africa (Dunning, 2000; Asiedu, 2006; Anyanwu, 2011). Therefore, the availability of natural resources can be a good score for attracting FDI. As such, countries that are endowed with natural resources attract more FDI (Asiedu, 2006). The thesis anticipates NR to be positively signed.

Inflation (INF)

Inflation (INF) is defined as the consumer price index with 2010 as the base year. It is used as a proxy measurement for a country's macroeconomic stability (Asiedu, 2006; Al-Sadig, 2009; Epaphra and Massawe, 2017). It is measured by taking changes in prices for each item in a predetermined basket of goods and services during a month. The macroeconomic stability of a country is of great concern to foreign investors. A higher level of inflation rate affects society negatively by eroding the purchasing power of consumers. This would cause demand to fall and subsequently the profits of businesses (Sayek, 2009). As a result, foreign investors would desist from investing in a country with a high inflation rate. Thus, it is expected that INF and FDI share a negative relationship (Al-Sadig, 2009). However, the variable was only stationary in its logarithm form, hence, the log-transformation.

Political Instability (PI)

Political Instability is defined as the level of political instability in a country, otherwise indicating how politically stable a country is to carry out business. To measure this variable, the thesis used

the political stability and absence of violence or terrorism index, measured as the perceptions of the likelihood of political instability and (or) politically-motivated violence (World Bank –WGI, 2019), as a proxy measurement. Similar to CORR, PI is also rescaled using the same formula[73] and it was done for easy interpretation [Abotsi and Iyavarakul (2015) did something similar]. It is natural for economic activities to come at a standstill when there is a higher level of political instability. Such disruptions, especially if frequent, tend to intensify security concerns about the investments of investors particularly the ones with a long-term plan (Tsikata, 2005). As a result, investors will find such locations unattractive, hence, discouraging the inflow of FDI.

4.3 Data

The thesis utilized an unbalanced panel data for 15 countries in West Africa over the period 1999-2018. Data for the thesis were sourced from the World Bank online database (2019) -World Development Indicators (WDI, 2019) and World Governance Indicators (WGI, 2019), and the United Nations Conference on Trade and Development (UNCTAD) online data (2019).

Unlike time series and cross-section analysis, panel data possess some unique advantages. Firstly, it accounts for individual heterogeneity which is ignored using time series or cross-section analysis (Baltagi, 2005: 4). Also, using panel data provides a much larger sample size. This allows for the data to be more informative with more variability, more degrees of freedom and more efficiency (Baltagi, 2005:5; Wooldridge, 2013:11). Nevertheless, due to the process by which panel data is collected, observing a cross-section unit (individual, firm or country) over time might lead to

[73] $PI = (2.5 - PS^*) \times 2$, where: PI is political instability and $PS^*$is the political stabiltity and absence of violence variable. it is rescaled from -2.5 (least stable) to 2.5 (most stable), to 0 (most stable) to 10 (least stable). Therefore, the closer a value is to 0, the less politically instable a country is and vice-versa. Also, values were missing for the years 1999 and 2001 for all the countries under study.

attrition or non-response from the cross-section unit (Baltagi, 2005:7) – a common phenomenon. Appendix 10 shows a summary of the variable description.

4.4 Estimation Technique

As noted in section 4.3, the thesis utilizes a panel data and as such, adopts a panel estimation technique. In the early years of econometric theory for panel data analysis, the focus was on techniques that can accommodate micro panel data in which the time is very short (less than five) (Smith and Feurtes, 2016). However, the growing use of panel data on cross-country studies like growth convergence, in which the time dimension (T) is quite large, has posed questions for standard panel estimation techniques, and at the same time aroused interest to find alternative techniques. This new form of panel data study in which the T is quite large is referred to as a macro panel.

Unlike macro panel techniques such as panel Autoregressive Distributive Lag (ARDL) model, Fully Modified Ordinary Least Squares (FMOLS) method and Dynamic Ordinary Least Squares (DOLS) method, the efficiency and consistency properties of standard panel estimation techniques, namely, the Fixed Effect (FE), Random Effect (RE) and Generalized Method of Moments (GMM) techniques is seriously questioned when T is quite large (ibid). Standard panel estimators largely ignore some of the potential issues that come along with large T panels, namely: heterogeneity of slope, non-stationarity and Cross-Section Dependence (CSD). Addressing these issues is critical for the validity and accuracy of regression results. For instance, standard panel estimators assume slope homogeneity among cross-section units (Eberhardt, 2011), making it very restrictive. Therefore, if coefficients differ across cross-section units, using standard panel techniques could yield inconsistent estimates of the coefficient (Pesaran and Smith, 1995). Besides, such an

assumption is highly unlikely to hold in the real world, especially when the cross-section units considered are countries with different economic development status[74].

On the issue of non-stationarity, Baltagi (2005) cautioned that it must be treated with seriousness. Because regressing a non-stationary variable can lead to misleading inferences (spurious regression). Thus, considering the type of panel data and variables under study[75], the thesis adopts a technique that accounts for non-stationarity.

Furthermore, a common phenomenon in panel analysis is the correlation between residuals in different units. This can arise due to the possibility of cross-section units being interdependent (Pesaran, 2004; Smith and Fuertes, 2016). Standard panel estimators assume cross-sectional independence which can prove costly for estimation results, as neglecting cross-sectional dependence may seriously affect the unbiasedness and consistency properties of these estimators (Pesaran, 2004). Also, it can lead to imprecise estimates or cause serious identification problem (Eberhardt, 2011). As a result, standard panel estimators might not be valid for the analysis of macro panel.

To this end, the thesis adopts a Panel Autoregressive Distributed Lag (ARDL) model to estimate the effect of corruption on FDI. Pesaran *et al.* (1999) developed the ARDL $(p, q, q, .., q)$ dynamic heterogeneous model, where 'p' is the lag value of the dependent variable and 'q' is the lag value of the independent variables. This approach has the advantage of allowing for variables to be

[74] Assuming a global study on growth convergence, slope homogeneity would imply that the US and Zimbabwe will have the same parameter explaining their convergence, even though US per capita GDP is far greater than that of Zimbabwe.

[75] Davidson *et al.*, (2010) contend that macroeconomic variables are largely nonstationary. While Phillip and Moon (1999) posited that panel data from sources like Penn World Tables, World Bank etc., with long time series components, normally exhibit strong evidence of non-stationarity, a feature which is generally ignored by the traditional estimators.

differenced and lagged at the same time, which helps to mitigate and eliminate any simultaneity bias and endogeneity problem respectively (Clemens *et al.*, 2012). As such, equation (15) is represented in a panel ARDL form as;

$$FDI_{it} = \eta_i + \sum_{l=1}^{p} \delta_{il} FDI_{i,t-l} + \sum_{l=0}^{q} \lambda_{1l} CORR_{i,t-l} + \sum_{l=0}^{q} \lambda_{2l} GDPPC_{i,t-l} + \sum_{l=0}^{q} \lambda_{3l} INF_{i,t-l} + \sum_{l=0}^{q} \lambda_{4l} NR_{i,t-l} + \sum_{l=0}^{q} \lambda_{5l} TOP_{i,t-l} + \sum_{l=0}^{q} \lambda_{6l} PI_{i,t-l} + \nu_{it} \quad (16)$$

Where: p and q are lags of the dependent variable and independent variable respectively; δ_{il}, the coefficient of the lagged dependent variable, are scalars; λ_{il} are $k \times 1$ coefficient vectors; η_i is the specific cross-section unit effect (in our case country); and ν_{it} is the random error term assumed to be independently distributed with mean 0, variances $\sigma_i^2 > 0$ and finite fourth-order moment.

To establish the equation that reflects the error correction term which highlights the speed of adjustment term and long-run relation in a linear form, equation (16) is re-parameterize to become;

$$\Delta FDI_{it} = \eta_i + \theta_i \left(FDI_{i,t-1} - \gamma_0 - \gamma_1 CORR_{it} - \gamma_2 GDPPC_{it} - \gamma_3 INF_{it} - \gamma_4 NR_{it} - \gamma_5 TOP_{it} - \gamma_6 PI_{it} \right) + \sum_{l=1}^{p} \delta'_{il} \Delta FDI_{i,t-l} + \sum_{l=0}^{q} \lambda'_{2l} \Delta CORR_{i,t-l} + \sum_{l=0}^{q} \lambda'_{2l} \Delta GDPPC_{i,t-l} + \sum_{l=0}^{q} \lambda'_{3l} \Delta INF_{i,t-l} + \sum_{l=0}^{q} \lambda'_{4l} \Delta NR_{i,t-l} + \sum_{l=0}^{q} \lambda'_{5l} TOP_{i,t-l} + \sum_{l=0}^{q} \lambda'_{6l} \Delta PI_{i,t-l} + \upsilon_{it} \quad (17)$$

To establish the threshold of corruption, equation (17) is expressed in a non-linear form as;

$$\Delta FDI_{it} = \eta_i + \theta_i \left(FDI_{i,t-1} - \gamma_0 - \gamma_1 CORR_{it} - \gamma_2 CORR_{it}^2 - \gamma_3 GDPPC_{it} - \gamma_4 INF_{it} - \gamma_5 NR_{it} - \gamma_6 TOP_{it} - \gamma_7 PI_{it} \right) + \sum_{l=1}^{p} \delta'_{il} \Delta FDI_{i,t-l} + \sum_{l=0}^{q} \lambda'_{2l} \Delta CORR_{i,t-l} + \sum_{l=0}^{q} \lambda'_{2i} \Delta CORR_{i,t-l}^2 \sum_{l=0}^{q} \lambda'_{3l} \Delta GDPPC_{i,t-l} + \sum_{l=0}^{q} \lambda'_{4l} \Delta INF_{i,t-l} + \sum_{l=0}^{q} \lambda'_{5l} \Delta NR_{i,t-l} + \sum_{l=0}^{q} \lambda'_{6l} TOP_{i,t-l} + \sum_{l=0}^{q} \lambda'_{7l} \Delta PI_{i,t-l} + \upsilon_{it} \quad (18)$$

Where: $\theta_i = -\left(1 - \sum_{l=1}^{p} \delta_{il}\right)$, measures the reaction level of the system to any shock, and it is referred to as the speed of adjustment. It is expected to be negative (below negative 2) and statistically significant. $\gamma_{i,for\ i=1,2,\ldots,7}$, the vector of long-run coefficients; and the terms in the bracket reflects the regression for the long-run relationship between the dependent variable and independent variables. Equation (18) is used to determine a threshold level for corruption. In line with Abotsi and Iyavarakul (2015) and Oktay (2017), the thesis expects $\gamma_1 > 0\ and\ \gamma_2 < 0$, and must be statistically significant, suggesting that corruption at some initial level has a positive influence on FDI but afterwards, doubling or increase in the level of corruption will change the influence to negative. Thus exhibiting decreasing returns for FDI inflows.

The re-parameterized panel ARDL model is used to estimate both the Mean Group (MG) estimator and the Pooled Mean Group (PMG) estimator. Just like in the static panel case for fixed effect and random effect model, the Hausman (1978) test is applied to decide on the appropriate estimator. Both estimators are likelihood ratio tests which are appropriate for heterogeneous panel studies in which T is greater than N (Smith and Fuertes, 2016).

The MG estimator as developed by Pesaran and Smith (1995) involves estimating separate regressions for each group and averaging the slopes over groups. This approach allows for coefficients to differ across countries for both the short run and long run, thus imposing no restrictions on the coefficients. The test performs better with large N and large T panels. However, if either T or N is small, it is unlikely to be a good estimator, although it will be consistent (Pesaran *et al.*, 1999). Also, the MG is likely to underestimate the true value of the lagged dependent variable's coefficient, which can make inference about the speed of adjustment difficult. Finally, if the long-run coefficients are homogeneous the MG will be inefficient.

An alternative to the MG, the PMG, was proposed by Pesaran *et al.,* (1999). It is also referred to as the intermediate estimator as it involves both pooling and averaging. The major difference to the MG is that the PMG allows for short-run coefficients to differ across countries, but restrict the long-run coefficients to be the same. The PMG estimator has the advantage of being applied to models in which variables are integrated of different orders. However, the PMG will be inefficient if slope heterogeneity holds in the long run. Nevertheless, PMG is quite appealing when studying small sets of similar countries (Onuoha *et al.*, 2018).

4.5 Pre-estimation Tests

Before the estimation of the model, several tests were carried out, including the ones that account for some of the potential macro panel issues highlighted in Section 4.4, precisely non-stationarity and cross-sectional dependence. Suffice to say that the slope heterogeneity was resolved by adopting the Hausman (1978) test in deciding between the Pooled Mean Group (PMG) or the Mean Group (MG) estimator under the Panel Autoregressive Distributive Lag (ARDL) model.

4.5.1 The Cross-Section Dependence (CSD) Test

Considering that the thesis deals with countries in the same sub-region, there is a high likelihood for interconnectedness among countries, for example, through trade interactions and this raises the possibility of the sample not been independently drawn. Hence, the relevance of the testing for Cross-SectionDependence (CSD) in the thesis. Several tests are available to determine the presence of CSD: The Pesaran (2004) CSD test, the Breusch and Pagan (1980) Langrange Multiplier (LM) test and the Pesaran *et al.* (2008) LM adjusted test. However, unlike the other tests, Pesaran (2004) CSD test can be used in the case of either pre (or post)-estimation and has

the advantage of being applied to a variety of panel models including stationary and heterogeneous dynamic panels (Baltagi, 2005). Besides, the test applies to both balanced and unbalanced panel data, and is based on the average pair-wise correlation coefficients of the Ordinary Least Squares (OLS) residuals from individual regressions in the panel. Also, it is robust to structural breaks in the slope coefficients and (or) error variances with the correct size for small samples and satisfactory power (Pesaran, 2004). As a result, the thesis carried out both the pre-estimation test on the series and the post-estimation test on the residuals. The outcome of this test is very useful for selecting the appropriate panel unit root test in the thesis.

4.5.2 The Panel Unit Root Test

Generally, two types of panel unit root tests exist namely the first generation panel unit root test and the second generation panel unit root test (see Barbieri, 2005 and Baltagi, 2005). The major difference between the two tests is that the former assumes cross-sectional independence whiles the latter accounts for cross-sectional dependence. Hence, if cross-sectional dependence exists among cross-section units in a panel, first-generation panel unit root tests become deficient. Besides, panel unit-root tests that assume cross-section independence are generally inadequate and could lead to huge size distortions (Baltagi and Pesaran, 2007).

However, based on the outcome of the CSD test, two separate panel unit root tests were adopted, the Im-Peasran-Shin (2003) unit root test and the Pesaran (2003) Cross-Sectional Augmented Dickey-Fuller (CADF) unit root test. These tests, unlike the other tests, have the advantage of been applied to an unbalanced panel, thus making them appropriate for the thesis.

The Im-Pesaran-Shin (2003) test is based on the average of individual unit root statistics and can be adopted in dynamic heterogeneous panels. The authors proposed a standardized *t*-bar test using the augmented Dickey-Fuller statistics mean across the groups. The test allows for serial correlation in residuals and heterogeneity dynamics and error variances across groups (Barbieri, 2006). The Pesaran (2003) CADF test, on the other hand, is based on the individual averages of the ADF *t*-statistic for each panel unit. To eliminate the CSD, Pesaran (2003) proposed augmenting the ADF regressions with the cross-section means of lagged levels and first differences of the individual series. The test allows for the avoidance of size distortions and the introduction of lags on the dependent variable can carter for serial correlation in the residuals (Pesaran, 2003).

4.5.3 Panel Cointegration Test

Pedroni's panel cointegration test was carried out after the variables were found to be stationary with intercept under the panel unit root test (see Table 4.5). The test is a residual-based test designed for the heterogeneous panel. Pedroni (1999, 2004) proposed seven residual-based test statistic, of which four are based on pooling along the within dimension, while the other three are pooled along the between dimension. Despite the suggestion that, in practice, Pedroni's test might have lower power (Persyn and Westerlund, 2008), it stands as the only cointegration test that applies to unbalanced panel data. The test was conducted to determine whether any possibility of a long-run relationship exists or not.

4.6 Presentation and Discussion of Results

This section presents and discusses results for the descriptive statistics, correlation matrix, Pesaran (2004) Cross-Section Dependence (CSD) test, Pesaran (2003) Cross-Sectional Augmented

Dickey-Fuller (CADF) unit root test, Pedroni cointegration test and the Pooled Mean Group (PMG) estimator.

Results for the descriptive statistics were done using both the transformed (Appendix 2) and untransformed values for FDI, GDPPC and INF that is they are not log-transformed. But results for the subsequent tests, including the correlation matrix (Appendix 3), were achieved using the transformed values for FDI, GDPPC and INF – in their log form. This was done to understand how the data behaves before and after the variables were transformed and provide justification for log-transforming some of the variables, especially FDI and GDPPC (for the rationale of the log-transformed variables, see Section 4.3.1).

The Pooled Mean Group (PMG) estimator was found to be appropriate after carrying out the Hausman (1978) test to choose between the PMG and the Mean Group (MG) estimator. Hence, the result reported. In total, four (4) models were estimated under the PMG estimator. Model 1 and Model 2 respond to the first two objectives highlighted under Section 1.4, namely; investigating the long-run effect of corruption on FDI inflows to West Africa and establishing a threshold level for corruption in West Africa respectively. Model 3 and 4 provide answers for the third objective, and it explores whether the effect of corruption on FDI in West Africa differs in the West African Monetary Zone (WAMZ)[76] and the West African Economic and Monetary Union (WAEMU)[77], the two unions within the sub-region. Also, worth noting is that the CSD was carried out for all the estimated models while the unit root test was done for all the variables in the models. The outcome of the latter test for Model 3 and 4 are presented under Appendix 5 and 6.

[76] WAMZ member states: Sierra Leone, Ghana, Nigeria, Liberia, Gambia and Guinea.
[77] WAEMU member states: Cote d'Ivoire, Togo, Burkina Faso, Mali, Senegal, Niger, Benin and Guinea Bissau.

4.6.1 Descriptive Statistics

The descriptive statistics in Table 4.2 provide summarized information about the model variables in terms of the number of observations for each variable, their means, standard deviations, minimum values and maximum values. It can be observed from the Table that the average flow of FDI per capita to West Africa from 1999 to 2018 is US$ 40.5 with The Gambia[78] reporting the lowest within this period, a negative of US$13.6, while Cape Verde recorded the highest (US$425.5)[79]. Although the sub-region's average was above that of Sub-Saharan Africa (SSA), US$30.8, it was two times less than that of Southern Africa (US$83) and also, slightly behind that of North Africa (US$58.1).

Table 4. 1: Descriptive Statistics Results

Variable	Obs.	Mean	Std. Dev.	Min	Max
FDI	300	40.496	65.399	-13.588	425.478
CORR	270	6.24	1.047	3.1	8.12
GDPPC	299	876.63	752.262	138.7	3738.2
INF	300	96.526	37.258	16.87	255.1
NR	284	11.105	7.667	.37	53.63
TOP	299	69.013	34.734	20.72	311.35
PI	270	6.03	1.63	2.56	9.8

Note: Data values for FDI, INF and GDPPC were not log-transformed as they are in their original form.
Source: Author's computation using Stata 15 output**.**

The average score and the standard deviation for corruption in West Africa are 6.2 and 1.05 respectively for the period under study[80]. From 1999 to 2018, the worst corruption score was

[78] It was reported in the year 2016 (see UNCTAD dataset, 2019).
[79] This was reported in the 2008 (see UNCTAD dataset, ibid)
[80] Note that values are reflected on the new scale of 0 (least corrupt) to 10 (most corrupt).

recorded by Guinea-Bissau (8.12) in the year 2017 and the best score by Cape Verde (3.1) in the year 2015, making them the worst and best performers respectively. However, the performance was below the general average of five (5) and was the same as the average score for SSA but poor, relative to Southern Africa (5.4). The Table further shows statistics for the control variables in the model: Gross Domestic Product Per Capita (GDPPC), Inflation (INF), Trade Openness (TOP), Natural Resources (NR) and Political Instability (PI).

To reduce the noise in some of the series, the variables FDI, GDPPC and INF were log-transformed. Further, this was done to make the interpretation easier. However, due to the impossibility of taking log on a negative value, and to avoid the loss of observations, we added a constant value (14) to all the values in the FDI data before taking the log (Wicklin, 2011)

To have a 'rough' idea of the relationship between corruption and FDI, a scattered plot of the average values of each country on FDI per capita and corruption was drawn (Figure 4.1). In general, the plot shows an inverse relationship between corruption and FDI per capita. For example, Cape Verde recorded the least average corruption score (around 3.5) and receives the highest average FDI per capita. Conversely, Guinea Bissau registered the highest corruption score and received the lowest average per capita FDI. Overall, most of the countries that recorded low FDI per capita on average score high on the corruption scale on average.

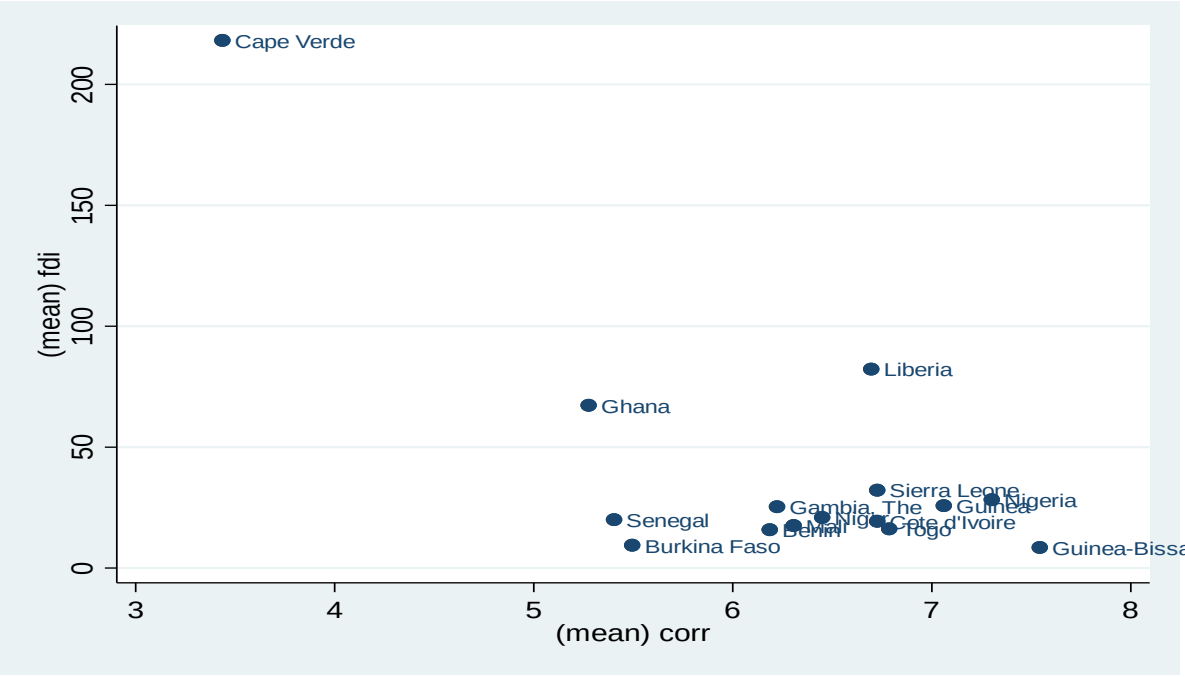

Figure 4. 1: Average FDI per capita and average corruption (1999-2018)
Note: Corruption value was rescaled from -2.5 (most corrupt) to 2.5 (least corrupt), to 0 (least corrupt) to 10 (most corrupt).
Source: Stata 15 output

4.6.2 Pesaran (2004) Cross-Section Dependence test

Table 4.3 reports the result for the Cross-Section Dependece (CSD) test conducted on the residuals. The test was conducted on the null of cross-section independence and is a post-estimation test[81]. Results from the table show that there is no presence of CSD in all the models. However, result for the CSD on the series (Appendix 4) was mixed. The variables LOGFDI, LOGGDPPC, LOGINF and NR were highly significant at the 1 percent level, indicating the presence of cross-section dependence as the null was rejected while CORR, TOP and PI were found to be insignificant at the 1, 5 and 10 percent level, indicating no presence of CSD. Nevertheless, the

[81] It was conducted at the back of a fixed effect model estimation.

residual-based test is reported in the thesis, since, tests to validate the reliability of a regression result are normally conducted on the residuals (Anderson *et al.*, 2020).

Table 4. 2: Pesaran (2004) Cross-Section Dependence test on the residuals Results

	Model 1	Model 2	Model 3	Model 4
Cross section dependence test	0.636 (0.525)	0.625 (0.532)	-0.666 (0.506)	-0.808 (0.419)

Note: values in parenthesis represent P-Value and values, not in parenthesis represents test value. Also, no asterisks imply no significance. **Source:** Author's computation using output from Stata

4.6.3 Panel Unit Root Test

Two different panel unit root tests were carried out in the thesis: The Im-Pesaran-Shin (2003) (Table 4.4) and the Pesaran Cross-Section al Augmented Dickey-Fuller (2003) (Appendix 5) unit root tests. From Table 4.4, I(0) indicate integration at level, meaning a variable is stationary (or has no unit root) without differencing the variable. Whereas I(1) indicates that a variable is integrated of order 1, meaning the variable became stationary after first difference.

Table 4. 3: Im-Pesaran-Shin (2003) Panel Unit Root Test Results

Variable	Demean Without trend	Demean With trend
LOGFDI	I(0)	I(0)
CORR	I(0)	I(1)
LOGGDPPC	I(0)	I(1)
LOGINF	I(1)	I(1)
NR	I(0)	I(0)
TOP	I(1)	I(1)
PI	I(0)	I(0)
CORRSQ	I(0)	I(1)

Note: Demean was used because it helps to mitigate the problem of cross-sectional dependence (Levin and Lu, 1992). **Source:** Author's computation using output from Stata.

Results from Table 4.4 shows that all the variables were stationary with and without trend, albeit some at level and others after first differencing. The variables LOGFDI, NR and PI were stationary at level with and without trend while TOP and LOGINF were stationary after first difference in both cases, leaving CORR and LOGGDPPC with a mixed result for the case of trend and no trend. The outcome of the unit root test is practically in line with the adoption of an ARDL technique which is suitable in cases when variables are integrated of mixed order.

4.6.4 Pedroni Cointegration Test

The cointegration results are shown in Table 4.5. The Table shows results for all Pooled Mean Group (PMG) estimated models reported under Table 4.6. The test was carried out to determine whether there is any possibility of a long-run equilibrium or not. If there is no long-run, then only a short-run model is to be estimated, otherwise, both.

The Pedroni (1999, 2004) Cointegration test was used to test the null hypothesis of no cointegration. The simple decision rule is that among the seven test statistics, at least four must be significant for variables to be cointegrated. The tests are the Panel v, rho, t and ADF tests and the Group rho, t and ADF tests. As evident from Table 4.5, the thesis rejects the null of no cointegration for all the models, that is, Models 1, 2, 3 and 4. Thus indicating a long-run equilibrium.

Table 4. 4: Pedroni's (1999, 2004) Cointegration Test Results

	Model 1	Model 2	Model 3	Model 4
Panel:				
v	-4.86*** (0.000)	-5.53*** (0.000)	-3.14*** (0.001)	-3.64*** (0.000)
Rho	3.56*** (0.000)	4.26*** (0.000)	2.77*** (0.003)	-2.37*** (0.009)
T	-3.59*** (0.000)	-2.37*** (0.009)	-1.40* (0.080)	-3.48*** (0.000)
ADF	-4.14*** (0.000)	-2.64*** (0.004)	-2.09** (0.018)	-3.59*** (0.000)
Group:				
Rho	5.14*** (0.000)	5.89*** (0.000)	3.61*** (0.000)	3.58*** (0.000)
T	-4.57*** (0.000)	-4.21*** (0.000)	-4.93*** (0.000)	-2.60*** (0.005)
ADF	-4.10*** (0.000)	-3.13*** (0.001)	-2.89*** (0.002)	-2.60*** (0.005)

Note: ADF is Augmented Dickey-Fuller t-statistics; t is Phillip and Perron t-statistics; rho is the modified Phillip and Perron t-statistics, and v is the modified variance ratio statistics. The Null hypothesis is no cointegration, while the alternative is that all panels are cointegrated. The asterisks, ***, ** and *, represents the level of significance at the 1%, 5% and 10% respectively. Values in parenthesis are p-values.
Source: Author's computation using Stata 15 output**.**

4.6.5 Pooled Mean Group Panel ARDL Estimation Result

The results for the Pooled Mean Group (PMG) Panel ARDL are represented in Table 4.6 (long-run) and 4.7 (short-run[82]). In the tables, results for four models are published. Equation (19) was used to estimate Model 1, 3 and 4, and the motive is to investigate the long and short-run effect of corruption on FDI inflows to West Africa and to explore whether the effect corruption has on FDI inflows differs in the West African Monetary Zone (WAMZ) and West African Economic and Monetary Union (WAEMU), representing objective 1 and 3 respectively. Equation (18) was used to estimate Model 2, and the aim is to determine a threshold level for corruption, in line with the

[82] The short run result presented reflects the panel (group), where the estimates are homogeneous across cross-section unit.

second objective. All the variables with positive signs indicate a positive influence on the dependent variable, and all the variables with a negative sign indicate the reverse. The discussion of the results proceeds as follows:

Long-Run Analysis

Model 1

This model responds to the thesis' primary objective of investigating the long-run effect of corruption on FDI inflows to West Africa. The result from the model revealed that ceteris paribus, a one-point increase in the level of corruption (CORR) could reduce per capita FDI inflows to West Africa by 15 percentage points, implying that corruption discourages the movement of FDI into the sub-region in the long-run. Therefore, in general, locations with a high level of corruption increases the risks and uncertainty associated with investment – a dislikeable feature for any foreign investor – due to its illegality. As a result, foreign investors might desist from investing in such locations, because corruption acts as an additional unofficial tax burden that increases the cost of doing business, hence, discouraging the inflow of FDI. The finding from the thesis is in line with the grabbing hand hypothesis and is consistent with findings from Fahad and Ahmad (2016), Epaphra and Massawe (2017) and Luu *et al.* (2018).

The results also show that ceteris paribus, a 1 percentage point increase in Gross Domestic Product Per Capita (GDPPC), representing the size of the market, can raise the inflow of FDI per capita to West Africa by 0.91 percentage points in the long-run. The finding is in agreement with the theory of market-seeking FDI or horizontal FDI and is in line with findings from Al-Sadig (2009), Quazi *et al*. (2014) and Epaphra and Massawe (2017). Notably, GDPPC reflects the purchasing power of

the average consumer in a country; thus, foreign investors looking to expand their market find such locations appealing. Therefore, the higher the level of GDPPC in a country, the more attractive it becomes for FDI operations.

Table 4. 5: PMG Long-run Estimation Results

	Model 1	Model 2	Model 3 (WAMZ)	Model 4 (WAEMU)
CORR	-0.154*** (0.0258)	1.413*** (0.285)	-0.137*** (0.032)	-0.080*** (0.016)
LOGGDPPC	0.909*** (0.112)	0.803*** (0.125)	0.932*** (0.129)	1.515*** (0.254)
LOGINF	-0.665*** (0.088)	-0.612*** (0.093)	-0.672*** (0.095)	0.035 (0.604)
NR	0.018*** (0.002)	0.014*** (0.002)	0.021*** (0.003)	-0.010 (0.011)
TOP	-0.0002 (0.0005)	-0.0001 (0.0004)	-0.0003 (0.0005)	-0.012*** (0.001)
PI	-0.017 (0.017)	-0.060*** (0.013)	-0.011 (0.020)	-0.048** (0.022)
CORRSQ		-0.112*** (0.021)		

Standard errors in parenthesis. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$
Source: Authors computation using STATA 15 output

Also, it can be observed from the results under the model in Table 4.6 that Inflation (INF), which represents macroeconomic stability, carried the expected sign. The result revealed that ceteris paribus, a 1 percentage point increase in the level of inflation (INF) could lead to a reduction in the inflow of FDI per capita to West Africa by 0.67 percentage points in the long-run. The results imply that the higher the level of inflation the lower the inflow of FDI. Thus, investing in a country with less degree of market uncertainty is preferable to foreign investors, because it tends to be more stable economically and provide lower risk for investment. As such, an increase in the level of inflation may deter the inflow of FDI. The findings support previous studies by Asiedu (2013),

Abotsi and Iyavarakul (2015), and Gossel (2018).

Furthermore, Natural Resources (NR) were found to attract FDI inflows to West Africa. The result shows that a 1 percentage point increase in NR could raise the inflow of FDI per capita to West Africa by 0.02 percentage points, ceteris paribus, in the long-run. The finding is consistent with the theory of natural resource-seeking FDI. Therefore, natural resources, especially oil, which countries like Nigeria have in abundance in the sub-region, can attract FDI inflows (Anyanwu and Yameogo, 2015). As such, the higher the abundance in natural resources, the more likely is the inflow of FDI holding all else equal. However, Trade Openness (TOP) and Political Instability (PI) were found to be insignificant in attracting FDI into the West African sub-region.

Model 2

Model 2 answers the thesis' second objective, that is, to determine a threshold level for corruption in West Africa. As expected in equation (18), the coefficient of CORR and CORRSQ (corruption square) under Model 2, as evident from Table 4.6, were found to be statistically significant with the required signs, that is, a positive and a negative sign respectively in the long-run. Thus, indicating that corruption has a positive influence on FDI inflow initially but doubling the level of corruption or making it widespread, will have a negative influence on FDI inflow. Hence, discouraging the inflow of FDI in the end (Abotsi and Iyavarakul (2015); Oktay, 2017).

Having met the pre-conditions, the threshold level is found by solving the derivative of the dependent variable, per capita FDI inflow (LOGFDI), with respect to the variable of interest, corruption (CORR) (see Appendix 1). The thesis found the threshold level of corruption to be 6.3 (equivalent to -0.65 on the original scale of $-2.5\ to + 2.5$, using the formula established in

Section 4.2.1). The result explains that the inflow of FDI to West Africa cannot be discouraged once the level of corruption is below 6.3 but beyond that level, the inflow of FDI would be discouraged. This threshold level is close to the level established for Africa by Abotsi and Iyavarakul (2015) of -0.27, which translates into 5.54 on the thesis' rescale of $0\ to + 10$. Based on the result, only seven countries had an average score equal or below the threshold level: Cape Verde (3.4), Ghana (5.3), Senegal (5.4), Burkina Faso (5.5), Benin (6.2), Gambia (6.2) and Mali (6.3). The remaining eight countries fail to meet the corruption threshold level with Guinea Bissau averaging the worst performance over the period under study with 7.5, and as such, FDI to these countries could be deterred by such levels of corruption.

Model 3 and 4

The objective underpinning Model 3 and Model 4, as reported in Table 4.6, is to explore whether the effect of corruption on FDI inflows in West Africa differs significantly in the West African Monetary Zone (WAMZ) and West African Economic and Monetary Union (WAEMU). The association between corruption and FDI was found to be negative for both WAMZ and WAEMU member countries. However, the results show that ceteris paribus, the reduction in per capita FDI inflow due to a one-point increase in corruption for WAMZ (14 percentage point) in the long-run is higher than for WAEMU (8 percentage point). This suggests that the impact corruption has on FDI inflows to West Africa varies across monetary union members. Put otherwise, the reduction in FDI inflows due to a one-point increase in corruption will be felt more by members of WAMZ than those of WAEMU. A possible explanation for this can be the level of corruption in both unions. It was observed that on average, the level of corruption for WAEMU member states is less (-0.68) in comparison to WAMZ (-0.77) using statistics from the World Governance Indicator

(2019) for the period 2000-2018. Thus, implying that countries with relatively good-quality institutions are likely to attract more FDI inflows despite their corruption level (Al-Sadig, 2009).

Also, results from Model 3 and Model 4 show that the market size influence FDI inflows in both monetary unions at varying magnitudes. In that, a 1 percentage point increase in the market size (GDPPC) lead to an increase in per capita FDI inflows by 0.93 and 1.52 percentage points for WAMZ and WAEMU respectively, ceteris paribus, in the long-run. Therefore, the size of the market has relatively less impact on FDI inflows for WAMZ members compared to WAEMU members. A plausible reason for this might be that WAEMU members have a more diversified economy than WAMZ member countries as they are mainly resource-dependent, thus, attracting less of market-seeking FDI in comparison to resource-seeking FDI. However, the results found inflation and natural resources to be significant only for WAMZ member countries but insignificant for WAEMU member countries. The result shows that a 1 percentage point increase in inflation, in the long-run, will reduce per capita FDI inflow for WAMZ members by 0.67 percentage points, ceteris paribus. Whereas ceteris paribus, a 1 percentage point increase in natural resources (NR) could lead to per capita FDI inflows increasing by 0.2 percentage points.

Trade openness (TOP) was found to be significant for only WAEMU member states under Model 4, although with an unexpected sign. The results indicate that a 1 percentage point increase in TOP can cause per capita FDI inflows for WAEMU to fall by 0.01 percentage points in the long-run all else equal. Perhaps, a reason for this is the fact that most of the countries under WAEMU have had their fair share of dictatorship rule[83]. Such a form of leadership is hardly trusted in the business community. Thus, regardless of how policies towards trade are favourable, foreign investors are

[83] For example, President Amadou Toumani Toure of Mali was deposed in 2015 after serving for 14 years, while former President of Burkina Faso, Blaise Compaore was also forced out of power in 2014 after serving since 1987.

always wary and would rather hold-out in investing in such locations. Similarly, Political Instability (PI) was found to be significant only for WAEMU. The results revealed that a one-point increase in PI could lead to a decrease in per capita FDI for WAEMU members by 5 percentage points, ceteris paribus, in the long-run. The negative effect is obvious as investments only thrive under a politically stable climate. The assets of Investors are mostly at risk of being destroyed or lost in a politically unstable environment. Therefore, the lesser the political instability in a country, the greater the inflow of FDI. The finding is in line with Asiedu (2006) and Epaphra and Massawe (2017)

Short-Run Analysis

The short-run results from Table 4.7 are for the panel estimates, and it shows that adjustment from any short-run disequilibrium to the long-run tends to be statistically significant with the expected sign and within the acceptable range for all the models. Model 1 shows that the Error Correction Term (ECT) is negative and highly significant, indicating that any short-run disequilibrium in the model is corrected at the 57 per cent adjustment speed annually. The results under Model 2 also showed the ECT to be significant and correctly signed. The results suggest that in the short-run, any disequilibrium is corrected at the 60 per cent adjustment speed yearly. However, from the results, it can be observed that none of the control variables in Model 1 and 2 were significant. Nevertheless, in Model 2, the pre-condition for the threshold level was met, albeit variables being insignificant. Similarly, the ECT was also found to be negative and significant for Model 3 and Model 4, indicating that any short-run disequilibrium could be corrected at the 62 and 57 percent adjustment speed for Model 3 and Model 4 respectively.

Furthermore, Corruption was found to have a positive association with FDI inflows for Model 4 but otherwise, for Model 3. Nonetheless, it was found to be significant only in Model 4. The result from Model 4 revealed that a one-point increase in the level of corruption would increase FDI inflows per capita by 24 percent in the short-run, ceteris paribus, for WAEMU members. Contrary to the long-run results, the result found support for the helping-hand hypothesis and is in line with findings from Quazi *et al.*, (2014) and Omodero (2019). This might be possible, especially if foreign investors are trying to circumvent a weak regulatory framework that exists in some of these developing countries (Gossel, 2018). Also, the results from Model 4 show that in the short-run natural resources have a significant positive effect on FDI into WAEMU. The other variables, however, were found to be insignificant for both Model 3 and 4.

Table 4. 6: PMG Short-run Estimation Results

	Model 1	Model 2	Model 3 (WAMZ)	Model 4 (WAEMU)
ECT	-0.572***	-0.595***	-0.623**	-0.566***
	(0.111)	(0.190)	(0.255)	(0.208)
D.CORR	0.062	0.621	-0.154	0.243**
	(0.103))	(1.639)	(0.156)	(0.0997)
D.LOGGDPPC	0.344	0.644	1.700	-0.477
	(0.534)	(0.673)	(1.295)	(0.341)
D.LOGINF	0.791	0.334	-1.511	0.55
	(1.607)	(1.541)	(2.469)	(1.913)
D.NR	-0.039	-0.033	0.0005	0.026*
	(0.044)	(0.022)	(0.0080)	(0.015)
D.TOP	0.006	0.010	0.018	0.003
	(0.005)	(0.007)	(0.012)	(0.004)
D.PI	-0.046	-0.056	-0.130	0.016
	(0.043)	(0.044)	(0.097)	(0.031)
D.CORRSQ		-0.0561		
		(0.044)		
_cons	0.705***	-2.147***	0.705*	-0.816**
	(0.178)	(0.700)	(0.361)	(0.381)
N	225	225	90	120
Log Likelihood	265.042	285.058	102.948	167.641

Standard errors in parenthesis. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. Note: The lag-structure of the models was ARDL (1, 0, 0, …, 0). **Source:** Authors computation using STATA 15 output.

A possible reason for almost all the short-run panel estimates to be statistically insignificant might be due to the fact that the PMG estimation technique assumes slope homogeneity only for the long-run while allowing for the slopes to be heterogeneous across cross-section units in the short-run (see Section 4.4). Therefore, the thesis went further to utilize this advantage and estimate the short-run for all the cross-section units (countries) under consideration. The discussion for the cross-section unit (henceforth, the country-specific) short-run estimates proceeds as follows;

Country-Specific Short-Run Analysis

Results for the country-specific short-run are presented under Appendix 7. From the results, it was observed that only Cote d'Ivoire, The Gambia, Ghana and Niger failed to have at least a significant adjustment speed to the long-run. Discussion of the country-specific short-run results proceeds as follows:

Model 1

For Model 1, the results in Appendix 7 show that the short-run relationship between corruption and FDI inflows across countries differ in sign and significance. A positive relationship between corruption and FDI was observed for Benin, Burkina Faso, Cote d'Ivoire, Liberia, Mali, Niger, Nigeria, Senegal and Togo. While the opposite was found for Cape Verde, The Gambia, Ghana, Guinea, Guinea Bissau and Sierra Leone. However, results were only found to be statistically significant for Togo, Sierra Leone, Nigeria, Liberia, Niger, Guinea, Cape Verde and Ghana. Therefore, across countries, the short-run results seem to find support for both the grabbing hand and the helping hand hypotheses.

A similar observation was made for the control variables: Gross Domestic Product per capita

(GDPPC), Inflation (INF), Natural Resources (NR), Trade Openness (TOP) and Political Instability (PI), in terms of their sign and significance. For instance, in the case of Ghana, Guinea Bissau, Senegal and Nigeria, it was significantly found that the market size (represented by GDPPC) has a negative influence on FDI per capita inflows in the short-run which contradicts the market-seeking FDI theory and goes against the expectation of the thesis. Nonetheless, the finding is in line with Gossel (2018). This, according to Gui-Diby and Renard (2015), can be due to the undiversified trade and industrialization set-ups in developing countries. Conversely, it was established from the results that the market size has a statistically significant short-run positive effect on FDI inflows for Guinea, Niger and Sierra Leone. Also, inflation was found to exert a significant negative short-run effect on FDI inflows for Liberia, which is in line with the thesis' prior expectation. However, a significant positive short-run effect was found for Nigeria, Senegal and Togo. This, according to Omankhanlen (2011), is likely only if the rate of inflation is below a certain threshold level.

Natural resources (NR) was found to have a significant short-run effect on FDI inflows for Sierra Leone, Guinea Bissau, Cape Verde and Cote d'Ivoire, although with the unexpected sign. This, however, is possible if a huge portion of total export comes from natural resources; thus, implying less trade diversification which can make a country more susceptible to external shocks that can generate macroeconomic instability (Asiedu, 2013), hence, influencing FDI negatively. Also, the reverse was found, that is, NR having a significant short-run positive effect on FDI inflows, for Benin, Burkina Faso and Ghana. Trade openness was found to significantly influence FDI inflows for some countries although differently. For Sierra Leone, Nigeria, Niger, Guinea, Guinea Bissau and Benin, the effect was positive but otherwise for Burkina Faso, Ghana and Mali. Finally, political instability was found to be attractive for FDI activities in Cote d'Ivoire and Benin but

otherwise, in The Gambia.

Model 2

In all the short-run country-specific results under Model 2, only Mali, Burkina Faso, Guinea Bissau, Benin and Cape Verde found significant outcomes for the corruption (CORR) and corruption square (CORRSQ) estimates to determine the threshold level of corruption. However, only Mali and Burkina Faso met the pre-conditions stipulated in the thesis under equation (18), as the reverse was found for the others. From the results, it was observed that the signs for CORR and CORRSQ were positive and negative respectively for Mali and Burkina Faso, which implies that corruption at the initial stage (lower levels) is not detrimental to FDI inflows in both countries but as corruption becomes rampant FDI inflows, eventually, is deterred. It was established that the short-run threshold level of corruption for Mali and Burkina Faso is 6.2 and 4.9 respectively (see Appendix 8). The result implies that in the short-run, any corruption level above each of the country threshold levels will discourage FDI inflows, otherwise, FDI inflows will not be discouraged. The result for Mali is almost the same as the long-run threshold level of corruption established earlier (6.3).

Model 3

Country-specific short-run results for WAMZ member states under Model 3 show that the effect of corruption on FDI inflows is significantly negative for Ghana, Guinea and Sierra Leone but significantly positive for Nigeria and Liberia. Also observed was that gross domestic product per capita, in the short-run has a significant negative effect on FDI inflows for Ghana and Nigeria and a significant positive effect for Sierra Leone and Guinea. Results for inflation effect on FDI inflows

show positive and negative effects for Nigeria and Liberia, respectively. Natural resources (NR) were found to have a significant negative and positive effect on FDI inflows for Sierra Leone and Ghana respectively. While, trade openness was found to have a significant positive effect on FDI inflows for Sierra Leone, Nigeria and Guinea, but the opposite was found for Ghana. Finally, political instability was found to show a significant negative effect on FDI inflows only for the Gambia.

Model 4

Model 4 provides country-specific short-run results for WAEMU member states. From the results, it was observed that the effect of corruption on FDI inflow varies across member countries but only results for Senegal and Niger were significant - showing corruption to have a positive effect on the inflow of FDI in both countries. Gross domestic product per capita was found to significantly influence FDI inflows in the short-run only for Niger. Cote d'Ivoire and Senegal significantly found inflation to positively influence FDI inflows in the short-run. Natural resources (NR) were found to show a positive and significant effect on FDI inflows for Benin, Burkina Faso and Senegal. While mixed results were found for Trade Openness (TOP). Benin, Guinea Bissau and Niger were found to show a positive effect of TOP on FDI inflows while the reverse was found for Burkina Faso. Also, political instability was found to have a significant negative effect on FDI inflows in the short-run for Senegal but the same cannot be said for Benin.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter comprises the summary, conclusion and recommendations of the thesis. The recommendations are drawn from the findings, as well as, the policy implications. Furthermore, a section for limitations and potential grey areas for future research are also provided under this chapter.

5.1 Summary

The importance of capital inflows, primarily through Foreign Direct Investment (FDI), cannot be underestimated for West Africa more so when almost all the countries in the sub-region are aid-dependent. The inflow of FDI can bring about substantial benefits in terms of revenue, employment, technology, and managerial and technical skills to the host country. This rationalization has ignited serious competition for FDI among nations, sub-regions and regions worldwide. However, unfortunately, FDI inflows to West Africa has been growing less since 2011 in terms of volume and as a share of GDP (UNCTAD dataset 2019). Beyond that, there exists a dearth on sub-regional level studies as well as the reasonable attempt not made by previous studies to check for possible Cross-Section Dependence (CSD) especially in the regional and global level studies.

Therefore, in an attempt to understand the FDI trend to West Africa and augment the existing-few sub-regional studies, the thesis utilized a macro panel data for 15 countries in West Africa over

the period 1999-2018. Three objectives were set out in the thesis: (i) Investigating the long-run and short-run effects of corruption on FDI inflows to West Africa. (ii) Establish a threshold level for which corruption can or cannot discourage FDI inflows to West Africa. (iii) Explore whether the effect of corruption on FDI inflows in West Africa differs in the West African Monetary Zone (WAMZ) and the West African Economic and Monetary Union (WAEMU).

The attempt to study foreign investment activities has steadily evolved. One of the earliest efforts to explain the motivation of FDI was made in the product life-cycle theory. The theory suggests that the decision to invest abroad might be influenced by the threat of competition in a product. The idea of the theory can be implicitly found in the market imperfection theory and internalization theory as they all point towards exploiting an advantage that would allow a firm to monopolize a market. However, the most widely used among the theories is the eclectic paradigm which suggests that the decision to invest is contingent on firm-specific and non-specific advantages. The specific advantages are the Ownership (O) and Internalization (I) advantages, while the Location (L) is out of the firm's control but rests with the host country. These advantages are widely known as the OLI framework for FDI activities.

Furthermore, scholars are divided as to the actual effect of corruption on FDI. On the one hand, there are proponents of the “grabbing hand” hypothesis who believe corruption negatively affects FDI, whiles on the other, are proponents of the “helping hand” hypothesis who believe that corruption helps attract FDI. Interestingly, these two propositions have enjoyed evidenced-based support.

A corruption model by Kaufaman and Wei (2000) was extended to construct a theoretical framework explaining the possible relationship between FDI and corruption. In response to the

objectives, the dependent variable, per capita FDI inflow was regressed against the independent variable of interest, Corruption (CORR) and other control variables namely Inflation (INF), Gross Domestic Product Per Capita (GDPPC), Natural Resources (NR), Trade Openness (TOP) and Political Instability (PI) using a Panel Autoregressive Distributed Lag ARDL model for which the Pooled Mean Group (PMG) estimator was chosen for analysis based on the Hausman (1978) test results, and this result imply that the long-run slopes are homogeneous for the cross-section units but otherwise in the short-run based on the assumption of the estimator.

The Pesaran (2004) post-estimation Cross-Sectional Dependence (CSD) test revealed no presence of CSD on the residuals but the pre-estimation test on the series show that CSD was present among some of the series considered in the thesis. As a consequence, two separate panel unit root tests were adopted namely the Im-Pesaran-Shin (2003) test (a first-generation test) and the Pesaran (2003) Cross-sectional Augmented DickeyFuller (CADF) test (a second-generation test that accounts for CSD).

In response to the first objective, the long-run result revealed that corruption adversely affects the inflow of FDI to West Africa in the long-run. The finding was in support of the "grabbing hand" hypothesis, thus, providing enough evidence to suggest that corruption inevitably works against the efforts of the government in West Africa to attract FDI in the long-run. Also, it was observed that market size and natural resources positively influence FDI inflows to the sub-region in the long-run while the level of inflation was found to have a negative effect on FDI inflows to the sub-region in the long-run. However, trade openness and political instability were found to be statistically insignificant. In the short-run, it was established that any deviation in the shot-run

could be corrected at the 57 percent speed of adjustment, but none of the variables for the panel estimate was found to be statistically significant to explain FDI inflows in the short-run.

However, reflecting on the fact that corruption cannot be entirely eradicated, the thesis also set out to establish a threshold level for corruption, which is the second objective of the thesis. The thesis found the level to be 6.3 in the long-run. Any level of corruption below this threshold will be just enough not to discourage FDI inflows; otherwise, the inflows of FDI would be discouraged. This level is crucial because it does not only serve as a guide for government policies towards corruption but also for foreign investors to understand when it might not be safe to invest when considering corruption as a factor in their decision-making. However, the thesis was unable to determine the threshold level for the panel estimates in the short-run as variables were found to be either statistically insignificant.

Finally, the thesis explored whether the effect of corruption on FDI inflows in West Africa differs in the WAMZ and the WAEMU. In the long-run, the result showed that corruption negatively affects the inflow of FDI into both unions. However, the results revealed that the impact is more felt by members of WAMZ compared to WAEMU. Furthermore, trade openness and political instability were found to be insignificant in explaining FDI inflows in the long-run for WAMZ, while inflation was found to be insignificant for WAEMU. Also, trade openness was significantly found to affect FDI inflows for WAEMU negatively. Nevertheless, all the other significant variables for the WAMZ and WAEMU were observed to carry the expected sign for the long-run. However, in the short-run for the panel estimate, the results show that corruption has a significantly positive effect on FDI inflows for WAEMU while for WAMZ, the result was insignificant.

Aside from that, the thesis also examined country-specific short-run results. The results widely vary across countries in terms of the effects of the regressors on FDI inflows and their statistical significance. A short-run country-specific threshold level of corruption was found for Mali (6.2) and Burkina Faso (4.9).

5.2 Conclusion

In analysing corruption and FDI inflows into West Africa, the thesis investigated the long and short-run effect of corruption on FDI inflow as the primary objective. The result revealed that corruption has a negative effect on FDI in the long-run, suggesting that corruption act as an obstacle to the inflow FDI in West Africa. The result was found to be consistent with the "grabbing hand" hypothesis. However, in the short-run, corruption was found to share a positive association with FDI inflows into the sub-region albeit statistically insignificant for the panel estimates. In response to the second objective, a threshold level of corruption (6.3) was established only in the long-run. It was suggested that corruption levels below the threshold level could not discourage FDI inflows to West Africa and above that level, corruption discourages FDI inflows. Also, in response to the third objective, the thesis found that the role of corruption varies among member countries in WAMZ and WAEMU only in magnitude in the long-run as the results revealed that corruption has a negative effect on FDI inflows. However, for the short-run panel estimates, the effect of corruption on FDI inflows was only significant for WAEMU although with a positive sign. Nevertheless, the country-specific short-run results were found to show differences in signs and significance across countries, hence, showing support for both the grabbing hand and helping hand hypotheses. While, in addition, a short-run country-specific threshold level of corruption was established for both Mali and Burkina Faso at 6.2 and 4.9 respectively.

5.3 Recommendation

Based on the findings, the following recommendations are made together with its policy implications;

- The results found the effect of corruption on FDI inflows to West Africa to be negative. In line with the finding, the thesis recommends that West African governments should focus on mechanisms that will strongly discourage people from engaging in corruption by reducing unnecessary delays and ensuring that the consequences are dire. For instance, this could be done by digitalizing business registration and other possible investment-related procedures. With this, a safe and convenient space for investors, to timely meet their obligations, would be created, and by extension, the level of corruption could be reduced and FDI activities will become attractive.
- Evidence from the results indicates that between 1999-2018, on average, only seven (7) countries had a corruption score that is either equal or below the threshold level. Meaning eight (8) countries had a score above the threshold level during the same period, on average. This outcome suggests that the level of corruption in many West African countries is extensive. Therefore, governments, particularly in countries that had a score above the threshold level, should intensify efforts to fight corruption and reduce it to at least the threshold level which is just enough for attracting FDI. This can be done by strengthening, and ensuring effective monitoring of public institutions and agents while providing a reward for honesty.
- The thesis also found that political instability has a negative effect on FDI. As such, governments in West Africa must establish a sustainable friendly political environment.

This could be achieved by encouraging participation in the governance process from the opposition parties and civil society organizations, thus, building more robust governance systems that would ensure transparency and accountability, which can be associated with lower levels of corruption and discontent.

- The results show that inflation has a negative effect on FDI. Therefore, it is recommended that governments in the sub-region should focus on policies that can strengthen their macroeconomic position, such that, at least, the level of inflation is maintained at a single digit. One way this could be achieved is by effectively controlling the money supply or through a dedicated and credible inflation targeting process.
- The thesis also found that natural resources have a positive effect on FDI. The knowledge of West Africa's endowment in natural resources is wisely known. As such, governments in the sub-region should develop policies that will allow these resources to be exploited easily whiles efficiently ensuring that the interest of the state and its people are accounted for at the same time. Furthermore, a preferential package such as tax concessions should be set aside for the discovery of more natural resource deposits which will serve as a motivation for resource-seeking FDI.

5.3 Limitations

As with all studies, there were evident limitations in the thesis. The thesis accedes that it would have been ideal to have checked the World Governance Indicator (WGI) used to measure corruption against measures from Transparency International and the International Country Risk Guide (ICRG) if the availability of data had permitted. This would have been relevant for a robust check. Another limitation of the thesis was that effort to get sectoral data on FDI inflows was futile.

Using sectoral data on FDI inflows will permit a researcher to explore the impact of corruption on the inflow of FDI across sectors, which would have reduced the burden on the government in terms of sectors to prioritize when it comes to corruption policies to attract FDI.

Furthermore, efforts to select an optimal lag structure for the model were futile. Based on the author's research, there is no existing approach to select an optimal lag for the panel. Instead, the selection is made using individual cross-section unit's which has its shortcomings. In executing this suggested approach, the thesis encountered a breakdown in the command issued because it was user-written and prone to such outcomes. Hence, the use of the panel ARDL (1, 0, 0, …, 0) in the thesis. Notwithstanding these limitations, the findings of the thesis remain credible and robust as they are largely corroborated by a significant number of empirical studies in the subject area.

5.4 Future Study Suggestions

A study with a focus on using sectoral data for FDI would be worth exploring especially on the African continent where these sought of data are hard to come by. Additionally, the estimation technique in the study requires a relatively small number of explanatory variables for every model to perform better, which is kind of restrictive and limits the ability of the researcher to add some interaction of variables without jeopardizing the relevance of the model. Using other less restrictive techniques, future studies on West Africa, in particular, might want to look at whether natural resources or economic development can mollify the impact corruption has on the inflow of FDI.

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APPENDIX

Appendix 1: Calculation of the Threshold Level of Corruption for West Africa

$$\frac{\partial LOGFDI_{it}}{\partial COC_{it}} = 1.413 - 0.224 \times COC_{it} = 0$$

Solving the above equation gives:

$$COC_{it} = \frac{1.413}{0.224} = 6.308$$

Appendix 2: Descriptive Statistics for transformed variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
LOGFDI	300	1.57	0.347	-0.39	2.64
CORR	270	6.24	1.047	3.1	8.12
LOGGDPPC	299	2.825	0.341	0	3.57
LOGINF	300	1.95	0.18	1.23	2.41
NR	284	11.105	7.667	.37	53.63
TOP	299	69.013	34.734	20.72	311.35
PI	270	6.03	1.63	2.56	9.8

Appendix 3: Matrix of Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) LOGFDI	1.000						
(2) CORR	-0.482	1.000					
(3) LOGGDPPC	0.580	-0.447	1.000				
(4) LOGINF	0.212	-0.052	0.412	1.000			
(5) NR	0.040	0.484	-0.281	0.091	1.000		
(6) TOP	0.344	-0.146	0.027	-0.035	0.251	1.000	
(7) PI	-0.208	0.647	-0.076	-0.019	0.394	0.005	1.000

Appendix 4: Pesaran (2004) Cross-Section Dependence (CSD) test on the series

	Model 1 and 2		Model 3 (WAMZ)		Model 4 (WAEMU)	
Variable	**CSD test**	**Outcome**	**CSD test**	**Outcome**	**CSD test**	**Outcome**
LOGFDI	17.42***	CSD	4.78***	CSD	9.52***	CSD
CORR	0.63	NO CSD	-0.31	NO CSD	0.22	NO CSD
LOGGDPPC	38.72***	CSD	11.61***	CSD	22.83***	CSD
LOGINF	44.72***	CSD	17.11***	CSD	23.34***	CSD
NR	18.83***	CSD	4.69***	CSD	14.26***	CSD
TOP	0.11	NO CSD	-1.4	NO CSD	-0.13	NO CSD
PI	0.97	NO CSD	-1.25	NO CSD	1.09	NO CSD
CORRSQ	0.64	NO CSD	-0.29	NO CSD	0.18	NO CSD

Appendix 5: Pesaran Cross-Section al Augmented Dickey-Fuller (2003) Unit Root Test Results

	Model 1 & 2		Model 3 (WAMZ)		Model 4 (WAEMU)	
Variable	**Without Trend**	**With Trend**	**Without Trend**	**With Trend**	**Without Trend**	**With Trend**
LOGFDI	I(0)	I(0)	I(1)	I(1)	I(0)	I(0)
CORR	I(1)	I(1)			I(1)	
LOGGDPPC	I(0)	I(0)	I(1)	I(0)	I(1)	I(1)
LOGINF	I(1)		I(0)	I(1)	I(0)	I(0)
NR	I(0)	I(1)	I(0)	I(0)	I(1)	I(1)
TOP	I(1)	I(1)	I(1)	I(0)	I(1)	I(1)
PI	I(0)	I(1)	I(0)		I(1)	I(1)
CORRSQ	I(1)	I(1)			I(1)	

Note: The null of Non-stationarity for all the cross-section units was tested against the alternative of some units are stationary. The test provides a summary of both the individual *t*-statistic and the *Z* (*t*-bar) statistic for variables that have balanced panel otherwise, only the *Z* (*t*-bar) statistics. Also, variable stationarity was considered at 1%, 5% and 10% level of significance.

Appendix 6: Im-Pesaran-Shin (2003) Unit Root Test Results for Model 3 & 4

	WAMZ		WAEMU	
Variable	**Demean without Trend**	**Demean with Trend**	**Demean without Trend**	**Demean with Trend**
LOGFDI	I(1)	I(0)	I(0)	I(0)
CORR	I(0)	I(1)	I(1)	I(1)
LOGGDPPC	I(0)	I(1)	I(1)	I(1)
LOGINF	I(1)	I(0)	I(0)	I(0)
NR	I(0)	I(0)	I(1)	I(1)
TOP	I(1)	I(1)	I(1)	I(1)
PI	I(0)	I(0)	I(1)	I(1)
CORRSQ	I(0)	I(1)	I(1)	I(1)

Appendix 7: Country Short-run results (PMG estimation)

	Benin			Burkina Faso		
	Model 1	**Model 2**	**Model 4 (WAEMU)**	**Model 1**	**Model 2**	**Model 4 (WAEMU)**
ECT	-0.455***	-0.359***	-0.511***	-0.746**	-2.484***	-0.108
	(0.108)	(0.098)	(0.089)	(0.360)	(0.549)	(0.340)
D.CORR	0.044	-6.704**	0.073	0.294	8.752*	0.364
	(0.063)	(2.746)	(0.045)	(0.215)	(5.181)	(0.359)
D.LOGGDPPC	-0.136	-0.084	-0.049	-0.997	0.722	-0.657
	(0.485)	(0.374)	(0.331)	(0.888)	(0.894)	(1.060)
D.LOGINF	0.738	0.316	-1.557	-1.195	2.552	-3.931
	(1.980)	(1.556)	(1.458)	(2.969)	(2.564)	(3.074)
D.NR	0.049*	-0.007	0.081***	0.065*	-0.110**	0.082*
	(0.025)	(0.032)	(0.018)	(0.034)	(0.054)	(0.049)
D.TOP	0.014***	0.014***	0.015***	-0.021***	-0.007	-0.016*
	(0.002)	(0.002)	(0.002)	(0.008)	(0.009)	(0.010)
D.PI	0.098*	0.011	0.147***	-0.054	-0.161**	0.012
	(0.052)	(0.060)	(0.041)	(0.084)	(0.075)	(0.099)
D.CORRSQ		0.528**			-0.885*	
		(0.215)			(0.479)	
_cons	0.505**	-1.386***	-0.788*	0.711*	-9.460***	-0.149
	(0.171)	(0.478)	(0.473)	(0.404)	(2.892)	(0.454)

	Cape Verde		Cote d'Ivoire		
	Model 1	**Model 2**	**Model 1**	**Model 2**	**Model 4 (WAEMU)**
ECT	-0.709***	-0.142	-0.222	-0.074	-0.124
	(0.265)	(0.092)	(0.171)	(0.163)	(0.078)
D.CORR	-0.297*	-5.970***	0.041	0.711	0.011
	(0.163)	(2.064)	(0.053)	(0.640)	(0.042)
D.LOGGDPPC	-0.0492	0.187	0.123	0.136	0.236
	(0.706)	(0.627)	(0.479)	(0.508)	(0.483)
D.LOGINF	-0.932	-0.906	1.872	0.827	2.285*
	(3.568)	(3.264)	(1.305)	(1.291)	(1.355)
D.NR	-0.652*	-0.322	-0.016**	-0.018**	-0.011
	(0.351)	(0.330)	(0.007)	(0.00744)	(0.008)
D.TOP	-0.0023	0.002	0.003	0.002	0.004
	(0.00510)	(0.004)	(0.003)	(0.003)	(0.003)
D.PI	0.0588	0.126**	0.059**	0.082***	0.050
	(0.0672)	(0.057)	(0.029)	(0.028)	(0.030)
D.CORRSQ		0.790***		-0.054	
		(0.284)		(0.049)	
_cons	0.840**	-0.332	0.262	-0.252	-0.150
	(0.354)	(0.227)	(0.190)	(0.617)	(0.146)

	The Gambia			Ghana		
	Model 1	**Model 2**	**Model 3 (WAMZ)**	**Model 1**	**Model 2**	**Model 3 (WAMZ)**
ECT	-0.211	0.241	-0.120	-0.061	0.0044	-0.0592
	(0.703)	(0.736)	(0.711)	(0.081)	(0.070)	(0.0817)
D.CORR	-0.504	10.09	-0.581	-0.341***	2.071	-0.343***
	(0.863)	(14.68)	(0.864)	(0.119)	(2.865)	(0.118)
D.LOGGDPPC	6.125	8.572	6.940	-1.223**	-1.488**	-1.226**
	(6.594)	(6.577)	(6.627)	(0.521)	(0.575)	(0.521)
D.LOGINF	-5.451	-6.413	-5.953	1.462	2.129**	1.480
	(7.084)	(6.978)	(7.163)	(0.998)	(1.054)	(0.997)
D.NR	-0.0179	-0.033	-0.025	0.016*	0.016*	0.016*
	(0.0901)	(0.096)	(0.091)	(0.008)	(0.008)	(0.008)
D.TOP	0.0655	0.101	0.074	-0.007**	-0.008**	-0.007**
	(0.0731)	(0.074)	(0.074)	(0.004)	(0.004)	(0.004)
D.PI	-0.605**	-0.581**	-0.602**	-0.059	-0.112	-0.060
	(0.256)	(0.254)	(0.256)	(0.100)	(0.112)	(0.100)
D.CORRSQ		-0.876			-0.230	
		(1.184)			(0.269)	
_cons	0.529	1.220	0.416	0.0751	-0.00405	0.060
	(0.758)	(2.959)	(0.633)	(0.125)	(0.224)	(0.110)

	Guinea			Guinea Bissau		
	Model 1	**Model 2**	**Model 3 (WAMZ)**	**Model 1**	**Model 2**	**Model 4 (WAEMU)**
ECT	-0.431***	-0.383**	-0.436***	-0.692***	-0.607***	-0.623***
	(0.167)	(0.172)	(0.166)	(0.177)	(0.116)	(0.178)
D.CORR	-0.336*	-3.805	-0.338*	-0.014	-5.838***	-0.097
	(0.196)	(9.970)	(0.195)	(0.113)	(2.016)	(0.116)
D.LOGGDPPC	3.214***	3.438***	3.172***	-0.899*	-0.854**	-0.513
	(0.843)	(0.849)	(0.842)	(0.498)	(0.390)	(0.517)
D.LOGINF	2.172	2.428	2.444	-2.397	-1.453	-2.432
	(2.337)	(3.945)	(2.309)	(2.100)	(1.571)	(2.226)
D.NR	0.0297	0.0379	0.029	-0.023***	-0.016**	-0.012
	(0.0191)	(0.025)	(0.019)	(0.007)	(0.007)	(0.008)
D.TOP	0.0199***	0.019***	0.020***	0.007**	0.006**	0.008**
	(0.00424)	(0.006)	(0.004)	(0.004)	(0.003)	(0.004)
D.PI	-0.0283	-0.024	-0.027	-0.014	-0.096	-0.103
	(0.0616)	(0.070)	(0.061)	(0.112)	(0.086)	(0.125)
D.CORRSQ		0.241			0.385***	
		(0.691)			(0.131)	
_cons	0.358	-1.575**	0.244	0.872***	-2.224***	-0.708
	(0.289)	(0.659)	(0.277)	(0.269)	(0.535)	(0.499)
	Liberia			**Mali**		
	Model 1	**Model 2**	**Model 3 (WAMZ)**	**Model 1**	**Model 2**	**Model 4 (WAEMU)**
ECT	-1.544***	-1.770***	-1.513***	-0.528**	-0.575*	-0.779***
	(0.162)	(0.142)	(0.169)	(0.239)	(0.230)	(0.253)
D.CORR	0.486***	1.213	0.423**	0.217	14.33*	0.322
	(0.160)	(1.112)	(0.173)	(0.239)	(7.428)	(0.228)
D.LOGGDPPC	1.036	0.780	1.390	-0.515	-1.359*	-0.996
	(0.863)	(0.724)	(0.924)	(0.850)	(0.736)	(0.923)
D.LOGINF	-12.44***	-13.41***	-11.88***	-0.292	-1.049	-4.480
	(3.720)	(2.958)	(3.874)	(3.630)	(3.112)	(3.903)
D.NR	0.0004	0.003	-0.0003	-0.005	-0.002	-0.008
	(0.006)	(0.004)	(0.0059)	(0.018)	(0.0180)	(0.019)
D.TOP	0.0005	0.001**	0.0002	-0.013***	-0.012**	-0.004
	(0.0005)	(0.0005)	(0.0005)	(0.005)	(0.004)	(0.006)
D.PI	-0.024	-0.014	-0.049	0.008	0.123*	0.068
	(0.061)	(0.052)	(0.064)	(0.060)	(0.0694)	(0.064)
D.CORRSQ		-0.050			-1.149*	
		(0.084)			(0.602)	
_cons	2.887***	-5.348***	2.413***	0.629*	-2.151**	-0.923
	(0.607)	(1.574)	(0.718)	(0.326)	(1.000)	(0.666)

	Niger			Nigeria		
	Model 1	**Model 2**	**Model 4 (WAEMU)**	**Model 1**	**Model 2**	**Model 3 (WAMZ)**
ECT	-0.040	-0.025	-0.029	-1.296***	-1.170***	-1.296***
	(0.077)	(0.061)	(0.051)	(0.093)	(0.093)	(0.090)
D.CORR	0.204*	-5.189	0.204*	0.245***	-0.011	0.208***
	(0.122)	(5.608)	(0.121)	(0.049)	(1.163)	(0.057)
D.LOGGDPPC	0.856**	1.340**	0.844**	-1.497***	-0.743**	-1.769***
	(0.420)	(0.657)	(0.418)	(0.388)	(0.344)	(0.477)
D.LOGINF	0.0178	-0.627	0.014	2.716***	2.460***	2.589***
	(0.907)	(1.141)	(0.906)	(0.565)	(0.646)	(0.542)
D.NR	0.016	0.005	0.016	-0.005	-0.007*	-0.003
	(0.010)	(0.015)	(0.010)	(0.004)	(0.004)	(0.004)
D.TOP	0.019***	0.018***	0.019***	0.003***	0.002***	0.003***
	(0.003)	(0.003)	(0.003)	(0.001)	(0.001)	(0.001)
D.PI	-0.011	-0.016	-0.010	0.039	-0.018	0.058
	(0.032)	(0.032)	(0.032)	(0.045)	(0.045)	(0.052)
D.CORRSQ		0.409			0.0227	
		(0.426)			(0.0812)	
_cons	0.057	-0.085	-0.023	1.245***	-4.480***	0.894
	(0.119)	(0.208)	(0.042)	(0.457)	(0.984)	(0.583)
	Senegal			**Sierra Leone**		
	Model 1	**Model 2**	**Model 4 (WAEMU)**	**Model 1**	**Model 2**	**Model 3 (WAMZ)**
ECT	-0.393**	-0.211	-1.859***	-0.336***	-0.357***	-0.316***
	(0.174)	(0.174)	(0.194)	(0.118)	(0.116)	(0.121)
D.CORR	0.089	-0.515	0.239***	-0.282**	-3.317	-0.291**
	(0.061)	(1.677)	(0.031)	(0.121)	(3.763)	(0.125)
D.LOGGDPPC	-1.076*	-0.467	-0.272	1.698**	1.648***	1.692**
	(0.642)	(0.908)	(0.219)	(0.678)	(0.635)	(0.699)
D.LOGINF	6.488**	2.357	2.143*	1.926	0.120	2.255
	(2.502)	(3.950)	(1.263)	(1.833)	(2.375)	(1.954)
D.NR	-0.026	-0.018	0.064***	-0.013***	-0.012***	-0.013***
	(0.027)	(0.051)	(0.013)	(0.003)	(0.003)	(0.003)
D.TOP	-0.006	-0.001	0.0004	0.018***	0.018***	0.019***
	(0.005)	(0.007)	(0.002)	(0.003)	(0.002)	(0.003)
D.PI	-0.111	-0.095	-0.108***	-0.106	-0.141*	-0.101
	(0.068)	(0.078)	(0.032)	(0.068)	(0.078)	(0.071)
D.CORRSQ		0.055			0.227	
		(0.157)			(0.281)	
_cons	0.361**	-0.789	-3.354***	0.317*	-1.374***	0.202
	(0.177)	(0.657)	(1.245)	(0.189)	(0.524)	(0.187)

	Togo		
	Model 1	**Model 2**	**Model 3 (WAEMU)**
ECT	-0.915***	-1.009***	-0.492*
	(0.255)	(0.257)	(0.275)
D.CORR	1.083**	3.497	0.823
	(0.455)	(19.67)	(0.641)
D.LOGGDPPC	-1.492	-2.171	-2.411
	(1.775)	(2.193)	(2.470)
D.LOGINF	17.19*	15.67*	12.40
	(8.924)	(8.649)	(13.43)
D.NR	-0.010	-0.005	-0.008
	(0.021)	(0.020)	(0.030)
D.TOP	-0.010	-0.008	-0.003
	(0.006)	(0.006)	(0.010)
D.PI	0.065	0.075	0.069
	(0.072)	(0.075)	(0.092)
D.CORRSQ		-0.182	
		1.441)	
_cons	0.923**	-3.968***	-0.431
	(0.463)	(1.332)	(0.369)

Appendix 8: Calculation of the Threshold Level of Corruption for Mali and Burkina Faso

Mali

$$\frac{\partial LOGFDI_{it}}{\partial COC_{it}} = 14.33 - 2.298 \times COC_{it} = 0$$

Solving the above equation gives:

$$COC_{it} = \frac{14.33}{2.298} = 6.24$$

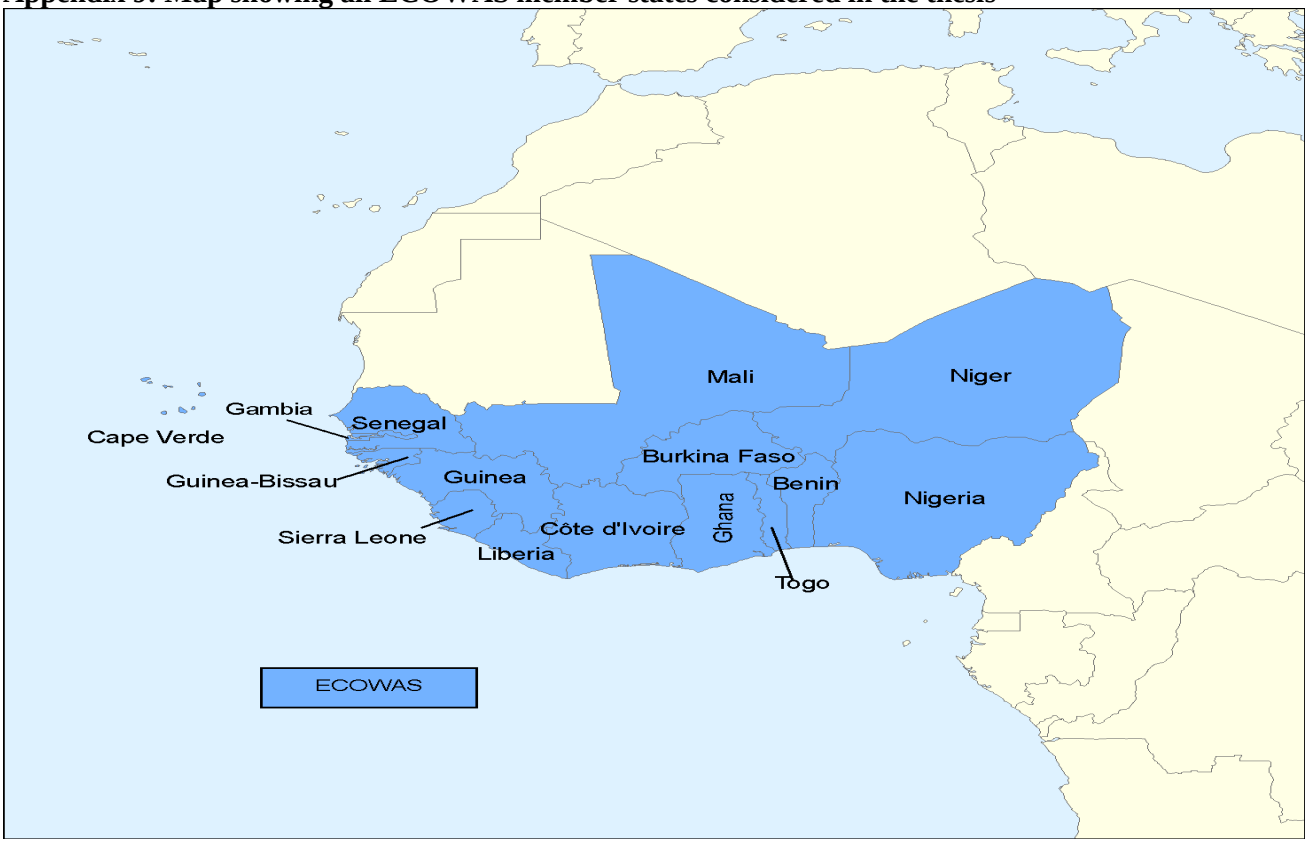
Burkina Faso

$$\frac{\partial LOGFDI_{it}}{\partial COC_{it}} = 8.752 - 1.77 \times COC_{it} = 0$$

Solving the above equation gives:

$$COC_{it} = \frac{8.752}{1.77} = 4.94$$

Appendix 9: Map showing all ECOWAS member states considered in the thesis



Source: ec.europa.eu

Appendix 10: Summary of Variable Description

Variable	Description	Source	Expected sign
FDI	US dollars at current prices per capita	UNCTAD (2019)	
CORR	Perception index measured on a scale of -2.5 to 2.5 (later rescaled)	World Bank's WGI (2019)	Negative
GDPPC	Current US$	World Bank's WDI (2019)	Positive
INF	Consumer price index with 2010 as the base year	UNCTAD (2019)	Negative
TOP	$\left(\frac{Export + Import}{GDP}\right) \times 100$	World Bank's WDI (2019)	Positive
NR	Total natural resources rent as a percentage of *GDP*	World Bank's WDI (2019)	Positive
PI	Perception index measured on a scale of -2.5 to 2.5 (later rescaled)	World Bank's WGI (2019)	Negative

Appendix 11: Mean Group ARDL Results for Both the Short and Long-Run

	Model 1	Model 2	Model 3 (WAMZ)	Model 4 (WAEMU)
LONG-RUN				
CORR	0.175 (0.380)	77.26 (81.28)	0.837 (0.850)	-0.175 (0.258)
LOGGDPPC	-3.647 (2.062)	-1.062 (1.332)	-6.045 (4.759)	-2.410 (1.617)
LOGINF	4.252 (2.580)	3.260 (2.788)	2.033 (2.482)	7.266 (4.214)
NR	0.008 (0.041)	0.143 (0.146)	0.0654* (0.033)	-0.0631 (0.063)
TOP	-0.034 (0.029)	0.029 (0.036)	-0.075 (0.072)	-0.008 (0.009)
PI	-0.195 (0.180)	0.0041 (0.207)	-0.112 (0.434)	-0.259 (0.138)
CORRSQ		-6.288 (6.567)		
SHORT-RUN				
ECT	-1.497***(0.303)	-1.76***(0.406)	-0.930* (0.386)	-1.940***(0.449)
D.CORR	0.0692 (0.327)	-22.51 (16.39)	0.573 (0.480)	-0.368 (0.469)
D.LOGGDPPC	0.778 (1.352)	2.315 (2.248)	1.252 (3.345)	0.960 (0.709)
D.LOGINF	-6.865 (5.000)	-4.193 (7.608)	-5.766 (10.23)	-9.205 (5.839)
D.NR	-0.003 (0.041)	0.009 (0.046)	-0.008 (0.010)	0.050 (0.055)
D.TOP	-0.005 (0.011)	0.003 (0.008)	-0.029 (0.022)	0.0122 (0.00955)
D.PI	-0.145 (0.191)	0.0797 (0.170)	-0.677 (0.347)	0.194 (0.148)
D.CORRSQ		1.680 (1.300)		
_Con	-6.710 (4.979)	-88.50 (89.39)	-13.62 (11.01)	-4.952 (3.008)
Hausman Test (H_0: Difference in coefficient not systematic)				
Prob>Chi	0.999	1.000	-[84]	0.999

Standard errors in parenthesis. * p < 0.1, ** p < 0.05, *** p < 0.01.
Note: The lag-structure of the models was ARDL (1, 0, 0, …, 0).
Source: Authors computation using STATA 15 output

[84] The model failed to meet the asymptotic assumption of the Hausman test. Suggestion and attempt to adopt the generalized test was futile, hence, the furtherance with the PMG model.

Appendix 12: Summary of findings in support of the grabbing hand hypothesis

Author	Study	Study Type	Methodology
Mosikari and Eita (2018)	Does corruption hampers inward FDI in South Africa from other African countries? A gravity model analysis.	Country level	Fixed effect Model
Luu *et al.* (2018)	The effect of corruption on FDI and its modes of entry.	Global level	Generalized Method of Moments (GMM) estimator, two-staged least square and two-step system GMM.
Kasasbeh *et al.* (2018)	Corruption and FDI inflows: Evidence from a small developing economy (Jordan).	Country level	Multivariate Vector Autoregression (VAR) analysis
Epaphra and Massawe (2017)	The effect of corruption on Foreign Direct Investment: A panel data study.	Sub-regional level (East Africa)	Fixed effect model
Oktay (2017)	Effect of corruption on FDI in Transition Economies: Evidence from causality analysis.	Sub-regional Level (Central and eastern Europe)	Panel cointegration and panel causality test
Fahad and Ahmed (2016)	The impact of corruption on FDI in post-conflict countries.	Post conflict Countries (Global level)	Dynamic Ordinary Least Squares (DOLS) estimation technique was employed.
Al-sadig (2009)	The effect of corruption on FDI inflows.	Global level	Fixed effect model.
Hakkala *et al.* (2008)	Asymmetric effects of corruption on FDI: Evidence from Swedish multinational firms.	Firm level	OLS regression and Probit estimation
Habib and Zurawicki (2002)	Corruption and FDI.	Global level	Ordinary Least Squares (OLS) regression and Probit estimation technique
Wei (2000)	How taxation is corruption on international investors?	Global level	Ordinary least squares (OLS) and Modified Tobit estimation
Smarzynska and Wei (2000)	Corruption and composition of Foreign Direct Investment: Firm-level evidence.	Firm level	Maximum likelihood
Hines (1995)	Forbidden payment: Foreign bribery and American business after 1977.	Firm level	OLS and Minimum Absolute Deviation (MAD) estimators

Appendix 13: Summary of findings in support of the helping hand hypothesis

Author	Study	Type	Methodology
Omodero (2019)	Effect of corruption on FDI inflows in Nigeria.	Country Level	OLS regression
Gossel (2018)	FDI, democracy, and corruption in Sub-Saharan Africa (SSA).	Regional level	First difference GMM and Orthogonalized GMM.
Donaubauer *et al.* (2018)	Foreign Direct Investment and corruption in SSA: An empirical analysis at the local level.	Firm level	OLS regression
Hasan *et al.* (2017)	Corruption and FDI: Evidence from India and China.	Country level	Ordinary Least Squares
Bayar and Alakbarov (2016)	Corruption and Foreign Direct Investment Inflows in emerging market economies.	Global level	Westerlund–Durbin-Hausman (2008) cointegration test
Pla Gutierrez (2015)	The effect of corruption on FDI in Argentina: Has corruption acted as a negative determinant discouraging FDI?	Country level	OLS regression
Quazi et al. (2014)	Impact of corruption impact on FDI in Africa.	Regional level	Optimal two-step Generalized Method of Moments (GMM)
Quazi (2014)	Effect of corruption and regulatory environment on FDI: the case of Africa.	Regional level	Feasible generalized least squares estimation technique
Ardiyanto (2012)	Foreign Direct Investment and corruption.	Global level	Feasible Generalized Least Square (FGLS)
Biglaiser and DeRouen (2006)	Economic reforms and inflows of foreign direct investment in Latin America.	Regional level	Panel-Corrected Standard Error (PCSE)
Egger and Winner (2005)	Evidence on corruption as an incentive for foreign direct investment	Global level	Fixed effect, Between effect and Hausman and Taylor Generalised Least Square Techniques.